

Colorado PUC E-Filings System

Public Service Company of Colorado  
**2016 Electric Resource Plan  
Volume 3**

Requests for Proposals and Model Power Purchase Agreements  
(CPUC Proceeding No. 16A-0396E)  
May 27, 2016

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### **3.1 DISPATCHABLE RESOURCES RFP**

#### **Attachment 3.1-1 Dispatchable Resources RFP**

Public Service's 2016 ERP Dispatchable Resources RFP.

#### **Attachment 3.1-2 Dispatchable Resources RFP Forms**

The Forms that are referenced in Appendix A of the 2016 ERP Dispatchable Resources RFP.

#### **Attachment 3.1-3 Model Dispatchable Resources PPA**

The Model Dispatchable Resources PPA referenced in Appendix D of the 2016 ERP Dispatchable Resources RFP.

# **PUBLIC SERVICE COMPANY OF COLORADO**

## **2017 Solicitation**

### **Dispatchable Resources Request for Proposals**



date

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### **Notice of Disclaimer**

The information contained in this Request for Proposals ("RFP") for energy and capacity resources has been prepared solely to assist bidders in deciding whether or not to submit a proposal. Public Service Company of Colorado ("Public Service" or "Company") does not represent this information to be comprehensive or to contain all of the information that a respondent may need to consider in order to submit a proposal. None of the Company, its affiliates, or their respective employees, directors, officers, customers, agents and consultants makes, or will be deemed to have made, any current or future representation, promise or warranty, express or implied, as to the accuracy, reliability or completeness of the information contained herein, or in any document or information made available to a respondent, whether or not the aforementioned parties knew or should have known of any errors or omissions, or were responsible for their inclusion in, or omission from, this RFP.

The Company reserves the right to modify, supplement or withdraw this RFP at any time, whether due to changes in law or otherwise, and including by issuing one or more addenda to this RFP during this solicitation, which addenda shall become a part of this RFP. No part of this RFP and no part of any subsequent correspondence by the Company, its affiliates, or their respective employees, directors, officers, customers, agents or consultants shall be taken as providing legal, financial or other advice or as establishing a contract or contractual obligation. Contractual obligations on the part of the Company will arise only if and when definitive agreements have been approved and executed by the appropriate parties having the authority to approve and enter into such agreements. The Company reserves the right to request from a respondent (a.k.a., bidder) information that is not explicitly detailed in this document, obtain clarification from bidders concerning proposals, conduct contract development discussions with selected respondents, conduct discussions with members of the evaluation team and other support resources as described in this RFP and in compliance with all FERC Code of Conduct rules and provide data to and conduct discussions with the Independent Evaluator ("IE") as necessary for the IE to satisfy the IE's role as defined by the Colorado Public Utilities Commission ("CPUC" or "Commission") in Decision No. C13-0094.

The Company will, in its sole discretion and without limitation, evaluate proposals and proceed in the manner the Company deems appropriate, which may include deviation from the Company's expected evaluation process, the waiver of any requirements and the request for additional information. The Company reserves the right to reject any, all or portions of any proposal received for failure to meet any criteria set forth in this RFP or otherwise and to accept proposals other than the lowest cost proposal. The Company also may decline to enter into any agreement with any bidder, terminate negotiations with any bidder or abandon the RFP process in its entirety at any time, for any reason and without notice thereof. Respondents that submit proposals agree to do so without legal recourse against the Company, its affiliates, or their respective employees, directors, officers, customers, agents or consultants for rejection of their proposals or for failure to execute an agreement for any reason. The Company and its affiliates shall not be liable to any respondent or other party in law or equity for any reason whatsoever for any acts or omissions arising out of or in connection with this RFP. Except as otherwise provided in the rules and orders of the Public Utilities Commission of the state of Colorado, by submitting its proposal, each respondent waives any right to challenge any valuation by the Company of its proposal. By submitting its proposal, each respondent waives any right to challenge any determination of the Company to select or reject its proposal. Each respondent, in submitting its proposal, irrevocably agrees and acknowledges that it is making its proposal subject to and in agreement with the terms of this RFP.



Each respondent shall be liable for all of its costs incurred to prepare, submit, respond or negotiate its proposal and any resulting agreement and for any other activity related thereto, and the Company shall not be responsible for any of the respondent's costs.

## ***Public Service Company of Colorado 2017 Dispatchable Resources RFP***

### **Section 1. Introduction**

Public Service Company of Colorado ("Public Service" or the "Company"), an operating company subsidiary of Xcel Energy Inc., is issuing this Request for Proposals ("RFP") as a component of Public Service's 2016 Electric Resource Plan. This RFP is one of four RFPs to be issued. These four requests for proposals are:

- 2017 Dispatchable Resources RFP (this RFP)
- 2017 Renewable Resources RFP
- 2017 Semi-Dispatchable Renewable Capacity Resources RFP
- 2017 Company Ownership RFP

Segmenting the Solicitation into these categories is driven by the differing proposal development and contracting requirements for different generation technologies and by the different ownership models. As a result, each RFP contains a model contract(s) or term sheet(s) that has/have been tailored to address certain issues associated with each technology or ownership structure.

Examples of the types of projects which would be applicable to each RFP are shown in Table 1 below. This list is intended to provide guidance as respondents develop their proposals; more detailed information may be found in the specific RFP documents. Respondents who are uncertain as to which RFP would apply to their project should contact the RFP Project Manager (Section 1.4) for clarification.

**Table 1. Example Resource Types for the Various RFPs**

<b>RFP Document</b>	<b>Resource Types</b>
2017 Dispatchable Resources RFP	<ul style="list-style-type: none"><li>• Simple cycle gas turbines</li><li>• Combined cycle gas turbines</li><li>• Stand-alone storage projects</li></ul>
2017 Semi-Dispatchable Renewable Capacity Resources RFP	<ul style="list-style-type: none"><li>• Solar thermal with thermal storage or fuel back-up</li><li>• Any other intermittent resource with storage or fuel backup</li></ul>
2017 Renewable Resources RFP	<ul style="list-style-type: none"><li>• Wind</li><li>• Solar without storage or fuel backup</li><li>• Hydroelectric</li><li>• Geothermal</li><li>• Biomass</li><li>• Recycled Energy</li></ul>
2017 Company Ownership RFP	<ul style="list-style-type: none"><li>• New or existing simple cycle gas turbines</li><li>• New or existing wind or solar</li></ul>

## **1.1 Regulatory Context**

The CPUC's Resource Planning Rules ("RP Rules") establish a process that jurisdictional electric utilities must follow to determine the need for additional electric resources and to procure needed resources. Public Service filed its 2016 Electric Resource Plan ("ERP") on xxxx in accordance with the RP Rules ("Phase I"). In its 2016 ERP, Public Service identified a need for future generation resources and presented the Commission with multiple portfolios of generic resources that could be used to meet that need. As part of its 2016 ERP, the Company proposed to solicit proposals through a competitive solicitation ("Phase II"). The CPUC heard arguments by multiple parties concerning Public Service's resource need and acquisition plans. The CPUC approved the issuance of this Solicitation as part of Public Service's 2016 ERP in Decision No. Cxx-xxxx.

The RP Rules and Decision No. C13-0094 require that an Independent Evaluator ("IE") conduct a review of Public Service's evaluation of proposals received in response to the Solicitation. The Company will work cooperatively with the IE and shall provide the IE immediate and continuing access to all documents and data reviewed, used, or produced by the utility in this Solicitation and evaluation.

Additionally, the RP Rules require that Public Service: 1) make a communication to bidders concerning bid disclosure and bid model representation dispute resolution; 2) provide the Commission's order or orders specifying the form of nondisclosure agreement; and 3) require of bidders that they provide bidder contact and employment metric information.

### **Commission Required Communications**

#### ***Bid Information Disclosure***

Public Service notifies bidders that, upon completion of the competitive acquisition process begun with this RFP,<sup>1</sup> Public Service will post on its website the following information from all bids and utility proposals: bidder name; bid price and utility cost; generation technology type; size of project; contract duration or expected useful life of facility for utility proposals; and whether the proposed purchased power agreement includes an option for the utility to purchase the bid facility during or at the end of the contract term.

In addition Public Service notifies bidders that, pursuant to RP Rule 3614(b), a reasonable number of attorneys and a reasonable number of subject matter experts representing a party to the Company's 2016 ERP docket can, upon the execution of the appropriate non-disclosure agreement, request access to all Phase II information regarded by the Company as highly-confidential. The Company has claimed that bid information of any sort should be treated as highly-confidential, thus any bid information provided to the Company is subject to release to such individuals regardless of a bidder's claim of confidentiality.

#### ***Model Representation and Dispute Resolution***

Public Service will, within 45 days of bid receipt, provide notice in writing by electronic mail to the bidder whether its bid is advanced to computer-based modeling to evaluate the cost or the ranking of the bid resource, and, if not advanced, the reasons why Public Service will not further

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<sup>1</sup> Completion of the resource acquisition process is defined as the execution of all PPAs and/or completion of asset purchase negotiations and certificate of public convenience and necessity approvals, if any, for the solicited resources.

evaluate the bid using computer-based modeling.<sup>2</sup> With its notice Public Service will also provide bidders the modeling inputs and assumptions that reasonably relate to their bid resource or to the transmission of electricity from their proposed facility to Public Service; these inputs and assumptions may include, among other things, costs related to transmission interconnection, gas supply, and resource integration. Public Service will request that the bidder execute a highly confidential nondisclosure agreement prior to receiving the information. The form of the agreement is included as Appendix F.

For those bids advanced to computer-based modeling, within seven calendar days after receiving the modeling inputs and assumptions the bidder will notify Public Service in writing by electronic mail the specific details of any potential dispute regarding its bid's modeling inputs and assumptions. The bidder must attempt to resolve any dispute with Public Service. If the bidder and Public Service cannot resolve the dispute within three calendar days, Public Service will immediately notify the Commission with a filing in the 2016 ERP docket. If the bidder is not already a party to the 2016 ERP, the bidder will file a notice of intervention as of right pursuant to paragraph 1401(b) of the Commission's Rules of Practice and Procedure, within one business day of Public Service filing the notice of dispute to the Commission, for the limited purpose of resolving the disputed modeling inputs and assumptions.

An Administrative Law Judge ("ALJ") will expeditiously schedule a technical conference at which Public Service and the bidder shall present their dispute for resolution. The ALJ will enter an interim order determining whether corrections to the bid's modeling inputs and assumptions are necessary. If the ALJ determines that corrections to the bid's modeling inputs and assumptions are necessary, Public Service will, within three business days of the issuance of the ALJ's interim decision, provide the corrected information to both the bidder and the Independent Evaluator. In its 120-Day Bid Evaluation Report, Public Service will confirm, by performing additional modeling as necessary, that the bid resource is fairly and accurately represented.

#### Required Bidder Information

Public Service requires that each bidder in its Form C provide the contact name of the owner or developer designated to receive notice of whether the bid is advanced to computer-based modeling.

Public Service requires that bidders provide employment metric information for the bid to be eligible for this RFP. See the requirements for the Employment Metrics Narrative Topic.

## **1.2 Resource Needs Assessment**

This RFP is part of a Solicitation process whose purpose is to acquire sufficient resources to meet the Company's forecasted electric demand (plus reserves) over a resource acquisition period ("RAP") through 2023. Through this Solicitation, the Company seeks to fill an

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<sup>2</sup> See exceptions discussed in Section 5.1, Step 4.

approximate xxx MW capacity need<sup>3</sup> over the RAP to meet summer peak load plus a 16.3% planning reserve.<sup>4</sup> Table 2 illustrates the general timing of this capacity need by year.

**Table 2. Estimated Resource Capacity Need by Year**

Year	2017	2018	2019	2020	2021	2022	2023
Resource Need							

In any year, the Company may acquire more or fewer resources than is shown in Table 2 and the final level of resource need by year may change from that shown due to changed circumstances. While Table 2 shows an estimated capacity need for years beginning 20xx, the Company will review bids for resources that become commercially operational prior to this period.

### **1.3 Resources Sought through this RFP**

Through this Dispatchable Resources RFP, the Company seeks proposals from facilities that can provide non-intermittent, firm generation capacity to the system during peak load periods at the nameplate rating of the facility. Non-exclusive examples of potential eligible non-intermittent firm generation technologies include gas-fired combustion turbines and gas-fired combined cycles. All resources offered through this RFP must achieve commercial operation no later than May 1, 2023.

The amount of generation that the Company may acquire from this RFP depends, among other things, on the quality of bids received in response to the Solicitation, on economic comparison to other RFP responses and Company Ownership proposals, on updates to the Company's forecasts, on regional transmission availability, and on changes to regulatory or legal requirements.

### **1.4 RFP Project Manager and RFP Website**

The primary point of contact for communications between the Company and potential bidders is the RFP Project Manager. This individual may be contacted at xxxx; all communications between potential bidders and the Company must be conducted through this email account. See Section 4.7 for more information.

The Public Service 2017 Solicitation webpage can be found at [xxxx](#).

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<sup>3</sup> Certain generation resources such as wind and solar will count towards this need at a level less than the nameplate rating of the facility. As a result the final resource mix selected through the Solicitation could include significantly more than xxx MW from a nameplate rating standpoint. Unless otherwise stated, all references to kW, MW, and MWh in this document refer to AC ratings.

<sup>4</sup> The ultimate resource need and/or components of that need may differ as a result of adjustments to reflect any subsequent forecast updates or other events that would impact the identified resource need during the RAP, including decisions of the CPUC.

## **1.5 Section 123 Resources**

Colorado Revised Statutes (“C.R.S.”) 40-2-123(1)(a) states as follows:

“The commission shall give the fullest possible consideration to the cost-effective implementation of new clean energy and energy-efficient technologies in its consideration of generation acquisitions for electric utilities, bearing in mind the beneficial contributions such technologies make to Colorado’s energy security, economic prosperity, insulation from fuel price increases, and environmental protection . . . .”

These “new clean energy and energy-efficient technologies” are referred to as “Section 123 resources.”

The Commission clarified in Decision No. C13-0094 (“Decision”) that a Section 123 resource must be both *new* and *clean* pursuant to the statute. In its Decision the Commission further defined the terms “new” and “clean”:

A new project shall either: (1) incorporate one or more technologies, representing a substantial portion of its overall installed cost, that have not been regularly commercially demonstrated,<sup>5</sup> up to the point in time that the resource is formally bid, or if not bid, acquired; or (2) be a project used to demonstrate the feasibility of a technology not before implemented in its proposed configuration.

A clean project must demonstrate that it would likely cause a decrease in greenhouse gas emissions (e.g., carbon dioxide) or significantly reduce other pollutants. A clean project may also result in reduced water usage.

Respondents to this RFP who believe their proposal meets the definition of a Section 123 resource should indicate in the Beneficial Contributions/Section 123 Resources Bid Narrative Topic why the respondent believes the resource qualifies as a Section 123 resource. Public Service will identify in its 30-Day Report to the Commission a listing of all bids that claim Section 123 status along with its opposition to any claimed Section 123 status and provide the Commission, under seal, a copy of the disputed bids. The Commission will determine whether the disputed bids qualify for further evaluation as a Section 123 resource.

## **Section 2. Eligible Project Information**

### **2.1 Eligible Project Structures**

Dispatchable RFP proposals will be for purchase of capacity and energy by the Company under a power purchase agreement (“PPA”) which is subject to the accounting considerations and the index pricing considerations discussed in later sections of this RFP. A Model PPA is provided in Appendix D.<sup>6</sup>

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<sup>5</sup> The Commission’s Decision indicated its review of a Section 123 resource would consider the commercial demonstration both within the State of Colorado and elsewhere.

<sup>6</sup> The Model PPA is a sample agreement containing terms and conditions acceptable to the Company. The Company understands that respondents may desire to modify and supplement the Model PPA

Respondents interested in selling an existing asset or developing proposals that involve Company ownership of new generating facilities are directed to the 2017 Company Ownership RFP for relevant information regarding opportunities to bid the Company asset purchases as part of the 2017 Solicitation.

## **2.2 Eligible Generation Resources**

For a project to be eligible under this RFP, it must: 1) have a nameplate electric rating greater than 100 kW, 2) be a non-intermittent, firm thermal resource and 3) meet all or a portion of the Company's resource needs during the RAP. The Company will not accept bids from coal-fired generation.

A PPA proposal may be for a new, a to-be-built resource, or an existing resource.

## **2.3 Pricing**

Form D1 provides the pricing template for PPA proposals. All pricing must be in terms of current year dollars, also referred to as escalated or nominal dollars. For example, a \$50 per megawatt-hour ("MWh") energy price proposal for 2018 means that in 2018 energy from the facility will be purchased at a rate of \$50/MWh.

Proposal pricing must include initial cost estimates for any new or upgraded interconnection facilities required for the electrical interconnection of the proposed project to the Public Service transmission system, and must include the cost of any dedicated radial transmission line(s) from the generation facility to the proposed point of interconnection. See Form D2.

The Company will pay any costs required to upgrade or reinforce the Public Service electric transmission system beyond the Point of Delivery, as a consequence of adding a respondent's project to the Public Service system. Respondents, however, will be responsible for procuring transmission service and any associated third-party transmission costs needed to deliver power from the project to the Point of Delivery on the Public Service transmission system. All pricing in respondents' proposals should reflect those costs (to the extent applicable) at the time of submittal.

The Company's preference is for fixed price proposals. However, respondents may take an appropriate exception on the applicable Form(s) and provide a second, alternative pricing schedule using a fixed price for the first contract year ("Base Year") that would be adjusted after the Base Year according to one or more known, published and widely recognized indices that are closely related to costs of operation in the proposed technology's industry. A respondent that wishes to propose such alternate pricing must submit one pricing form in nominal dollars for the entire term of the PPA and another pricing form tied to one or more designated indices meeting the requirements of the preceding sentence. The Company retains the right to select either of the respondent's pricing schemes. Respondents may not submit proposals with variable Base Year pricing.

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when submitting their proposals, and anticipates negotiating with selected respondents in an effort to develop documents acceptable to both parties.

## **2.4 Regulatory Approvals**

At the completion of the evaluation process, pursuant to RP Rule 3613(a), the Company will file a report with the Commission that describes the cost-effective resource plans that conform to the Commission's Phase I decision. Upon Commission approval of Phase II of the Company's 2016 ERP, Company actions consistent with that approval are presumed prudent under RP Rule 3617(d). However, the Company reserves the right to: 1) inform the Commission that the Company could not reach agreement with the proponent of a selected resource; 2) request Commission approval of any agreements it enters into with successful respondents that vary in any material respect from the Model PPA; and 3) to terminate any agreement if the Company fails to receive Commission approval of submitted agreements.

## **2.5 Contract Lengths**

Contract term lengths may be between one (1) and twenty-five (25) years. The Company's objectives with respect to term lengths are to avoid the concurrent expiration of multiple contracts, and to avoid or minimize the adverse financial impact of imputed debt, capital or finance lease, and variable interest entity-related obligations. See Section 2.7 for further information regarding such obligations.

## **2.6 RoFO / Purchase Option**

The Model PPA includes a Right of First Offer ("ROFO") that, subject to specific conditions, may be exercised by the Company. In addition, while not required under the Model PPA, respondents, at their option, may offer the Company an end-of-term or other purchase option that specifies that the Company can purchase the facility (or the stock of the facility owner) for its appraised fair market value at a specified time or times during, or at the end of, the PPA term.

## **2.7 Contract Accounting**

All contracts proposed to be entered into as a result of this RFP will be assessed by the Company for appropriate accounting and/or tax treatment. Respondents shall be required to supply promptly to the Company any and all information that the Company requires in order to make such assessments.

The Company has specific concerns regarding proposals received in response to this RFP that could result in either (i) a contract that must be accounted for by the Company as a capital lease or an operating lease pursuant to Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") 840 or as a finance lease or an operating lease under FASB ASC 842, or (ii) consolidation of the seller or assets owned by the seller onto the Company's balance sheet pursuant to the variable interest entity requirements of FASB ASC 810. The following shall therefore apply to any proposal submitted pursuant to this RFP:

- The Company is unwilling to be subject to any accounting or tax treatment that results from a PPA's capital lease, finance lease or consolidated variable interest entity classification. As a result, respondents shall state in their proposal(s) (i) that the respondent has considered applicable accounting standards in regard to capital leases, finance leases and variable interest entities, (ii) summarize any changes that the



respondent proposes to the Model PPA in order to attempt to address these issues, and (iii) to the respondent's knowledge and belief, the respondent's proposal should not result in such treatment as of the date of the proposal.

- As applicable, the Company will not execute a PPA without confirmation from the Company's external auditors that the PPA will not be classified as a capital lease, finance lease or a consolidated variable interest entity.

By submitting a proposal, each respondent agrees to make available to the Company at any point in the bid evaluation process any financial data associated with the respondent and its proposed project so the Company may independently verify the respondent's information in the above matters. Financial data may include, but shall not be limited to, data supporting the economic life (both initial and remaining) of the facility, the fair market value of the facility, and any and all other costs (including debt specific to the asset being proposed) associated with the respondent's proposal. The Company may also use financial data contained in the respondent's financial statements (e.g. income statements, balance sheets, etc.) as may be necessary.

### **Section 3. Delivery and Interconnection Information**

#### **3.1 General information**

Bids that propose to interconnect to the Company's transmission system and that do not have an existing Large Generator Interconnection Agreement ("LGIA"), Small Generator Interconnection Agreement ("SGIA"), or an existing interconnection queue position will be studied by Public Service to estimate electric interconnection and delivery requirements and costs. These procedures, and associated respondent responsibilities, are detailed in Appendix C.<sup>7</sup>

Bids that propose to interconnect to the Company's distribution system will be studied pursuant to CPUC rules 3667 or 3900 depending upon facility size.<sup>8</sup>

If the Company has received a certificate of public convenience and necessity ("CPCN") to construct a transmission upgrade the cost of the upgrade will not be included in the evaluation of proposals that use those upgrades; provided, however, that sufficient transmission transfer capability exists on the transmission project specified in the CPCN after accounting for other generation projects.<sup>9</sup>

Existing generation resources from which the Company currently purchases capacity and energy will not be burdened with any incremental electrical transmission interconnection or network delivery costs provided that the Company currently has sufficient transmission capacity to deliver the entire generation to its load. For existing generation resources with inadequate

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<sup>7</sup> Note that the Company will apply the appropriate study procedure (i.e. LGIP or SGIP) during any formal interconnection study process.

<sup>8</sup> The Company's "Safety, Interference and Interconnection Guidelines for Cogenerators, Small Power Producers and Customer-Owned Generation" is available at:  
<http://www.xcelenergy.com/staticfiles/xcel/Regulatory/Transmission/CO-DG-Tech-Manual.pdf>

<sup>9</sup> As the Company is no longer pursuing the SLV-Walsenburg-Comanche transmission project, the Company will not entertain bids that require the construction of that transmission facility.

transmission service, a projection of the purchase of sufficient transmission rights will be added to the bid for evaluation purposes.

### **3.2 Electric Transmission Injection Capability**

Public Service performs transmission studies for Large Generator Interconnect Agreement ("LGIA") requests. The LGIA requests are made to determine the feasibility, cost, time to construct, and injection capability for the transmission system interconnection of an electric generating resource. The Company posts the results of these studies on its OASIS website.<sup>10</sup> The Company performs other transmission studies for purposes of transmission planning that determine like information.

The transmission system is interrelated and generation injection at one point on the system likely changes the injection capability at other points; e.g., incremental generation injections at Pawnee would decrease the generation injection capability at Missile Site and vice versa. The generation injection capability values provided below in Table 3 are approximations based on the stand-alone transmission studies performed for LGIA requests. The generation injection capability values can change when Public Service performs additional specific resource and resource portfolio transmission studies whether for resource evaluation or an LGIA request.

Table 3. Transmission System Injection Capabilities

**(this Table to be updated prior to RFP release to reflect then-current information)**

Location	LGIA Study	Injection Capability (MW)	Time to Construct

## **Section 4. Proposal Content Requirements and Submission Procedure**

### **4.1 Schedule Estimate**

An indicative schedule for this RFP process is provided in Table 4.<sup>11</sup> A graphical timeline is provided in Appendix E.

Table 4. Solicitation Schedule

Activity	Date
Pre-Bid Conference	T-68
Notice of Intent to Respond Due	T-14

<sup>10</sup> Information regarding posted studies may be found on a public site:  
[http://www.rmao.com/wtpp/psco\\_studies.html](http://www.rmao.com/wtpp/psco_studies.html).

<sup>11</sup> The Company reserves the right to adjust this schedule appropriately, including, but not limited to, for changes to the regulatory calendar.

Proposals Due	T
120-Day Report to Commission	T+120
Commission Phase II Decision	T+210

## **4.2 Minimum Requirements for Proposals**

This section describes the minimum requirements that all proposals must satisfy to be eligible for consideration in this Solicitation. Unless the Company in its sole discretion elects otherwise, proposals that do not comply with these requirements will be deemed ineligible and will not be considered further. The Company reserves the right to reject any bid and all bids.

- Proposals must include all applicable content requirements described in Section 4.3, including clear and complete written descriptions of all information requested and completed forms.
- Proposals must clearly specify all pricing terms in accordance with Section 2.3.
- Proposals must clearly demonstrate compliance with all power delivery requirements listed in Appendix C, CPUC 3667, or CPUC 3900 as applicable.
- Proposals must demonstrate an acceptable level of development and technology risk, as determined by the Company's evaluation team.
- For non-Section 123 proposals, the respondent's project development team must demonstrate that it has successfully completed the development, construction and commissioning of at least one utility-scale and utility-grade project with technology similar to the proposed project.
- For Section 123 proposals, the respondent's project development team must demonstrate that it has successfully completed the development, construction and commissioning of at least one utility-scale and utility-grade project.
- Respondents must demonstrate to the satisfaction of the Company that they can meet the security requirements contained in the Model PPA.
- Proposals must clearly demonstrate any financing requirements and an indicative financing structure (construction and permanent) for any proposed resources that will be delivered under the proposals. Respondents should include a description of how current financial markets are likely to impact the respondent's ability to access the debt and tax equity markets.
- Each respondent must present clear and sufficient proof that it has or can secure an adequate and confirmed supply of generation equipment sufficient (at a minimum) to meet the required proposal.
- Respondents must provide the required bid fee (described in Section 4.8 below) for each proposal submitted.

#### **4.3 Proposal Content Requirements**

This section outlines the content and format requirements for all proposals submitted in response to this RFP. Unless the Company in its sole discretion elects otherwise, proposals that do not include the information requested in this section will be ineligible for further evaluation, unless the information requested is not applicable or relevant to a given proposal. The Company reserves the right to conduct any further due diligence it considers necessary to fully understand and evaluate proposals.

##### **Proposal Format**

The first section of each proposal must contain an Executive Summary that provides an overview of the proposed generating resource characteristics, including any unique aspects or benefits. The second section of the proposal must include a completed set of applicable forms included in Appendix A. These forms will contain essential information about each proposal. A separate set of forms and related information must be submitted with each proposal. The third section of the proposal must include additional information presented in narrative form under specific topic headings.

A complete proposal will include the following components:

1. Executive Summary
2. Complete set of applicable forms
3. Form attachments (as necessary to elaborate on form information)
4. Narrative Topics Discussion
5. Requested maps and electronic data

The proposal forms and topic headings are listed below.

##### **Proposal Forms**

Form A	Notice of Intent to Respond
Form B	Bid Certification Form
Form C	Bid Cover Sheet
Form D1	Pricing
Form D2	Electrical Interconnection Cost Estimates
Form E	Construction Milestones
Form F1	Contract Capacity
Form F2	Facility Performance
Form F3	Heat Rates
Form F4	Heat Rate Degradation
Form F5	Energy Storage Projects
Form F6	Section 123 Qualifications
Form G1	Natural Gas and Backup Fuel Supply
Form G2	Solid Fuel Information
Form H	Emission Rates
Form I	Interconnection Information Forms

The individual forms in Appendix A include additional instructions for completion.

## Narrative Topics

In addition to completed forms, each proposal must also include a thorough written discussion of each of the following topics. Narrative topics should be organized under the following headings:

- Development Experience
- Financial Information
- Project Description and Development Schedule
- Equipment Description
- Real Property Acquisition Description and Plan
- Permitting Plan
- Transmission Plan
- Community/State Reaction Assessment
- Operations and Maintenance Plan
- Exceptions to Model PPA
- Beneficial Contributions/Section 123 Resources
- Employment Metrics

***Development Experience.*** All proposals must describe the respondent's qualifications and experience in developing, constructing, commissioning and operating generation facilities similar to the proposed facility, including the experience, qualifications and safety record of key personnel who will manage development and an overview of utility scale and utility grade projects the respondent has developed during the last 5 years. If an EPC team is in place, the proposal should identify the members of the team; if such a group is not in place, the proposal must set forth the respondent's plan for assembling such team (including process and timing).

***Financial Information.*** All proposals must provide detailed financial information about the proposed project. This information shall include two years of audited financial statements or the equivalent for respondents and other responsible parties (including any entities that would provide parent guaranties of the respondents' obligations), whether the project will be financed as a recourse or non-recourse project, the percentages of debt and equity financing, and the expected cost of debt. In addition, respondents shall provide a detailed plan for financing the proposed project during construction and operation including the financing commitments that the respondent has obtained. Proposals shall also explain in detail the plan for meeting the security requirements outlined in the Model PPA and must set forth the credit rating (if any) of any entities that would provide parent guaranties of the respondents' obligations. Proposals must include an organization chart showing the entities that own the respondent's organization and a description of the respondents' organization structure (including primary and secondary businesses). Financial information may be provided primarily in electronic format so long as at least one (1) hard copy of the financial information is provided with each proposal.

***Project Description and Development Schedule.*** All proposals for the construction of new generation facilities must set out a description of the proposed project, including a description and plans for the proposed site and rights of way, utilities services, equipment configuration, transmission and interconnection construction and procurement, supply of spare parts, opportunities for future expansion of the project, required permits, the nameplate capacity of the

resource in MW, the respondent's key consultants (if known) for meteorological studies and permitting studies, and the respondent's construction contractors and prime subcontractors (if known). Such proposals must provide a detailed Gantt chart of project development activities developed using Microsoft Project or similar software (note that .pdf file-type is preferred for submittal) that includes (at a minimum) entering major equipment and construction subcontracts, target completion dates for financing, engineering, permitting, equipment procurement, construction, startup and commissioning, and guaranteed dates for substantial completion. Proposals must describe the overall development strategy that will ensure that the project can be developed in time to meet the proposed commercial operation date. Respondents proposing Section 123 resource generation projects should describe the risks associated with deploying such new technology specifically as those risks impact the proposed commercial operation date and the first years of operation.

It is the Company's expectation that it will have first rights to all proposed projects submitted into the RFP for the period during the proposal review and approval process. Respondents must also provide any and all information which would restrict the respondent from providing the Company with exclusive rights to negotiate a PPA for the proposed project. Such restrictions could include, but are not limited to, prior active submission or participation in other RFPs, exclusivity rights granted to other parties, rights of first offer or refusal, purchase options, and active auctions for the project as applicable.

**Equipment Description.** At a minimum, proposals should indicate for all major equipment 1) the name of the manufacturer and other vendors, 2) models, 3) key metrics and characteristics of the equipment, 4) performance history of the equipment, 5) contracting status, and 6) planned delivery dates.

**Real Property Acquisition Description and Plan.** Proposals must provide a description of the status of real property acquisition and land use permitting for the project that is sufficient for the Company to assess the completeness and sufficiency of the respondent's real property rights, including but not limited to:

- The status of current site ownership or control. Indicate if control is through:
  - Ownership of a leasehold interest in, or a right to develop a site for the purpose of constructing the proposed generating facility,
  - An option to purchase or acquire a leasehold site for such purpose, or
  - An exclusivity or other business relationship between bidder and the entity having the right to sell, lease, or grant bidder the right to possess or occupy a site for such purpose.
- The plan for acquiring any and all currently uncontrolled necessary real property rights to the project,
- Acreage of real property required for the project and a schedule for the completion of the real property acquisition process,
- A description of any subdivision or zoning modifications and all city, county, or state land use permits that will be required, such as conditional use, special use or other similar permits and approvals, which will be required for any phase of development, construction, or operations of the project, and
- A description of existing and planned land use in all directions surrounding the proposed site.

Proposals must include a USGS-based map showing the location of the proposed site.

**Permitting Plan.** Proposals must describe all air quality permits that will be required for the project. State whether any air permits have been secured, and if not, whether applications have been filed. Report on the status of any pending applications and any feedback from permitting agencies. Describe the expected time frame to obtain the necessary air permits after application submittal to the State.

Describe all other federal, state and local permits and approvals that will be required for the project, including but not limited to:

- Federal environmental assessments under the National Environmental Policy Act ("EA/EIS"),
- Water supply,
- Wastewater discharge permits,
- Hazardous waste permits, and
- No-hazard permits/determinations from the Federal Aviation Administration.

Describe the current status of obtaining these permits and any feedback from permitting agencies.

Describe the water supply strategy for the project, including a description of water requirements, water supply source(s), discharge plans, new water pipeline requirements, and any work completed to date on the water supply plan.

Explain any expected restrictions on operations due to air and/or water permits.

If the proposed site does not currently have the appropriate zoning designation, provide any rezoning requirements, plans to obtain the rezoning, and any known issues as to rezoning.

For projects proposing to utilize an eligible energy resource<sup>12</sup>, proposals must also provide written documentation evidencing that consultation has occurred with appropriate governmental agencies (for example, the Colorado Division of Wildlife or the U.S. Fish and Wildlife Service) responsible for reviewing potential project development impacts to state and federally listed wildlife species, as well as species and habitats of concern.

**Transmission Plan.** Provide a detailed description of the Point of Delivery to the Public Service electric system, including the location and voltage level of such point. All proposals should include a description of the respondent's plan to transmit power from the Project to the proposed Point of Delivery on the Public Service transmission system as described in Appendix C. The information should include a description and expected route of any radial transmission line dedicated principally to the Project if known, including a summary of the status of obtaining requisite easements and alternatives.

If any new FERC-regulated transmission or any upgrades to non-Public Service transmission will be required to deliver power from the Project to the proposed point of delivery ("New Transmission"), the proposal also should include a complete description of the required New Transmission including:

- The owner and developer of the New Transmission,

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<sup>12</sup> Eligible energy resources are defined in the Commission's rules, section 3652, "Definitions".

- The complete expected route for the New Transmission,
- The voltage and capacity of the New Transmission,
- The status of planning, permitting, financing and construction of the New Transmission, to the extent known to the respondent,
- The location of the interconnection of the Project into the New Transmission, and
- Whether the respondent's Project, if successful, would be sufficient for the New Transmission to be built without the participation of other power projects, and if not, what other projects would need to be built and in what time frame to allow the New Transmission to be built in time for the respondent to meet its scheduled in-service date.

For proposals that will require third-party transmission service(s) to deliver, on a firm transmission service basis, the capacity and energy to the Point of Delivery specified above, provide a detailed description of the interconnection, electric losses, transmission and ancillary service arrangements, by provider, that will be required, including:

- the identity of all third party providers,
- the location and voltage level of the interconnection point to the interconnection service provider's facilities,
- any interconnection facilities that bidder owns or intends to construct and own,
- the specific services provided by each provider, and
- the line losses, point(s) of receipt and point(s) of delivery associated with each third party transmission service.

Provide documentation that the third party services discussed in the paragraph above will be available to bidder during the proposed contract term. This should include:

- any associated transmission studies that directly examined delivery of the proposed energy to the point of delivery,
- detailed information on any and all new transmission facilities and/or upgrades to existing facilities that will be required to deliver the proposed energy to the point of delivery, and
- a detailed discussion of the schedule for siting, permitting, and construction of such new facilities and/or upgrades.

Attach a USGS-based map that shows the location of the interconnection point with the third-party and the generation facility.

**Community/State Reaction Assessment.** Each respondent must present a current assessment of, and a plan for continuing to monitor, local community and state reaction to the project, and a plan to work with the local community on project issues. Such plan might include the following elements:

- A list of the references used to assess the community reaction, and the methodology used to draw conclusions,
- A list of key local contacts interviewed and their opinions,
- An assessment of the local community reaction at the time of the proposal,
- An action plan for working with the local community/state to successfully complete the project, and



- A description of the respondent's proposed conflict resolution methodology.

**Operations and Maintenance Plan.** Respondents shall summarize their operations and maintenance plans and labor arrangements for the generation facilities associated with their proposals.

**Exceptions to Model PPA.** In support of the Company's efforts to complete project evaluation, and contract negotiations in a timely manner, respondents shall review and provide exceptions and/or comments to the Model PPA. To the extent that the validity of a respondent's proposal and/or the respondent's ability to execute a PPA is contingent upon material changes to the language in the Model PPA, respondents should specifically identify the terms in the Model PPA they propose to change and should summarize their proposed changes to such terms. To the extent that a respondent wishes to propose changes to the Model PPA that, if accepted by the Company, would reduce the respondent's proposed pricing the proposal should specifically identify such changes and the associated price reduction. To the extent practicable, respondents should develop exhibits, schedules, attachments and other supplemental documents required by the Model PPA.

Exceptions taken to model PPA terms must be clearly expressed such that the Company can reasonably understand the bidder's concerns. Statements containing language such as "To be discussed" do not provide the Company sufficient information to understand the bidder's concerns. Bidder's providing such comments will be required to more fully explain their concerns so that the Company can adequately conduct its due diligence activities.

**Beneficial Contributions/Section 123 Resources.** Respondents should indicate whether or not they believe their project meets the requirements of a Section 123 resource. Bidders claiming Section 123 status must complete Form F6. Regardless of claimed Section 123 status, **all bidders must provide information concerning the beneficial contributions of their proposed technology** including benefits associated with Colorado's 1) energy security, 2) economic prosperity, 3) environmental protection, and 4) insulation from fuel price increases.

This information is needed from **all bidders** in order to allow the Commission to consider whether certain benefits are common across proposals and whether certain benefits tie specifically to the implementation of a particular new and clean energy technology.

**Employment Metrics.** Respondents shall include descriptions of each best value employment metric described below as it relates to the bid project.

- The availability of training programs, including training through apprenticeship programs registered with the United States Department of Labor, Office of Apprenticeship and Training,
- The employment of Colorado workers as compared to importation of out-of-state workers,
- Long-term career opportunities, and
- Industry-standard wages, health care, and pension benefits.

#### **4.4 Pre-Bid Conference**

Time: xxxx  
Date: xxxx  
Location: 1800 Larimer St.  
Denver, Colorado 80202

Public Service will webcast the meeting and will provide means for remote, electronic participation by potential RFP respondents. Public Service will post information concerning webcast access and remote participation on the RFP website once confirmed. Interested parties are encouraged to provide written questions to the Company's RFP Project Manager by email prior to the pre-bid meeting. A summary of the bid conference proceedings, including submitted questions and answers, and answers to any question remaining unanswered at the end of the meeting will be prepared by the Company and posted on the RFP website.

#### **4.5 Notice of Intent to Respond**

Respondents who intend to submit a proposal are encouraged to submit a non-binding Notice of Intent to Respond (NOIR), Form A in Appendix A. Submit the completed NOIR by email no later than 4:00 P.M. Mountain Time on xxxx to the RFP Project Manager. There is no fee required to submit an NOIR.

#### **4.6 Proposal Submission Deadline**

All proposals, including Company self-build proposals will be accepted until 4:00 P.M. Mountain Time on the date indicated in Section 4.1. All proposals must be transmitted by express, certified or registered mail, or hand delivered to the following address:

PSCo 2017 Solicitation  
Attn: RFP Project Manager  
Xcel Energy Services Inc.  
1800 Larimer St, Ste 1400  
Denver, Colorado 80202

Proposals received later than the due date and time indicated will be rejected and returned unopened unless the Company determines, at its sole discretion, to consider such proposals. With the exception of the financial information (of which only one (1) hard copy is required), four (4) bound hard copies of the proposal must be included in the submittal. In addition, respondents must submit three (3) electronic copies (CD, DVD, or flashdrive) with completed forms in a Microsoft Office format.

Proposals must be submitted in a sealed package with the following information shown on the package:

**Response to PSCo 2017 Dispatchable Resources RFP  
Confidential Sealed Bid Proposal**

The respondent's company name and address must be clearly indicated on the package containing the proposal.

#### **4.7 Information Policy**

To obtain additional information about this RFP, potential respondents as well as all other parties may only submit inquiries to the RFP Project Manager via email at [xxxx](#). Potential respondents as well as all other parties should not attempt to acquire information through any other means including telephone calls to the Company. The Company will maintain a log of all inquiries and coordinate the preparation of written responses. Once a response is prepared, the Company will forward the response to the inquiring party and, at the Company's sole discretion if the response is germane to all other respondents, all other respondents that have provided the Company an email address. Parties without email addresses will not receive these responses directly. Questions and responses, when germane, will be periodically posted to the RFP Web Site in a FAQ. The Company has established this information policy to ensure that all respondents have the same timely access and knowledge about the bidding and evaluation process.

All bidders as well as all parties in the resource plan proceeding other than the utility are restricted from initiating contact with the IE.

#### **4.8 Bid Evaluation Fees**

All respondents are required to pay to the Company a bid evaluation fee with each proposal submitted; bid fees are determined by the nameplate capacity of the bid according to Table 5 below. Public Service may deem proposals that do not satisfy the requirements for a single proposal as multiple proposals, each of which would require a separate bid evaluation fee. For example, a proposal that triggers electric interconnection studies for multiple points or levels of interconnection would be deemed separate proposals for each such point or level. In addition, proposals offering multiple commercial operation dates for the same project or facility will be viewed as multiple proposals. If the Company deems a respondent's proposal to be multiple proposals, the Company will notify the respondent and allow it to elect to pay the incremental bid fee or to revise its proposal to comply with the Company's requirements for a single proposal.

Notwithstanding the above, respondents who submit proposals in this 2017 Dispatchable Resources RFP for projects greater than 2 MW may also submit a proposal for the same generation facility in the 2017 Company Ownership RFP with no incremental bid fees.

Checks should be made out to "Public Service Company of Colorado" and must be included with the proposal. Bid evaluation fees are non-refundable.

Table 5. Bid Fees

<b>MW &gt;</b>	<b>MW &lt;=</b>	<b>Bid Fee</b>
0.1	1	\$375
1	2	\$750
2	5	\$1,500
5	10	\$3,000
10		\$10,000

#### **4.9 Clarification of Proposals**

While evaluating proposals, the Company may request clarification or additional information about any item in the proposal. Such requests will be sent via email to respondents identified on Form C, by the RFP Project Manager, typically, and respondents are required to provide a written or electronic response back to the RFP Project Manager within five (5) business days, or the Company may deem the respondent to be non-responsive and either suspend or terminate evaluation of the proposal. Respondents are encouraged to provide an alternate point of contact to ensure a timely response to clarification questions.

#### **4.10 Confidentiality**

Respondents are allowed to identify any information in their proposals that respondents claim should be considered to be confidential or proprietary. Nonetheless, the Company reserves the right to release all proposals to its affiliates and to its and such affiliates' agents, advisors, consultants, and the IE for purposes of proposal evaluation. The Company will, to the extent required by law, advise each agent, advisor or consultant that receives such claimed confidential information of its obligations to protect such information. In addition, all information, regardless of its confidential or proprietary nature, will be subject to review by the Commission and other governmental authorities and courts with jurisdiction, and may be subject to legal discovery. It is not the Company's intent to enter into any separate confidentiality, non-disclosure, or similar agreements as a condition to receiving a respondent's proposal.

Notwithstanding the above paragraph and as indicated in Section 1.1, a reasonable number of attorneys and a reasonable number of subject matter experts representing a party to the Company's 2016 ERP docket can, upon the execution of the appropriate non-disclosure agreement, request and receive access to all bid information provided to the Company in response to this RFP regardless of a bidder's claim of confidentiality or propriety. In addition, upon completion of the competitive acquisition process Public Service will post on its website and thereby make publically available the following information from all bids and utility proposals: bidder name; bid price and utility cost; generation technology type; size of facility; contract duration or expected useful life of facility for utility proposals; and whether the proposed purchased power agreement includes an option for the utility to purchase the bid facility during or at the end of the contract term.

#### **4.11 Addenda to RFP**

Any additional responses required from respondents as a result of an Addendum to this RFP shall become part of each proposal. Respondents must list all submitted Addenda at the bottom of the Bid Certification Form (Form B).

### **Section 5. Evaluation and Criteria**

The objective of the Company's Solicitation evaluation is to identify portfolios of proposals that meet the resource needs identified in the solicitation in a reliable and cost-effective manner, while achieving the resource goals of the Commission-approved ERP.

As described below, the evaluation process will include an assessment of both economic and non-economic criteria.

## **5.1 Evaluation Process**

An evaluation team, made up of various groups within Xcel Energy Services and the Company will evaluate proposals; however, the Company reserves the right to retain the services of outside experts to assist in the evaluation of proposals. The RFP Project Manager may contact respondents directly at any point during the evaluation process for the purposes of clarifying proposals. The Company will also cooperate with, and provide access to, information provided by respondents to, the Independent Evaluator as required by RP Rule 3612. All bidders as well as all parties in the resource plan proceeding other than the utility are restricted from initiating contact with the IE.

Proposals will be evaluated using a multi-step process as follows:

### **Step 1 – Bid Eligibility Screening**

Each proposal will be reviewed to ensure it meets the minimum requirements outlined in Section 4.2. The Company will notify each proposal respondent within 15 days of bid receipt as to the Company's bid eligibility evaluation.

### **Step 2 – Interconnection Assessment and Initial Economic Evaluation**

While not entirely concurrent, the activities described in Steps 2.A., 2.B. and 2.C. below will overlap to some extent.

#### **A. Electric Interconnection Cost Estimates**

The Company will determine or verify electric interconnection cost estimates provided by bidders. If substantial differences occur, the Company will provide its cost estimates to the applicable bidders so that they can update their bid pricing, as they deem appropriate. Such bidders must submit final bid pricing back to the Company within 5 calendar days of the date the interconnection cost estimates are provided.

#### **B. Transmission and Distribution Upgrade Schedule Assessment**

Some or all of the proposals will also be evaluated to assess the general siting, permitting, and construction time requirements associated with Public Service transmission and/or distribution network upgrades, including network upgrades for interconnection, that may be needed for each proposal to:

- Interconnect the proposed generation with the Public Service transmission or distribution system,
- Deliver the entire proposed capacity and energy to the Company's customers, and/or
- Deliver the entire proposed capacity and energy from a third party transmission system to the Public Service electric system.

The impact of these analyses on a respondent's proposed schedule will be a factor in the evaluation of its proposal.

### **C. Initial Economic Screening**

The primary purpose of the initial economic screening is to rank each bid by technology so that the most promising bids can be forwarded to the subject matter experts for their review as quickly as possible and to identify those bids likely to be moved forward for computer modeling of bid portfolios. The initial economic screening consists of calculating an “all-in” levelized cost of energy (“LEC”). Calculations are shown on the “LEC” tab of the bid forms (Appendix A).

In addition to the costs provided in the bid, the Company will estimate incremental costs or benefits, as necessary, such as:

- Electrical interconnection costs and network upgrades not included in Form D1 pricing. These incremental capital costs are converted to a variable rate by assuming a levelized fixed charge rate of 0.12 and an annual capacity factor based on the type of generator proposed.
- Projects that propose to interconnect to the Public Service distribution system will be credited with an avoided line loss assumption in their LEC calculations.
- Estimates of the Company’s cost to deliver fuel (e.g., natural gas) to a tolled facility.
- Bids for energy storage will be credited with wind curtailment benefits, as applicable.

LECs for dispatchable generation resources are calculated by converting fixed costs to variable \$/MWh costs by assuming an annual capacity factor and by assuming an average annual heat rate with which to estimate fuel volumes and costs. Gas-fired, peaking resources (defined as units with base capacity heat rates over 8,000 Btu/kWh) will be screened with an assumption of a 5% annual capacity factor. Gas-fired, intermediate resources (defined as units with base capacity heat rates of 8,000 Btu/kWh or lower) will be screened with an assumption of a 40% annual capacity factor. The average annual heat rate utilized in the LEC calculations will be the base capacity heat rates (i.e., heat rates without supplemental capacity) supplied on Form F3.

Start charges are converted to a variable \$/MWh cost by assuming a set number of hours that a unit will run at full output once started; full output is defined as the net capability of the unit without supplemental capacity (e.g., duct firing on a combined-cycle power plant). For peaking resources, the Company assumes a four (4) hour run time per unit per start. For intermediate resources, the Company assumes a twelve (12) hour run time per unit per start and that all combustion turbines are started.

To the extent a project proposes to wheel tolled capacity and energy across another utility’s transmission system prior to delivery to the Company’s system, estimated wheeling losses will be imposed against the full load heat rate which will effectively increase the variable cost component of the LEC. Such an adjustment is necessary since the heat rates are calculated at the generation unit (which resides on another utility’s system), whereas the other components of the LEC are all based on capacity and energy delivered to the Company’s system.

The Company will assume a 5% EFOR rating in its LEC estimates of capacity payments regardless of the EFOR rating provided on Form E2 or the calculation shown in the Monthly Capacity Payment section of Form D1. Bids proposing secondary fuel sources (e.g., fuel oil) will be screened utilizing primary fuel parameters only. No incremental benefits for quick start or faster ramp rates are provided in the LEC calculations.

Regardless of their LEC calculations all eligible bids from existing generators, all Company self-build projects, and any bid claiming Section 123 status that is unopposed by the Company or, if opposed by the Company but later qualified as Section 123 by the Commission, will be advanced to computer modeling of bid portfolios.

### **Step 3 – Non-Price Factor Analysis**

The Company will assess the non-price characteristics of the proposals. Non-price factors that will be assessed include, as applicable and without limitation, the following:

- Financial strength of the respondent
- Financing plan, including ability to utilize tax advantages
- Development, construction and operation experience
- Generator technology, availability, and warranties
- Environmental permitting and compliance
- Land use permitting and zoning
- Other permitting
- Real property acquisition/site control progress and plan
- Project operational characteristics
- Scale of the project
- Community support for the project
- Transmission access plan feasibility and arrangements
- Transmission upgrade schedule assessment
- Construction and equipment supply plans and arrangements
- Project execution planning
- Accredibility of capacity to meet reliability needs
- Accounting assessment

### **Step 4 – Bidder Notification**

Contingent upon the existence of sufficient bids passing through bid eligibility and due diligence screening, the Company shall pass forward to the computer modeling of bid portfolios a sufficient quantity of bids across the various resource types such that resource plans can be created that conform to the Commission's Phase I decision.

Pursuant to rule 3613(a), within 45 days after bids are received the Company will email each bidder and indicate whether its bid has or has not been advanced to computer-based modeling of bid portfolios and provide each bidder the modeling inputs and assumptions that reasonably relate to that potential resource or to the transmission of electricity from that facility to the Company.<sup>13</sup> For those bids not advanced to computer modeling, the Company will provide the reason(s) why the project will not be evaluated further.

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<sup>13</sup> See Section 5.1 Step 5 for an exception to the notification policy for bids that are included in modeling after 45 days of bid receipt. See Section 5.1 Step 6 for an exception to the notification policy for bids smaller than 10 MW.

### **Step 5 – Computer-Based Modeling of Bid Portfolios**

The costs and operational characteristics of any Company self-build proposal and each remaining bid equal to or greater than 10 MW will be input into the Company's Strategist™ planning model.<sup>14</sup> The Strategist™ model will be used to construct portfolios of bids that meet the capacity and energy projections of the Public Service system, as well as the various objectives of the resource plan and Commission decisions. The Strategist™ model simulates operation of proposals together with the Company's existing resources (and to an extent, the regional power market), while keeping track of all associated fixed and variable costs of the Company's entire system.

Strategist™ will be utilized to develop portfolios that minimize the net present value of revenue requirements through 2054. The model will also be used to develop alternative resource portfolios that represent the costs and benefits from increasing amounts of renewable technologies and/or Section 123 resources. Portfolios will be developed in accordance with the scenario analysis directives of the Commission.

To the extent initial results indicate that all bids of a specific generation resource type (e.g., all wind bids) passed to computer modeling appear in the least-cost portfolio(s), additional bids utilizing that generation resource type will be included in subsequent model runs. This iterative process will be followed until no incremental bids employing that generation resource type are selected in the least-cost portfolio. Bidders whose projects are passed forward to computer modeling of bid portfolios after the 45 day report will be notified of their project's advancement pursuant to rule 3613(a).

### **Step 6 – Evaluation of Bids Between 100 kW and 10 MW**

As indicated in Step 5, bids must have nameplate capacity ratings equal to 10 MW or greater to be included in the computer-based portfolio modeling step. In general, bids between 100 kW and 10 MW ("Small Bids") will be evaluated after the computer-based portfolio modeling step.

At the conclusion of Step 5, the Company will review the least-cost portfolio from the base case run (that is, not from a sensitivity case) and determine each generation type selected in the portfolio. For each generation type selected, the Company will determine the all-in levelized energy cost of the most expensive bid. These all-in levelized energy costs will set the price against which Small Bids with similar generation technologies will be compared. The Company will include in all portfolios presented to the Commission each Small Bid with an all-in levelized energy cost less than the most expensive bid with similar technology selected in the least-cost portfolio.

A final check will be made to ensure that the inclusion of all cost-effective Small Bids does not provide excess capacity credit to the least-cost portfolio through the RAP to such an extent that it could replace another source(s) of capacity selected through the Strategist modeling. If it does, two additional sets of ad hoc Strategist runs will be conducted to determine which is most cost-effective: 1) include all cost-effective Small Bids in the final portfolio, or 2) include all cost-effective Small Bids and exclude the other generator(s) that could potentially be displaced. The

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<sup>14</sup> Depending upon the pool of proposed projects received, the Company may adjust the specific MW cutoff for various technologies instead of the 10 MW indicated here. Such an adjustment would be done in consultation with the Independent Evaluator.



final portfolio would be the least-cost of these two runs assuming that both runs meet all reliability metrics.

To the extent the least-cost portfolio does not include a certain generation type (e.g. solar) but bids for that generation type were passed through to computer-based modeling and lower priced Small Bids exist, an ad hoc Strategist run including these Small Bids would be conducted to see if the revenue requirements of the least-cost portfolio increases or decreases. If the revenue requirements decrease with the addition of the Small Bids, they would be included in the final portfolios.

For certain generation types (e.g. hydro or gas-fired micro-turbines), the Company would not typically expect to receive bids in excess of 10 MW. For such situations, the lowest all-in LEC proposals (up to a maximum of three per technology) would be advanced to computer modeling and portfolio development along with those bids  $\geq 10$  MW in Step 5 above. To the extent the Strategist model selected all three of the lowest all-in LEC proposals and other proposals for the same technology were also received, then ad hoc Strategist runs would be conducted to determine the cost-effectiveness of these other proposals.

Bidders whose Small Bid projects are passed forward to computer modeling of bid portfolios after the 45 day report will be notified of their project's advancement pursuant to rule 3613(a).

### **Step 7 – Phase II Report to Commission**

Pursuant to rule 3613(d), the Company will file a 120-day report to the Commission describing the cost-effective resource plans that conform to the Commission's Phase I decision.

### **5.2 Independent Evaluator Report**

Within thirty (30) days following the Company's 120-day report filing, the IE will report to the Commission its analysis of whether the Company conducted a fair bid solicitation and bid evaluation process, with any deficiencies specifically reported.

### **5.3 Phase II Commission Evaluation**

Within 90 days of the Company's filing of its 120-day report, the Commission will issue a written decision approving, conditioning, modifying, or rejecting the Company's preferred cost-effective plan. The Company is required to complete this RFP process within 18 months after the receipt of bids unless the Company can show good cause for a requested deadline extension.

## Appendix A

### *Proposal Forms and Instructions*

As discussed in Section 4, the completed forms, attachments and narrative topic discussions, will comprise a complete proposal, except that Form I need not be completed by a bidder who has already entered into a formal interconnection process for their project. The contents of each form and any special instructions for completing the forms are described below. These forms can be downloaded from the RFP web site in a format appropriate for respondent input.

If additional space is needed to elaborate on information requested on any form, please attach additional sheets with the heading "Form [ ] – Additional Information."

If certain information is requested that does not apply to the proposal, the respondent must indicate that the information is not applicable. If appropriate, the respondent should explain why the information is not applicable.

In addition to submitting four (4)<sup>15</sup> hard copies of the proposal, respondents must also include three (3) electronic copies (CD, DVD or flashdrive) with all completed Forms in executable format, i.e. not PDF. The Company will provide the IE with one electronic copy of the proposal and, at their request, one hard copy.

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<sup>15</sup> Respondents are required to submit only one (1) hard copy of their financial data with each proposal.

## Appendix B

### *General Planning Assumptions*

The following planning assumptions will underlie the evaluation of proposals received in response to the Company's Solicitation. Note that the following is not a complete listing of all assumptions that will be applied in the evaluation process. Further note that the assumptions noted below represent "base case" assumptions. Sensitivity analyses will be performed in which certain of these assumptions are altered in accordance with Commission directives. To the extent any of these general planning assumptions are updated after release of this 2017 RFP, the updated values will be provided to the Commission and made available to all potential respondents and parties.

**(this Appendix to be updated prior to the RFP release to reflect then-current information and the Commission's Phase I Decision)**

## Appendix C

### Transmission Costs

#### 1. Power Delivery Requirements

Proposals must specify delivery of capacity and energy to the Public Service system at a point of delivery within or at the boundary of the Public Service Control Area and at a Public Service-owned transmission facility.

#### 2. Proposals Requiring Third-Party Transmission Service

For proposals that will require third-party transmission service(s) for the delivery of capacity and energy to the bid-specified point of delivery on the Public Service system, respondents are responsible for any interconnection, electric losses, transmission and ancillary service arrangements required to deliver the proposed capacity and energy to the bid-specified point of delivery on a firm basis. Such proposals must identify all third-party interconnections, electric losses, transmission and ancillary service providers, components and costs, provide a complete description of those service arrangements and provide documentation that such service(s) will be available to a RFP respondent or the Company during the full term of service proposed. The cost of all such third party services, for which a RFP respondent intends to seek compensation from the Company, must be included in the bid prices provided on the applicable forms. Respondents should recognize that wheeling and other costs associated with such services may adversely affect the cost-effectiveness of their proposals.

#### 3. Interconnection Costs

Proposals that will require a new or upgraded electrical interconnection to the Public Service transmission system should include in their proposal pricing any costs for the generator interconnection facilities. To clarify, these are the facilities between the generation project and the point of interconnection to the Public Service transmission system (these types of facilities are commonly referred to as “Generator Interconnection Facilities” and “PSCo-Owned, Customer Funded Interconnection Facilities” in the LGIP and SGIP). Because these facilities are not considered a part of the transmission system, they are part of the cost of the generation project and must therefore be incorporated in the proposal pricing. The following table includes an estimated cost at each voltage level that should be considered if the PSCo (or other Transmission Provider)-Owned, Customer-Funded interconnection cost has not been otherwise estimated for the project, e.g., in an interconnection study report from the Transmission Provider.

Voltage	PSCo-Owned, Customer-Funded Interconnection Facilities Estimated Cost
69 kV	\$660,000
115 kV	\$750,000
230 kV	\$1,200,000
345 kV	\$1,800,000

If the bidder has an active LGIP request, the bidder should provide the LGIP or SGIP identifier(s) associated with its project in its proposal. Bidders are urged not to submit a generation interconnection request or transmission service request pursuant to the Xcel Energy Open Access Transmission Tariff ("OATT") to receive these interconnection cost estimates.

As discussed in Section 5.1 of this RFP, proposal-specific cost estimates of Generator Interconnection Facilities provided by bidders in Form D2 will be verified or determined by the Company and, if required, Company estimates will be provided back to bidders so that they can update their bid pricing as needed. Such bidders must submit final bid pricing back to the Company within 5 calendar days of the date the interconnection cost estimates are provided. These estimates and other transmission and interconnection-related information will be posted, as required, on the Company's OASIS<sup>16</sup> in a manner that preserves individual bidder confidentiality. Information posted on the Company's OASIS will not identify bidder Company name but rather will identify location of proposed interconnection, generation capacity and type proposed, and a summary of the study results.

#### **4. Application of the Xcel Energy OATT**

The Company anticipates that all transmission usage rights associated with bids selected through this RFP will be "network" use rights held by the Company. Under FERC Order No. 888<sup>17</sup> where the Company will hold the transmission service rights, the Company must provide non-discriminatory access to its transmission system, and must designate network resources in the same manner as a similarly situated OATT customer. In addition, under FERC Order No. 2003 (August 2003), Order No. 2003-A (March 2004), Order No. 2003-B (January 2005),<sup>18</sup> all new requests for interconnection of a large generator (larger than 20 MW) to the Public Service transmission system, including interconnection requests associated with this RFP, must be administered in a non-discriminatory manner in compliance with the LGIP contained in the Xcel Energy OATT. Likewise, under FERC Order No. 2006 (May 2005), Order No. 2006-A (November 2005), and Order No. 2006-B (July 2006),<sup>19</sup> all new requests for interconnection of a small generator (less than 20 MW) to the Public Service

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<sup>16</sup> Information regarding posted studies may be found on the public site [http://www.rmao.com/wtpp/psco\\_studies.html](http://www.rmao.com/wtpp/psco_studies.html). This website does not require registration to view, while the Company's OASIS site located at <http://www.westtrans.net> does require registration.

<sup>17</sup> Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities and Transmitting Utilities, Order No. 888, F.E.R.C. Stats. & Regs. 31,036, (1996) ("Order No. 888"), order on reh'g, Order No. 888-A, F.E.R.C. Stats. & Regs. 31,048 (1997), order on reh'g, Order No. 888-B, 81 F.E.R.C. ¶ 61,248 (1997) ("Order No. 888-B"), order on reh'g, Order No. 888-C, 82 F.E.R.C. ¶ 61,046 (1998), *aff'd New York, et al. v. FERC*, 122 S.Ct. 1012 (2002).

<sup>18</sup> *Standardization of Generator Interconnection Agreements and Procedures*, Order No. 2003, 68 Fed. Reg. 49,845 (Aug. 19, 2003); FERC Stats. & Regs. ¶ 31,146 (2003); *reh'g granted*, Order No. 2003-A, 106 FERC ¶ 61,220 (March 5, 2004), 69 Fed. Reg. 15932 (March 26, 2004); Order No. 2003-B, 109 FERC ¶ 61,287, 70 Fed. Reg. 264 (January 4, 2005).

<sup>19</sup> *Standardization of Small Generator Interconnection Agreements and Procedures*, Order No. 2006, 70 FR 34100 (Jun. 13, 2005), FERC Stats. & Regs. ¶ 31,180 (2005), (Order No. 2006), order on reh'g, Order No. 2006-A, 70 FR 71760 (Nov. 30, 2005), FERC Stats. & Regs. ¶ 31,196 (2005).

transmission system, including interconnection requests associated with this RFP, must be administered in a non-discriminatory manner in compliance with the SGIP contained in the Xcel Energy OATT.

## **5. LGIP and SGIP Interconnection Studies**

Given the short period of time available to evaluate bids, the Company's evaluation team and the Company's Transmission Access group and Transmission Function will employ an abbreviated process for estimating the transmission Network Upgrades, associated costs and construction timeframes necessary to deliver power from proposed facilities to customer loads. In general, this abbreviated process will consist of four stages:

*Stage 1* – The Transmission Access group will rely on existing LGIP or SGIP studies posted on the Public Service OASIS to determine/verify bid-specific interconnection and delivery facilities and costs.

*Stage 2* – The evaluation team will develop a number of portfolios of bids that will meet the Company's needs and the various Commission directives. The Transmission Access group will provide estimates of the network facilities and upgrades required for each portfolio and provide that information to the Transmission Function.

*Stage 3* – The Transmission Function will review the Transmission Access group's estimates of network facilities and upgrades and modify as deemed appropriate. The resulting cost information will be used to determine the bid's levelized energy cost in initial economic screening and will be in the computer-based modeling in the event the bid is advanced to computer-based modeling.

*Stage 4* – Depending on the number of bids received and their location, the Company may decide to also utilize the "Resource Solicitation Cluster" provisions contained in the Xcel Energy OATT for providing more refined estimates of network facilities and upgrades necessary to deliver power from portfolios of bids to customer loads. If this process is utilized, the Transmission Access Group will submit portfolios into the LGIP or SGIP for consideration. A given portfolio submitted into the LGIP or SGIP will occupy a single queue position (based on the date of the portfolio Interconnection Request) for the required Interconnection studies. This Stage will likely not be completed prior to the end of the 120 day evaluation period.

Each bid passed to the Transmission Function for study in the Resource Solicitation Cluster that requires a new or expanded transmission interconnection must provide an Interconnection Request deposit of \$50,000 (or such other amount as is required under the LGIP or SGIP provisions of the Xcel Energy OATT)<sup>20</sup> which will be forwarded to the Transmission Function to pay the cost of Feasibility and/or System Impact studies that will be performed for each portfolio.

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20 The bidder must demonstrate "site control," which the OATT defines as "documentation reasonably demonstrating: (1) ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the Generating Facility; (2) an option to purchase or acquire a leasehold site for such purpose; or (3) an exclusivity or other business relationship between Interconnection Customer and the entity having the right to sell, lease or grant Interconnection Customer the right to possess or occupy a site for such purpose."

Once the Transmission Function has completed the Feasibility and/or System Impact studies, the study results will be posted on the Company's OASIS in a manner that preserves individual bidder confidentiality. Respondents ultimately selected through this process must work directly with the Transmission Function from this point to complete the LGIP or SGIP process and execute an LGIA or SGIA.

Respondents that fail to provide the required LGIP study deposits at any time will be removed from the interconnection queue and will be removed from further consideration in the evaluation process. As required by the OATT, the Transmission Function will refund to bidders all LGIP and SGIP study fees not expended or will bill bidders for any study costs exceeding the deposited amount. The Transmission Access group will act as each bidder's Authorized Representative only through the System Impact Study phase.

**6. Network Designation and Funding of Transmission System Upgrades For Interconnection**

- Network Resource Designation:

As indicated above, the Company anticipates that it will declare each proposal selected through this RFP as a Network Resource of the Company, and that the Company will bear the cost of any network transmission service on the Public Service system (whether or not procured under the OATT) for a proposal that is selected and achieves commercial operation. Each selected proposal not requiring a new transmission interconnection (e.g., either a generator already connected to the Public Service transmission system or each off-system generator not connected to the Public Service transmission system) and each portfolio of bids requiring new or expanded generation interconnections will be evaluated as proposed designated Network Resources pursuant to Article III of the OATT.

- Funding of Network Upgrades for Interconnection:

For purposes of achieving an interconnection, the Company's LGIP provides for the option of funding the network upgrades or requiring the interconnection customer (i.e., the respondent) to fund such upgrades and receive revenue credits based on future transmission services used by the interconnection customer or through some other refunding mechanism.

The Company will make a determination about which, if any, interconnection costs are to be financed by respondents after it completes the LGIP studies that are conducted in connection with this RFP. If the Company determines that certain infrastructure costs are to be funded by respondents, any financing arrangements will be negotiated as part of the LGIA or SGIA.

## **Appendix D**

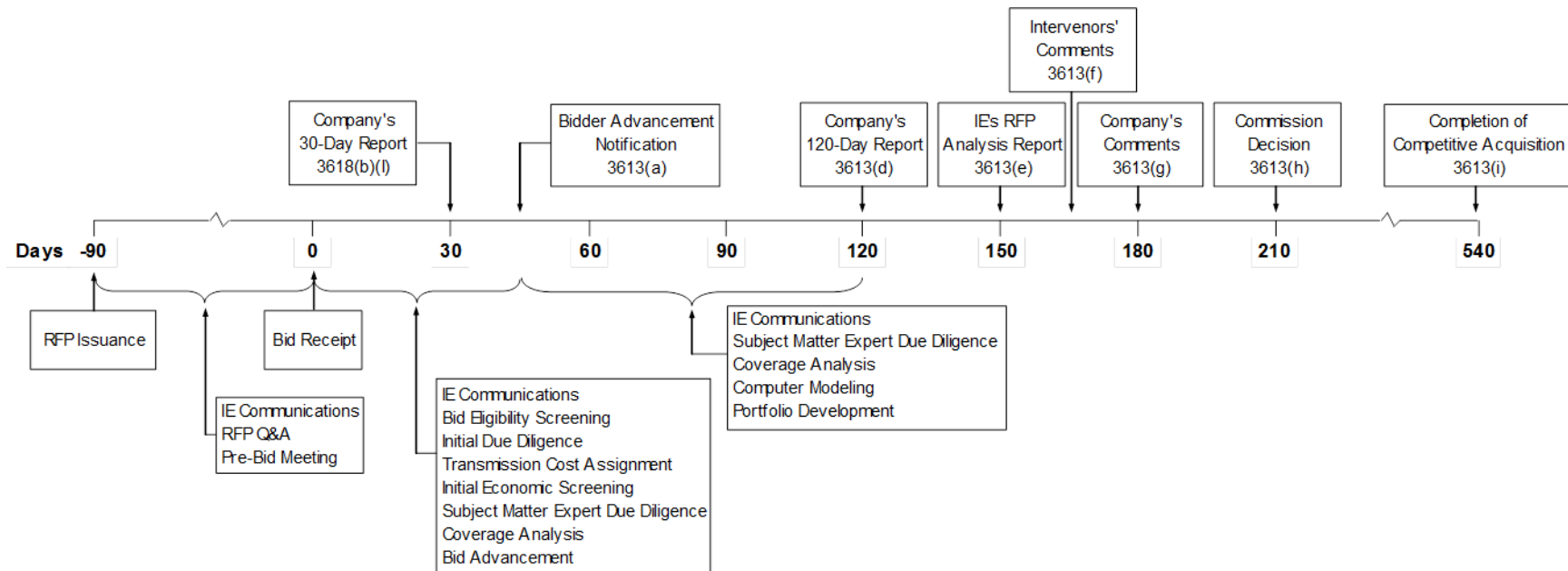
### **Model Dispatchable Power Purchase Agreement**

**See file titled PSCo2017\_PPA\_Dispatchable.doc**



## Appendix E

### Solicitation Timeline



## **Appendix F**

### **Commission Confidentiality Order**

#### **BIDDER HIGHLY CONFIDENTIAL NONDISCLOSURE AGREEMENT**

I, \_\_\_\_\_, state that I am employed by a bidder in Public Service Company of Colorado's 2017 Solicitation.

For purposes of this highly confidential nondisclosure agreement "Potential Resource" means the new or existing resource of the bidder by which I am employed.

For purposes of this highly confidential nondisclosure agreement "Highly Confidential Information" means highly confidential modeling inputs and assumptions that reasonably relate to the Potential Resource or to the transmission of electricity from that Potential Resource to Public Service.

I understand that I may obtain Highly Confidential Information for the sole purpose of assisting the bidder to identify modeling errors or omissions concerning its Potential Resource so that the modeling errors or omissions may be corrected before the competitive acquisition process is completed.

I hereby state that I have read the protective provisions relating to confidential information contained in 4 Code of Colorado Regulations 723-1-1100 through 1104. With respect to all Highly Confidential Information that may be provided to me, I agree to be bound by the terms of the protective provisions contained in 4 Code of Colorado Regulations 723-1-1100.

I hereby state that I will properly implement and maintain extraordinary confidentiality provisions for the Highly Confidential Information I receive.

I hereby state that the Highly Confidential Information I receive shall not be used or disclosed for any purpose other than assisting the bidder to identify modeling errors or omissions concerning its Potential Resource so that the modeling errors or omissions may be corrected before the 2017 Solicitation competitive acquisition process is completed.

I hereby state that I will not disclose or disseminate any Highly Confidential Information I receive to any third party other than to those who are specifically authorized to review such Highly Confidential Information and who have signed a highly confidential nondisclosure agreement. At the conclusion of the 2017 Solicitation competitive acquisition process, I agree to return all Highly Confidential Information to Public Service Company of Colorado.

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Name

---

Title

---

Employer or Firm

---

Business Address

---

Bidder Represented

---

Date

---

Signature

**Form A – Notice of Intent to Respond**

**Public Service Company of Colorado 2017 Solicitation**

**Notice of Intent to Respond**

Company Name		
Address		
City	State	ZIP
Company Representative Name		
Signature		
Email	Phone Number	FAX Number
Project Name	Generation Technology (e.g., CT, CC)	
Net Capability (MW)	Summer Full Load Heat Rate (Btu/kWh)	
Project Location (City, County, State)	Proposed Commercial Operation Date	PPA – Contract Term (years)
<input type="checkbox"/> Project Proposed as a Section 123 Resource		
Notes (as appropriate)		

Submit the NOIR by email to xxxx@xcelenergy.com by xxxx.

## Form B - Bid Certification

The bidder hereby certifies that all of the statements and representations made in this proposal are true to the best of the bidder's knowledge and belief, and agrees to be bound by the representations, terms, and conditions contained in the RFP including restrictions on the bidder's claims of confidentiality. The bidder accepts the Model PPA included in the RFP, except as specifically noted in writing. The bidder certifies that (i) the bidder has considered applicable accounting standards in regard to capital lease and variable interest entities, and (ii) to the bidder's knowledge and belief, the bidder's proposal should not result in capital lease or VIE treatment to Public Service. The bidder acknowledges that the officer whose signature appears below is able to contractually commit the bidder for its proposal.

Submitted by:

(exact legal name of firm)

Bidder:

(if different than above)

Signature of an  
officer of bidder:

Name of officer:

Title:

Date Signed:

**Form C - Bid Cover Sheet**

1) **Project / Facility Name:** \_\_\_\_\_

2) **Project Location (city, county, state):** \_\_\_\_\_  
**(latitude, longitude):** \_\_\_\_\_ °N \_\_\_\_\_ °W  
(decimal format; accurate to three (3) decimal places)

3) **Bidder Contact:**  
The individual whose name appears as the Bidder Contact will be the person designated by the bid respondent to receive notice pursuant to Commission rule 3613(a) as it pertains to the Company's 45-day report to bidders.  
Name: \_\_\_\_\_  
Company: \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone / Fax: \_\_\_\_\_  
email: \_\_\_\_\_

4) ☐ **Alternate Contact:** ☐  
☐ Name: \_\_\_\_\_  
☐ Company: \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone / Fax: \_\_\_\_\_  
☐ email: \_\_\_\_\_

5) **Sale Type: (check all that apply)**  
☐ Qualifying Facility ☐ Sale from Greenfield Facility  
☐ Exempt Wholesale Generator ☐ Sale from Existing Facility  
☐ Sale from Utility System ☐ Sale from Modification of Existing Facility  
Other (describe) \_\_\_\_\_

6) **Generation Technology:** (general description, including manufacturers and model numbers where applicable)  
\_\_\_\_\_  
Generator is a Storage Facility \_\_\_\_\_

7) **Net Capability (MW):** \_\_\_\_\_ - **Capacity Availability Factor:** \_\_\_\_\_ 0.0%  
Net Capability is defined in the Model PPA as the maximum capacity the facility can provide at the Point of Delivery; the Net Capability cell above is populated from Form F1. Capacity Availability Factor (CAF) is defined as the estimated rolling 12-month ratio of (Available Energy + Scheduled Maintenance Energy) to Period Energy; see Article 8 of the Model PPA for a complete definition. The CAF cell above is populated from the calculation on Form D1; the Company will use the CAF calculated on the LEC tab for screening purposes.

8) **Point of Delivery:**  
Point of Delivery is on the PSCo Distribution System \_\_\_\_\_

9) **Fuel Type:** primary: \_\_\_\_\_ secondary: \_\_\_\_\_

10) **Commercial Operation Date:** \_\_\_\_\_ 11) **PPA Term (years)** \_\_\_\_\_

12) **Estimated Useful Life of Facility at Commercial Operation Date (years):** \_\_\_\_\_

13) **Name of Utility Providing Retail Service at Proposed Location:** \_\_\_\_\_

\* Unless noted otherwise, kW, kWh, MW, MWh refer to AC power and energy.

### Form D1 - Pricing

Enter fixed payment rates (in \$/kW-mo), if any, proposed for each year of the PPA in the column labeled Capacity Price. Enter variable payment rates (e.g., energy, variable O&M, or tolling) (in \$/MWh), if any, proposed to be paid for each MWh of energy delivered to the point of delivery in the columns labeled Tolling Price. Enter the proposed cost (in \$ per turbine start), if any, to be paid for each requested turbine start successfully performed in the columns labeled Turbine Start Price.

For storage projects, enter proposed Capacity Price and any variable charges as Primary Fuel Tolling Price, as applicable. Turbine Start Prices do not apply to storage projects.

All prices should be entered in nominal dollars. Prices may be fixed for the proposed term, escalate at a known rate, or escalate with an index that is clearly and closely tied to the item being escalated. Regardless, the first year's pricing must be fixed.

As a demonstration of your understanding of the impact of your proposed Net Capability and your estimate of the Capacity Availability Factor on the projected annual capacity payments pursuant to the Article 8 of the Model PPA, complete the Average Annual Capacity Payment section at the bottom of this form.

Number of turbines subject to Start Price for a complete facility start:   
(e.g., enter "2" for a 2x1 combined cycle)

Commercial Operating Year	Capacity Price (\$/kW-mo)	Primary Fuel		Secondary Fuel	
		Tolling Price (\$/MWh)	Turbine Start Price (\$/turbine start)	Tolling Price (\$/MWh)	Turbine Start Price (\$/turbine start)
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

Notes to Pricing:

### Average Annual Capacity Payment

Complete the Average Annual Capacity Payment section below. The Capacity Availability Factor is defined as the rolling 12-month ratio of (Available Energy + Scheduled Maintenance Energy) to Period Energy; see Article 8 of the Model PPA for a complete definition. For the estimated Annual Capacity Payment calculation below, assume that the REA factor indicated in Article 8 is equal to 1.0. If the bidder expects the REA factor to be less than 1.0, indicate so in the Notes section above and fully explain in the Bid Narrative.

In its bid evaluation processes, the Company will estimate annual capacity payments as the product of the Net Capability as proposed by the bidder, the annual Capacity Price on Form D1, an REA equal to 1.0, and a CAF calculated as the average of the Winter and Summer Capacity (Base + Supplemental) from Form F1 times (1 - Expected Forced Outage Rate) divided by the bidder's Net Capability from Form F1. Note that the Company will utilize the Company's estimate of EFOR from the LEC tab for screening and not the bidder's EFOR provided on Form F2.

Net Capability (MW)	<input type="text"/>	Available Energy (MWh)	<input type="text"/>
Capacity Price (\$/kW-mo)	<input type="text"/>	Scheduled Maintenance Energy (MWh)	<input type="text"/>
Annual Capacity Payment (\$000s)	\$ <input type="text"/> -	Period Energy (MWh)	<input type="text"/>
		Capacity Availability Factor	<input type="text"/> -

## Form D2 - Electric Interconnection Cost Estimates

### 1) Electric Interconnection Costs Included in Form D1 Pricing

LGIP Identifier (or source of estimate if no LGIP)	
Generator Interconnection Facilities (including Radial Lines)	\$ -
PSCo-Owned, Generator-Funded Interconnection Facilities	\$ -

### 2) 3rd-Party Transmission Costs Included in Form D1 Pricing

3rd-Party Transmission Provider	
Wheeling and Ancillary Charges:	
OATT Schedule 1 (\$/kW-mo)	\$ -
OATT Schedule 2 (\$/kW-mo)	\$ -
OATT Schedule 7 (\$/kW-mo)	\$ -

### 3) Electric Interconnection Costs Not Included in Form D1 Pricing (List, if known; else, Public Service will estimate and complete)

LGIP Identifier (or source of estimate if no LGIP)	
PSCo-Owned, PSCo-Funded Interconnection Facilities	
Network Upgrades for Delivery	

### 4) Wheeling Losses

If the facility is not located at the Point of Delivery, provide an estimate of the wheeling losses between the facility and the Point of Delivery.	0.0%
---	------



**Form E - Construction Milestones**

Insert the proposed date for each milestone shown here as would be found on the detailed Development Schedule provided with the proposal. Milestones should be based on the requirements to achieve the proposed commercial operation date. See the Model PPA for defined terms.

<b>Construction Milestone Date</b>	<b>Construction Milestones</b>
	Seller and all required counterparties have executed major procurement contracts, the Construction Contract, any operating agreements, and the Interconnection Agreement needed to commence construction of the Facility.
	Seller shall have achieved closing on financing for the Facility or provided Company with proof of financial capability to construct the Facility.
	Seller shall have laid the foundation for all Facility buildings, generating facilities and step-up transformation facilities.
	The turbine(s)/generator(s)/step-up transformer shall have been delivered to, and installed at, the Site.
	All fuel supply and transportation arrangements have been put in place and fuel interconnection facilities in have been constructed and are operational.
	Seller shall have constructed Seller's Interconnection Facilities and such facilities are capable of being energized.
	Start-up testing of the Facility commences.
	Commercial Operation Milestone.

### Form F1 - Contract Capacity

Provide estimated summer and winter Contract Capacities and Net Capability (in MW) that would be available to PSCo over the proposed contract term. The values should reflect the average summer and winter capacities during the commercial operating year at the Point of Delivery and must be net of all parasitic loads and house power requirements. Neither the summer or winter Contract Capacity should exceed the Net Capability.

If the proposal includes any supplemental capacity (whether from duct-firing, steam injection, or any other type), indicate the amounts available under summer and winter conditions. Note any limitations including, but not limited to, emission permitting limitations on the availability of such supplemental capacity. The Base and Supplemental Contract Capacity values should match the values provided on Form F3 for 100% summer and winter unit loadings.

Summer Contract Capacity should be based on an ambient temperature of 95 degrees Fahrenheit, 30% relative humidity, and altitude adjusted. Winter Contract Capacity should be based on an ambient temperature of 6 degrees Fahrenheit, 68% relative humidity, and altitude adjusted.

Commercial Operating Year	Summer Contract Capacity (MW)		Winter Contract Capacity (MW)		Net Capability (MW)
	Base	Supplemental	Base	Supplemental	
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

Notes to Contract Capacity:

## Form F2 - Facility Performance

### 1) Outages:

Annual Expected Forced Outage Rate  
(%):

Expected Average Annual  
Maintenance Requirements  
(days/year):

### 2) Manual Control:

Lowest stable operating point on  
manual control  
(% of full load):

Highest stable operating point on  
manual control  
(% of full load):

Normal Up Ramp Rate on  
manual control (MW/min):

Normal Down Ramp Rate on  
manual control (MW/min):

Emergency Up Ramp Rate on  
manual control (MW/min):

Emergency Down Ramp Rate on  
manual control (MW/min):

### 3) Automatic Generation Control (leave blank if no AGC capability):

Lowest stable operating point on  
AGC (% of full load):

Highest stable operating point on  
AGC (% of full load):

Maximum Up Ramp Rate on  
AGC (MW/min):

Maximum Down Ramp Rate on  
AGC (MW/min):

### 4) Start Times (time to start unit, sync to grid, and reach minimum load):

Off-line for 6 hours (minutes):

Off-line for 8 hours (minutes):

Off-line for 12 hours (minutes):

Off-line for 3 days (minutes):

Maximum load achievable in  
10 minutes (% of full load):

Maximum load achievable in  
15 minutes (% of full load):

Maximum load achievable in  
30 minutes (% of full load):

### 5) Minimum Up Time (min. time between generator breaker close and re-open) (minutes):

### 6) Minimum Down Time (min. time generator must be off-line before restarting) (minutes):

### 8) Consumptive Water Use (gallons/MWh at 100% annual average base capacity)

Notes to Facility Performance:

**Form F3 - Heat Rates**

For proposals involving tolling or other fuel-indexed arrangements, enter the average summer and winter heat rates at the unit loading levels indicated. Heat rates must be stated at the higher heating value (HHV), ambient air pressure of 14.7 psi at sea level adjusted to site elevation, and 95° F and 30% RH for summer conditions and 6° F and 68% RH for winter conditions.

Unit Loading	Summer		Winter	
	Capacity (MW)	Heat Rate (Btu/kWh)	Capacity (MW)	Heat Rate (Btu/kWh)
Lowest stable operating point				
Lowest stable operating point on AGC				
25% of base capacity				
50% of base capacity				
75% of base capacity				
100% of base capacity				
100% of base capacity, plus 100% of supplemental capacity				

Notes to Heat Rates:

## Form F4 - Heat Rate Degradation

For proposals involving tolling or other fuel-indexed arrangements, enter the predicted percentage degradation in the facility's HHV heat rate at ambient summer conditions (95° F, 30% RH, and ambient air pressure of 14.7 psi at sea level adjusted to site elevation).

Bidders should indicate if predicted heat rates are tied to unit maintenance, and if so, provide details. If Form F3 shows flat heat rates with no degradation, the proposal should indicate that bidder does not want the guaranteed heat rate to change over the term of its proposed PPA.

Operating Hour Range		Percentage Degradation	Heat Rate (Btu/kWh)
Period Start (Hrs)	Period End (Hrs)		
0			
-			
-			
-			
-			
-			
-			
-			
-			
-			
-			

Notes to Heat Rate Degradation:

**Form F5 - Energy Storage Projects**

Provide a complete technical description of a proposed energy storage project in the Project and Equipment Description Narrative Topics. For energy storage proposals, ensure that the "Generator is a Storage Facility" box is checked on Form C under Section 6, "Generation Technology".

Discharge Capacity (MW)	
Charge Capacity (MW)	
Stored Energy (Discharge Basis) (MWh)	
Cycle Efficiency (MWh Discharge / MWh Charge)	
Maximum Cycles per Day	
Estimated Life (cycles)	

Notes to Energy Storage Projects:

## Form F6 - Section 123 Qualifications

In Decision C13-0094, the Colorado Public Utilities Commission set out its criteria for a proposed project to qualify as a Section 123 resource. For those bids claiming Section 123 status, to meet the Commission's definitions of "New" indicate in Question 1 under Method 1 and/or Method 2 below the attributes of the proposed project for which Section 123 status is claimed. To meet the Commission's definition of "Clean" complete Question 2.

### 1) Qualification as New:

#### Method 1

List the proposed technology or technologies that have not been regularly commercially demonstrated, within Colorado or elsewhere, for which Section 123 status is claimed:

What percent of the overall installed cost is represented by this technology or technologies?

#### Method 2

List the proposed technology that has not before been implemented in the proposed configuration:

### 2) Qualification as Clean:

List the attributes of the proposed project that demonstrate that it would likely cause 1) a decrease in greenhouse gas emissions or significantly reduce other pollutants and/or 2) result in reduced water usage:

**Form G1 - Natural Gas and Backup Fuel Supply**

**1) Natural Gas Supply**

Identify whether the proposal is for a tolling arrangement or an electric energy sale arrangement. For tolling bids, identify the pipeline to which the bidder plans to interconnect. For energy sale (non-tolling) bids in which bidder plans to acquire and manage the fuel supply, describe supply plan and identify all contracts that support the supply of firm gas transportation and firm supply to the proposed plant.

--

**2) Natural Gas Interconnection**

Describe the gas interconnection facilities that have been included in the Form D1 bid price, including the size, length and location of the lateral interconnection and fuel delivery point. State the capital cost estimates included in the Form D1 pricing and the change in that pricing for a \$100,000 change in the capital cost estimate. Attach a USGS-based map showing the gas pipeline delivery point, the location of any lateral lines, compressors and meters.

--

Gas interconnection capital costs included in Form D1 pricing:


Impact on Form D1 prices for a \$100,000 change in capital cost estimate (\$/kW-mo, levelized):

**3) Natural Gas Pressure**

Minimum pressure required at gas interconnection point:

	(psig)
--	--------

Maximum pressure required at gas interconnection point:

	(psig)
--	--------

Minimum pressure required at plant burner tip:

	(psig)
--	--------

Gas delivery pressure **guaranteed** by the interconnecting pipeline at the fuel delivery point:

	(psig)
--	--------

**4) Natural Gas Quantities**

Indicate the maximum daily and hourly gas consumption at the proposed plant.

Maximum Daily Consumption for Electrical Generation (MMBtu/day)

Summer	Winter

Maximum Hourly Consumption for Electrical Generation (MMBtu/hour)

--	--

Describe any ancillary equipment which may utilize fuel when the facility is off-line and describe who is responsible for the ancillary gas usage costs. Indicate the maximum ancillary volumes below.

--

Maximum Daily Consumption for Ancillaries (MMBtu/day)

Summer	Winter

Maximum Hourly Consumption for Ancillaries (MMBtu/hour)

--	--

**5) Natural Gas Quality**

Indicate if any of the following pipelines have **unacceptable** gas quality. If yes, indicate in Notes why.

- ☐ Colorado Interstate Gas  
☐ Wyoming Interstate Gas  
☐ Public Service Company of Colorado

**6) Secondary Fuel Supply**

If secondary, on-site fuel storage is proposed, describe the fuel type, including quality specifications, quantity, maximum number of full-load run hours on secondary fuel, and levelized Capacity Price reduction for the same project with no backup fuel capability.

--

Proposed secondary fuel, on-site storage volume (gallon)


Estimated, Net Capability run hours on secondary fuel (hours)

Reduction in Form D1 Capacity Price for project with **no** backup fuel supply  
(levelized \$/kW-mo)


Notes to Gas Supply:

--



## Form G2 - Solid Fuel Information and Carbon Capture/Sequestration

\* This form applies only to proposals for coal-fired projects that feature carbon dioxide capture and sequestration

- 1) Describe the type and design of the proposed boiler:
- 2) Provide the following fuel specifications:

Fuel Type	<input type="text"/>	Sulfur Content	<input type="text"/>
Heat Content	<input type="text"/>	Ash Content	<input type="text"/>
Moisture Content	<input type="text"/>	Ash Fusion Temp.	<input type="text"/>
- 3) Describe the type(s) and source(s) of the fuel:
- 4) Describe the fuel procurement plan in terms of the percentage of total fuel that will be procured from a spot market versus contracts longer than 5 years in length:
- 5) Describe the fuel transportation / supply plan, including all railroad(s), truck routes, quantities and frequencies. Explain any highway or rail improvements that may be necessary to accommodate the proposed transportation plan, such as paving, bridges, new spurs, etc., as well as plans for accomplishing such improvements.
- 6) Identify all rail carriers and describe the status of any transport negotiations or agreements, including any known or anticipated freight rates.
- 7) Describe any governmental approvals or permits required related to fuel supply and transport.
- 8) Plans for ash removal, marketing and disposal:
- 9) Fuel sulfur content and SO2 emissions:
- 10) Emission control costs (e.g., re-agent consumption):
- 11) Fuel scheduling (e.g., the Company would prefer flexibility to vary schedules):
- 12) Fuel commodity ownership during transportation:
- 13) Fuel unloading arrangements:
- 14) Ownership of fuel inventory (the Company expects unrestricted access to inventory site):
- 15) Inventory verification (the Company expects unrestricted access to inventory site):
- 16) Fuel sampling, analysis and weights:
- 17) Fuel quality:
- 18) Administration of the fuel tolling contract:
- 19) Carbon Dioxide Capture and Sequestration Plan. Please include detailed information regarding the type of carbon capture the project will employ (e.g., underground sequestration, transportation via pipeline for EOR activities, etc.), the carbon capture technology the project will employ and the percentage of plant CO2 emissions that will be captured.

**Form H - Emission Rates**

Provide emission rate information for the proposed generator(s), including fuel requirements for base and supplemental capacity and/or freeze protection. See the Model PPA for a description of Planned Energy and its use in calculating the REA factor adjustment to a project's Capacity Payment. On this form, calculate Planned Energy based on the plant's estimated performance on Primary Fuel and Full Load on Base Capacity.

Planned Energy (MWh)

Emission Rates on <b>Primary Fuel</b> :		
	Full Load on Base Capacity (lbs/MMBtu)	Full Load on Base and Supplemental Capacity (lbs/MMBtu)
Oxides of Sulfur:	<input type="text"/>	<input type="text"/>
Oxides of Nitrogen:	<input type="text"/>	<input type="text"/>
Carbon Dioxide:	<input type="text"/>	<input type="text"/>
Carbon Monoxide:	<input type="text"/>	<input type="text"/>
Volatile Organic Compounds:	<input type="text"/>	<input type="text"/>
Particulate Matter - PM10	<input type="text"/>	<input type="text"/>
Particulate Matter - PM2.5:	<input type="text"/>	<input type="text"/>
Lead:	<input type="text"/>	<input type="text"/>
Mercury:	<input type="text"/>	<input type="text"/>
Maximum NO <sub>x</sub> emission rate (in parts per million):		<input type="text"/>
Maximum CO emission rate (in parts per million):		<input type="text"/>
Maximum permitted/permittable annual capacity factor (% of Net Capability):		<input type="text"/>

Emission Rates on <b>Secondary Fuel</b> (if applicable):		
	Full Load on Base Capacity (lbs/MMBtu)	Full Load on Base and Supplemental Capacity (lbs/MMBtu)
Oxides of Sulfur:	<input type="text"/>	<input type="text"/>
Oxides of Nitrogen:	<input type="text"/>	<input type="text"/>
Carbon Dioxide:	<input type="text"/>	<input type="text"/>
Carbon Monoxide:	<input type="text"/>	<input type="text"/>
Volatile Organic Compounds:	<input type="text"/>	<input type="text"/>
Particulate Matter - PM10	<input type="text"/>	<input type="text"/>
Particulate Matter - PM2.5:	<input type="text"/>	<input type="text"/>
Lead:	<input type="text"/>	<input type="text"/>
Mercury:	<input type="text"/>	<input type="text"/>
Maximum NO <sub>x</sub> emission rate (in parts per million):		<input type="text"/>
Maximum CO emission rate (in parts per million):		<input type="text"/>
Maximum permitted/permittable annual capacity factor (% of Net Capability):		<input type="text"/>

Notes to Emission Rates:

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## **Public Service Company of Colorado 2017 Solicitation**

### **Additional Appendix A Forms**

<b>Form</b>	<b>Title</b>
<a href="#"><u>I1</u></a>	Small Generator – Distribution Interconnection
<a href="#"><u>I2</u></a>	Small Generator – Transmission Interconnection
<a href="#"><u>I3</u></a>	Large Generator – Transmission Interconnection

## **Form I1**

Small Generator Interconnection Information – Distribution Interconnection

## SMALL GENERATOR INTERCONNECTION INFORMATION

This Form should be completed by those bidders proposing to interconnect to the Company's distribution system. This is not a formal request to interconnect.

<b>OWNER/APPLICANT INFORMATION</b>			
Company:			
Representative:	Phone Number:	FAX Number:	
Title:	Email Address:		
Mailing Address:			
<b>PROPOSED LOCATION OF GENERATING PLANT AND PROPOSED INTERCONNECTION</b>			
Address:			
<b>PROJECT DESIGN / ENGINEERING</b>			
Company:			
Representative:	Phone:	FAX Number:	
Mailing Address:	Email Address:		
<b>ELECTRICAL CONTRACTOR</b>			
Company:			
Representative:	Phone:	FAX Number:	
Mailing Address	Email Address:		
<b>ESTIMATED LOAD INFORMATION</b>			
The following information will be used to help properly design the Xcel-Customer interconnection. This information is not intended as a commitment or contract for billing purposes.			
Minimum anticipated load (generation not operating):		kVA:	Time:
Maximum anticipated load (generation not operating):		kVA:	Time:

### **Existing Electric Service:**

Capacity: \_\_\_\_\_ Amperes      Voltage: \_\_\_\_\_ Volts  
 Service Character:    ☐ Single Phase      ☐ Three Phase

**Estimated In-Service Date:** \_\_\_\_\_

**Site Control Documentation:** Documentation of site control must be submitted with the interconnection request as required by Code of Colorado Regulations, CCR 4 723-3, Rule 3667.

Site Control: ☐ Ownership of Site    ☐ Option to Purchase Site    ☐ Other – Specify \_\_\_\_\_

## SMALL GENERATOR INTERCONNECTION INFORMATION

### Energy Producing Equipment/Inverter Summary:

Manufacturer: \_\_\_\_\_  
 Model No.: \_\_\_\_\_ Version No.: \_\_\_\_\_  
☐ Synchronous ☐ Induction ☐ Inverter ☐ Other \_\_\_\_\_  
 Rating: \_\_\_\_\_ kW Rating: \_\_\_\_\_ kVA  
 Generator Connection: ☐ Delta ☐ Wye Ungrounded ☐ Wye Grounded  
 Generator Voltage: \_\_\_\_\_ Volts  
 System Type Tested (Total System): ☐ Yes ☐ No; attach product literature  
 Equipment Type Tested: ☐ Yes (i.e. Inverter, Protection System) ☐ No; attach product literature  
 (Type Tested per IEEE 1547.1 or IEEE 929; i.e., Pre-certified)

(Complete all applicable items, Copy this page as required for additional generators)			
<b>SYNCHRONOUS GENERATOR DATA</b>			
Unit Designation:		Total number of units with listed specifications on site:	
Manufacturer:			
Type:		Date of manufacture:	
Serial Number (each):			
Phases: 1 or 3	Speed:	RPM:	Frequency: Hz
Rated Output (each unit) Kilowatt:		kW Kilovolt-Ampere: kVA	
Rated Power Factor: %	Rated Voltage: V	Rated Current: A	
Field Voltage: V	Field Current: A	Motoring Power: kW	
Synchronous Reactance ( $X_d$ ):	% on	kVA base	
Transient Reactance ( $X'_d$ ):	% on	kVA base	
Subtransient Reactance ( $X''_d$ ):	% on	kVA base	
Negative Sequence Reactance ( $X_s$ ):	% on	kVA base	
Zero Sequence Reactance ( $X_o$ ):	% on	kVA base	
Neutral Grounding Resistor (if applicable):	Yes No	Resistance:	Ohms
I <sup>2</sup> t or K (heating time constant):			
Exciter data:			
Governor data:			
Additional Information:			
<b>INDUCTION GENERATOR DATA</b>			
Rotor Resistance ( $R_r$ ):	Ohms	Stator Resistance ( $R_s$ ):	Ohms
Rotor Reactance ( $X_r$ ):	Ohms	Stator Reactance ( $X_s$ ):	Ohms
Magnetizing Reactance ( $X_m$ ):	Ohms	Short Circuit Reactance ( $X_d''$ ):	Ohms
Design Letter:	Frame Size:		
Exciting Current:	Temp Rise (deg C°):		
Rated Output:	kW		
Reactive Power Required:	kVAr (no Load)		kVAr (full load)
For a wound-rotor machine, describe external equipment to be connected (resistor, rheostat, power converter, etc.) to rotor circuit, and circuit configuration. Describe ability, if any, to adjust generator reactive power output.			

## SMALL GENERATOR INTERCONNECTION INFORMATION

<b>PRIME MOVER</b> (Complete all applicable items)				
Unit Designation:		Type:		
Manufacturer:				
Serial Number:		Date of Manufacture:		
H.P. Rated:	H.P. Max:	Inertia Constant:		lb.-ft. <sup>2</sup>
Energy Source (hydro, steam, wind, etc.):				
Additional Information:				
<b>Type of Interconnected operation</b>				
Long term Parallel operation:		Yes	No	
Closed momentary transition:		Yes	No	Transition Closed Time: seconds
Other (describe):				
<b>TRANSFORMER</b> (If applicable)				
Manufacturer:		kVA:		
Date of Manufacture:		Serial Number:		
High Voltage:	V	Connection: <input type="checkbox"/> delta <input type="checkbox"/> wye	Neutral solidly grounded? Yes No	
Low Voltage:	V	Connection: <input type="checkbox"/> delta <input type="checkbox"/> wye	Neutral solidly grounded? Yes No	
Transformer Impedance (Z):		% on	kVA base	
Transformer Resistance (R):		% on	kVA base	
Transformer Reactance (X):		% on	kVA base	
Neutral Grounding Resistor (if applicable)		Yes	No	Resistance: Ohms
Additional Information:				
<b>INVERTER DATA</b> (If applicable)				
UL Pre-certified per UL 1741 and IEEE 929?		Yes	No	Certification Number:
Manufacturer:		Model:		
Rated Power Factor (%):	Rated Voltage (Volts):	V	Rated Current (Amperes):	A
Inverter Type (ferroresonant, step, pulse-width modulation, etc.):				
Type of Commutation: <input type="checkbox"/> forced <input type="checkbox"/> line		Minimum Short Circuit Ratio required:		
Minimum voltage for successful commutation:				
Current Harmonic Distortion:		Maximum Individual Harmonic (%):		
		Maximum Total Harmonic Distortion (%):		
Voltage Harmonic Distortion:		Maximum Individual Harmonic (%):		
		Maximum Total Harmonic Distortion (%):		
Describe capability, if any, to adjust reactive output to provide voltage regulation:				
Additional Information:				
<b>NOTE:</b> Attach all available calculations, test reports, and oscillographic prints showing inverter output voltage and current waveforms.				

## SMALL GENERATOR INTERCONNECTION INFORMATION

<b>POWER CIRCUIT BREAKER</b> (if applicable)		
Manufacturer:		Model:
Rated Voltage: kV		Rated Ampacity (Amperes): A
Interrupting Rating: A		BIL Rating: kV
Interrupting Medium (vacuum, oil, gas, etc.):		Insulating Medium (vacuum, oil, gas, etc.):
Control Voltage (Closing): (Volts) <input type="checkbox"/> AC <input type="checkbox"/> DC		
Control Voltage (Tripping): (Volts) <input type="checkbox"/> AC <input type="checkbox"/> DC <input type="checkbox"/> Battery <input type="checkbox"/> Charged Capacitor		
Close Energy: <input type="checkbox"/> Spring <input type="checkbox"/> Motor <input type="checkbox"/> Hydraulic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Other		
Trip Energy: <input type="checkbox"/> Spring <input type="checkbox"/> Motor <input type="checkbox"/> Hydraulic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Other		
Bushing Current Transformers (Max. ratio):		Relay Accuracy Class:
Multi Ratio? <input type="checkbox"/> No <input type="checkbox"/> Yes: (Available taps):		
Construction Schedule:	Start date:	Completion date:
<b>MISCELLANEOUS</b> (Use this area and any additional sheets for applicable notes and comments)		

**ADDITIONAL REQUIREMENTS:** In addition to the items listed on this form, please attach:

- 1) Detailed One Line Diagram: ☐ Yes
- 2) Installation Test Plan: ☐ Yes
- 3) Site plan: ☐ Yes
- 4) Major equipment (generators, transformers, inverters, circuit breakers, protective relays, isolation disconnect, etc.) specifications: ☐ Yes
- 5) Relaying detail: ☐ Yes Date: \_\_\_\_\_
- 6) Metering telemetry: ☐ Yes Date: \_\_\_\_\_
- 7) Test reports attached: ☐ Yes Date: \_\_\_\_\_
- 8) Other applicable drawings or documents necessary for the proper design of the interconnection:  
Describe \_\_\_\_\_



## **Form I2**

Small Generator Interconnection Information – Transmission Interconnection

## SMALL GENERATOR INTERCONNECTION INFORMATION

This Form should be completed by those bidders proposing to interconnect to the Company's transmission system. This is not a formal request to interconnect.

### Transmission Provider:

Designated Contact Person: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

Fax: \_\_\_\_\_

E-Mail Address: \_\_\_\_\_

### Interconnection Customer Information

Legal Name of the Interconnection Customer (or, if an individual, individual's name)

Name: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Facility Location (if different from above): \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ Telephone (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Alternative Contact Information (if different from the Interconnection Customer)

Contact Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Telephone (Day): \_\_\_\_\_ Telephone (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Application is for:    \_\_\_\_\_ New Small Generating Facility  
                              \_\_\_\_\_ Capacity addition to Existing Small Generating Facility

If capacity addition to existing facility, please describe: \_\_\_\_\_

\_\_\_\_\_

Will the Small Generating Facility be used for any of the following?

Net Metering? Yes \_\_\_\_ No \_\_\_\_

To Supply Power to the Interconnection Customer? Yes \_\_\_\_ No \_\_\_\_

To Supply Power to Others? Yes \_\_\_\_ No \_\_\_\_

For installations at locations with existing electric service to which the proposed Small Generating Facility will interconnect, provide:

\_\_\_\_\_  
(Local Electric Service Provider\*)

\_\_\_\_\_  
(Existing Account Number\*)

[\*To be provided by the Interconnection Customer if the local electric service provider is different from the Transmission Provider]

Contact Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Telephone (Day): \_\_\_\_\_ Telephone (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Requested Point of Interconnection: \_\_\_\_\_

Interconnection Customer's Requested In-Service Date: \_\_\_\_\_

**Small Generating Facility Information**

Data apply only to the Small Generating Facility, not the Interconnection Facilities.

Energy Source: ☐ Solar ☐ Wind ☐ Hydro ☐ Hydro Type (e.g. Run-of-River): \_\_\_\_\_  
Diesel ☐ Natural Gas ☐ Fuel Oil ☐ Other (state type) \_\_\_\_\_

Prime Mover: ☐ Fuel Cell ☐ Recip Engine ☐ Gas Turb ☐ Steam Turb  
☐ Microturbine ☐ PV ☐ Other

Type of Generator: ☐ Synchronous ☐ Induction ☐ Inverter

Generator Nameplate Rating: \_\_\_\_\_ kW (Typical) Generator Nameplate kVAR: \_\_\_\_\_

Interconnection Customer or Customer-Site Load: \_\_\_\_\_ kW (if none, so state)

Typical Reactive Load (if known): \_\_\_\_\_

Maximum Physical Export Capability Requested: \_\_\_\_\_ kW

List components of the Small Generating Facility equipment package that are currently certified:

Equipment Type	Certifying Entity
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____

Is the prime mover compatible with the certified protective relay package? ☐ Yes ☐ No

Generator (or solar collector)

Manufacturer, Model Name & Number: \_\_\_\_\_

Version Number: \_\_\_\_\_

Nameplate Output Power Rating in kW: (Summer) \_\_\_\_\_ (Winter) \_\_\_\_\_

Nameplate Output Power Rating in kVA: (Summer) \_\_\_\_\_ (Winter) \_\_\_\_\_

Individual Generator Power Factor

Rated Power Factor: Leading: \_\_\_\_\_ Lagging: \_\_\_\_\_

Total Number of Generators in wind farm to be interconnected pursuant to this  
Interconnection Request: \_\_\_\_\_ Elevation: \_\_\_\_\_ \_\_\_ Single phase \_\_\_ Three phase

Inverter Manufacturer, Model Name & Number (if used): \_\_\_\_\_

List of adjustable set points for the protective equipment or software: \_\_\_\_\_

Note: A completed Power Systems Load Flow data sheet must be supplied with the Interconnection Request.

Small Generating Facility Characteristic Data (for inverter-based machines)

Max design fault contribution current: \_\_\_\_\_ Instantaneous \_\_\_ or RMS? \_\_\_

Harmonics Characteristics: \_\_\_\_\_

Start-up requirements: \_\_\_\_\_

Small Generating Facility Characteristic Data (for rotating machines)

RPM Frequency: \_\_\_\_\_

(\*) Neutral Grounding Resistor (If Applicable): \_\_\_\_\_

Synchronous Generators:

Direct Axis Synchronous Reactance,  $X_d$ : \_\_\_\_\_ P.U.

Direct Axis Transient Reactance,  $X'_d$ : \_\_\_\_\_ P.U.

Direct Axis Subtransient Reactance,  $X''_d$ : \_\_\_\_\_ P.U.

Negative Sequence Reactance,  $X_2$ : \_\_\_\_\_ P.U.

Zero Sequence Reactance,  $X_0$ : \_\_\_\_\_ P.U.

KVA Base: \_\_\_\_\_

Field Volts: \_\_\_\_\_

Field Amperes: \_\_\_\_\_

Induction Generators:

Motoring Power (kW): \_\_\_\_\_

$I_2^2t$  or K (Heating Time Constant): \_\_\_\_\_

Rotor Resistance,  $R_r$ : \_\_\_\_\_

Stator Resistance,  $R_s$ : \_\_\_\_\_

Stator Reactance,  $X_s$ : \_\_\_\_\_

Rotor Reactance,  $X_r$ : \_\_\_\_\_

Magnetizing Reactance,  $X_m$ : \_\_\_\_\_

Short Circuit Reactance,  $X_d''$ : \_\_\_\_\_  
Exciting Current: \_\_\_\_\_  
Temperature Rise: \_\_\_\_\_  
Frame Size: \_\_\_\_\_  
Design Letter: \_\_\_\_\_  
Reactive Power Required In Vars (No Load): \_\_\_\_\_  
Reactive Power Required In Vars (Full Load): \_\_\_\_\_  
Total Rotating Inertia, H: \_\_\_\_\_ Per Unit on kVA Base

Note: Please contact the Transmission Provider prior to submitting the Interconnection Request to determine if the specified information above is required.

Excitation and Governor System Data for Synchronous Generators Only

Provide appropriate IEEE model block diagram of excitation system, governor system and power system stabilizer (PSS) in accordance with the regional reliability council criteria. A PSS may be determined to be required by applicable studies. A copy of the manufacturer's block diagram may not be substituted.

**Interconnection Facilities Information**

Will a transformer be used between the generator and the point of common coupling? \_\_\_\_ Yes \_\_\_\_ No

Will the transformer be provided by the Interconnection Customer? \_\_\_\_ Yes \_\_\_\_ No

Transformer Data (If Applicable, for Interconnection Customer-Owned Transformer):

Is the transformer: \_\_\_\_ single phase \_\_\_\_ three phase? Size: \_\_\_\_\_ kVA  
Transformer Impedance: \_\_\_\_\_ % on \_\_\_\_\_ kVA Base

If Three Phase:

Transformer Primary: \_\_\_\_\_ Volts \_\_\_\_\_ Delta \_\_\_\_\_ Wye \_\_\_\_\_ Wye Grounded  
Transformer Secondary: \_\_\_\_\_ Volts \_\_\_\_\_ Delta \_\_\_\_\_ Wye \_\_\_\_\_ Wye Grounded  
Transformer Tertiary: \_\_\_\_\_ Volts \_\_\_\_\_ Delta \_\_\_\_\_ Wye \_\_\_\_\_ Wye Grounded

Transformer Fuse Data (If Applicable, for Interconnection Customer-Owned Fuse):

(Attach copy of fuse manufacturer's Minimum Melt and Total Clearing Time-Current Curves)

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Size: \_\_\_\_\_ Speed: \_\_\_\_\_

Interconnecting Circuit Breaker (if applicable):

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_  
Load Rating (Amps): \_\_\_\_\_ Interrupting Rating (Amps): \_\_\_\_\_ Trip Speed (Cycles): \_\_\_\_\_

Interconnection Protective Relays (If Applicable):

If Microprocessor-Controlled:

List of Functions and Adjustable Setpoints for the protective equipment or software:

Setpoint Function	Minimum	Maximum
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____
6. _____	_____	_____

If Discrete Components:

(Enclose Copy of any Proposed Time-Overcurrent Coordination Curves)

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_  
Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_  
Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_  
Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_  
Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_

Current Transformer Data (If Applicable):

(Enclose Copy of Manufacturer's Excitation and Ratio Correction Curves)

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_ Proposed Ratio Connection: \_\_\_\_

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_ Proposed Ratio Connection: \_\_\_\_

Potential Transformer Data (If Applicable):

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_ Proposed Ratio Connection: \_\_\_\_

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_ Proposed Ratio Connection: \_\_\_\_

**General Information**

Enclose copy of site electrical one-line diagram showing the configuration of all Small Generating Facility equipment, current and potential circuits, and protection and control schemes. This one-line diagram must be signed and stamped by a licensed Professional Engineer if the Small Generating Facility is larger than 50 kW. Is One-Line Diagram Enclosed? \_\_\_\_Yes \_\_\_\_No

Enclose copy of any site documentation that indicates the precise physical location of the proposed Small Generating Facility (e.g., USGS topographic map or other diagram or documentation).

Proposed location of protective interface equipment on property (include address if different from the Interconnection Customer's address) \_\_\_\_\_

Enclose copy of any site documentation that describes and details the operation of the protection and control schemes. Is Available Documentation Enclosed? \_\_\_\_Yes \_\_\_\_No

Enclose copies of schematic drawings for all protection and control circuits, relay current circuits, relay potential circuits, and alarm/monitoring circuits (if applicable).

Are Schematic Drawings Enclosed? \_\_\_\_Yes \_\_\_\_No



## **Form I3**

Large Generator Interconnection Information – Transmission Interconnection

**APPENDIX 1 to LGIP  
INTERCONNECTION REQUEST FOR A  
LARGE GENERATING FACILITY**

**This Form should be completed by those bidders proposing to interconnect to the Company's transmission system. This is not a formal request to interconnect.**

1. The undersigned Interconnection Customer submits this request to interconnect its Large Generating Facility with Transmission Provider's Transmission System pursuant to a Tariff.
2. This Interconnection Request is for (check one):  
☐ A proposed new Large Generating Facility.  
☐ An increase in the generating capacity or a Material Modification of an existing Generating Facility.  
☐ A Generating Facility proposed for inclusion in a resource solicitation process.
3. The type of interconnection service requested (check one):  
☐ Energy Resource Interconnection Service  
☐ Network Resource Interconnection Service
4. ☐ Check here only if Interconnection Customer requesting Network Resource Interconnection Service also seeks to have its Generating Facility studied for Energy Resource Interconnection Service
5. Interconnection Customer provides the following information:
  - a. Address or location of the proposed new Large Generating Facility site (to the extent known) or, in the case of an existing Generating Facility, the name and specific location of the existing Generating Facility;
  - b. Maximum summer at degrees C and winter at degrees C megawatt electrical output of the proposed new Large Generating Facility or the amount of megawatt increase in the generating capacity of an existing Generating Facility;
  - c. General description of the equipment configuration;
  - d. Commercial Operation Date (Day, Month, and Year);
  - e. Name, address, telephone number, and e-mail address of Interconnection Customer's contact person;
  - f. Approximate location of the proposed Point of Interconnection (optional);

- g. Interconnection Customer Data (set forth in Attachment A)
- 6. Applicable deposit amount as specified in the LGIP.
- 7. Evidence of Site Control as specified in the LGIP (check one)
  - ☐ Is attached to this Interconnection Request
  - ☐ Will be provided at a later date in accordance with this LGIP

8. This Interconnection Request shall be submitted to the representative indicated below:

[To be completed by Transmission Provider]

9. Representative of Interconnection Customer to contact:

[To be completed by Interconnection Customer]

10. This Interconnection Request is submitted by:

Name of Interconnection Customer: \_\_\_\_\_

By (signature): \_\_\_\_\_

Name (type or print): \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Attachment A to Appendix 1  
Interconnection Request**

**LARGE GENERATING FACILITY DATA**

**UNIT RATINGS**

kVA \_\_\_\_\_ °F \_\_\_\_\_ Voltage \_\_\_\_\_  
 Power Factor \_\_\_\_\_  
 Speed (RPM) \_\_\_\_\_ Connection (e.g. Wye) \_\_\_\_\_  
 Short Circuit Ratio \_\_\_\_\_ Frequency, Hertz \_\_\_\_\_  
 Stator Amperes at Rated kVA \_\_\_\_\_ Field Volts \_\_\_\_\_  
 Max Turbine MW \_\_\_\_\_ °F \_\_\_\_\_

**COMBINED TURBINE-GENERATOR-EXCITER INERTIA DATA**

Inertia Constant, H = \_\_\_\_\_ kW sec/kVA  
 Moment-of-Inertia,  $WR^2$  = \_\_\_\_\_ lb. ft.<sup>2</sup>

**REACTANCE DATA (PER UNIT-RATED KVA)**

	DIRECT AXIS	QUADRATURE AXIS
Synchronous – saturated	$X_{dv}$ _____	$X_{qv}$ _____
Synchronous – unsaturated	$X_{di}$ _____	$X_{qi}$ _____
Transient – saturated	$X'_{dv}$ _____	$X'_{qv}$ _____
Transient – unsaturated	$X'_{di}$ _____	$X'_{qi}$ _____
Subtransient – saturated	$X''_{dv}$ _____	$X''_{qv}$ _____
Subtransient – unsaturated	$X''_{di}$ _____	$X''_{qi}$ _____
Negative Sequence – saturated	$X_{2v}$ _____	
Negative Sequence – unsaturated	$X_{2i}$ _____	
Zero Sequence – saturated	$X_{0v}$ _____	
Zero Sequence – unsaturated	$X_{0i}$ _____	
Leakage Reactance	$X_{lm}$ _____	
	_____ (Saturated)	
	_____ (Unsaturated)	

**FIELD TIME CONSTANT DATA (SEC)**

Open Circuit	$T'_{do}$ _____	$T'_{qo}$ _____
Three-Phase Short Circuit Transient	$T'_{d3}$ _____	$T'_q$ _____
Line to Line Short Circuit Transient	$T'_{d2}$ _____	
Line to Neutral Short Circuit Transient	$T'_{d1}$ _____	
Short Circuit Subtransient	$T''_d$ _____	$T''_q$ _____
Open Circuit Subtransient	$T''_{do}$ _____	$T''_{qo}$ _____

### ARMATURE TIME CONSTANT DATA (SEC)

Three Phase Short Circuit	$T_{a3}$
Line to Line Short Circuit	$T_{a2}$
Line to Neutral Short Circuit	$T_{a1}$

NOTE: If requested information is not applicable, indicate by marking "N/A."

### MW CAPABILITY AND PLANT CONFIGURATION LARGE GENERATING FACILITY DATA

#### ARMATURE WINDING RESISTANCE DATA (PER UNIT)

Positive	$R_1$
Negative	$R_2$
Zero	$R_0$

Rotor Short Time Thermal Capacity  $I_2^2 t =$  \_\_\_\_\_  
 Field Current at Rated kVA, Armature Voltage and PF = \_amps  
 Field Current at Rated kVA and Armature Voltage, 0 PF = \_amps  
 Three Phase Armature Winding Capacitance = \_microfarad  
 Field Winding Resistance = \_ohms °C  
 Armature Winding Resistance (Per Phase) = \_ohms °C

### CURVES

Provide Saturation, Vee, Reactive Capability, Capacity Temperature Correction curves.  
 Designate normal and emergency Hydrogen Pressure operating range for multiple curves.

### GENERATOR STEP-UP TRANSFORMER DATA RATINGS

Capacity	Self-cooled/ Maximum Nameplate
____kVA	

Voltage Ratio(Generator Side/System side/Tertiary)  
 \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_ kV

Winding Connections (Low V/High V/Tertiary V (Delta or Wye))  
 \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

Fixed Taps Available \_\_\_\_\_

Present Tap Setting \_\_\_\_\_

### IMPEDANCE

Positive  $Z_1$  (on self-cooled kVA rating) \_\_\_\_\_ % \_\_\_\_\_ X/R  
Zero  $Z_0$  (on self-cooled kVA rating) \_\_\_\_\_ % \_\_\_\_\_ X/R

### EXCITATION SYSTEM DATA

Identify appropriate IEEE model block diagram of excitation system and power system stabilizer (PSS) for computer representation in power system stability simulations and the corresponding excitation system and PSS constants for use in the model.

### GOVERNOR SYSTEM DATA

Identify appropriate IEEE model block diagram of governor system for computer representation in power system stability simulations and the corresponding governor system constants for use in the model.

### WIND GENERATORS

Number of generators to be interconnected pursuant to this Interconnection Request:

\_\_\_\_\_

Elevation: \_\_\_\_\_ Single Phase \_\_\_\_\_ Three Phase

Inverter manufacturer, model name, number, and version:

\_\_\_\_\_

List of adjustable setpoints for the protective equipment or software:

\_\_\_\_\_

Note: A completed General Electric Company Power Systems Load Flow (PSLF) data sheet or other compatible formats, such as IEEE and PTI power flow models, must be supplied with the Interconnection Request. If other data sheets are more appropriate to the proposed device, then they shall be provided and discussed at Scoping Meeting.

**PSCo Model Dispatchable Energy Purchase Agreement**

**POWER PURCHASE AGREEMENT**

**BETWEEN**

**PUBLIC SERVICE COMPANY OF COLORADO**

**AND**

**[REDACTED]**



**- [date] -**



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**PSCo Model Dispatchable Energy Purchase Agreement**

**POWER PURCHASE AGREEMENT  
BETWEEN  
PUBLIC SERVICE COMPANY OF COLORADO  
AND  
[REDACTED], LLC**

This Power Purchase Agreement (this “PPA”) is made as of this [REDACTED] day of [REDACTED], 20[REDACTED], by and between (i) **Public Service Company of Colorado**, a Colorado corporation with a principal place of business at 1800 Larimer Street, Denver, CO 80202 (“Company”), and (ii) [REDACTED], LLC, a [REDACTED] [limited liability company] with a principal place of business at [REDACTED] (“Seller”). Company and Seller are hereinafter referred to individually as a “Party” and collectively as the “Parties.”

WHEREAS Seller desires to develop, design, construct, interconnect, own, operate and maintain the Facility as defined herein; and

WHEREAS Seller desires to sell and deliver, and Company desires to accept and receive, certain products and services generated and delivered from the Facility to the Point of Delivery at the prices and on the terms and conditions set forth in this PPA.

NOW THEREFORE, in consideration of the mutual covenants herein contained, the sufficiency and adequacy of which are hereby acknowledged, the Parties agree to the following:

**Article 1 - Rules of Interpretation**

**1.1 Interpretation.**

(A) Capitalized terms listed in this PPA shall have the meanings set forth in Exhibit A - Definitions or as otherwise defined in this PPA, whether in the singular or the plural or in the present or past tense. Words not otherwise defined in this PPA shall (i) have meanings as commonly used in the English language, (ii) be given their generally accepted meaning consistent with Good Utility Practice, and (iii) be given their well-known and generally accepted technical or trade meanings.

(B) The following rules of interpretation shall apply: (1) The masculine shall include the feminine and neuter; (2) references to “Articles,” “Sections” or “Exhibits” shall be to articles, sections, or exhibits of this PPA except as the context may otherwise require; (3) all Exhibits are incorporated into this PPA (*provided, however*, that in the event of a conflict with the terms of this PPA, the PPA shall control); and (4) use of the words “include” or “including” or similar words shall be interpreted as “include without limitation” or “including, without limitation.”

(C) This PPA was negotiated and prepared by both Parties with the advice and participation of counsel. None of the provisions hereof shall be construed against one Party on the ground that such Party is the author of this PPA or any part hereof.

**PSCo Model Dispatchable Energy Purchase Agreement**

**1.2 Interpretation with Other Agreements.**

(A) This PPA does not provide authorization for Seller to interconnect the Facility or inject power into the Transmission Authority's System. Seller shall contract for interconnection services in accordance with the applicable Transmission Tariff. Seller acknowledges that the Interconnection Agreement is/will be a separate contract and that (i) this PPA is not binding on the Transmission Authority, (ii) this PPA does not create any rights between Seller and the Transmission Authority, and (iii) the Interconnection Agreement does not modify the Parties' rights and obligations under this PPA. The applicable Transmission Authority shall be deemed to be a separate and unaffiliated contracting party for purposes of this PPA, regardless whether such Transmission Authority is Company or an Affiliate of Company.

(B) This PPA does not provide for the supply of retail power for purposes of operating the Facility, including start-up, shut-down, oil heating, turbine adjustment, HVAC or any other purpose ("House Power"). Seller shall contract with the utility providing House Power to the Site (the "Local Provider") for the supply of House Power. Seller acknowledges that (i) Seller must obtain House Power independently, (ii) this PPA is not binding on the Local Provider, (iii) this PPA does not create any rights between Seller and the Local Provider, and (iv) Seller's contract for House Power does not affect the Parties' rights and obligations under this PPA. For purposes of this PPA, the Local Provider shall be deemed to be a separate and unaffiliated contracting party regardless whether the Local Provider is Company or an Affiliate of Company; *provided* that, if (and only if) the Local Provider is Company or an Affiliate of Company, Seller may obtain House Power by self-generating and netting such self-generation from the Contract Energy provided to Company unless prohibited by Applicable Law. .

**1.3 Good Faith and Fair Dealing.** The Parties shall act reasonably and in accordance with the principles of good faith and fair dealing in the performance of this PPA. Unless expressly provided otherwise in this PPA, (a) when this PPA specifically references the consent, approval, or similar action by a Party, such consent or approval shall not be unreasonably withheld, conditioned or delayed, and (b) wherever this PPA specifically gives a Party a right to determine, require, specify or take similar action with respect to a matter, such determination, requirement, specification or similar action shall be Commercially Reasonable.

**Article 2 - Term and Termination**

This PPA shall become effective as of the date of its execution, and shall remain in full force and effect until the 11:59 pm on the last Day of the calendar month during which occurs the [ ]<sup>th</sup> anniversary of the Commercial Operation Date (the "Scheduled Termination Date"), subject to early termination as provided in this PPA. Applicable provisions of this PPA shall continue in effect after termination to the extent necessary to (i) provide for final billings, payments and adjustments, (ii) enforce or complete the duties, obligations or responsibilities of the Parties (including under Section 12.1(B)-(D), Section 12.2(C), Section 12.3(B)-(C), Article 13 and Article 17 below), and (iii) address any remedies or indemnifications arising prior to termination.

**PSCo Model Dispatchable Energy Purchase Agreement**

**Article 3 - Facility Description**

3.1 Description. Seller shall construct, interconnect, own, operate, and maintain the Facility, as further described in Exhibit C - Facility Description. A scaled map that identifies the Site, the location of the Facility, the Interconnection Point and Interconnection Facilities, the Point of Delivery, the Fuel Delivery Point, and other important facilities, is included in Exhibit C - Facility Description.

3.2 General Design of the Facility.

(A) Seller shall design, construct, operate and maintain the Facility according to Good Utility Practices and the Interconnection Agreement.

(B) The Facility shall include all equipment specified in Exhibit C - Facility Description and otherwise necessary to fulfill Seller's obligations under this PPA, including all equipment necessary (i) to meet the requirements of Exhibit I - Operating Standards, and (ii) to interconnect successfully with the Transmission Authority's System for the delivery of Contract Energy to the Point of Delivery.

(C) The Net Capability of the Facility shall be [ ] MW.

**Article 4 - Implementation**

4.1 Project Development.

(A) Seller shall enter into and perform at its expense all contracts required for (i) the engineering, procurement, construction, acquisition, manufacture, delivery, installation and operation of the Facility, and (ii) the generation and delivery of Contract Energy from the Facility to the Point of Delivery (generally, the "Construction Contracts") with qualified and experienced contractors. Upon written request by Company, Seller shall provide copies of any or all Construction Contracts to Company. All Construction Contracts obtained by Company shall be deemed Confidential Information subject to Section 9 below.

(B) In its efforts to achieve COD, Seller shall use Commercially Reasonable Efforts to achieve the milestones set forth in Exhibit B – Construction Milestones, and shall notify Company promptly following achievement of each such milestone.

(C) Prior to the Commercial Operation Date, Seller shall (i) submit monthly progress reports to Company in a form agreed by the Parties, advising Company of the current status of each Construction Milestone, any significant developments or delays (along with an action plan for making up delays), and Seller's best estimate of the Commercial Operation Date; (ii) provide copies of reports submitted to the Facility Lender relating to status, progress and development of the project, and (iii) invite Company to participate in monthly meetings to discuss the progress reports, answer questions, and assess the schedule. Seller shall make all relevant counterparties under the Construction Contracts available to Company, upon request, in

**PSCo Model Dispatchable Energy Purchase Agreement**

order to keep Company fully informed on the status of development. Each report delivered to Company under this paragraph (C) shall be deemed Confidential Information subject to Section 20.19

(D) Upon request, Company shall have the right to monitor the construction, start-up, testing, and operation of the Facility at the Site to verify compliance with this PPA, *provided, however*, that Company shall comply with all of Seller's applicable safety and health rules and requirements.

(E) Neither Company's review of Construction Contracts and Seller's reports, nor its discussions with Seller and its contractors, nor its monitoring of development and construction the Facility, shall be construed as endorsement by Company of the design, engineering, construction or testing thereof nor as any express or implied warranty as to the performance, safety, durability, or reliability of the Facility.

**4.2 Environmental Matters.**

(A) No later than 60 Days following PUC Approval, Seller shall complete and provide to Company a comprehensive independent "Phase I" environmental investigation of the Site or its equivalent (including associated raw data, if requested by Company). Seller shall notify Company promptly (i) if and to what extent any Environmental Contamination on the Site will preclude or interfere with Seller's ability to perform its obligations under this PPA, and (ii) Seller's plan for remediation thereof that would allow Seller to perform this PPA as and when due. The Phase I report delivered to Company under this paragraph shall be deemed Confidential Information for purposes of Section 20.18.

(B) Throughout the Term, Seller promptly shall

1. disclose to Company and remediate any Environmental Contamination identified at the Site;
2. provide to Company copies of any further environmental assessments or investigations of the Site (including associated raw data, if requested by Company); and
3. disclose to Company the existence of any enforcement, legal, or regulatory action or proceeding relating to any alleged presence of Environmental Contamination and/or the alleged violation of any Applicable Law related to the protection of endangered, migratory or other protected species.

(C) For purposes hereof:

1. "Environmental Contamination" means the introduction or presence of Hazardous Materials at such levels, quantities or location, or of such form or character, that (i) requires remediation under Applicable Law, (ii) present a material risk that the Site will not be available or usable for the purposes



contemplated by this PPA, and/or (iii) will preclude or interfere with Seller's ability to perform its obligations under this PPA as and when due.

2. "Hazardous Materials" means any substance, material, gas, or particulate matter that is regulated by any Governmental Authority as an environmental pollutant or dangerous to public health, public welfare, or the natural environment (including protection of non-human forms of life, land, water, groundwater, and air), including any material or substance that is (i) defined as "toxic," "polluting," "hazardous waste," "hazardous material," "hazardous substance," "extremely hazardous waste," "solid waste" or "restricted hazardous waste" under any provision of local, state, or federal law; (ii) petroleum, including any fraction, derivative or additive; (iii) asbestos; (iv) polychlorinated biphenyls; (v) radioactive material; (vi) designated as a "hazardous substance" pursuant to the Clean Water Act, 33 U.S.C. §1251 *et seq.* (33 U.S.C. §1251); (vii) defined as a "hazardous waste" pursuant to the Resource Conservation and Recovery Act, 42 U.S.C. §6901 *et seq.* (42 U.S.C. §6901); (viii) defined as a "hazardous substance" pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §9601 *et seq.* (42 U.S.C. §9601); (ix) defined as a "chemical substance" under the Toxic Substances Control Act, 15 U.S.C. §2601 *et seq.* (15 U.S.C. §2601); or (x) defined as a pesticide under the Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. §136 *et seq.* (7 U.S.C. §136).

#### 4.3 Permits.

(A) Seller shall obtain and pay for all Permits necessary or advisable under Good Utility Practice for the construction, ownership, operation and maintenance of the Facility and the generation and delivery of the output from the Facility to Company. Seller shall keep Company informed as to the status of its permitting efforts and shall provide Company the opportunity to review and comment on major applications for draft and final Permits. Seller shall promptly inform Company of (i) any Permits which Seller is unable to obtain, that are delayed, limited, suspended, terminated or otherwise constrained, along with a statement of whether and to what extent this circumstance may limit or preclude Seller's ability to perform under this PPA, and (ii) Seller's plan to overcome such issue(s) to allow Seller to perform this PPA as and when due. Company shall have the right to inspect and obtain copies of all Permits held by Seller.

(B) Seller represents and warrants to Company that, except for those Permits identified in Exhibit F - Seller's Needed Permits (each of which Seller anticipates will be obtained by Seller in the ordinary course of business not later than the applicable date set forth in Exhibit F – Needed Permits), all Permits and other actions required or recommended by applicable Governmental Authorities to authorize Seller's execution, delivery and performance of this PPA have been duly obtained and are in full force and effect.

(C) Throughout the Term, Seller promptly shall disclose to Company the existence of any enforcement, legal, or regulatory action or proceeding relating to the

alleged violation of any Permit held by Seller, which proceeding (if successful) could materially interfere with Seller's performance of this PPA.

(D) For purposes hereof, "Permits" means all applicable construction, land use, air quality, emissions control, environmental, protected species, and other permits, licenses and approvals from any Governmental Authority for construction, ownership, operation and maintenance of the Facility and the generation and delivery of Contract Energy therefrom.

4.4 Governmental Inspections. Seller shall notify Company (i) sufficiently in advance of any known upcoming significant inspections by any Governmental Authority relating to the Facility, to allow Company the opportunity to attend, and (ii) promptly after any unscheduled or impromptu inspection with a description of the nature and outcome of such inspection.

4.5 Commercial Operation.

(A) Seller shall cause COD to occur no later than [REDACTED], 20[REDACTED] (the "Target COD"). Company shall not be obligated to accept and establish a Commercial Operation Date earlier than [REDACTED], 20[REDACTED] (*insert date that is 45 days prior to Target COD*).

(B) Seller shall notify Company of the date on which Seller believes the Facility has achieved Commercial Operation (a "COD Notice"). A COD Notice shall include all necessary supporting documentation of the satisfaction or occurrence of all COD Conditions. Company shall have 10 Business Days to review a COD Notice and raise any Commercially Reasonable objection to Seller's satisfaction of any of the COD Conditions, *provided, however*, that Seller's COD Notice shall be deemed accepted by Company as of the date of delivery if Company fails to object within such time period. Seller may notify Company of completion of one or more COD Conditions on an individual and incremental basis prior to COD, *provided, however*, that Company shall in all cases have up to 10 Business Days to review and object to each such notice.

(C) For purposes hereof:

1. the "Commercial Operation Date" or "COD" means 12:01 am on the Day following the date on which Company receives Seller's COD Notice, without valid objection thereto by Company; and

2. the "COD Conditions" are:

(a) an officer of Seller, authorized to bind Seller and who is familiar with the Facility, has provided written confirmation that (1) all necessary material Permits have been obtained and are in full force and effect, (2) Seller is in compliance with this PPA in all material respects, and (3) the Facility is available to commence normal operations in accordance with Seller's operating agreements, Construction Contracts, and applicable manufacturers' warranties;

(b) Seller has made all necessary arrangements to obtain and pay the Local Provider for House Power;

(c) Seller and the Transmission Authority have signed the Interconnection Agreement, and Seller has received no notice of breach thereof from the Transmission Authority;

(d) the Facility is interconnected to the Transmission Authority's System, and has been fully tested, achieved initial synchronization, and been successfully operated at a generation level acceptable to the Transmission Authority, without experiencing any abnormal or unsafe operating conditions on any interconnected system;

(e) the Facility meets all criteria for Energy Resource Interconnection Service, under the Interconnection Agreement and the Transmission Tariff;

(f) the Facility is configured and available for operation in a manner to permit accreditation of the Facility as a Capacity Resource, in an amount substantially equal to its Net Capability;

(g) Seller has made all arrangements necessary to deliver Contract Energy from the Facility to the Point of Delivery during the Term;

(h) Seller has obtained and provided to Company a certification from an independent registered professional engineer stating that the Facility has been completed in all material respects, except for items that do not have a Material Adverse Effect on the ability of the Facility to operate in compliance with this PPA;

(i) each Generating Unit has achieved at least two Successful Starts [(including one Successful Start on fuel oil) *if applicable*] [in each possible operating configuration *if applicable*], without experiencing any abnormal operating conditions;

(j) the Facility has generated continuously for a period not less than sixteen (16) consecutive hours, at an output level not less than 95% of Net Capability (adjusted for ambient conditions), without experiencing any abnormal operating conditions;

(k) Seller has demonstrated the reliability of the Facility's communications systems and AGC interface with Company's EMCC, and the capability of the Facility to receive and respond to signals from Company's SCADA System, in accordance with the parameters set forth in Exhibit C – Facility Description and Exhibit I - Operating Standards;

(l) the Facility has demonstrated its capability to meet the Expected Ramp Rates, and meets the Dispatchability Requirements set forth in Exhibit I - Operating Standards; and

(m) all fuel supply, fuel storage and fuel delivery arrangements necessary to operate the Facility in compliance with this PPA have been completed, tested and are in effect.

(D) In the event that the COD Conditions are satisfied with respect to one or more (but fewer than all) of the Generating Units planned for the Facility, Company at its option may issue a "Partial Completion Declaration" stating that COD has been achieved with respect to such Generating Units. In that case:

1. From and after the date of a Partial Completion Declaration, all of the rights and duties of the Parties under this PPA shall apply in respect of the Generating Units included in the Partial Completion Declaration, including payments for capacity and energy under Article 8 (which shall be prorated based upon the capacity of such Unit(s)), and the dispatch, accreditation and maintenance requirements of this PPA.

2. Liquidated Delay Damages, if any, shall be prorated for the Unit(s) not included in the Partial Completion Declaration.

3. In the event that the Generating Unit(s) not included in the Partial Completion Declaration fail to achieve the COD Conditions by the Target COD (which failure is not cured within the cure period set forth in Section 12.2 and/or in any Lender Consent), Company shall have the right and option, by notice to Seller, either (i) to declare an Event of Default and terminate this PPA entirely, as permitted and with the consequences set forth in Section 12.2, or (ii) to terminate this PPA only as to the Generating Units that failed to achieve the COD Conditions, and collect prorated Termination LDs accordingly, in which case the balance of this PPA shall survive as to the Generating Units included in the Partial Completion Declaration.

(E) For purposes hereof, the first "Commercial Operation Year" shall mean the period starting at 12:01 a.m. on the Commercial Operation Date and ending at 11:59 pm on the last Day of the calendar month in which the first anniversary of COD occurs, and each successive "Commercial Operation Year" shall mean the 12-month period following the prior Commercial Operation Year.

#### 4.6 Pre-COD Testing.

(A) Seller shall provide Company and Transmission Authority with the information necessary to have the Facility registered with the Transmission Authority for inclusion in any generation modeling maintained by the Transmission Authority, sufficiently in advance to allow the Facility to be registered in such model at least four months prior to generating any Pre-COD Test Energy. Company shall cooperate reasonably to assist in the registration of the Facility to allow generation of Pre-COD Test Energy.

(B) Seller shall coordinate the production and delivery of Pre-COD Test Energy with Company, upon such Commercially Reasonable prior Notice as Company

and the Transmission Authority may reasonably request. In particular, (i) upon request, Company shall procure and arrange delivery of natural gas fuel needed for pre-COD testing of the Facility, and (ii) Seller shall reimburse Company for all associated commodity, imbalance, demand charges, transportation and other ancillary costs incurred by Company in connection therewith.

(C) Seller shall not sell any capacity, energy or any other products or services from the Facility to any third party, prior to or after COD, without the express prior written consent of Company.

(D) Seller shall invoice and Company shall purchase all Pre-COD Test Energy (whether generated from natural gas fuel or fuel oil *if applicable*) from Seller at the Test Energy Rate. For purposes hereof, "Pre-COD Test Energy" means energy generated by the Facility prior to COD, required to satisfy the COD Conditions.

## **Article 5 - Delivery**

### **5.1 Arrangements.**

(A) Seller shall be responsible for arranging, maintaining and paying the costs associated with the interconnection of the Facility to the Transmission Authority's System. Seller shall comply with the Transmission Authority's requirements for interconnection and shall comply with all requirements set forth in the applicable Transmission Tariff. Seller's interconnection application shall request that the Transmission Authority study the Facility for both Energy Resource Interconnection Service and Network Resource Interconnection Service under the Transmission Tariff. The resulting Interconnection Agreement must include Energy Resource Interconnection Service at a minimum. Seller shall cooperate reasonably in any request by Company to assist in Company's efforts to have the Facility approved as a Network Resource or equivalent classification pursuant to the applicable Transmission Tariff.

(B) Seller hereby authorizes Company to contact, discuss and obtain information concerning the Facility and the Interconnection Facilities directly with/from the Transmission Authority. Promptly upon request by Company, Seller shall confirm such authorization in writing to the Transmission Authority and any applicable transmission owners, in such form as may be requested by Company or the Transmission Authority.

(C) To the extent required, Company shall arrange and be responsible for scheduling and transmission services at and beyond the Point of Delivery. To the extent applicable, Company shall be the market participant for the Facility, as defined by the Transmission Authority.

(D) Seller shall be responsible for all interconnection, electric losses, transmission and ancillary service arrangements and costs required to deliver, on a firm transmission service basis, Contract Energy from the Facility to the Point of Delivery. Company shall be responsible for all electric losses, transmission and ancillary service

arrangements and costs required to transmit and deliver Contract Energy beyond the Point of Delivery.

## 5.2 Market Changes.

(A) If at any time during the Term, the Transmission Authority changes or the facilities at the Point of Delivery cease to be subject to the Transmission Tariff, the Parties shall cooperate in good faith to facilitate the delivery of Contract Energy from the Point of Delivery to Company's load, at the least possible cost to the Parties, consistent with this PPA to the extent possible.

(B) If at any time during the Term, the Transmission Authority, the ERO or any other Governmental Authority with jurisdiction imposes an organized market or Company elects to join a regional transmission organization or participate in an organized market which changes the manner in which the Facility is scheduled and dispatched, the Parties shall cooperate in good faith to change their protocols for operation of the Facility accordingly, at the least possible cost to the Parties, consistent with this PPA to the extent possible.

(C) In the event that improvements to the Facility or other expenditures by Seller are necessary to comply with this Section 5.2, which expenditures must be capitalized by Seller under generally accepted accounting principles consistently applied, Company shall reimburse Seller one percent (1%) of such expenditures per month, beginning with the first month following substantial completion of such improvements and ending upon the earlier to occur of (i) the 100<sup>th</sup> month following the start of such reimbursements, and (ii) the end of the Term of this PPA.

## 5.3 Electric Metering Devices.

(A) All Electric Metering Devices used to measure energy shall be owned, installed, and maintained in accordance with the Interconnection Agreement, at no cost to Company.

1. Meter readings will be adjusted to reflect losses from the Electric Metering Devices to the Point of Delivery in accordance with applicable manufacturers' parameters or as otherwise agreed by the Parties.

2. Seller shall arrange any necessary authorization to provide Company access to all Electric Metering Devices for purposes related to the administration of this PPA, and shall provide Company the opportunity to be present at any time when such Electric Metering Devices are to be inspected, tested or adjusted.

(B) Either Party may elect to install and maintain, at its own expense, backup metering devices ("Back-Up Metering"), *provided, however*, that the specifications, installation and testing of any such Back-Up Metering shall be consistent with the requirements for the Electric Metering Devices. Upon written request from the other Party, the installing Party shall test the Back-Up Metering. The actual cost of any

such test shall be borne by the Party requesting the test, unless, upon such test, Back-Up Metering is inaccurate by more than one percent, in which case the cost of the retest shall be borne by the installing Party. If requested in writing, the installing Party shall provide copies of any inspection or testing reports to the requesting Party.

(C) If an Electric Metering Device or Back-Up Metering fails to register, or if the measurement is inaccurate by more than one percent, an adjustment shall be made correcting all measurements as follows:

1. If the Electric Metering Device is found to be defective or inaccurate, the Parties shall use Back-up Metering, if installed, to determine the amount of such inaccuracy, *provided, however*, that Back-Up Metering has been tested and maintained and adjusted for losses on the same basis as the Electric Metering Device. If Back-Up Metering is not installed, or Back-Up Metering is also found to be inaccurate by more than one percent, the Parties shall use the best available information for the period of inaccuracy, adjusted for losses to the Point of Delivery in accordance with applicable manufacturers' parameters or as otherwise agreed by the Parties.

2. If the Parties cannot agree on the actual period during which inaccurate measurements were made, the period shall be the shorter of (i) the last one-half of the period from the last previous test of the Electric Metering Device to the test that found the Electric Metering Device to be defective or inaccurate, or (ii) 180 Days immediately preceding the test that found the Electric Metering Device to be defective or inaccurate.

3. To the extent that an adjustment period covers a period of deliveries for which payment has already been made by Company, Company shall use the corrected measurements as determined in accordance with this Article 5 to re-compute the amount due for the period of the inaccuracy and shall subtract the previous payments made by Company for this period from such re-computed amount. The net difference shall be reflected as an adjustment on the next regular invoice in accordance with Article 9.

#### 5.4 Natural Gas Fuel.

(A) Seller shall be solely responsible for all natural gas interconnection, transportation, delivery and metering arrangements, and all associated costs, required to receive natural gas fuel to operate the Generating Unit(s). Seller shall, at its sole expense, construct, operate and maintain the pipelines, compressors, meters, heaters, filter/separation equipment, electronics, and other necessary equipment, of sufficient capacity and industrial specifications to receive, regulate, meter and transport natural gas fuel from the Fuel Delivery Point to the Generating Unit(s), to allow for full operation of the Generating Unit(s) on natural gas fuel over the Term. If requested by Company, Seller shall install (at Company's cost) check metering, in connection with the natural gas custody transfer metering, on Seller's downstream natural gas facilities.

(B) Company may elect at its sole option to interconnect the Facility with one or more additional natural gas delivery systems at or near the Fuel Delivery Point identified in Exhibit C - Facility Description and to designate such additional interconnection(s) as an additional Fuel Delivery Point, *provided, however, that* (i) Company shall be responsible for installing and paying for all pipelines, valves, electronics, metering and other facilities, permits, contracts and construction costs required to establish such additional interconnection, up to Seller's fuel interconnection facilities; (ii) such additional interconnection will not interfere with the operation of the Facility, other than during the time necessary to physically connect the additional interconnecting facilities; and (iii) such additional interconnection will deliver Acceptable Natural Gas Fuel to the new Fuel Delivery Point. Seller shall grant Company or its designee an easement and access to the vicinity of the Fuel Delivery Point for the purpose of constructing and maintaining any such additional natural gas interconnection(s).

(C) Company shall procure and pay for all natural gas fuel for the generation of Contract Energy, from and after COD. Seller shall accept delivery of all natural gas fuel delivered to any Fuel Delivery Point for the purpose of generating the Contract Energy, *provided, however, that* Seller shall not be obligated to accept gas fuel that is not Acceptable Natural Gas Fuel if such nonconformance could reasonably be expected to have a Material Adverse Effect on the Facility ("Non-Conforming Gas"). Company shall have no liability to Seller for the delivery of Non-Conforming Gas to the Facility by any Upstream Pipeline, *provided that* Company shall provide reasonable assistance to Seller in making any consequent claim against the delivering Upstream Pipeline if Seller pays or reimburses Company for any associated legal fees and other out-of-pocket costs incurred by Company.

(D) Company may elect at its sole option whether to obtain and utilize firm gas transportation service or non-firm gas transportation service for the delivery of natural gas fuel to the Fuel Delivery Point.

(E) Title to all natural gas fuel shall be retained by Company at and from the Fuel Delivery Point and/or storage tank(s), as applicable, to the burner tips of the Generating Units. As between the Parties, however, Seller shall be deemed to be in exclusive control and possession of all natural gas fuel from and after the Fuel Delivery Point until such fuel has been consumed in the Facility, so Seller shall bear the risk of loss of any fuel beyond the Fuel Delivery Point prior to its consumption in the Facility, and shall be responsible for any costs, damages, fines or penalties associated with leaks, spills, remediation, or other liabilities associated with such fuel. Seller shall promptly report and resolve any natural gas leaks or spills beyond the Fuel Delivery Point, at its sole expense, in accordance with Applicable Laws.

(F) If the Facility includes any natural gas-fired equipment that is not used for the direct conversion of natural gas fuel to electric energy (such as natural gas-fired auxiliary boiler(s), in-line heater(s) used to heat the natural gas fuel, or building heating equipment), Seller shall separately meter and supply, at Seller's expense, the natural gas fuel consumed by such equipment.



(G) Unless otherwise agreed by the Parties, Seller shall be the operator of the Fuel Delivery Point(s). Seller shall be responsible for all volume confirmations, allocations and balancing functions with the Upstream Pipeline, as well as gas regulation and maintenance and testing arrangements for all natural gas metering at such Fuel Delivery Point(s). Seller shall also be responsible for all natural gas physical flow activities, such as flow control, valve operation, and contacting the delivering pipeline to initiate gas flow to the Fuel Delivery Point.

(H) All natural gas custody transfer metering at the Fuel Delivery Point(s) shall be installed, maintained and tested in accordance with accepted natural gas industry standards and shall comply with the Upstream Pipeline's tariff requirements. Seller shall test the natural gas meter prior to COD and at least every two years thereafter (or at such more frequent intervals as may be required by the Upstream Pipeline), and shall provide written meter test results to Company within 30 days following completion. Company shall have the right to require additional tests at Company's expense. Seller shall provide Company with at least 10 Business Days advance notice of each test and a representative of Company shall be permitted to witness such tests, *provided, however, that* such Company representative shall not unreasonably interfere with or disrupt the activities of Seller and shall comply with all of Seller's safety standards. Seller shall provide copies of all test data and testing reports to Company. Disputes regarding the allocation of natural gas volumes and associated billings with the Upstream Pipeline, including meter reading adjustments for prior periods, shall be resolved in accordance with the Upstream Pipeline's tariff.

5.5 Fuel Oil. *[if applicable]*

(A) Seller shall install Fuel Oil Storage Facilities as part of the Facility, consistent with Exhibit R - Fuel Oil. Seller shall maintain and calibrate the fuel oil meter(s) from time to time in accordance with Good Utility Practices.

(B) Seller shall fill the fuel oil storage tank(s) at the Facility with Acceptable Fuel Oil prior to the Commercial Operation Date, in time to conduct required pre-COD testing, in such volumes as may be directed by Company and at a cost approved by Company in writing. After COD, Seller shall invoice and Company shall reimburse Seller for the costs incurred by Seller for the actual fuel oil delivered to the fuel oil storage tank(s), less the cost of fuel oil consumed by the Facility prior to the Commercial Operation Date.

(C) Following the initial fill of the fuel oil storage tank(s), Company shall arrange and pay for all subsequent fills of such tank(s), as and when desired by Company. Company shall afford Seller the opportunity to test Company's chosen fuel oil prior to its delivery into the fuel oil storage tank(s), and to reject any fuel oil that does not constitute Acceptable Fuel Oil.

(D) Seller shall be solely responsible for (i) maintenance of the fuel oil in the Fuel Oil Storage Facilities, and (ii) the removal and replacement of any degraded and unusable fuel oil, at its expense. Either Party, at its own expense, may conduct fuel

oil tests to determine the extent of degradation, if any. Included in Exhibit R – Fuel Oil is the Fuel Oil Maintenance Plan for the Facility.

(E) Company shall, in its sole discretion, determine when and if the Generating Unit(s) shall be dispatched using fuel oil as the combustion fuel to generate Contract Energy, subject to the Fuel Oil Maintenance Plan and the emissions limitations in Seller's Permits.

(F) Title to fuel oil shall be retained by Company at and from the storage tank(s) to the burner tips of the Units. As between the Parties, however, Seller shall be deemed to be in exclusive control and possession of all fuel oil from and after delivery into the fuel oil storage tank(s) until such fuel has been consumed in the Facility, so Seller shall bear the risk of loss of fuel oil following its delivery into the oil storage tank(s) and shall be responsible for any costs, damages, fines or penalties associated with leaks, spills, remediation, or other liabilities associated with such fuel oil. Seller shall promptly report and resolve any fuel oil leaks or spills at its sole expense in accordance with Applicable Laws.

(G) At the end of the Term, (i) Seller shall pay to Company the then-current market value of the fuel oil in storage at the Facility, and (ii) such fuel oil shall be and become the property of Seller.

## **Article 6 - Conditions Precedent**

### **6.1 PUC Approval.**

(A) No later than 45 Days after the date of this PPA, Company may apply to the PUC for PUC Approval. If Company fails to apply for PUC Approval within 45 Days following the date of this PPA, Company shall be deemed to have waived its right to obtain PUC Approval and to terminate this PPA under this Section 6.1, and this PPA shall remain in full force and effect thereafter.

(B) If Company applies for PUC Approval, Company shall use Commercially Reasonable Efforts to obtain PUC Approval as soon as reasonably practicable, and Seller shall cooperate with such efforts.

(C) If Company applies for PUC Approval, Company shall have the right to terminate this PPA, without any further financial or other obligation to Seller as a result of such termination, by notice to Seller

1. at any time within 30 Days following issuance of a written order by the PUC rejecting PUC Approval, or granting PUC Approval with conditions unacceptable to Company in its sole discretion;

2. at any time between the 180<sup>th</sup> and 215<sup>th</sup> Day following Company's application for PUC Approval, if prior to the date of such termination the PUC has not issued a written order granting or rejecting PUC Approval;

3. at any time within 30 Days following timely request for reconsideration (in whole or in any material part) by any third party with standing, of a written PUC order granting PUC Approval; and/or

4. at any time within 30 Days following timely appeal by any third party with standing, of a written PUC order granting PUC Approval.

If Company is eligible but fails to terminate this PPA by the applicable date, Company shall be deemed to have waived its right to terminate this PPA under this Section 6.1(C), and this PPA shall remain in full force and effect thereafter.

(D) For purposes of this PPA, "PUC Approval" means a written order of the PUC making an affirmative determination that all costs incurred under this PPA are recoverable from Company's retail customers pursuant to Applicable Law, subject only to the requirement that the PUC retains ongoing prudence review of Company's performance and administration of this PPA.

6.2 Other Company CPs. *[if any].*

6.3 Seller CPs. *[if any - bid specific].*

## **Article 7 - Sale and Purchase**

### **7.1 General Obligation.**

(A) Beginning on the Commercial Operation Date, Seller shall generate from the Facility, deliver to the Point of Delivery, and sell to Company, and Company shall receive and purchase at the Point of Delivery, the Contract Capacity, Contract Energy and other products and services required by this PPA. Seller shall not curtail or interrupt deliveries of Contract Energy to Company for economic reasons of any type. For purposes of this PPA:

1. the "Contract Capacity" shall mean all of the committed and uncommitted net generating capacity actually available at any time from the Facility at the Point of Delivery, following COD, not to exceed the Net Capability; and

2. the "Contract Energy" shall mean the energy generated by the Contract Capacity as dispatched by Company from time to time, delivered and adjusted for losses to the Point of Delivery, excluding any Post-COD Test Energy that is uneconomically dispatched by Company at Seller's request pursuant to Section 10.4(C).

(B) Seller shall not be entitled to deliver Contract Capacity and/or Contract Energy from any source other than the Facility.

(C) Title and risk of loss of the products and services transacted by this PPA shall transfer from Seller to Company at the Point of Delivery.

7.2 Dispatch. EMCC shall control the Facility via AGC, including starts, shutdowns, ramping, and loading levels of the Generating Units associated with the Contract Capacity and Contract Energy, all in accordance with Good Utility Practices and Exhibit I – Operating Standards. Company shall not dispatch any portion of the Facility below Minimum Loading. For any Facility trip, Seller shall restart the Facility in coordination with EMCC in accordance with Good Utility Practices.

7.3 Permit Limitations.

(A) Neither Party shall take any action that would result in or materially contribute to a restriction under any Permit that would preclude or limit the generation or delivery of Contract Energy to Company.

(B) Seller covenants that Seller holds or prior to COD will obtain the necessary authority under Applicable Law to generate and deliver Contract Energy in amounts at least equal to the Planned Permitted Energy. Seller accepts the risk that its Permits or other Applicable Law will preclude or limit its legal authority to generate and deliver all of the Planned Permitted Energy, subject to Section 20.4(C).

(C) If and to the extent that Seller's Permits or Applicable Law precludes or limits generation and delivery below the Planned Permitted Energy, the "Permit Deficiency" for such year shall mean the deficiency (expressed in MWh) between the Planned Permitted Energy and the maximum amount of Contract Energy that was generated and delivered to Company (or could have been generated and delivered, under Seller's Permits) for such year.

(D) Upon request by Company from time to time, whether pre- or post-COD, Seller shall provide to Company such detailed data regarding emissions from the Facility, in one or more operating configurations, as Company may reasonably request.

(E) For purposes of this PPA, "Planned Permitted Energy" means [REDACTED] MWh per calendar year of Contract Energy authorized or expected to be authorized to be generated in accordance with Seller's Permits.

7.4 Ancillary Services and Green Benefits. The Parties acknowledge that existing and future Applicable Laws create significant value in the ownership, use and allocation of Ancillary Services and Green Benefits. To the full extent allowed by Applicable Law, Seller hereby assigns to Company (and Company shall own and be entitled to claim) all Ancillary Services and Green Benefits to the extent existing or created during the Term associated with the Facility, the Contract Capacity and the Contract Energy purchased by Company hereunder, at no additional charge to Company under this PPA.

(A) Seller hereby irrevocably assigns to Company all rights, title and authority for Company to register the Facility and own, hold and manage the Green Benefits associated with the Facility in Company's own name and to Company's account, including any rights associated with any energy information or tracking system that exists or may be established with regard to monitoring, registering, tracking,

certifying, and/or trading such Green Benefits. Seller hereby authorizes Company to act as its agent for the purposes of registering the Facility and tracking, certifying, registering and reporting such Green Benefits. Seller grants to Company full authority to hold, use, sell and/or trade such Green Benefits for its own account in all applicable energy information or tracking systems. Upon the request of Company, at no cost to Company, (i) Seller shall deliver or cause to be delivered to Company appropriate attestations/certifications of Green Benefits, and (ii) Seller shall cooperate with Company's tracking, registration, reporting and certification of Green Benefits.

(B) Company shall be entitled to any compensation received by Seller under the Interconnection Agreement or otherwise from third parties for Ancillary Services and/or Green Benefits. To implement the foregoing, Seller shall credit Company, as a reduction to Seller's monthly invoice or other mutually-agreed mechanism, for any compensation that Seller receives from the Transmission Authority or other third parties for Ancillary Services and/or Green Benefits; *provided*, that if a Governmental Authority implements new or revised requirements for generators to create, modify, or supply Ancillary Services and/or Green Benefits, requiring Seller to install additional equipment after the date hereof to meet such requirements, then Seller shall be allowed to reduce the amount to be credited to Company for Ancillary Services or Green Benefits by an amount sufficient to recover the cost of such additional equipment. Any cost not so recovered by Seller in any billing period shall be carried forward as a reduction of the amount of the credit in subsequent billing periods.

(C) For purposes hereof:

1. "Ancillary Services" means ancillary services subject to regulation or reward by the ERO and/or addressed under the Transmission Tariff from time to time (if any), that are associated, directly or indirectly, with the Contract Capacity or the generation and/or transmission of Contract Energy therefrom from time to time, including any rights to compensation therefor. By way of example only, "Ancillary Services" may include capacity, availability or reliability attributes; resource adequacy characteristics; locational benefit attributes; and/or VaR generation.

2. "Green Benefits" means existing and future environmental credits, benefits or attributes, emissions reductions and avoidances (including emission rate credits), offsets, allowances and green tags, attributable to the Facility and/or to the Contract Energy sold to Company under this PPA during the Term, recognized by Applicable Law, including any rights to compensation therefor. Green Benefits include but are not limited to:

- Avoided emissions of pollutants to the air, soils or waters, such as sulfur oxides (SO<sub>x</sub>), nitrogen oxides (NO<sub>x</sub>) and carbon monoxide (CO);
- Credits, benefits and attributes arising from avoided emissions of greenhouse gases (such as carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF<sub>6</sub>)) that have been or may in the future be determined by the United Nations Intergovernmental Panel on Climate

Change or by Applicable Law to contribute to the threat of climate change;  
and

- Reporting rights for avoided emissions, such as Green Tag Reporting Rights.

### Article 8 - Payment Calculations

8.1 Payment for Contract Capacity. Commencing on the Commercial Operation Date, Company shall pay Seller a monthly Capacity Payment for Contract Capacity, subject to Section 10.9 [and Section 10.10], based upon the following formula:

Monthly Capacity Payment = NC × CP × CAF, where:

NC = Net Capability

CP = Capacity Price, from Exhibit M - Pricing

CAF (Capacity Availability Factor) = (AEG + SME) ÷ PE, where

AEG = Available Energy - Gas for any period, stated in Megawatt-hours (MWh), means the amount of Contract Energy that is available from the Facility for dispatch on natural gas fuel, regardless of the extent to which Company actually dispatches the Facility, during such period. For purposes of calculating AEG:

- The Facility shall be derated for Forced Outages (regardless of whether caused by Force Majeure) and ambient conditions. By way of example for the month of June, [year], if (I) the Facility is fully mechanically available, (II) no maintenance is scheduled for the month, but (III) due to summer conditions, the average Contract Capacity actually available from the Facility for the month is \_\_\_ MW, *then* CAF for such month shall be \_\_\_ MWh [AEG] ÷ \_\_\_ MWh [PE] = \_\_\_%.
- Contract Capacity that is unavailable for dispatch by Company on natural gas fuel nevertheless shall be considered to be available for the purposes of determining Available Energy when (and only when):
  - (i) the Facility is disconnected from the Transmission Authority's System pursuant to the Interconnection Agreement, and the disconnection is not caused by actions of Seller or problems with the Facility;
  - (ii) the Contract Capacity and associated Contract Energy cannot be delivered by Seller or received by Company due to an Emergency or an event of Force Majeure affecting the Transmission Authority's System at or beyond the Point of Delivery;

**PSCo Model Dispatchable Energy Purchase Agreement**

- (iii) Company fails or is unable to cause Acceptable Natural Gas Fuel to be delivered to the Fuel Delivery Point, for any reason;
- (iv) Company has contracted for non-firm transmission service, and the Contract Capacity and associated Contract Energy cannot be received at the Point of Delivery due to transmission constraints affecting the Transmission Authority's System; and/or
- (v) the Facility cannot operate because its emissions have exhausted the annual limits of its Permits but the Facility has generated the Planned Permitted Energy for such year.

By way of example only, the Contract Capacity shall be deemed unavailable for purposes of this Section 8.1:

- if, to the extent and for so long as the Facility is subject to a Forced Outage, including an outage caused by Force Majeure at the Site or prior to the Point of Delivery;
- if Company has contracted for firm transmission service, but the Contract Capacity and associated Contract Energy cannot be received by Company at the Point of Delivery due to transmission constraints affecting the Transmission Authority's System; and/or
- in a cumulative amount equal to the Permit Deficiency for each year, if any.

SME = Scheduled Maintenance Energy for any period, stated in MWh, means the amount of energy that is not available from the Facility for dispatch by Company on natural gas fuel during such period, due to Scheduled Outages/Deratings that meet the requirements for credited Scheduled Maintenance Energy under Exhibit L - Maintenance.

PE = Period Energy for any period, stated in MWh, means the product of the Net Capability and the total number of hours in such period.

For each of the first 11 monthly billing periods after the Commercial Operation Date, CAF shall be determined on a month-by-month basis, using data from the monthly billing period in question only. For all subsequent monthly billing periods, CAF shall be determined on a 12-month rolling-average basis, using data from the monthly billing period in question and the previous 11 monthly billing periods.

**note:** *if the Facility is not fuel oil-capable, references to "gas" in this §8.1 can be deleted; "AEG" can become "AE"; etc.*

**8.2 Payment for Dispatchability.** Commencing on the Commercial Operation Date, Company shall pay Seller a monthly Dispatchability Payment (prorated to reflect

the actual number of Days of Commercial Operation in the first billing month) based on the following formula:

Dispatchability Payment = NC × DAF × \$0.25 per kW-month, where:

NC = Net Capability

DAF (Dispatch Availability Factor) = RRAF × (Hours on-control ÷ Hours on-line),  
where:

RRAF = Ramp Rate Availability Factor per the following table, calculated and subject to verification testing by Company as set forth in Exhibit I - Operating Standards:

<b>Tested Contract Capacity Ramp Rate Performance</b> (based upon the most recent ramp rate testing, per Exhibit I)	<b><u>RRAF</u></b>
• Actual Ramp Rate ≥ 100% of the Expected Ramp Rate	1.0
• Actual Ramp Rate ≥ 75% but < 100% of the Expected Ramp Rate	0.75
• Actual Ramp Rate ≥ 50% but < 75% of the Expected Ramp Rate	0.50
• Actual Ramp Rate < 50% of the Expected Ramp Rate	- 0 -
<i>[Depending on the number, type of Generating Units, a bid may amend the foregoing table to reflect expected ramp rate performance for different Facility configurations (e.g. one Unit dispatched, two Units dispatched, etc.) and/or to reflect different expected increasing vs. decreasing ramp rates]</i>	

For the avoidance of doubt RRAF is always determined on a monthly basis, never on a rolling-average basis.

Hours on-control = the total number of hours during a referenced period when the Generating Unit(s) are receiving and responding to dispatch pulses transmitted from Company's EMCC in compliance with Exhibit I – Operating Standards. Any hour for which Company requests that the Contract Capacity be dispatched without AGC by Company will be counted as an Hour on-control, so that the ratio of (Hours on-control/Hours on-line) will be 1.0 for such hour.

Hours on-line = the total number of hours during a referenced period when the Generating Unit(s) are synchronized to Transmission Authority's System and available to generate Contract Energy.

For each of the first 11 monthly billing periods after the Commercial Operation Date, Hours on-control and Hours on-line shall be determined on a month-by-month basis, using data from the monthly billing period in question only. For all subsequent monthly billing periods, Hours on-control and Hours on-line shall be



determined on a 12-month rolling-average basis, using data from the monthly billing period in question and the previous 11 monthly billing periods.

8.3 Payment for Energy. Commencing upon COD, Company shall pay Seller a monthly Tolling Payment for the Contract Energy that is dispatched by Company and delivered by Seller to Company during the billing month, per the following formula:

Tolling Payment =  $E \times TP$ , where:

$E$  = Contract Energy, stated in MWh, which is dispatched by Company [(on natural gas fuel and/or fuel oil) *if applicable*] and delivered by Seller to Company during the billing month; and

$TP$  = Tolling Payment Rate from Exhibit M – Pricing.

8.4 Heat Rate Adjustment. Commencing upon COD, a “Heat Rate Adjustment” (HRA) shall be made to the Tolling Payments due to Seller for each billing month hereunder, based upon the Actual Heat Rate vs. the Predicted Net Heat Rate for the Facility with respect to that month, as follows:

(A) If the Actual Net Heat Rate for the Facility is greater than 102% of the Predicted Net Heat Rate, the Heat Rate Adjustment, for the billing month following the heat rate test until the billing month following the next heat rate test, shall reduce Tolling Payments to Seller per the following formula:

$$HRA = \text{Fuel Delivered} \times \text{Price of Fuel} \times (1 - (P/A)),$$

where for purposes of this Section 8.4:

“Fuel Delivered” is the amount of natural gas energy or fuel oil energy provided by Company and consumed by the Facility to produce the Contract Energy delivered by Seller to Company in the billing month, stated in MMBtu;

“Price of Fuel” means Company’s average total unit cost of the Fuel Delivered for the relevant billing month, stated in \$/MMBtu. The total cost of Fuel Delivered shall include Company’s Commodity Cost; any transportation, handling, storage and ancillary natural gas service costs incurred by Company associated with the Fuel Delivered; and all natural gas demand charges incurred by Company associated with the Fuel Delivered;

“Commodity Cost” means Company’s average actual commodity cost of the Fuel Delivered for the relevant billing month, stated in \$/MMBtu;

“P” is the Predicted Net Heat Rate for that month; and

“A” is the Actual Net Heat Rate for the Facility for that month.

(B) If the Actual Net Heat Rate for the Facility is less than 98% of the Predicted Net Heat Rate, the Heat Rate Adjustment, for the billing month following the heat rate test until the billing month following the next heat rate test, shall be used to increase Tolling Payments to Seller per the following formula:

$$\text{HRA} = \text{Fuel Delivered} \times \text{Commodity Cost} \times (1 - [(P \times 0.98)/A]) \times 0.50$$

(C) If the Actual Net Heat Rate for the Facility is equal to or less than 102% of the Predicted Net Heat Rate, and is equal to or greater than 98% of the Predicted Net Heat Rate, the Heat Rate Adjustment, for the billing month following the heat rate test until the billing month following the next heat rate test, shall be zero for such months.

#### 8.5 Payment for Turbine Starts.

(A) Commencing on the Commercial Operation Date, Company shall pay Seller a monthly Turbine Start Payment per the following formula:

$$\text{Turbine Start Payment} = \$\_\_\_\_ \times \text{number of Successful Starts [in excess of \_\_\_\_ Successful Starts] [on natural gas or fuel oil *if applicable*] during the month [bid-specific]}$$

(B) If a turbine start is initiated but fails to satisfy the criteria for a Successful Start as a result of: (i) the cancellation of the start by Company within the applicable time period, for a Successful Start, (ii) a request from Company, within one hour following the start, to shut down the Generating Unit, or (iii) an Emergency or event of Force Majeure beyond the Point of Delivery on the Transmission Authority's System, then the initiated turbine start shall nevertheless qualify as a Successful Start.

(C) Seller shall not be credited a Successful Start following a turbine trip where Company directs the Seller to restart the Unit after it has tripped out of service even if the restart would otherwise meet the qualifications for a Successful Start.

(D) For the avoidance of doubt, a Successful Start of all [three] Generating Units at the Facility will result in a Turbine Start Payment of \$\_\_\_\_ × [3] = \$\_\_\_\_. ~~delete this ¶D for single-Unit facilities; edit as needed for multi-Unit facilities~~

#### 8.6 ESC Adjustments.

(A) In connection with each ESC Event during the Term, an adjustment in the payment due to Seller from Company shall be made for the billing period during which the ESC Event occurs (an "ESC Adjustment"), based upon the availability of the Facility [on natural gas fuel and/or fuel oil *if applicable*] during the ESC Event as set forth in Exhibit N - ESC Adjustments. The ESC Adjustment, if any, shall be in addition to (not in lieu of) any adjustment to the Monthly Capacity Payment based upon the Available Energy from the Facility during that billing period under Section 8.1, any adjustment for inaccurate Reported Availability under Section 10.9 [, and any adjustment for fuel oil

availability under Section 10.10 if applicable]. An ESC Adjustment may be positive or negative, as provided in Exhibit N - ESC Adjustments.

(B) The Parties shall take such steps as may be necessary from time to time to allow each the Seller and Company to receive prior notice of ESC Events and anticipated ESC Events.

(C) For purposes hereof, an “ESC Event” means any period of time during the Term as to which EMCC, NERC, the ERO or the Transmission Authority formally declares an elevated concern regarding system capacity, reliability or operating reserves with respect to the Transmission Authority’s System or any directly interconnected transmission system. As of the Effective Date, ESC Events include elevated system conditions coded yellow, orange and red; *provided, however*, that for purposes hereof, system conditions that do not involve a shortage or anticipated shortage of generation or transmission capacity (e.g. geomagnetic events) shall not be deemed ESC Events.

(D) In the event that, from time to time during the Term, the criteria and/or coding of ESC Events are changed by EMCC, the Transmission Authority or any applicable transmission-owning utility with authority, the Parties shall amend this PPA to substitute for Exhibit N - ESC Adjustments appropriate covenants reflecting such changed criteria and/or coding, in order to provide payments substantially equivalent to those contemplated by this Section.

## **Article 9 - Billing and Payment**

### **9.1 Billing.**

(A) The billing period under this PPA shall be the calendar month.

(B) As soon as practicable and in any event by the later of (i) 20 Days after the end of the month, or (ii) 10 Days after receipt by Company of the monthly report required from Seller under Section 10.6(B), Company shall provide to Seller a statement containing Company’s calculation of the amount due to Seller for such month, including the applicable billing parameters based upon Company’s reading of the Electric Metering Devices consistent with Section 5.2.

(C) Within 15 Business Days following receipt of Company’s billing statement, Seller shall submit an invoice to Company in a form and by a method to be determined by the Parties, showing the amount due Seller for the relevant month, specifying the products and services provided, all billing parameters, rates and factors, and any other data relevant to the calculation of payments due to Seller. Such invoice shall include an explanation of any items in dispute, as well as all supporting documentation upon which Seller relies.

9.2 Payment. All payments shall be remitted via check or electronic funds transfer, as designated by the owed Party, on or before the 15<sup>th</sup> Business Day following receipt of the invoice. Remittances received by mail will be considered to have been

paid when due if the postmark indicates the payment was mailed on or before the 15<sup>th</sup> Business Day following receipt of the billing invoice.

(A) If a payment is late, a late payment charge shall be applied to the unpaid balance for the number of days payment was late and shall be added to the next billing statement. Late payment charges shall include interest calculated using the prime rate of interest as published on the date of the invoice in *The Wall Street Journal* (or, if unavailable, an equivalent publication on or about that date).

(B) Company at any time may offset against amounts owed to Seller, any liquidated amounts, accrued damages and other payments, and undisputed billing errors and adjustments, which are owed by Seller to Company.

(C) Seller and Company may net their obligations to each other under this PPA, and payment of the net amount shall discharge all mutual undisputed obligations between the Parties.

9.3 Billing Disputes. Either Party may dispute invoiced amounts pursuant to Section 13.1, but shall pay to the other Party at least the portion of invoiced amounts that is not disputed, on or before the invoice due date. When the billing dispute is resolved, the owing Party shall pay the amount owed within five (5) Business Days of the date of such resolution, with late payment interest charges calculated on the amount owed in accordance with Section 9.2(A).

## Article 10 - Operations and Maintenance

10.1 Operation and Administration. Seller shall staff, control, and operate the Facility consistent with Good Utility Practices, Exhibit I – Operating Standards and this PPA. **add one of the following [no ¶ break]** :

**simple cycle facilities**: Personnel of Seller shall be available 24x7 via telephone or other electronic means with (i) the capability of remotely starting, operating and stopping the Facility within 10 minutes, and (ii) the ability to be physically present at the Site within 30 minutes, to start, operate and stop the Facility on-Site.

**combined cycle facilities**: Personnel of Seller capable of starting, operating, and stopping the Facility shall be physically present at the Facility 24x7 during Commercial Operation.

(A) Facility Maintenance. Seller shall maintain the Facility in accordance with Good Utility Practices. Scheduled Outages/Deratings shall comply with the requirements of Exhibit L – Maintenance. Absent the prior written consent of Company, Seller shall schedule no Outages/Deratings during the months of January, February, June, July, August, September and December. Seller shall coordinate with Company and the Transmission Authority on the timing and duration of planned outages. Company has the right to not permit a planned outage if it conflicts with the requirement of the ERO.

## 10.2 Forced Outages.

(A) When Forced Outages occur, Seller shall notify EMCC of the existence, nature, start time, and expected duration of the Forced Outage as soon as practicable, but in no event later than 30 minutes after the Forced Outage occurs. Thereafter Seller shall immediately inform EMCC of any changes in the expected duration of the Forced Outage except to the extent relieved of this obligation by EMCC with respect thereto.

(B) In addition to the foregoing notification, for any Forced Outage, shutdown or derating of the Facility, Seller shall conduct a root cause analysis, promptly provide the root cause analysis to the Company and take corrective action to prevent reoccurrences as soon as practicable thereafter, at Seller's sole expense. Such corrective action includes weather protective modifications to the Facility, additional operating or maintenance procedures and other appropriate preventative measures in accordance with Good Utility Practices. Seller shall diligently complete such analysis and corrective actions as soon as possible and provide to Company a written report containing such analysis and a summary of the corrective action taken or to be taken as soon as diligently possible.

## 10.3 Post-COD Testing.

(A) Following the Commercial Operation Date, Seller shall conduct capacity testing of the Facility as and when contemplated by Exhibit J - Capacity Testing, heat rate testing of the Facility as and when contemplated by Exhibit K - Heat Rate Testing, and such other testing of the Facility as may be required by this PPA, Applicable Law (including any accreditation testing mandated by the ERO) and any testing required by Good Utility Practices. Seller shall fulfill all reporting requirements arising from such testing.

(B) Seller and Company shall cooperate and use Commercially Reasonable Efforts to conduct all post-COD testing of the Facility during periods when Company is otherwise dispatching the Facility hereunder. All energy generated in connection therewith shall be treated and purchased by Company as Contract Energy hereunder.

(C) In the event that the Facility is tested post-COD when Company is not otherwise dispatching the Facility, (i) Seller shall invoice and Company shall purchase all Post-COD Test Energy from Seller at the Test Energy Rate, (ii) the Facility shall be deemed unavailable for purposes of Section 8.1, if and to the extent that such testing restricts Company's ability to dispatch the Facility during such testing, and (iii) Seller shall reimburse Company for all fuel commodity costs and any associated fuel imbalance, transportation and other ancillary costs incurred by Company in connection therewith.

(D) For purposes hereof, "Post-COD Test Energy" means energy generated by the Facility following COD, reasonably required to satisfy the post-COD

testing of the Facility required by this PPA, not purchased by Company as Contract Energy under paragraph (B) above.

10.4 Forecasting. Seller shall provide such forecasts of available capacity as the ERO or Transmission Authority may require from time to time. Seller concurrently shall provide to Company a copy of each such forecast.

10.5 Books and Records.

(A) Seller shall maintain an accurate and up-to-date hourly operating log for the Facility, in electronic format, that identifies real-time operating information for each Generating Unit, including levels of capacity availability; energy production; changes in operating status; Forced Outages; Scheduled Outages/Deratings; information required by Governmental Authorities in the prescribed format; and other information reasonably requested by Company.

(B) Seller shall deliver to Company information on Facility performance during each calendar month within five Business Days after the end of the month. For each Generating Unit, and using definitions provided by (or consistent with) the NERC Generation Availability Data System ("GADS") Manual, or any successor document, the data reported shall include planned and unplanned derated hours [with separate calculations for gas and fuel oil *if applicable*], average derated kW from Net Capability during the derated hours, scheduled maintenance hours, average derated kW during scheduled maintenance hours, the number of successful and unsuccessful turbine starts, hours on-control, hours on-line, and the monthly operating log of the Facility.

(C) Seller and Company shall each keep complete and accurate records and all other data required by each of them for the purposes of proper administration of this PPA, including metering, billing and payment records, and such records as may be required by Governmental Authorities.

(D) Originals or copies of all Operating Records shall be maintained at the Facility or such other Colorado location as may be specified by Seller from time to time. Company may examine and make copies of such Operating Records from time to time upon request, during normal business hours.

10.6 Access to Facility. Representatives of Company shall have access to the Facility from time to time, on Commercially Reasonable prior notice, to read meters, perform inspections and take such other actions as may be appropriate to facilitate Company's performance of this PPA. While at the Facility, such representatives shall observe Seller's standard safety precautions and shall conduct themselves in a manner that will not interfere with operation of the Facility.

10.7 Operating Committee and Operating Procedures.

(A) Company and Seller shall each appoint one representative and one alternate representative to act as the Operating Committee in matters relating to the Parties' performance obligations under this PPA and to develop operating arrangements

for the generation, delivery and receipt of Contract Energy from the Facility. The Parties' initial representatives on the Operating Committee are set forth in Exhibit D - Notices.

(B) The Operating Committee may develop mutually agreeable written Operating Procedures consistent with the requirements of this PPA, to address matters such as day-to-day communications; key personnel; operations-center interface; metering, telemetering, telecommunications, and data acquisition procedures; operations and maintenance scheduling and reporting; reports; operations log; testing procedures; and such other matters as may be mutually agreed upon by the Parties.

(C) The Operating Committee shall review the requirements for AGC and Data Collection from time to time after the date hereof and may agree on modifications thereto to the extent necessary or convenient for operation of the Facility in accordance with this PPA.

(D) The Operating Committee shall have authority to act in all technical and day-to-day operational matters relating to performance of this PPA and to attempt to resolve potential disputes, *provided, however*, that except as explicitly provided herein, the Operating Committee shall have no authority to amend or waive any provision of this PPA.

#### 10.8 Availability Reporting: Gas.

(A) Seller shall provide accurate and timely updates to Company's EMCC on the current availability of the Contract Capacity on natural gas fuel ("Reported Availability: Gas"), adjusted for ambient conditions, via such electronic means as may reasonably specified by Company. The amount of Contract Capacity available for any individual hour shall be integrated over the hour, on a prorated basis, to reflect any updates in Seller's Reported Availability: Gas made effective during such hour.

(B) Company may verify Seller's then-current Reported Availability: Gas at any time, without prior notice to Seller, by dispatching the Facility to the level of Reported Availability: gas (a "Availability Verification Test"). A "Gas Deficiency" shall be deemed to exist if (i) the tested availability on natural gas is less than 97% of the Reported Availability: Gas, or (ii) such tested availability is more than five (5) MW below the Reported Availability: Gas. Company shall notify Seller as soon as possible by telephone and thereafter in writing whenever Company identifies a Gas Deficiency that has or may have economic consequences under Section 10.9(C) below.

(C) For purposes of Section 8.1, (i) in the event of a Gas Deficiency, the Contract Capacity shall be derated by the amount of the Gas Deficiency, for the then-current hour and all subsequent hours, until Seller posts a revised Reported Availability: Gas, (ii) the occurrence of more than one Gas Deficiency in any billing month shall result in derating the Contract Capacity for that entire month (retroactive to the beginning of such month) to the lowest capacity level achieved in the Availability Verification Test(s) conducted during such month, and (iii) three or more Gas

Deficiencies in any two consecutive billing months shall result in a fifteen percent (15%) reduction in the Capacity Price, applicable to the subsequent two billing months.

10.9 Availability on Fuel Oil. *if no fuel oil capability, delete §10.10 and remove references to gas in §10.9*

(A) Seller shall provide accurate and timely updates to Company's EMCC on the current availability of the Contract Capacity for dispatch on fuel oil ("Reported Availability: Fuel Oil"), via such electronic or other means and at such intervals as may reasonably be required by Company from time to time.

(B) If and for so long as the Facility is not fully available for dispatch on fuel oil, but Acceptable Natural Gas Fuel is available at the Fuel Point of Delivery for dispatch of the full Contract Capacity on natural gas, then for purposes of Section 8.1, the Contract Capacity shall be derated by two percent (2%) for the duration of the fuel oil outage.

(C) If and for so long as (1) the Facility is not fully available for dispatch on fuel oil, and (2) despite Commercially Reasonable Efforts by Company, Acceptable Natural Gas Fuel is unavailable at the Fuel Point of Delivery for full dispatch of the Facility on natural gas, *then* for purposes of Section 8.1, notwithstanding clause Section 8.1(iv) to the contrary, the Contract Capacity shall be derated to the level of actual availability on fuel oil for the duration of the fuel oil outage.

(D) If ever (1) Company dispatches the Facility on fuel oil to the then-current level of Reported Availability: Fuel Oil, and (2) the actual availability of the Facility on fuel oil is less than 97% of the most recent Reported Availability: Fuel Oil, *then* for purposes of Section 8.1, the Contract Capacity shall be derated to zero (0) for the entire Day of the dispatch.

## **Article 11 - Security for Performance**

### **11.1 Security Fund.**

(A) During the Term of this PPA, Seller shall fund and maintain security in favor of Company, at Seller's expense, to secure Seller's obligations to Company under this PPA (the "Security Fund"), in accordance with this Article 11.

(B) Seller shall establish and fund the initial Security Fund in the amount of *[insert \$150/kW multiplied by the number of kW of Net Capability]*, no later than 30 Days following the date on which Company obtains or waives (or is deemed to have waived) PUC Approval under Section 6.1. Within 5 Business Days following COD, the amount of the Security Fund shall be reduced to *[insert \$100/kW multiplied by the number of kW of Net Capability]*.

(C) Company may draw from the Security Fund such amounts as are necessary to recover amounts owing to Company pursuant to this PPA, including any Liquidated Delay Damages, Actual Damages, liquidated damages for failure to achieve



COD, and any amounts for which Company is entitled to indemnification under this PPA. Company may, in its sole discretion, draw all or any part of such amounts from any form of security to the extent available pursuant to this Article 11 and in any sequence Company may select. Company's failure or delay to draw any amount from the Security Fund in any instance shall not prejudice Company's rights to subsequently recover such amount from the Security Fund or in any other manner.

(D) Company shall notify Seller within 5 Business Days following any draw on the Security Fund by Company, including the amount thereof and the basis therefor.

#### 11.2 Replenishment.

(A) Within 15 Days following each draw by Company on the Security Fund in respect of damages described in Section 12.4(B), Seller shall replenish the Security Fund by an amount equal to such draw.

(B) Within 15 Days following any other draw by Company on the Security Fund, Seller shall replenish the Security Fund by the amount of such draw, provided that the aggregate amount of replenishments under this Section 11.2(B) shall not exceed the Damage Cap.

#### 11.3 Form.

(A) The Security Fund may be in the form of an irrevocable standby letter of credit substantially in the form of Exhibit G – Form of Letter of Credit (a "Letter of Credit") from a financial institution acceptable to Company ("Issuer").

1. The Issuer of the Letter of Credit shall have and maintain a Credit Rating equivalent to A- (or better) by Standard & Poors and A3 (or better) from Moodys. If such Credit Rating is A- or A3, the Issuer must not be on credit watch by any rating agency.

2. The Letter of Credit must be for a minimum term of 360 Days. Seller shall give Company at least 30 Days advance notice prior to any expiration or earlier termination of the Letter of Credit. Seller shall cause the renewal or extension of the Letter of Credit for additional consecutive terms of 360 Days or more (or, if shorter, the remainder of the Term) more than 30 Days prior to each expiration date of the security. If the Letter of Credit is not renewed or extended at least 30 Days prior to its expiration date or otherwise is terminated early, Company shall have the right to draw immediately upon the Letter of Credit and to place the amounts so drawn, at Seller's cost and with Seller's funds, in an Escrow Account in accordance with paragraph (B) below, until and unless Seller provides a substitute form of security meeting the requirements of this Section 11.3.

(B) The Security Fund may be in the form of U.S. currency deposited into an escrow account with a state- or federally-chartered commercial bank with an

office in the State of Colorado, with net assets of at least \$1 billion (the "Escrow Account").

1. The Escrow Account shall be governed by an escrow and account control agreement in form mutually satisfactory to Seller, Company and the escrow agent, provided that (a) Company shall hold a first and exclusive perfected security interest in the funds in the Escrow Account, (b) Company shall be permitted unilaterally to draw down any amount therein, regardless of any protest by Seller or any other party liable thereon (*provided* that nothing in the Escrow Agreement shall preclude any protest against Company by Seller, following any draw, that such draw did not comply with this PPA), and (c) Seller shall pay all fees and expenses of the escrow agent.

2. Funds held in the Escrow Account may be invested as Seller may direct in any of the following:

- a money-market fund sponsored by the escrow agent;
- U.S. treasury obligations with a maturity of 90 Days or less;
- commercial paper rated "A" or better, with a maturity of 90 days or less; and
- other liquid investment-grade investments with maturities of three months or less, approved by Company in advance (such approval not to be unreasonably withheld or delayed).

3. All investment income on the Escrow Account shall be taxable to, and accrue for the benefit of, Seller. After the Commercial Operation Date, periodic sweeps by Seller for recovery of interest earned by the escrowed funds shall be allowed, and if at any time the balance in the Escrow Account exceeds the required amount of security, the escrow agent may remit the excess to Seller.

(C) Following COD, the Security Fund may consist of a guaranty substantially in the form of Exhibit H – Form of Guaranty, from a parent or other guarantor ("Guarantor") with a minimum of net worth of at least \$250,000,000 and an Investment Grade Credit Rating (and if such Credit Rating is exactly equivalent to BBB-[S&P] / Baa3 [Moody's], the Guarantor must not be on credit watch by any rating agency). If the Credit Rating of the Guarantor is downgraded below Investment Grade, put on credit watch, or an event occurs that (in the reasonable determination of Company) portends a Material Adverse Effect in the creditworthiness of the Guarantor, then Company may require Seller to convert the guaranty to a Security Fund instrument meeting the criteria set forth in either paragraph (A) or paragraph (B) above no later than 10 Days after notice from Company.

(D) Company shall negotiate in good faith any needed escrow and account control agreement and, upon request by Seller, immaterial changes to Exhibit G – Form of Letter of Credit and/or Exhibit H – Form of Guaranty, provided that Seller shall pay or reimburse Company for the direct expenses (including the fees and expenses of counsel) incurred by Company in connection therewith.

(E) Seller may change the form of the Security Fund at any time and from time to time upon Commercially Reasonable prior notice to Company, *provided, however*, that the Security Fund must at all times satisfy the requirements of this Article 11.

11.4 Replacement. In the event that the Security Fund ever fails to comply with the requirements of this Article 11 or Company determines in a commercially reasonable manner that an event has occurred or circumstances have developed that threaten to cause the Security Fund to fail to comply with the requirements of this Article 11 (e.g. a Guarantor is placed on negative credit watch by a rating agency), Seller shall be required to replace the Security Fund with security in compliance with this Article 11 within 5 Days following notice thereof from Company.

11.5 Survival. The Security Fund shall survive termination of this PPA to be available to pay any amounts owed to Company arising prior to or upon termination. Promptly following (i) the end of the Term and the completion of all of Seller's obligations under this PPA, or (ii) termination of this PPA for any reason prior to the Scheduled Termination Date, Company shall determine the amount, if any, owed by Seller for any obligations or damages arising out of this PPA. Company may draw such amount and shall release the balance of the Security Fund (including any accumulated interest, if applicable) to Seller.

11.6 Expenses. Seller shall reimburse Company for its direct expenses (including the fees and expenses of counsel) incurred by Company in connection with the preparation, negotiation, execution and/or release (including making a draw of funds) of the Security Fund under this Article 11.

## **Article 12 - Default and Remedies**

### **12.1 Default by Seller: General**

(A) Events. Any of the following events shall constitute a default by Seller under this PPA. If no cure period is provided below, such default shall be deemed an Event of Default by Seller immediately upon its occurrence. If a cure period is provided below, such default shall mature into an Event of Default if not cured within the indicated cure period, subject to Section 13.3 below.

1. Seller's application for, or consent (by admission of material allegations of a petition or otherwise) to, the appointment of a receiver, trustee or liquidator for Seller or for all or substantially all of its assets, or its authorization of such application or consent; or the commencement of any proceedings seeking such appointment without such authorization, consent or application, which proceedings continue undismissed or unstayed for a period of 60 Days from inception.

*Cure Period:* None.

2. Seller's authorization or filing of a voluntary petition in bankruptcy or application for or consent (by admission of material allegations of a petition or otherwise) to the application of any bankruptcy, reorganization, readjustment of debt, insolvency, dissolution, liquidation or other similar law of any jurisdiction; or the institution of such proceedings against Seller without such authorization, application or consent, which proceedings remain undismissed or unstayed for 60 Days from inception or which result in adjudication of bankruptcy or insolvency within such time.

*Cure Period:* None.

3. Seller's assignment of this PPA or the Facility, or any Change of Control, not permitted by Section 19.1.

*Cure Period:* None.

4. Any representation or warranty by Seller in this PPA that has a Material Adverse Effect on Seller's ability to perform this PPA is proven to have been false in any material respect when made.

*Cure Period:* None.

5. Seller's failure to establish and maintain the Security Fund as and in the amounts required under Article 11.

*Cure Period:* Five (5) Business Days after Company provides notice of Seller's failure.

6. Seller's failure to obtain and maintain insurance in scope and amounts required under Article 16.

*Cure Period:* Five (5) Business Days after Company provides notice of Seller's failure.

7. Seller's failure to make any payment to Company as and when required by this PPA, including Liquidated Delay Damages, Actual Damages, and any required indemnification.

*Cure Period:* 10 Business Days after the date Seller receives notice from Company that the amount is overdue.

8. Any representation or warranty by Seller in this PPA that has a Material Adverse Effect on Seller's ability to perform this PPA ceases to remain true in all material respects during the Term, other than due to a change of law.

*Cure Period:* 30 Days after Company provides notice of such breach.

9. A breach by Seller of the Interconnection Agreement, which breach (i) materially interferes with Seller's delivery of Contract Energy to the Point of Delivery, Company's ability to accept Contract Energy at the Point of Delivery, or Company's ability to transmit Contract Energy beyond the Point of Delivery, and/or (ii) otherwise has a Material Adverse Effect on Company.

*Cure Period:* 30 Days from the breach or the cure period allowed by the Interconnection Agreement (whichever is longer).

10. Beginning with the second Commercial Operation Year, a failure of the Facility to achieve a CAF of at least 85% during any 12-consecutive month period, on a rolling average basis; *provided, however*, that to the extent such failure of performance is attributable to Force Majeure, the contribution of such Force Majeure shall be eliminated from the CAF calculation for the purposes of, and only for the purposes of, establishing a default of Seller pursuant to this paragraph.

*Cure:* Seller shall be deemed to have cured this default if the Facility achieves a CAF for the following Commercial Operation Year (again with periods of Force Majeure excluded from the calculation) of 90% or more.

11. The failure by Seller to perform or observe any other material obligation to Company under this PPA, unexcused by Force Majeure (other than failure to achieve COD, which is addressed in Section 12.2 below).

*Cure Period:* 30 Days after notice thereof shall have been given by Company; *provided*, that if such default is not reasonably capable of cure within such 30-Day period, Seller shall have such additional period of time (not to exceed 90 Days in any event) as is reasonably necessary for cure, so long as Seller initiates cure within such 30-Day period and diligently prosecutes the cure to conclusion thereafter.

(B) Remedies for Default. In connection with any default by Seller under this Section 12.1 (whether or not cured by Seller), Company may

1. Seek Actual Damages in such amounts and on such basis for the default as authorized by this PPA;
2. Offset against any payments due to Seller, any Actual Damages and other amounts due from Seller; and/or
3. Draw any Actual Damages and other amounts due from Seller, from the Security Fund.

(C) Termination for Event of Default. Upon and at any time following an Event of Default by Seller under this Section 12.1, in addition to its rights under Section 12.1(B) above, Company may terminate this PPA immediately upon notice to Seller, without penalty or further obligation to Seller. In connection with any such termination, Company may collect from Seller (subject to the Damage Cap) all Actual Damages arising from such Event of Default through the Scheduled Termination Date.

(D) Specific Performance. In addition to the other remedies specified herein, upon any Event of Default of Seller under this Section 12.1, Company may elect to treat this PPA as being in full force and effect and Company shall have the right to specific performance.

## 12.2 Default by Seller: Failure to Achieve COD.

(A) COD Delay. Seller shall be in default under this PPA if the Facility fails to achieve COD by the Target COD ("COD Delay"). Seller shall be liable to pay *[insert \$250 per MW of Net Capability]* per Day ("Liquidated Delay Damages") to Company as a liquidated damage and not a penalty, in lieu of Actual Damages, for any COD Delay. Except as provided in Section 12.2(C) below, the payment of Liquidated Delay Damages shall be Company's sole and exclusive remedy for a COD Delay. Liquidated Delay Damages shall begin to accrue on the Day after the Target COD (as it may be extended due to Force Majeure) until the first to occur of COD or termination of this PPA pursuant to Section 12.2(C) below.

(B) Cure. Seller shall have a cure period of 45 days for its failure to achieve Commercial Operation by the Target COD, *provided, however*, that if during such period Seller provides a written opinion from a mutually-agreeable independent engineer that COD can reasonably be achieved within an additional 45 Day period, then the cure period shall be 90 Days after the Target COD to achieve Commercial Operation. The payment of accrued Liquidated Delay Damages shall be a condition to any such cure.

(C) Termination. Failure to cure a COD Delay within the applicable cure period set forth in Section 12.2(B) shall be an Event of Default by Seller. Upon such an Event of Default, Company may (i) terminate this PPA immediately upon notice to Seller, without penalty or further obligation to Seller except as to costs and balances incurred prior to the effective date of such termination, and (ii) in connection therewith, in addition to accrued Liquidated Delay Damages but in lieu of Actual Damages for the balance of the Term, collect from Seller liquidated damages therefor in the amount of *[insert \$125/kW x Net Capability]* ("Termination LDs").

## 12.3 Default by Company.

(A) Events. Any of the following events shall constitute a default by Company under this PPA. If no cure period is provided below, such default shall be deemed an Event of Default by Company immediately upon its occurrence. If a cure period is provided below, such default shall mature into an Event of Default if not cured within the indicated cure period, subject to Section 13.3 below.

1. Company's application for, or consent (by admission of material allegations of a petition or otherwise) to, the appointment of a receiver, trustee or liquidator for Company or for all or substantially all of its assets, or its authorization of such application or consent, or the commencement of any proceedings seeking such appointment without such authorization, consent or application, which proceedings continue undismissed or unstayed for a period of 60 Days from inception.

*Cure Period:* None.

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2. Company's authorization or filing of a voluntary petition in bankruptcy or application for or consent (by admission of material allegations of a petition or otherwise) to the application of any bankruptcy, reorganization, readjustment of debt, insolvency, dissolution, liquidation or other similar law of any jurisdiction or the institution of such proceedings against Company without such authorization, application or consent, which proceedings remain undismissed or unstayed for 60 Days from inception or which result in adjudication of bankruptcy or insolvency within such time.

*Cure Period:* None.

3. Company's assignment of this PPA, not permitted by Section 19.2.

*Cure Period:* None.

4. Any representation or warranty by Company in this PPA that has a Material Adverse Effect on Company's ability to perform this PPA is proven to have been false in any material respect when made.

*Cure Period:* None.

5. Company's failure to make any payment to Company as and when required by this PPA, including invoiced amounts, Actual Damages and any required indemnification.

*Cure Period:* 10 Business Days after the date Company receives notice from Seller that the amount is overdue.

6. Any representation or warranty by Company in this PPA that has a Material Adverse Effect on Company's ability to perform this PPA ceases to remain true during the Term, other than due to a change of law.

*Cure Period:* 30 Days after Seller provides notice of such breach.

7. The failure by Company to perform or observe any other material obligation to Seller under this PPA, unexcused by Force Majeure.

*Cure Period:* 30 Days after notice thereof shall have been given by Seller; *provided*, that if such default is not reasonably capable of cure within such 30-Day period, Company shall have such additional period of time (not to exceed 120 Days in any event) as is reasonably necessary for cure, so long as Company initiates cure within such 30-Day period and diligently prosecutes the cure to conclusion thereafter.

(B) Remedies for Default. In connection with any default by Company (whether or not cured by Company), Seller may

1. Seek Actual Damages in such amounts and on such basis for the default as authorized by this PPA; and/or

2. Offset against any payments due to Company, any Actual Damages and other amounts due from Company.

(C) Termination for Event of Default. Upon an Event of Default by Company, in addition to its rights under Section 12.3(B) above, Seller may terminate this PPA immediately upon notice to Company, without penalty or further obligation to Company, and in connection therewith, collect from Company all Actual Damages arising from such Event of Default through the Scheduled Termination Date.

#### 12.4 Limitations on Damages.

(A) Except as otherwise provided in Section 12.4(B), Seller's aggregate financial liability to Company for Actual Damages following COD shall not exceed *[insert \$100/kW × Net Capability]* (the "Damage Cap"). If at any time following COD, Company incurs damages in excess of the Damage Cap that Seller does not pay when billed by Company, Company shall have the right to terminate this PPA upon notice to Seller, without further obligation by either Party except as to costs and balances incurred prior to the effective date of such termination.

(B) Actual Damages payable by Seller arising out of any of the following events shall not be subject to the Damage Cap and shall not be credited against the Damage Cap:

1. damage to Company-owned facilities proximately caused by negligence, breach of this PPA or other misconduct by Seller, its directors, officers, employees and agents;

2. Seller's intentional misrepresentation or intentional misconduct in connection with this PPA or the operation of the Facility;

3. the sale or diversion by Seller to a third party of any capacity or energy from the Facility, excluding any sales in mitigation of damages;

4. Seller's failure (i) to maintain insurance coverages in the types and amounts required by this PPA or (ii) to apply any insurance proceeds as required by Section 16.4;

5. any claim for indemnification under this PPA;

6. any Environmental Contamination caused by Seller; or

7. damages incurred by Company in connection with any bankruptcy or insolvency proceeding involving Seller, including Company's loss of the benefit of its bargain due to rejection or other termination of this PPA in such proceeding.

(C) The Parties confirm that the express remedies and measures of damages provided in this PPA satisfy the essential purposes hereof. If no remedy or measure of damages is expressly herein provided, the obligor's liability shall be limited



to all direct damages proximately caused by such default ("Actual Damages") incurred by the non-defaulting Party, provided that if Seller is the defaulting Party, Actual Damages recoverable by Company hereunder may include Replacement Power Costs. **Neither Party shall be liable to the other Party for consequential, incidental, punitive, exemplary, special, treble, equitable or indirect damages, lost profits or other business interruption damages, regardless of whether the relevant cause of action arises from statute, tort or contract** (except to the extent expressly provided herein); *provided, however*, that if either Party is held liable to a third party for such damages and the Party held liable for such damages is entitled to indemnification from the other Party hereto, the indemnifying Party shall be liable for, and obligated to reimburse the indemnified Party for all such damages.

(D) To the extent damages required to be paid hereunder are liquidated, the Parties acknowledge that actual damages would be substantial but difficult or impossible to determine, that otherwise obtaining an adequate remedy is inconvenient, and that the liquidated damages constitute a reasonable approximation of the harm or loss.

#### 12.5 Step-In Rights.

(A) Upon the occurrence of a default by Seller following COD that could be cured by Company if Company obtains possession of the Facility, Company shall have the right, but not the obligation, to assume control and operate the Facility as agent for Seller (whether voluntary or involuntary) in accordance with Seller's rights, obligations, and interest under this PPA ("Step-In Rights"). Company shall give Seller and the Facility Lender at least 10 Days' notice in advance of exercising Company's Step-In Rights. Exercise of Step-In Rights *per se* shall not be deemed to cure the associated default, and shall not preclude or limit Company's right to exercise its other remedies against Seller under this PPA.

(B) Seller irrevocably appoints Company as Seller's attorney-in-fact for the exclusive purpose of executing such documents and taking such other actions as Company may reasonably deem necessary, appropriate or prudent to implement its Step-In Rights.

(C) Company acknowledges that Company may be required and shall relinquish or delay exercise of its Step-In Rights in the event that the Facility Lender elects to appoint a receiver, foreclose and/or otherwise obtain possession of the Facility under the Financing Documents. Seller shall not grant any person, other than the Facility Lender, a right to possess, assume control of, or operate the Facility in derogation of Company's Step-In Rights.

(D) Seller shall reimburse Company for its expenses and costs (including the fees and expenses of counsel) incurred by Company in connection with exercising its Step-In Rights ("Step-In Costs").

(E) During the period of Company's exercise of its Step-In Rights:

1. Company shall implement its Step-In Rights and operate the Facility in conformance with Good Utility Practice.
2. Company shall perform Seller's obligations in a manner consistent with Seller's duties under this PPA.
3. Seller shall retain legal title to and ownership of the Facility.
4. Seller shall make available at the Facility all documents, contracts, books, manuals, reports, and records required for Company to operate, and maintain the Facility.
5. Seller shall give Company, its employees and contractors, unrestricted access to the Site and the Facility.
6. Seller shall cooperate in the implementation of Company's Step-In Rights.
7. Company shall devote the Contract Energy generated and delivered from the Facility during such period towards satisfaction of Seller's obligations hereunder.

(F) During the period of Company's exercise of its Step-In Rights, Company shall purchase the Contract Capacity and Contract Energy from the Facility as provided herein, *provided* that Company may withhold its Step-In Costs from payments due to Seller hereunder. In the event that net revenues due to Seller are insufficient to cover such Step-In Costs, Company may draw upon the Security Fund to cover such Step-In Costs.

(G) Company may relinquish its Step-In Rights at any time, on at least 15 days' notice to Seller and the Facility Lender. Company shall relinquish its Step-In Rights on the earliest of (i) termination of this PPA, or (ii) Seller's cure of the default that led to exercise of Company's Step-In Rights within the applicable cure period set forth herein.

(H) This Section 12.5 shall be specifically enforceable by Company, without bond and without the need to prove irreparable harm.

(I) Exercise of its Step-In Rights shall not constitute an assumption by Company of any liability of Seller.

12.6 Bankruptcy. This PPA grants each Party the contractual right to "cause the liquidation, termination or acceleration" of the transactions within the meaning of Sections 556, 560 and 561 of the U.S. Bankruptcy Code, as they may be amended superseded or replaced from time to time. Upon a bankruptcy, a non-defaulting Party shall be entitled to exercise its rights and remedies under this PPA in accordance with the safe harbor provisions of the Bankruptcy Code set forth in, *inter alia*, §362(b)(6), §362(b)(17), §362(b)(27), §362(o), §546(e), §548(d)(2), §556, §560 and §561, as they may be amended, superseded or replaced from time to time.

12.7 Cumulative Remedies. Except as explicitly provided to the contrary in this PPA, each right or remedy of the Parties provided for in this PPA shall be cumulative of and shall be in addition to every other right or remedy provided for in this PPA, and the exercise of one or more of the rights or remedies provided for herein shall not preclude the simultaneous or later exercise by such Party of any other rights or remedies provided for herein

12.8 Duty to Mitigate. Each Party shall use Commercially Reasonable Efforts to mitigate any damages it may incur as a result of a default by the other Party under this PPA.

### **Article 13 - Dispute Resolution**

#### **13.1 Negotiation**

(A) In the event of any dispute arising under or associated with the Parties' performance of this PPA (a "Dispute"), within 10 Business Days following notice by either Party (a "Dispute Notice"), (i) each Party shall appoint a representative, and (ii) the representatives shall meet, negotiate and attempt in good faith to resolve the Dispute quickly, informally and inexpensively.

(B) In the event the Parties' representatives cannot resolve the Dispute within 30 Days after the first meeting, either Party may request that consideration and resolution of the Dispute be transferred to senior management. Within 10 Days following such a request, each Party shall submit a written summary of the Dispute describing the issues and claims to a senior officer of each Party designated to address the Dispute. Within 10 Business Days after receipt of each Party's Dispute summaries, the designated senior managers for both Parties shall negotiate in good faith to resolve the Dispute. If such senior managers are unable to resolve the Dispute thereafter, either Party may seek available legal remedies, subject to Sections 13.3 and 19.3.

13.2 Time Bar. If no Dispute Notice has been issued within 18 months following the occurrence of events or circumstances giving rise to the Dispute (regardless of the actual knowledge of either Party of such events and circumstances), all claims related to such Dispute (including any allegations of billing errors) shall be deemed waived and the aggrieved Party shall thereafter be barred from proceeding thereon.

13.3 No Termination Pending Dispute Resolution. Notwithstanding Section 12.1 or Section 12.3 to the contrary:

(A) An Event of Default shall not be deemed to have occurred (and hence neither Party may terminate this PPA) for failure by the other Party to pay any amount(s) allegedly due totaling less than \$100,000, if (1) such amount(s) are disputed in good faith, (2) the Party alleged to owe such amount(s) promptly commences and diligently pursues resolution of the Dispute pursuant to Section 13.1, and (3) the owed amount (if any) is paid within 10 Business Days after all dispute resolution mechanisms are completed with respect thereto.

(B) An Event of Default by Seller shall not be deemed to have occurred (and hence Company may not terminate this PPA) for failure by Seller to pay any amount(s) allegedly due totaling \$100,000 or more, if

1. such amount(s) are disputed by Seller in good faith;
2. Seller promptly commences and diligently pursues resolution of the Dispute pursuant to Section 13.1;
3. Seller either holds an Investment Grade Credit Rating, or posts cash collateral to secure its obligations (if any) with respect to the disputed amount(s), in an amount equal to the amount(s) in dispute, under a mutually agreeable third-party escrow and account control agreement, in addition to the Security Fund; and
4. the owed amount (if any) is paid by Seller within 10 Business Days after all dispute resolution mechanisms are completed with respect thereto.

(C) An Event of Default by Company shall not be deemed to have occurred (and hence Seller may not terminate this PPA) for failure by Company to pay any amount(s) allegedly due totaling \$100,000 or more, if

1. such amount(s) are disputed by Company in good faith;
2. Company promptly commences and diligently pursues resolution of the Dispute pursuant to Section 13.1;
3. Company either holds an Investment Grade Credit Rating, or posts cash collateral to secure its obligations (if any) with respect to the disputed amount(s), in an amount equal to the amount(s) in dispute, under a mutually agreeable third-party escrow agreement; and
4. the owed amount (if any) is paid by Company within 10 Business Days after all dispute resolution mechanisms are completed with respect thereto.

**13.4 Governing Law.** The interpretation and performance of this PPA, and all actions related hereto (whether sounding in contract, tort or otherwise), shall be governed and construed in accordance with the laws of the State of Colorado, exclusive of conflict of laws principles.

**13.5 Venue.** The Parties submit to the exclusive jurisdiction of the state courts of the State of Colorado for purposes of resolving any Dispute hereunder, except as provided in Section 19.3. Venue for any court proceedings shall lie exclusively in the Colorado District Court for the City and County of Denver or, if jurisdictionally available, the U.S. District Court for the District of Colorado.

**13.6 Waiver of Jury Trial.** **Seller and Company each hereby knowingly, voluntarily and intentionally waive any rights they may have to a trial by jury** in respect of any litigation based hereon, or arising out of, under, or in connection with, this PPA or any course of conduct, course of dealing, statements (whether oral or written) or

actions of Seller and Company related hereto and expressly agree to have any Disputes be adjudicated by a judge of the court having jurisdiction, without a jury, subject only to Section 19.3.

#### Article 14 - Force Majeure

14.1 Definition. For purposes hereof, “Force Majeure” means an event or circumstance that prevents a Party from performing its obligations under this PPA, which event or circumstance (i) was not anticipated as of the date of this PPA, (ii) is not within the control of or the result of the fault or negligence of the Party claiming excuse, and (iii) which by exercise of due diligence and foresight could not reasonably have been avoided; *provided, however*, that Force Majeure shall not include:

- a. inability, or excess cost, to procure any equipment necessary to perform this PPA;
- b. acts or omissions of a third party (including vendors and contractors to Seller), unless such acts or omissions are themselves excused by reason of Force Majeure;
- c. failure timely to apply for, or diligently pursue, the Permits set forth on Exhibit F – Needed Permits;
- d. a restriction in any Permit that precludes or limits the generation or delivery of Contract Energy below the Planned Permitted Energy;
- e. mechanical or equipment breakdown or inability to operate, attributable to circumstances occurring within design criteria and normal operating tolerances of similar equipment;
- f. Environmental Contamination at the Site;
- g. changes in market conditions or changes of law;
- h. changes of law; or
- i. labor strikes, slowdowns, work stoppages, or other labor disruptions.

By way of example only, “Force Majeure” includes any delay or failure by the Transmission Authority to perform its obligations under the Interconnection Agreement.

14.2 Applicability of Force Majeure. A Party shall be relieved of its obligations to perform this PPA and shall not be considered to be in default with respect to any obligation under this PPA if and to the extent such Party is prevented from fulfilling such obligation by Force Majeure, *provided, however*, that: (i) such Party gives prompt notice describing the circumstances and impact of the Force Majeure; (ii) the relief from its obligations sought by such Party is of no greater scope and of no longer duration than is required by the Force Majeure; (iii) such Party proceeds with due diligence to overcome the Force Majeure and resumes performance of its obligations under this PPA as soon

as practicable thereafter; and (iv) such Party provides notice upon conclusion of the Force Majeure.

**14.3 Limitations on Effect of Force Majeure.**

(A) Force Majeure shall only relieve a Party of such obligations as are actually precluded by the Force Majeure.

(B) In no event will the existence of Force Majeure extend this PPA beyond its stated Term.

(C) If Force Majeure affecting Seller continues for a period of 90 consecutive Days or any 150 non-consecutive Days (with respect to Force Majeure occurring prior to COD) or for a period of 180 consecutive Days or any 270 non-consecutive Days (with respect to Force Majeure occurring after COD), Company may, at any time following the end of such period, terminate this PPA upon notice to Seller, without further obligation by either Party except as to costs and balances incurred prior to the effective date of such termination.

**Article 15 - Representations and Warranties**

Each Party hereby represents and warrants to the other as follows, which representations and warranties shall be deemed to be repeated, if applicable, by each Party throughout the Term:

(A) Such Party is a valid separate legal entity, duly organized, validly existing and in good standing under Applicable Law. It is qualified to do business in the State in which the Facility is located and each other jurisdiction where the failure to so qualify would have a Material Adverse Effect on the business or financial condition of the other Party. It has all requisite power and authority to conduct its business, to own its properties, and to execute, deliver, and perform its obligations under this PPA.

(B) The Party's execution, delivery, and performance of all of its obligations under this PPA have been duly authorized by all necessary organizational action, and do not and will not:

1. require any consent or approval by any governing corporate or management body, other than that which has been obtained and is in full force and effect (evidence of which shall be delivered to the other Party upon its request);

2. violate any Applicable Law, the violation of which could have a Material Adverse Effect on the representing Party's ability to perform its obligations under this PPA;

3. result in a breach or constitute a default under the representing Party's formation documents, bylaws or equivalent, or under any agreement relating to its management or affairs, any indenture or loan or credit agreement, or any other agreement, lease, or instrument to which it is a party or by which it or its properties

or assets may be bound or affected, the breach or default of which could reasonably be expected to have a Material Adverse Effect on the representing Party's ability to perform its obligations under this PPA; or

4. result in, or require the creation or imposition of any mortgage, deed of trust, pledge, lien, security interest, or other charge or encumbrance of any nature (other than as may be contemplated by this PPA) upon or with respect to any of the assets or properties of the representing Party now owned or hereafter acquired, the creation or imposition of which could reasonably be expected to have a Material Adverse Effect on the representing Party's ability to perform its obligations under this PPA.

(C) This PPA is a valid and binding obligation of the representing Party.

(D) The execution and performance of this PPA will not conflict with or constitute a breach or default under any contract or agreement of any kind to which the representing Party is a party or any judgment, order, or Applicable Law, applicable to it or its business.

(E) Within the meaning of the U.S. Bankruptcy Code, (i) this PPA constitutes a "master netting agreement," (ii) all transactions pursuant to this PPA constitute "forward contracts" or a "swap agreement," (iii) the representing Party is a "forward contract merchant" and "master netting agreement participant," and (iv) all payments made or to be made pursuant to this PPA constitute "settlement payments."

(F) Such Party is (i) an "eligible contract participant" as defined in the Commodity Exchange Act, as amended, 7 U.S.C. §1a(12), (ii) a "market participant" under applicable exchange and market rules; (iii) a producer, processor, or commercial user of, or a merchant handling, the commodity which is the subject of this PPA, or the products or by products thereof; and (iv) entering into this PPA solely for purposes related to its business as such.

## **Article 16 - Insurance**

16.1 Evidence of Insurance. No later than commencement of construction and thereafter at least five Days prior to each applicable expiration date, Seller shall provide Company with two copies of insurance certificates acceptable to Company evidencing that insurance coverages for the Facility are in force and in compliance with the specifications for insurance coverage set forth in Exhibit E - Insurance to this PPA. Such certificates shall

(A) name Company as an additional insured (except worker's compensation);

(B) provide that Company shall receive 30 Days prior written notice of non-renewal, cancellation of, or significant modification to any of the corresponding policies (except that such notice may be 10 Days for non-payment of premiums);

(C) provide a waiver of any rights of subrogation against Company, its Affiliates and their officers, directors, agents, subcontractors, and employees; and

(D) indicate that the Commercial General Liability policy has been endorsed as described above.

**16.2 Policy Requirements.** All policies shall be written with insurers with an AM Best rating of at least A-VII or a Standard & Poor's rating of at least A. All policies shall be written on an occurrence basis, except as provided in Section 16.4. All policies shall contain an endorsement that Seller's policy shall be primary in all instances regardless of like coverages, if any, carried by Company. Seller may satisfy its insurance requirements using any reasonable combination of primary and secondary coverage.

**16.3 No Implied Limitation.** Seller's liability under this PPA is not limited to the amount of insurance coverage required herein.

**16.4 Term and Modification of Insurance.**

(A) All insurance required under this PPA shall cover occurrences during the Term and for a period of two years after the Term. In the event that any insurance as required herein is commercially available only on a "claims-made" basis, such insurance shall provide for a retroactive date not later than the date of this PPA and such insurance shall be maintained by Seller for a minimum of six years after the Term.

(B) Company shall have the right, at times deemed appropriate to Company during the Term, to request Seller to modify the insurance minimum limits specified in Exhibit E - Insurance in order to maintain Commercially Reasonable coverage amounts. Seller shall make Commercially Reasonable Efforts to comply with any such request.

(C) If any insurance required to be maintained by Seller hereunder ceases to be reasonably available and commercially feasible in the commercial insurance market, Seller shall provide notice to Company, accompanied by a certificate from an independent insurance advisor of recognized national standing, certifying that such insurance is not reasonably available and commercially feasible in the commercial insurance market for electric generating plants of similar type, geographic location and capacity. Upon receipt of such notice, Seller shall use Commercially Reasonable Efforts to obtain other insurance that would provide comparable protection against the risk to be insured.

**16.5 Application of Proceeds.** Except to the extent otherwise required by the Financing Documents, Seller shall apply any casualty insurance proceeds to reconstruction of the Facility following any material casualty to the Facility that occurs more than eighteen (18) months prior to the Scheduled Termination Date.



## Article 17 - Indemnity

17.1 Indemnification: General. Each Party (the “Indemnifying Party”) shall indemnify, defend and hold the other Party (the “Indemnified Party”) harmless from and against all claims, demands, lawsuits (including citizen suits), losses, liabilities, fines, penalties, and expenses (including attorneys’ fees) (generally, Losses”), to the extent proximately caused by

- a default under this PPA by the Indemnifying Party;
- a violation or alleged violation of Applicable Laws by the Indemnifying Party; and
- the negligence, intentional acts and other misconduct of the directors, officers, employees, or agents of the Indemnifying Party.

17.2 Indemnification: Environmental. Seller shall indemnify, defend and hold Company harmless from and against all Losses arising out of any claim by any Governmental Authority or other third party alleging Environmental Contamination at the Site and/or illegal disposal of Hazardous Materials off-Site, regardless of merit and regardless of Seller’s responsibility therefor.

### 17.3 Limitations.

(A) The foregoing indemnification obligations shall apply notwithstanding any contributory misconduct of the Indemnified Party, but the Indemnifying Party’s liability to indemnify the Indemnified Party shall be reduced in proportion to the percentage by which the Indemnified Party’s misconduct caused the damages.

(B) Neither Party shall be indemnified for Losses resulting from the sole negligence or willful misconduct of the directors, officers, employees, or agents of such Party.

(C) These indemnity provisions shall not be construed to relieve any insurer of its obligation to pay claims consistent with the provisions of a valid insurance policy. Nothing in this Section 17.1 shall enlarge or relieve Seller or Company of any liability to the other for any breach of this PPA.

### 17.4 Procedures.

(A) Promptly after receipt by a Party of any claim or notice of the commencement of any action, administrative, or legal proceeding, or investigation as to which the indemnity provided for in this Article 17 may apply, the Indemnified Party shall provide notice thereof to the Indemnifying Party; *provided* that a delay in providing such notice shall limit the obligations of the Indemnifying Party only to the extent that such delay actually prejudices the ability of the Indemnifying Party to contest the claim or defend the proceeding.

(B) The Indemnifying Party shall assume the defense thereof with counsel designated by such Party and satisfactory to the Indemnified Party, *provided, however*, if the defendants in any such action include both the Indemnified Party and the Indemnifying Party, and the Indemnified Party shall reasonably conclude that there may be legal defenses available to it which are different from or additional to, or inconsistent with, those available to the Indemnifying Party, the Indemnified Party shall have the right to select and be represented by separate counsel, at the Indemnifying Party's expense.

(C) If an Indemnifying Party fails to assume the defense of a claim meriting indemnification, the Indemnified Party may contest, settle, or pay such claim at the expense of the Indemnifying Party, *provided, however, that* settlement or full payment of any such claim may be made only following consent of the Indemnifying Party or, absent such consent, written opinion of the Indemnified Party's counsel that such claim is meritorious or otherwise warrants settlement.

17.5 Amounts Owed. In the event that a Party is obligated for indemnification under this Article 17, the amount owing to the Indemnified Party will be the amount of the Indemnified Party's actual Losses net of any insurance proceeds received by the Indemnified Party following a Commercially Reasonable effort by the Indemnified Party to obtain such insurance proceeds.

## **Article 18 - Lender Provisions**

### **18.1 Accommodation of Facility Lender.**

(A) Company shall provide such consents to collateral assignment, certifications, representations, estoppels, information or other documents, as may be reasonably requested by Seller in connection with the financing of the Facility consistent with the terms set forth in Exhibit K – Lender Consent Provisions (generally, a "Lender Consent"), *provided, however*, that in providing a Lender Consent, Company shall have no obligation to

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1. modify the terms of this PPA;
2. provide any consent or enter into any agreement that has a Material Adverse Effect on any of Company's rights, benefits, risks, or obligations under this PPA;
3. transfer or release any property or property interests of Company;
4. release or subordinate (or cause the release or subordination) of any lien on any property of Company for the benefit of Seller or the Facility Lender; or
5. permit any lien to be placed on property of Company.

(B) Seller shall reimburse, or shall cause the Facility Lender to reimburse, Company for the direct expenses (including the fees and expenses of counsel) incurred by Company in the preparation, negotiation, execution and/or delivery of each Lender Consent and any documents requested by Seller or the Facility Lender pursuant to this Section 18.1.

**18.2 Notices.**

(A) Seller shall provide Company with a notice identifying the Facility Lender and providing appropriate contact information for the Facility Lender. Following receipt of such notice, Company shall provide to the Facility Lender a copy of each notice of alleged default delivered to Seller under Section 12.1 or Section 12.2, and Company will accept a cure thereof performed by the Facility Lender, so long as the cure is accomplished within the applicable cure period set forth in this PPA or the relevant Lender Consent.

(B) Within 10 Days following Seller's receipt of each notice of default or Facility Lender's intent to exercise any remedies under the Financing Documents, Seller shall deliver a copy of such notice to Company.

**Article 19 - Assignment**

**19.1 Assignment by Seller.**

(A) Seller shall not sell, exchange or otherwise transfer the Facility or any material portion thereof to any third party, nor shall Seller undergo any Change of Control (whether voluntary or by operation of law), absent the prior written consent of Company, which shall not be unreasonably withheld or delayed. Company shall have no obligation to provide any consent under this Section unless

1. Seller has complied with Sections 19.3 and 19.4, if and as applicable;

2. Seller has provided to Company such information concerning the transferee's direct and indirect ownership as Company reasonably requests;

3. the transferee has substantial experience in the operation of power generation facilities like the Facility, either directly, through its affiliates or through an operator acceptable to Company;

4. the transferee (together with its parents and affiliates) enjoys an Investment Grade Credit Rating or other creditworthiness satisfactory to Company;

5. Seller has provided to Company at least 30 days' prior notice of the transaction; and

6. Seller pays or reimburses Company for the direct expenses (including the fees and expenses of counsel) incurred by Company in connection with the transaction.

(B) Any Change of Control or sale, transfer, or assignment of any interest in the Facility effected without fulfilling the requirements of this PPA shall be null, void and a breach of this PPA.

(C) Seller shall assign this PPA to any successor owner of the Facility, and shall cause such successor to assume all obligations of Seller (accrued and prospective) hereunder via a writing reasonably satisfactory to Company. Seller also may assign this PPA for collateral purposes to any Facility Lender, and may subcontract some or all of its duties under this PPA, upon notice to but without the consent of Company

(D) Except as permitted in this Section 19.1, Seller may not assign this PPA or any portion hereof. No assignment shall relieve Seller of its obligations under this PPA, nor impair any security posted by Seller unless such security is replaced in accordance with Article 11. Before this PPA is assigned by Seller, the assignee must first obtain such approvals as may be required by all applicable Governmental Authorities.

#### 19.2 Assignment by Company.

(A) Company may assign this PPA to any Affiliate, or to any successor that provides retail electric service in all or substantially all of Company's service territory and is subject to rate and quality service regulation under the jurisdiction of the PUC. Any other assignment of this PPA by Company shall require the prior written consent of Seller, not to be unreasonably withheld or delayed.

(B) If an assignee of Company enjoys a Credit Rating equal to or better than Investment Grade or Company's Credit Rating as of the date of assignment (whichever is higher), Seller shall release Company from its obligations hereunder if so requested by Company. Except for the foregoing, no assignment shall relieve Company of its obligations under this PPA.

(C) Any assignee of Company shall assume all obligations of Company (accrued and prospective) hereunder via a writing reasonably satisfactory to Seller. Before this PPA is assigned by Company, the assignee must first obtain such approvals as may be required by all applicable Governmental Authorities.

### 19.3 ROFO.

(A) At any time after the Commercial Operation Date,

- (1) if Seller proposes to sell the Facility to an unaffiliated third party, Seller shall first offer to sell the Facility to Company via notice to Company,
- (2) if Seller's parent proposes to sell a majority of the equity interests in Seller to an unaffiliated third party, Seller shall cause its parent first to offer to sell such equity interests to Company via notice to Company, and
- (3) if Seller's parent owns no assets other than its equity interests in Seller and the parent of Seller's parent proposes to sell a majority of the equity interests in Seller's parent to an unaffiliated third party, Seller shall cause its parent's parent first to offer to sell such equity interests to Company via notice to Company

(in each case, a "ROFO Notice") Any ROFO Notice shall describe the proposed transaction, including the minimum price, status of title to the Site, liabilities to be assumed and other terms which Seller or its relevant parent (as applicable) is willing to accept to proceed with the contemplated transaction. The contents of a ROFO Notice shall be deemed Confidential Information for purposes of Section 20.19 below.

(B) Following issuance of a ROFO Notice, Seller shall allow Company 60 Days to investigate the proposed transaction and conduct due diligence. Due diligence shall include such physical inspections, surveys and operating tests of the Facility and the Site, such reviews of Seller's contracts, books and records, and interviews of such personnel, as Company may reasonably request. All information obtained by Company from such investigations shall be deemed Confidential Information subject to Section 20.19 below. Within such 60-Day period, Company may elect to purchase the Facility or the relevant equity interests (as applicable) on substantially the same terms as set forth in the ROFO Notice. If Company fails to notify Seller of Company's election within such 60-Day period, Company shall be deemed to have rejected the transaction.

(C) If Company elects to purchase the Facility or the specified equity interests (as applicable), the Parties shall negotiate and execute a definitive contract for the transaction (a "PSA"). The PSA shall include the price and other terms set forth in the ROFO Notice and such other terms as are set forth in Exhibit P – PSA Provisions. In the event that the Parties cannot agree on the final form of PSA, (i) the issue shall be submitted to "baseball" arbitration in Denver, Colorado before one arbitrator appointed

by the Arbitration Service, i.e. each Party shall submit to the arbitrator a form of proposed PSA, and the arbitrator shall be required to select one of the two forms to be used as the PSA in the transaction, without compromise, as the arbitral award, (ii) the period for closing of the transaction shall be extended for the period required to complete arbitration, and (iii) the Party whose form PSA is rejected shall pay the fees and costs of the Arbitration Service.

(D) If Company rejects the transaction described in a ROFO Notice, Seller shall have the right to sell the Facility (or Seller's relevant parent shall have the right to sell the specified equity interests, as applicable) on terms not more favorable to Seller or its parent vs. the terms set forth in the ROFO Notice, at any time within the twelve-month period following issuance of the ROFO Notice. If Seller or its relevant parent fails to close a transaction on such terms within such 12-month period, any sale of the Facility or equity interests in Seller shall again be subject to this Section 19.3.

(E) This Section 19.3 shall be specifically enforceable by Company, without bond and without the need to prove irreparable harm.

(F) Seller shall cooperate in all respects reasonably necessary for Company to exercise its ROFO rights, and shall operate the Facility in the ordinary course of business following the date of issuance of a ROFO Notice.

#### 19.4 PFT.

(A) Seller shall give Company at least 90 Days' prior notice (a "PFT Notice") of any Pending Facility Transaction that does not otherwise trigger Company's ROFO rights under Section 19.3, in order to provide Company with an opportunity to discuss and negotiate with Seller the possible sale of the Facility to Company. Any PFT Notice shall include a fair summary of Seller's plans with respect to the Facility in connection with the proposed Pending Facility Transaction, to the extent then known by Seller. The contents of a PFT Notice shall be deemed Confidential Information for purposes of Section 20.19 below.

(B) Seller shall have no obligation to sell nor shall Company have any obligation to purchase the Facility, following any PFT Notice. Issuance of a PFT Notice shall not relieve Seller of its obligation to offer a ROFO to Company if and when applicable pursuant to Section 19.3. In the event that the transaction giving rise to the PFT Notice has not been completed within twelve months following a PFT Notice, Seller shall be required to resubmit a PFT Notice for such transaction.

(C) Any breach of this Section 19.4 shall entitle Company to liquidated damages from Seller in the amount of [*insert \$5 × number of kW of Net Capability*].

(D) For purposes hereof, a "Pending Facility Transaction" or "PFT" means:

1. any Change of Control of Seller;

2. the issuance by Seller or any of its Affiliates of a request for proposals or the response by Seller or any of its Affiliates to a request for proposal or similar process (e.g., auction) for the purchase or sale to any unaffiliated third party of any equity interests in Seller or the Facility, or any group(s) of assets or equity interests that includes the Facility;

3. the commencement by Seller or any of its Affiliates of substantive negotiations with any unaffiliated third party with respect to the sale of any equity interests in Seller or the Facility, or any group(s) of assets or equity interests that includes the Facility; or

4. the execution by Seller or any of its Affiliates of any letter of intent, memorandum of understanding or similar document, whether or not legally binding, which contemplates the sale or lease to an unaffiliated third party of any equity interests in Seller or the Facility or any group(s) of assets or equity interests that includes the Facility;

*provided, however,* that a PFT does not include (i) any financing or refinancing of the Facility Debt, (ii) any transaction among Affiliates of Seller, and/or (iii) any transaction for which Seller offers ROFO rights to Company under Section 19.3.

## Article 20 - Miscellaneous

### 20.1 Notices.

(A) Notices required by this PPA shall be in writing and addressed to the other Party at the addresses noted in Exhibit D - Notices, as either Party updates such addresses from time to time by notice to the other Party. Notices shall be deemed effective when receipt is acknowledged in writing by the counterparty (or absent such acknowledgement, when delivered via third-party messenger or via FedEx or other reputable overnight courier service). Any notice shall be deemed to have been received by the close of the Business Day on which it was delivered. Real-time or routine communications concerning Facility operations shall be exempt from this Section 20.1(A).

(B) The Parties recognize the need for accurate communications between them. Each Party consents to the recording of telephone conversations between their employees and representatives, related to the performance and administration of this PPA.

### 20.2 Taxes.

(A) Company shall purchase all Contract Energy on a wholesale basis, for resale to Company's wholesale and retail customers. Company shall obtain and provide Seller with any certificates required by any Governmental Authority or otherwise reasonably requested by Seller to evidence that the deliveries of Contract Energy hereunder are sales for resale.

(B) Company shall be solely responsible for sales, use and value-added taxes imposed with respect to the purchase of fuel by Company for consumption by the Facility to produce the Contract Energy dispatched and received by Company hereunder.

(C) As between the Parties, Company shall be solely responsible for the payment of (1) any sales, use or equivalent taxes imposed by Governmental Authorities, whether now in existence or hereafter enacted, on the purchase of Contract Energy hereunder at the Point of Delivery, and (2) any taxes imposed by Governmental Authorities, whether now in existence or hereafter enacted, on the transmission of Contract Energy beyond the Point of Delivery.

(D) Subject to Section 20.2(B) and (C) above and Section 20.4 below, Seller shall be solely responsible for any and all present and future taxes and other impositions of Governmental Authorities relating to the construction, ownership or leasing, operation or maintenance of the Facility and the Site (including *ad valorem* taxes on the Facility and the Site), and any taxes imposed at or prior to the Point of Delivery with respect to the products and services to be sold and delivered to Company hereunder, whether calculated based upon cost, value, labor, capital, production, savings, green attributes or other parameters. Seller's prices under Article 8 are inclusive of such taxes and impositions during the Term, and Seller assumes the risk of changes in such taxes after the date hereof.

(E) The Parties shall cooperate to minimize tax exposure, *provided, however*, that neither Party shall be obligated to incur any financial burden to reduce taxes for which the other Party is responsible hereunder.

### 20.3 Applicable Laws.

(A) Each Party shall comply with all Applicable Laws (including the Transmission Authority Tariff) in connection with its performance of this PPA, at its own expense, except for any non-compliance that (individually or in the aggregate) could not reasonably be expected to have a Material Adverse Effect on the other Party or on such Party's ability to perform this PPA.

(B) As applicable, each Party shall give all required notices, shall procure and maintain all Permits necessary for performance of this PPA, and shall pay its respective charges and fees in connection therewith.

(C) Each Party shall promptly disclose to the other Party, any violation of Applicable Laws arising out of performance of this PPA.

(D) Upon permanent cessation of generation from the Facility, Seller shall decommission and remove the Facility and remediate the Site as, if and when required by Applicable Laws.

(E) Seller acknowledges that as a government contractor Company is subject to Applicable Laws regarding equal employment opportunity and affirmative



action, including 41 C.F.R. §60-1.4(a)(1-7). Such Applicable Laws may also be applicable to Seller as a subcontractor to Company. All such Applicable Laws shall be deemed to be incorporated herein as required by Applicable Law.

#### 20.4 Change of Law.

(A) As between the Parties, Company shall be solely responsible for the payment of any taxes enacted by Governmental Authorities that are imposed based upon the quantity of CO<sub>2</sub> emissions from the Facility resulting from the production of Contract Energy during the Term of this PPA.

(B) If Governmental Authorities enact any enforceable limits or other enforceable compliance obligations restricting CO<sub>2</sub> emissions, such limits or obligations are imposed on and restrict all or substantially all of Company's generation portfolio, and such limits or obligations can be mitigated by the acquisition or application by Company of allowances, credits and/or eligible offsets, then

1. Company shall dispatch the Facility in accordance with such limits and obligations; and

2. Company at its cost shall acquire, apply and manage such allowances, credits and/or offsets as necessary to mitigate or offset CO<sub>2</sub> emissions resulting from the production of Contract Energy during the Term of this PPA;

*provided* that nothing in this Section 20.4(B) shall be construed to require Company to make or reimburse Seller for any capital expenditures with respect to the Facility.

(C) Except as specifically set forth in this Section 20.4 and elsewhere in this PPA, each Party assumes the risk of changes in Applicable Laws following the date hereof, that affect such Party's costs of ownership and operation of its assets, and its performance of this PPA.

20.5 Fines and Penalties. Seller shall pay when due all fees, fines, penalties and costs incurred by Company, Seller and/or their agents, employees or contractors arising from noncompliance by Seller, its employees, or subcontractors with any provision of this PPA, or any contractual obligation, Permit or requirements of Applicable Law, except for such fines, penalties and costs that are being actively contested in good faith and with due diligence by Seller and for which adequate financial reserves have been set aside to pay such fines, penalties or costs in the event of an adverse determination.

#### 20.6 Rate Changes.

(A) The terms and conditions and the rates for service specified in this PPA shall remain in effect for the Term hereof. Neither Party shall seek (nor support any third party seeking) any prospective or retroactive change to the rates or terms of service under this PPA pursuant to §205, §206 or §306 of the Federal Power Act.

(B) The standard of review for changes to this PPA whether proposed by a Party, a non-party, or FERC acting *sua sponte* shall be the “public interest” standard of review set forth in *United Gas Pipe Line v. Mobile Gas Service Corp.*, 350 U.S. 332 (1956) and *Federal Power Commission v. Sierra Pacific Power Co.*, 350 U.S. 348 (1956) (aka the “Mobile-Sierra doctrine”), as interpreted in *Morgan Stanley Capital Group, Inc. v. Public Util. Dist. No. 1*, 128 S. Ct. 2733 (2008).

20.7 Certifications. Each Party shall deliver or cause to be delivered to the other Party certificates of its officers, accountants, engineers or agents as to matters as may be reasonably requested, and shall make available personnel and records relating to the Facility to the extent that the requesting Party requires the same in order to fulfill any regulatory reporting requirements, or to assist the requesting Party in litigation, including administrative proceedings before the PUC.

20.8 Disclaimer of Third Party Beneficiaries. In executing this PPA, Company does not and does not intend to extend its credit or financial support for the benefit of any Facility Lender or any other third party transacting with Seller. Nothing in this PPA shall be construed to create any duty to, or standard of care with reference to, or any liability to, any person not a party to this PPA.

20.9 Relationship of the Parties.

(A) This PPA shall not be interpreted to create an association, joint venture, or partnership between the Parties, nor to impose any partnership obligation or liability upon either Party. Except as specifically provided for in this PPA to the contrary, neither Party shall have any right, power, or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as an agent or representative of, the other Party.

(B) Seller shall be solely liable for the payment of all wages, taxes, and other costs related to the employment of persons to perform such services, including all federal, state, and local income, social security, payroll, and employment taxes and statutorily mandated workers’ compensation coverage. None of the persons employed by Seller shall be considered employees of Company for any purpose; nor shall Seller represent to any person that he or she is or shall become a Company employee.

20.10 Survival of Obligations. Cancellation, expiration, or earlier termination of this PPA shall not relieve the Parties of obligations, including warranties, remedies, or indemnities, that by their nature should survive such cancellation, expiration, or termination, which obligations shall survive for the period of the applicable statute(s) of limitation.

20.11 Severability. In the event any of the terms, covenants, or conditions of this PPA, its Exhibits, or the application of any such terms, covenants, or conditions, shall be held invalid, illegal, or unenforceable by any court or administrative body having jurisdiction, all other terms, covenants, and conditions of the PPA and their application not adversely affected thereby shall remain in force and effect; *provided, however, that*

Company and Seller shall negotiate in good faith to attempt to implement an equitable adjustment in the provisions of this PPA with a view toward effecting the purposes of this PPA by replacing the provision that is held invalid, illegal, or unenforceable with a valid provision the economic effect of which comes as close as possible to that of the provision that has been found to be invalid, illegal or unenforceable.

20.12 Complete Agreement; Amendments. The terms and provisions contained in this PPA constitute the entire agreement between Company and Seller with respect to the Facility and shall supersede all previous communications, representations, or agreements, either verbal or written, between Company and Seller with respect to the purchase and sale of Contract Capacity, Contract Energy and other products and services from the Facility. Any amendment of this PPA, or any waiver of any provision hereof, shall be evidenced by a writing signed by the Party/ies to be bound thereby.

20.13 Waiver. The failure of either Party to enforce or insist upon compliance with or strict performance of any of the terms or conditions of this PPA, or to take advantage of any of its rights hereunder, shall not constitute a waiver or relinquishment of any such terms, conditions, or rights, but the same shall be and remain at all times in full force and effect.

20.14 Binding Effect. This PPA is binding upon and shall inure to the benefit of the Parties hereto and their respective successors, legal representatives, and assigns.

20.15 Headings. Captions and headings used in this PPA are for ease of reference only and do not constitute a part of this PPA.

20.16 Counterparts. This PPA may be executed in counterparts, and each executed counterpart shall have the same force and effect as an original instrument.

20.17 Press Release. Upon the request of either Party, the Parties shall develop a mutually agreed joint press release to be issued describing the location, size and nature of the Facility, the term of this PPA, and other relevant factual information about the relationship.

20.18 Exhibits. Either Party may change the information in Exhibit D - Notices at any time by notice without the approval of the other Party. All other Exhibits may be changed to the extent allowed by specific provisions of this PPA or with the mutual consent of both Parties.

20.19 Confidentiality.

(A) For purposes hereof, "Confidential Information" means

1. information specifically designated as Confidential Information in this PPA; and

2. written information delivered by one Party to the other from time to time during the Term, which information is labeled prominently as "Confidential," "Proprietary" or the like and specifically references this PPA.

*provided, however,* that "Confidential Information" shall not include information that

- (x) is publicly available as of the date hereof, or becomes publicly available during the Term through no fault of the recipient Party;
- (y) can be documented was independently developed by the recipient Party; and/or
- (z) is disclosed to the recipient Party from an ultimate source other than the protected Party, without breach of this PPA by the recipient Party.

(B) The recipient Party shall (i) maintain the confidentiality of all Confidential Information of the protected Party, using the same degree of care used by the recipient Party to protect its own Confidential Information (and in any event not less than a reasonable degree of care), and (ii) shall use Confidential Information only in connection with its performance of this PPA. Confidential Information may be disclosed by the recipient Party to its agents, employees, directors, officers, consultants, auditors, lenders and equity investors, subject to their acceptance of the obligations of confidentiality imposed hereby and for whose violations of this Section 20.19 the recipient Party shall be responsible.

(C) In the event that Confidential Information is disclosed to a PUC, its staff, interveners or consumer counsel in any regulatory or administrative proceedings before a PUC, the disclosing Party shall submit such Confidential information in accordance with applicable PUC confidentiality rules and procedures. In the event that Confidential Information must otherwise be disclosed by Applicable Law (e.g. pursuant to subpoena or civil discovery), the Party required to make disclosure shall notify the protected Party sufficiently in advance to allow the protected Party a reasonable opportunity to obtain a protective order or seek other remedies, prior to disclosure by the recipient Party.

#### 20.20 Accounting Treatment.

(A) If and when Company reasonably determines that Company must consolidate financial information of Seller into Company's financial statements under FASB ASC 810 or other accounting standard applicable to Company:

1. the Parties shall use Commercially Reasonable Efforts to amend this PPA and/or the Parties' protocols for operation of the Facility to avoid such treatment, at the least possible cost to the Parties, consistent with the intent of this PPA to the extent possible; or

2. if such avoidance is not reasonably feasible, Seller shall provide to Company from time to time upon request such quarterly and annual financial information as may be needed for Company to comply with such standard, in such format and within such time frames as Company may reasonably request.

(B) If and when Company reasonably determines that Company must treat this PPA as a “capital lease” under FASB ASC 840 or other accounting standard applicable to Company, the Parties shall use Commercially Reasonable Efforts to amend this PPA and/or the Parties’ protocols for operation of the Facility to avoid such treatment, at the least possible cost to the Parties, consistent with the intent of this PPA to the extent possible, if so requested by Company.

*[remainder of this page intentionally left blank]*

IN WITNESS WHEREOF, the Parties have executed this PPA as of the date first set forth above.

*Seller:*

\_\_\_\_\_ **[LLC]**

By: \_\_\_\_\_  
[name and title]

*Company:*

**Public Service Company of Colorado**

By: \_\_\_\_\_  
[ ] as Vice President of Xcel  
Energy Services, Inc., its authorized agent

## EXHIBIT A

(to PPA)

### DEFINITIONS

The following terms shall have the meanings set forth herein:

“Acceptable Fuel Oil” means fuel oil meeting the quality specifications set forth in Exhibit R – Fuel Oil to this PPA at the time that such fuel oil is delivered to Seller’s Fuel Oil Supply Facilities. *if applicable*

“Acceptable Natural Gas Fuel” means

(i) natural gas fuel procured from the Upstream Pipeline that complies with the tariff of the Upstream Pipeline (as such tariff may be amended from time to time);

(ii) other natural gas fuel delivered to a Fuel Delivery Point, the actual quality of which meets or exceeds the natural gas quality specifications, requirements and minimum delivery pressures in Exhibit Q – Natural Gas Fuel Specifications; or

(iii) natural gas fuel that otherwise complies with the turbine manufacturer’s natural gas fuel quality specifications, requirements and delivery pressures of the manufacturer of the Facility’s combustion turbines, and that would not otherwise void such manufacturer’s warranties.

“Actual Damages” has the meaning set forth in Section 12.4(C).

“Actual Net Heat Rate” as of any date means the net heat rate for the Facility, stated in Btu/kWh HHV, adjusted to Reference Conditions, determined by the most recent heat rate test conducted in accordance with Exhibit K - Heat Rate Testing.

“Actual Ramp Rate” has the meaning set forth in Exhibit I – Operating Standards.

“Affiliate” of any designated Person means any person or entity that directly or indirectly controls, is under the control of, or is under common control with, the designated Person by the power to direct or cause the direction of the management of the policies of designated Person, whether through ownership interest, by contract or otherwise.

“AGC” or “Automatic Generation Control” means the equipment and capability of an electric generation facility automatically to adjust the generation quantity within the applicable Balancing Authority with the purpose of interchange balancing and specifically, the Facility’s capability of accepting an AGC Set-Point electronically, and the automatic adjustment and regulation of the Facility’s energy production via the SCADA System.

“AGC Set-Point” means the Company-generated analog or digital signal sent by the SCADA System to the Facility, representing the quantity of Contract Energy to

be generated by the Facility. The AGC Set-Point is calculated by the EMCC AGC system and communicated electronically to the Facility via the SCADA System.

"Applicable Law" means all laws, statutes, treaties, codes, ordinances, regulations, certificates, orders, licenses and permits of any Governmental Authority that are applicable to a Party, the business of a Party or the Facility, now in effect or hereafter enacted, including amendments to or interpretations of any of the foregoing by a Governmental Authority having jurisdiction, and all applicable judicial, administrative, arbitration and regulatory decrees, judgments, injunctions, writs, orders, awards and/or like actions.

"Arbitration Service" means Judicial Arbitration and Mediation Services, Inc. (aka JAMS).

"Back-Up Metering" shall have the meaning set forth in Section 5.2(B).

"Balancing Authority" means the system of electrical generation, distribution and transmission facilities within which generation is regulated in order to maintain interchange schedules with other such systems.

"Btu" means British thermal unit.

"Business Day" means any Day that is not a Saturday, a Sunday, or a NERC recognized holiday.

"Change of Control" means the occurrence of any one of the following events with respect to Seller or any direct or indirect owner of a majority of the ownership interests in Seller: (a) a transfer of a majority of the ownership interests in Seller or such owner; (b) any consolidation or merger of Seller or such owner in which Seller or such owner, as the case may be, is not the continuing or surviving entity; or (c) a sale or conveyance of any direct or indirect ownership interest in Seller following which [REDACTED] ("Ultimate Parent") is no longer the direct or indirect owner of at least 50% of the ownership interests of Seller, *provided, however*, that a Change of Control shall not be deemed to have occurred as a result of

- (i) transactions exclusively among Affiliates of Seller,
- (ii) any exercise by the Facility Lender of its rights and remedies under the Financing Documents,
- (iii) a change of control of Ultimate Parent, or
- (iv) any change of economic and/or voting rights triggered in Seller's organizational documents arising from a tax equity financing of the Facility.

"COD Conditions" means all of the requirements that must be satisfied by Seller as a prerequisite to achieving Commercial Operation. The COD Conditions are set forth in Section 4.5.



“Commercial Operation” means the period beginning on the Commercial Operation Date and continuing through the balance of the Term of this PPA.

“Commercial Operation Date” or “COD” shall have the meaning set forth in Section 4.5.

“Commercial Operation Year” shall have the meaning set forth in Section 4.5(E).

“Commercially Reasonable” or “Commercially Reasonable Efforts” means, with respect to any action to be taken or attempted by a Party under this PPA, the level of effort in light of the facts known to such Party at the time a decision is made that: (a) can reasonably be expected to accomplish the desired action at a reasonable cost; (b) is consistent with Good Utility Practices; and (c) takes into consideration the amount of advance notice required to take such action, the duration and type of action, and the competitive environment in which such action occurs.

“Confidential Information” shall have the meaning set forth in Section 20.19(A).

“Construction Contracts” shall have the meaning set forth in Section 4.1.

“Construction Milestones” means the dates set forth in Exhibit B – Construction Milestones.

“Contract Capacity” shall have the meaning set forth in Section 7.1.

“Contract Energy” shall have the meaning set forth in Section 7.1.

“Credit Rating” of any Person means the lowest rating assigned to such Person’s long-term debt or deposit obligations (unenhanced by third-party support) by Standard & Poors and Moody’s. If such Person has no outstanding long-term debt or deposit obligations, or if no rating is assigned to such obligations, “Credit Rating” shall mean the lowest general corporate credit rating or long-term issuer rating assigned to such Person by Standard & Poors or Moody’s.

“Damage Cap” shall have the meaning set forth in Section 12.4.

“Day” means a calendar day.

“Dispute” shall have the meaning set forth in Article 13.

“Electric Metering Devices” means revenue quality meters, metering equipment and data processing equipment used to measure, record and transmit data with respect to the output of Contract Energy from the Facility, including metering current transformers and metering voltage transformers.

“Emergency” means any event or occurrence that results in the declaration of an Emergency Condition under and as defined in the Interconnection Agreement.

"Energy Markets Control Center" or "EMCC" means Company's merchant representatives responsible for dispatch of generating units, including the Facility.

"Energy Resource Interconnection Service" means the type of interconnection service which allows Seller to connect the Facility to the transmission or distribution system, as applicable, as an "Energy Resource" as defined by the Transmission Tariff, and be eligible to deliver the Facility's output using the existing firm or non-firm capacity on the transmission system on an as-available basis.

"Environmental Contamination" shall have the meaning set forth in Section 4.2.

"ERO" means the Electric Reliability Organization certified by FERC pursuant to Section 215 of the Federal Power Act or any successor organization. The certified ERO as of the date of this PPA is the Western Electricity Coordinating Council (WECC) and Peak Reliability.

"ESC Adjustment" shall have the meaning set forth in Section 8.6.

"ESC Event" shall have the meaning set forth in Section 8.6.

"Event of Default" shall have the meaning set forth in Article 12.

"Expected Ramp Rate" with respect to the regulating range of the Facility between Minimum Loading and maximum output means [ ] kW/minute (increasing) or [ ] kW/minute (decreasing), as applicable.

"Facility" means Seller's electric generating facilities, associated balance of plant, parts, fixtures and equipment, and all equipment necessary to interconnect to the Transmission Authority's System, all as further described in Exhibit C - Facility Description, including Seller's rights to the Site and all of the following: buildings, turbines, generators, step-up transformers, output breakers, facilities necessary to connect to the Interconnection Point, protective and associated equipment, fuel interconnection facilities, [Fuel Oil Storage Facilities,] above-ground and underground piping, gas compression, heating and filter/separation equipment, control systems, improvements, and other tangible and intangible assets, contract rights, Permits, easements, rights of way, surface use agreements and other interests or rights in real estate, owned or used for construction, operation, maintenance, generation and delivery of the capacity and energy subject to this PPA.

"Facility Debt" means the obligations of Seller or its Affiliates to any lender or tax equity investor pursuant to the Financing Documents, including principal of, premium and interest on indebtedness, fees, expenses or penalties, amounts due upon acceleration, prepayment or restructuring, swap or interest rate hedging breakage costs and any fees or interest due with respect to any of the foregoing.

"Facility Lender" means, collectively, any lenders or tax equity investors providing Facility Debt, including any successors or assigns thereof.

"Federal Power Act" means the provisions of 16 U.S.C. §791(A) *et seq.* and amendments or supplements thereto.

"FERC" means the Federal Energy Regulatory Commission or any successor agency.

"Financing Documents" means the loan and credit agreements, notes, bonds, indentures, security agreements, lease financing agreements, mortgages, deeds of trust, interest rate exchanges, swap agreements and other documents relating to the development, bridge, construction or permanent debt financing and/or tax equity financing for the Facility, including any credit enhancement, credit support, working capital financing, or refinancing documents, and any and all amendments, modifications, or supplements to the foregoing that may be entered into from time to time at the discretion of Seller in connection with development, construction, ownership, leasing, operation or maintenance of the Facility.

"Forced Outage" means any condition at the Facility that requires the immediate and unplanned removal of the Facility, or any portion thereof, from service, another outage state, or a reserve shutdown state, resulting from immediate mechanical/electrical/hydraulic control system trips and operator-initiated trips in response to abnormal Facility conditions or alarms.

"Fuel Delivery Point" means the natural gas delivery system point at which Company makes available and delivers to Seller the natural gas fuel consumed by the Facility to produce the Contract Energy dispatched by Company, as described in Section 5.4.

"Fuel Oil Storage Facilities" means Seller's fuel oil storage tanks and related fuel oil pipelines, interconnection equipment, unloading facilities and metering equipment necessary to receive and store Acceptable Fuel Oil at the Facility and deliver such fuel oil for combustion within the Units as described in Section 5.5. *if applicable*

"Generating Unit" means an individual turbine-generator set at the Facility. For example, a 2x1 combined cycle facility would have three Generating Units.

"Good Utility Practices" means the practices, methods, standards and acts engaged in or approved by a significant portion of the applicable segment of the electric power generation industry pertaining to facilities of the type, similar size and location to the Facility that, at a particular time, in the exercise of Commercially Reasonable judgment, in light of the facts that are known (or reasonably should have been known) at the time a decision was made, would have been expected to accomplish the desired result in a manner consistent with Applicable Law, Permits, codes, standards, equipment manufacturer's recommendations, reliability, safety, environmental protection, economy, and expedition. Good Utility Practices is not limited to the optimum practice, method, standard or act to the exclusion of all others, but rather to those practices, methods, standards and acts generally acceptable or

approved by a significant portion of the applicable segment of the electric power generation industry in the relevant region, during the relevant period.

“Governmental Authority” means any federal, state, local or municipal governmental body; any governmental, quasi-governmental, regulatory or administrative agency, commission, body or other authority exercising or entitled to exercise any administrative, executive, judicial, legislative, policy, regulatory or taxing authority or power; and/or any court or governmental tribunal. By way of example only, “Governmental Authorities” include NERC, the ERO, the Market Operator (if any), an applicable PUC, the Transmission Authority, FERC, and successor organizations.

“Heat Rate Adjustment” or “HRA” shall have the meaning set forth in Section 8.4.

“Higher Heating Value” or “HHV” means the higher heating value stated on Exhibit K - Heat Rate Testing.

“Interconnection Agreement” means the separate contract for interconnection of the Facility to the Transmission Authority’s System, as such agreement may be amended from time to time. For purposes of this PPA, the Interconnection Agreement shall be interpreted to include any third party facility construction agreement or other agreement required by the Transmission Authority to interconnect the Facility in accordance with the Transmission Tariff. For the avoidance of doubt, “Interconnection Agreement” excludes any temporary or provisional interconnection agreement or any agreement where the Transmission Provider may limit the operational output of the Facility.

“Interconnection Facilities” means those facilities designated in the Interconnection Agreement for the direct purpose of interconnecting the Facility at the Interconnection Point, along with any easements, rights of way, surface use agreements and other interests or rights in real estate reasonably necessary for the construction, operation and maintenance of such facilities, whether owned by Seller, the Transmission Authority or another entity. This equipment is conceptually depicted in Exhibit C - Facility Description to this PPA.

“Interconnection Point” means the physical point within the operational authority of the Transmission Authority as specified in the Interconnection Agreement as project [REDACTED], at which electrical interconnection is made between the Facility and the Transmission Authority’s System in accordance with the Transmission Tariff and the Interconnection Agreement.

“Investment Grade” means a Credit Rating of both (a) Baa3 or higher by Moody’s, and (b) BBB- or higher by Standard & Pools.

“kW” means kilowatt, and “kWh” means kilowatt hour.

“Lender Consent” shall have the meaning set forth in Section 18.1.

"Maintenance Schedule" has the meaning set forth in Exhibit L - Maintenance.

"Material Adverse Effect" means any effect (or effects taken together) that is materially adverse to the present or future business, operations, assets, liabilities, properties, results in operations or condition (financial or otherwise), prospects, or property of a Party, its business, or this PPA.

"Minimum Loading" means the minimum capacity of the Facility that can be scheduled for continuous operation consistent with Good Utility Practices, including equipment manufacturer's warranties and performance standards.

"MW" means megawatt or one thousand kW, and "MWh" means megawatt hours.

"NERC" means the North American Electric Reliability Council or any successor organization.

"Net Capability" or "NC" of the Facility shall have the meaning set forth in Section 3.2(C).

"Operating Committee" means one representative each from Company and Seller, pursuant to Section 10.8.

"Operating Procedures" means those procedures developed by the Operating Committee pursuant to Section 10.8, if any.

"Operating Records" means all agreements associated with the Facility, operating logs, blueprints for construction, operating manuals, all warranties on equipment, and all documents, whether in printed or electronic format, that Seller uses or maintains for the operation of the Facility.

"Party" and "Parties" shall have the meanings set forth in the introductory paragraph.

"Pending Facility Transaction" or "PFT" shall have the meaning set forth in Section 19.4.

"Permit" shall have the meaning set forth in Section 4.3.

"Permit Deficiency" shall have the meaning set forth in Section 7.3.

"PFT Notice" shall have the meaning set forth in Section 19.4.

"Planned Permitted Energy" shall have the meaning set forth in Section 7.3(D).

"Point of Delivery" means the physical point within the operational authority of Transmission Authority at which Seller makes available and delivers to Company the

Contract Energy being provided by Seller to Company under this PPA. The Point of Delivery is specified in Exhibit C - Facility Description to this PPA.

"Post-COD Test Energy" shall have the meaning set forth in Section 4.6.

"Pre-COD Test Energy" shall have the meaning set forth in Section 4.6.

"Predicted Net Heat Rate" means the predicted net heat rate for the Facility, stated in Btu/kWh, HHV, at Reference Conditions, with (as applicable) cooling of intake air and full supplemental fuel firing, and adjusted to reflect the turbine manufacturer's estimated degradation in equipment performance over the period of Commercial Operation from new and clean equipment conditions as specified in Exhibit K - Heat Rate Testing. The initial Predicted Net Heat Rate shall be the lesser of (i) [ ] Btu/kWh HHV or (ii) the Actual Net Heat Rate measured by the initial heat rate test of the Facility. [The Predicted Net Heat Rate degradation adjustment, as specified in Exhibit K - Heat Rate Testing, shall be used to adjust such initial Predicted Net Heat Rate, and thereby establish the Predicted Net Heat Rate, over the Term.]

"PUC" means the Colorado Public Utilities Commission or any successor agency.

"PUC Approval" shall have the meaning set forth in Section 6.1(D).

"Reference Conditions" means the operating and ambient conditions used to establish the Predicted Net Heat Rate and to provide a reference for adjustment in determining the Actual Net Heat Rate from heat rate testing pursuant to Exhibit K – Heat Rate Testing.

- The Reference Conditions for the Facility shall be an ambient temperature of \_\_\_\_ degrees Fahrenheit (°F), \_\_\_\_% ambient relative humidity, and standard ambient pressure (14.696 psia at mean sea level) adjusted to the Site elevation of [ ] feet above mean sea level.  
*[insert applicable winter reference conditions]*
- The operating Reference Conditions for the Facility shall be the following design parameters for the Generating Units, where appropriate:

Fuel Composition:	_____
Intake Pressure Drop:	_____
Exhaust Pressure Drop:	_____
Firing/Exhaust Temperature:	_____
Use of Bleed Air:	_____
Water or Steam Injections Rate:	_____
Steam Turbine Exhaust Pressure:	_____
Cooling Water Temperature:	_____
Generator Power Factor:	_____
Boiler Blowdown %:	_____

Fuel Temperature: \_\_\_\_\_  
Thermal Energy Export: \_\_\_\_\_

“Replacement Power Costs” for any period mean the costs incurred by Company to replace the Contract Capacity, Contract Energy and other products and services which Seller was required to provide under this PPA (but failed to so provide) during such period, less the sum of any payments from Company to Seller under this PPA that were eliminated with respect to such period as a result of such failure. Replacement Power Costs shall be determined on an hourly basis and shall equal the sum of the following for each hour where the following calculation achieves a positive number:

Hourly Replacement Power Costs = (A + B + C) – D, where

“A” = the product of (x) the number of MW of lost capacity, derived by subtracting the number of MW of capacity of the Facility that qualifies for capacity credit actually made available to Company from the amount of qualifying capacity associated with the entire Facility, and (y) the applicable market price for capacity made available to Company’s system, for such hour;

“B” = the price paid by Company for the MWh of energy purchased by Company to replace the Contract Energy that was not delivered under this PPA during such hour;

“C” = the actual cost of transmission, ancillary services, fuel and fuel transportation, other incremental costs, and any related penalties that could not be avoided or mitigated, and transaction charges to deliver reasonably available energy to Company in amounts equal to the number of MWh for which Replacement Power Costs are owed; and

“D” = the sum of all payments avoided by Company as a result of Seller’s breach, for such hour, including avoided payments under Article 8 and avoided fuel costs.

“ROFO” and “ROFO Notice” shall have the meanings set forth in Section 19.3.

“SCADA” means supervisory control and data acquisition.

“Scheduled Outage/Derating” means a planned interruption/reduction of the Facility’s generation that (i) has been coordinated in advance with Company, per Exhibit L - Maintenance, (ii) is required for inspection, or preventive or corrective maintenance, and (iii) complies with the scheduling requirements of the applicable Transmission Authority.

“Scheduled Termination Date” shall have the meaning set forth in Article 2.

“Security Fund” shall have the meaning set forth in Section 11.1.

“Site” means the parcel of real property on which the Facility will be located, including any easements, rights of way, surface use agreements and other interests or rights in real estate necessary for the construction, operation and maintenance of the Facility. The Site is more specifically described in Exhibit C - Facility Description to this PPA.

“Step-In Rights” shall have the meaning set forth in Section 12.5.

“Successful Start” means, in response to a request from Company to start a Generating Unit [on natural gas or fuel oil, as designated by Company *if applicable*], Seller’s start and operation of such Unit that:

(i) achieves the Minimum Loading level for the requested operating configuration within thirty (30) minutes for single-cycle starts (90 minutes for combined cycle starts) after the time Company requests the turbine start to begin, and

(ii) upon achieving such Minimum Loading level, generates continuously for a period of not less than one hour while synchronized to Transmission Authority’s System at or above such Minimum Loading level without experiencing any abnormal operating conditions.

“Target COD” shall have the meaning set forth in Section 4.5(A).

“Term” means the period of time during which this PPA remains in full force and effect, as further defined in Article 2.

“Termination LDs” shall have the meaning set forth in Section 12.2.

“Test Energy” shall have the meaning set forth in Section 4.6.

“Test Energy Rate” shall mean the Dow Jones Four Corners Electricity Price™ (Non-Firm Daily) Index for the Day on which the relevant Test Energy is generated, less \$10.00 per MWh.

“Transmission Authority” means collectively those entities owning and/or operating the interconnected transmission system applicable to Seller and the Facility pursuant to a Transmission Tariff, including (i) Public Service Company of Colorado operating under and in accordance with its Transmission Tariff, and (ii) all entity(s) responsible under the Interconnection Agreement for providing the transmission lines, any Interconnection Facilities and other equipment and facilities with which the Facility interconnects at the Interconnection Point and transmission system.

“Transmission Authority’s System” means the contiguously interconnected electric transmission and sub-transmission facilities, over which the Transmission Authority has rights (by ownership or contract) to provide bulk transmission of capacity and energy from the Interconnection Point.





**EXHIBIT B**  
(to PPA)  
**CONSTRUCTION MILESTONES**

<b>Construction Milestone</b>	<b>Outcome</b>
<b>[Date]</b>	Seller and all required counterparties shall have executed such Construction Contracts as are needed to construct the Facility.
<b>[Date]</b>	Seller and the Transmission Authority shall have executed the Interconnection Agreement.
<b>[Date]</b>	Seller shall have achieved closing on financing for the Facility or provided Company with proof of financial capability to construct the Facility.
<b>[Date]</b>	Seller shall have laid the foundation for all Facility buildings, generating facilities and step-up transformation facilities.
<b>[Date]</b>	The Generating Units and step-up transformer shall have been delivered and installed at the Site.
<b>[Date]</b>	All fuel supply and transportation arrangements have been put in place, and the Fuel Interconnection Facilities have been constructed and are operational.
<b>[Date]</b>	Seller shall have constructed Seller's Interconnection Facilities and such facilities are capable of being energized.
<b>[Date]</b>	Start-up testing of the Facility commences.
<b>[Date]</b>	Target COD.

**EXHIBIT C**  
(to PPA)

**FACILITY DESCRIPTION AND SITE MAPS**

***[This Exhibit shall include a description of the Facility and all material components thereof, including map, aerial pictures, one-line diagram, Point of Delivery and (if different) the Interconnection Point.]***

The Facility shall be located on the Site and shall be identified as Seller's [ ] Generation Facility. Maps and one-line diagrams of the Facility and associated equipment are included as part of this Exhibit.

The address of the Facility is [ ].

The Facility must include the following specific components:

- have the panel space and 125VDC battery supplied voltage necessary to accommodate the metering, telemetering and communications equipment required by the PPA;
- have communication circuits from the Facility to the EMCC for the purpose of telemetering, SCADA, and voice communications as required by Company;
- include equipment and software necessary to receive, accept and react to an AGC signal from Company's SCADA System for each operating configuration, as further specified on Exhibit I - Operating Standards;
- be capable of sending real time data (including fuel flows) and OPC interface to Company's plant information system (OPC is the Object Linking and Embedding for Process Control interface;
- be capable of dispatch at Minimum Loading levels with AGC and without AGC for each Unit and combination of Units, including 10-minute (quick remote start) capability;
- be capable of operating, or continuing to operate without interruption in all required operating modes in the event of a planned or unplanned outage of one or more, but not all of the Generating Units.

**[Additional Bid Specific requirements to be added]**

**EXHIBIT D**  
(to PPA)

**NOTICES AND CONTACT INFORMATION**

<b>Company</b>	<b>Seller</b>
<p><b>Notices:</b></p> <p>_____ Purchased Power Manager Xcel Energy Services Inc. 1800 Larimer Street, Suite ____ Denver, CO 80202 e-mail: ____@xcelenergy.com</p> <p><i>with a cc to:</i></p> <p>_____ Purchased Power Analyst Xcel Energy Services Inc. 1800 Larimer Street, Suite 1000 Denver, CO 80202 e-mail: ____@xcelenergy.com</p>	<p><b>Notices:</b></p> <p>_____ _____ e-mail: ____@____.com</p> <p><i>with a cc to:</i></p> <p>_____ _____ e-mail: ____@____.com</p>
<p><b>Operating Committee Representative:</b></p> <p>_____ Purchased Power Manager Xcel Energy Services Inc. 1800 Larimer Street, Suite 1000 Denver, CO 80202 e-mail: ____@xcelenergy.com</p> <p><b>Alternate:</b></p> <p>_____ Purchased Power Analyst Xcel Energy Services Inc. 1800 Larimer Street, Suite 1000 Denver, CO 80202 e-mail: ____@xcelenergy.com</p>	<p><b>Operating Committee Representative:</b></p> <p>_____ _____ e-mail: ____@____.com</p> <p><b>Alternate:</b></p> <p>_____ _____ e-mail: ____@____.com</p>
<p><b>Real-Time Contact Information</b></p> <p><u>EMCC</u> (24 hour coverage): Phone: 303-571-6280 E-mail: ____@xcelenergy.com</p> <p><u>Transmission Ops:</u> Phone: 303-571-6490 E-mail: ____@xcelenergy.com</p>	<p><b>Real-Time Contact Information</b></p> <p><u>[Operations Command Center]</u> (24 hour coverage): Phone: _____ E-mail: ____@____.com</p>

**EXHIBIT E**  
(to PPA)  
**INSURANCE COVERAGE**

Type of Insurance	Minimum Limits of Coverage
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Commercial General Liability (CGL) and commercial umbrella	\$11,000,000 combined single limit each occurrence and the aggregate, where applicable. If CGL insurance contains a general aggregate limit, it shall apply separately to the Facility.
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CGL insurance shall be written on ISO occurrence form CG 00 01 01 96 (or a substitute form providing equivalent coverage) and shall cover liability arising from premises, operations, independent contractors, products/completed operations, contracts, property damage, personal injury and advertising injury, and liability assumed under an insured contract (including the tort liability of another assumed in a business contract), all with limits as specified above. CGL insurance shall include ISO endorsement CG 24 17 (or an equivalent endorsement) which modifies the definition of "Insured contract" to eliminate the exclusion of easement or license agreements in connection with construction or demolition operations on or within 50 feet of a railroad. There shall be no endorsement or modification of the CGL insurance limiting the scope of coverage for liability arising from explosion, collapse, or underground property damage.

Company shall be included as an insured under the CGL policy, using ISO additional insured endorsement CG 20 10 (or a substitute providing equivalent coverage), and under the commercial umbrella insurance. The commercial umbrella insurance shall provide coverage over the top of the CGL insurance, the Business Automobile Liability insurance, and the Employers Liability insurance. The CGL and commercial umbrella insurance to be obtained by or on behalf of Seller shall be endorsed as follows:

Such insurance as afforded by this policy for the benefit of Company shall be primary as respects any claims, losses, damages, expenses, or liabilities arising out of this PPA, and insured hereunder, and any insurance carried by Company shall be excess of and noncontributing with insurance afforded by this policy.

Business Automobile Liability	\$2,000,000 combined single limit (each accident), including all Owned, Non-Owned, Hired and Leased Autos.
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Business Automobile Liability insurance shall be written on ISO form CA 00 01, CA 00 05, CA 00 12, CA 00 20, or a substitute form providing equivalent liability coverage. If necessary, the policy shall be endorsed to provide contractual liability coverage equivalent to that provided in the 1990 and later editions of CA 00 01.

Workers Compensation	Statutory Requirements. Seller may comply with these requirements through the use of a qualified self-insurance plan.
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[Exhibit E - continued]

Type of Insurance	Minimum Limits of Coverage
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Employers Liability	\$2,000,000 each accident for bodily injury by accident, or \$2,000,000 each employee for bodily injury by disease.
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Builder's Risk	Replacement value of the Facility.
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Builder's Risk insurance, or an installation floater, shall include coverage for earthquake and flood, collapse, faulty workmanship, materials and design, testing of machinery or equipment, freezing or changes in temperature, debris removal, and partial occupancy.

Environmental Impairment Liability	\$5,000,000 each occurrence.
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All-Risk Property insurance covering physical loss or damage to the Facility	Full replacement value of the Facility. A deductible may be carried which deductible shall be the absolute responsibility of Seller.
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All-Risk Property insurance shall include: (i) coverage for fire, flood, wind and storm, tornado and earthquake with respect to facilities similar in construction, location and occupancy to the Facility, with sublimits of no less than \$10,000,000 each for flood and earthquake; and (ii) Boiler and Machinery insurance covering all objects customarily subject to such insurance, including boilers and turbines, in an amount equal to their full replacement value.

Business Interruption insurance	Amount required to cover Seller's continuing or increased expenses, resulting from full interruption, for a period of 12 calendar months.
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Business Interruption insurance shall cover loss of revenues or the increased expense to resume operations attributable to the Facility by reason of total or partial suspension or delay of, or interruption in, the operation of the Facility as a result of an insured peril covered under Property insurance as set forth above, to the extent available on Commercially Reasonable terms as determined by Company, subject to a Commercially Reasonable deductible that shall be the responsibility of Seller. Notwithstanding any other provision of this PPA, Seller shall not be required to have Business Interruption insurance until the Commercial Operation Date.

**Model Dispatchable Energy Purchase Agreement**

**EXHIBIT F**  
(to PPA)  
**NEEDED PERMITS**

<u>Permit</u>	<u>Status</u>	<u>Date / Projected Date of Grant</u>





This Letter of Credit will be automatically extended each year without amendment for a period of one (1) year from the expiration date hereof, as extended, unless at least thirty (30) days prior to the expiration date, Issuer notifies Beneficiary by registered mail that it elects not to extend this Letter of Credit for such additional period. Notice of non-extension will be given by Issuer to Beneficiary at Beneficiary's address set forth herein or at such other address as Beneficiary may designate to Issuer in writing at Issuer's letterhead address.

This Letter of Credit is freely transferable by Beneficiary in whole or in part, and the number of transfers is unlimited. Issuer shall effect any transfers immediately upon presentation to Issuer of this Letter of Credit and a completed written transfer request substantially in the form attached hereto as Exhibit "B." Such transfer will be effected at no cost to Beneficiary. Any transfer fees assessed by Issuer will be payable solely by Applicant, and the payment of any transfer fees will not be a condition to the validity or effectiveness of the transfer of this Letter of Credit.

Issuer waives any rights it may have, at law or otherwise, to subrogate to any claims which Beneficiary may have against Applicant or Applicant may have against Beneficiary.

This Letter of Credit is subject to the uniform customs and practice for documentary credits (2007 Revision), International Chamber of Commerce publication No. 600 (the "UCP"), except to the extent that the terms hereof are inconsistent with the provisions of the UCP, including but not limited to Articles 14(b) and 36 of the UCP, in which case the terms of this Letter of Credit shall govern. With respect to Article 14(b) of the UCP, Issuer shall have a reasonable amount of time, not to exceed three (3) banking days following the date of Issuer's receipt of documents from Beneficiary (to the extent required herein), to examine the documents and determine whether to take up or refuse the documents and to inform Beneficiary accordingly.

In the event of an act of God, riot, civil commotion, insurrection, war or any other cause beyond Issuer's control that interrupts Issuer's business and causes the place for presentation of this Letter of Credit to be closed for business on the last day for presentation, the expiry date of this Letter of Credit will be automatically extended without amendment to a date thirty (30) calendar days after the place for presentation reopens for business.

ISSUER:

By: \_\_\_\_\_  
Authorized Signature

**EXHIBIT "A"**  
TO LETTER OF CREDIT

**SIGHT DRAFT**

Draft Number \_\_\_\_\_  
\$ \_\_\_\_\_

At sight, pay to the order of [Name of Beneficiary to be inserted], the amount of  
USD \$ \_\_\_\_\_ ( \_\_\_\_\_ and 00/100ths U.S. Dollars).

Value received and charged to the account of: [Name of Issuer and address].  
Drawn under [Name of Issuer to be inserted] Standby Letter of Credit No.  
\_\_\_\_\_.

Dated: \_\_\_\_\_

Public Service Company of Colorado

By: \_\_\_\_\_  
[name and title]

Account: [Applicant to be inserted]

**EXHIBIT "B"**  
TO LETTER OF CREDIT

**FORM OF TRANSFER REQUEST**

Irrevocable Standby Letter of Credit No. \_\_\_\_\_

Current Beneficiary:

Applicant:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

To: [Name of Issuer] ("Issuer")

The undersigned, as the current "Beneficiary" of the above-referenced Letter of Credit, hereby requests that you reissue the Letter of Credit in favor of the transferee named below [insert transferee name and address below]:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

From and after the date this transfer request is delivered to Issuer, the transferee shall be the "Beneficiary" under the Letter of Credit for all purposes and shall be entitled to exercise and enjoy all of the rights, privileges and benefits thereof.

Dated: \_\_\_\_\_

Public Service Company of Colorado

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

[Notary Acknowledgement]

To be signed by a person purporting to be an authorized representative of Beneficiary and indicating his or her title or other official capacity, and acknowledged by a notary public.

**EXHIBIT H**  
(to PPA)  
**FORM OF GUARANTY**

**GUARANTY**

This Guaranty is executed and delivered as of this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by \_\_\_\_\_, a \_\_\_\_\_ [corporation] ("Guarantor"), in favor of **Public Service Company of Colorado** ("Company"), in connection with the performance by \_\_\_\_\_, a \_\_\_\_\_ [limited liability company] ("Seller") of a Power Purchase Agreement dated \_\_\_\_\_, 20\_\_ between Seller and Company (the "PPA").

- RECITALS -

A. Seller owns and operates a [wind] [solar] power electric generation facility having total nameplate capacity of approximately \_\_\_\_ MW located in \_\_\_\_\_ County, \_\_\_\_\_ (the "Facility").

B. Seller and Company have entered into the PPA for the purchase and sale of capacity and electrical energy from the Facility on the terms and conditions set forth therein.

C. Seller is controlled by Guarantor. Guarantor expects to derive substantial benefits from the performance of the PPA by Seller and Company. To induce Company to enter into and continue the PPA and to consummate the purchase and sale of electrical energy contemplated by the PPA, Guarantor has agreed to guarantee the obligations of Seller as provided in this Guaranty.

NOW, THEREFORE, in consideration of the foregoing, Guarantor agrees as follows:

- AGREEMENT -

1. Guaranty. Subject to the provisions of this Guaranty, Guarantor hereby absolutely, irrevocably, unconditionally, and fully guarantees to Company the due, prompt, and complete observance, performance, and discharge of each and every payment obligation of Seller under the PPA, whether incurred before or after the date of delivery of this Guaranty (the "Obligations"). This is a guaranty of payment, not of collection, and as such, Company shall not be required to institute, pursue, or exhaust any remedies against Seller before instituting suit, obtaining judgment, and executing thereon against Guarantor under this Guaranty. This Guaranty shall survive termination of the PPA to the extent necessary to enforce and complete the rights, duties and obligations of Company and Seller thereunder.

2. Maximum Liability. Notwithstanding anything herein to the contrary, Guarantor's maximum liability under this Guaranty shall be limited to \_\_\_\_\_ dollars (US\$\_\_\_\_\_) plus costs of collection under Section 10 below.

3. Rights of Company. Guarantor hereby grants to Company, in Company's discretion and without the need to notify or obtain any consent from Guarantor, and without termination, impairment, or any other effect upon Guarantor's duties hereunder, the power and authority from time to time:

(a) to renew, compromise, extend, accelerate, or otherwise change, substitute, supersede, or terminate the terms of performance of any of the Obligations, in each case in accordance with the PPA;

(b) to grant any indulgences, forbearances, and waivers, on one or more occasions, for any length of time, with respect to Seller's performance of any of the Obligations; and

(c) to accept collateral, further guaranties, and/or other security for the Obligations, and, if so accepted, then to impair, exhaust, exchange, enforce, waive, or release any such security.

4. Performance. If any of the Obligations are not performed according to the tenor thereof, and any applicable notice and cure period provided by the PPA has expired ("Default"), Guarantor shall immediately upon receipt of written demand by Company (a) perform or cause Seller to perform the Obligation in Default, and (b) pay, reimburse, and indemnify Company against any liabilities, damages, and related costs (including attorneys' fees) incurred by Company as a result thereof, all in such manner and at such times as Company may reasonably direct.

5. Satisfaction. Satisfaction by Guarantor of any duty hereunder incident to a particular Default or the occurrence of any other Default shall not discharge Guarantor except with respect to the Default satisfied, it being the intent of Guarantor that this Guaranty be continuing until such time as all of the Obligations have irrevocably been discharged in full, at which time this Guaranty shall automatically terminate. If at any time the performance of any Obligation by Seller or Guarantor is rescinded or voided under the federal Bankruptcy Code or otherwise, then Guarantor's duties hereunder shall continue and be deemed to have been automatically reinstated, restored, and continued with respect to that Obligation, as though the performance of that Obligation had never occurred, regardless or whether this Guaranty otherwise had terminated or would have been terminated following or as a result of that performance.

6. Notice of Acceptance. Guarantor waives and acknowledges notice of acceptance of this Guaranty by Company.

7. Waivers by Guarantor. Guarantor hereby waives and agrees not to assert or take advantage of:

(a) all set-offs, counterclaims, and, subject to Section 4 above, all presentments, demands for performance, notices of non-performance, protests, and notices of every kind that may be required by Applicable Laws;

(b) any right to require Company to proceed against Seller or any other person, or to require Company first to exhaust any remedies against Seller or any other person, before proceeding against Guarantor hereunder;

(c) any defense based upon an election of remedies by Company;

(d) any duty of Company to protect or not impair any security for the Obligations;

(e) the benefit of any laws limiting the liability of a surety;

(f) any duty of Company to disclose to Guarantor any facts concerning Seller, the PPA or the Facility, or any other circumstances, that would or allegedly would increase the risk to Guarantor under this Guaranty, whether now known or hereafter learned by Company, it being understood that Guarantor is capable of and assumes the responsibility for being and remaining informed as to all such facts and circumstances; and

(g) until all Obligations in Default have been fully paid and/or performed, any rights of subrogation, contribution, reimbursement, indemnification, or other rights of payment or recovery for any payment or performance by it hereunder. For the avoidance of doubt, if any amount is paid to Guarantor in violation of this provision, such amount shall be held by Guarantor for the benefit of, and promptly paid to, Company.

8. Cumulative Remedies. The rights and remedies of Company hereunder shall be cumulative and not alternative to any other rights, powers, and remedies that Company may have at law, in equity, or under the PPA. The obligations of Guarantor hereunder are independent of those of Seller and shall survive unaffected by the bankruptcy of Seller. Company need not join Seller in any action against Guarantor to preserve its rights set forth herein.

9. Representations and Warranties. Guarantor represents and warrants to Company as follows:

(a) Guarantor is a corporation, duly organized, validly existing, and in good standing under the laws of the state of its incorporation. Seller is a direct or indirect wholly-owned subsidiary of Guarantor. Guarantor has all necessary corporate power and authority to execute and deliver this Guaranty and to perform its obligations hereunder.

(b) The execution, delivery and performance of this Guaranty has been duly and validly authorized by all corporate proceedings of Guarantor and is not in violation of any law, judgment of court or government agency. This Guaranty has been

duly and validly executed and delivered by Guarantor and constitutes a legal, valid and binding obligation of Guarantor, enforceable against Guarantor in accordance with its terms.

10. Collection Costs. Guarantor shall pay to Company, upon demand, and in addition to the maximum liability set forth in Section 3 hereof, all reasonable attorneys' fees and other expenses which Company may expend or incur in enforcing the Obligations against Seller and/or enforcing this Guaranty against Guarantor, whether or not suit is filed, including, without limitation, all attorneys' fees, and other expenses incurred by Company in connection with any insolvency, bankruptcy, reorganization, arrangement, or other similar proceedings involving Seller that in any way affect the exercise by Company of its rights and remedies hereunder.

11. Severability. Should any one or more provisions of this Guaranty be determined to be illegal or unenforceable, all other provisions nevertheless shall be effective.

12. Waiver or Amendment. No provision of this Guaranty or right of Company hereunder can be waived, nor can Guarantor be released from Guarantor's duties hereunder, except by a writing duly executed by Company. This Guaranty may not be modified, amended, revised, revoked, terminated, changed, or varied in any way whatsoever except by the express terms of a writing duly executed by Company.

13. Successors and Assigns. This Guaranty shall inure to the benefit of and bind the successors and assigns of Company and Guarantor.

14. Governing Law. This Guaranty shall be governed by and construed in accordance with the law of the State of Colorado without regard to the principles of conflicts of law thereof. Venue for any dispute hereunder shall be as set forth in Section 13.5 of the PPA.

15. Notices. All notices, requests, claims, demands, and other communications hereunder shall be in writing and shall be given (and shall be deemed to have been duly given upon receipt) by delivery in the manner contemplated by the PPA, addressed as follows:

(a) if to Company: as provided in the PPA

(b) if to Guarantor: \_\_\_\_\_

\_\_\_\_\_  
Attn:

with a copy to: \_\_\_\_\_

\_\_\_\_\_  
Attn:





**EXHIBIT I**  
(to PPA)  
**OPERATING STANDARDS**

**Ramp Rate**

(A) Equipment. Each Generating Unit shall be capable of providing:

1. A minimum regulating range 15 MW per Unit or the highest 40% of the capacity available at the time of dispatch, whichever is greater, in automatic load regulation capacity;
2. Continuous response to EMCC pulsing at a minimum increasing rate of five percent of the capacity available at the time per minute over the regulating range, and a minimum decreasing rate of five percent of the capacity available at the time per minute over the regulating range; and
3. A low load point for the regulating range of the Unit, equal to or less than the Minimum Loading level for operation with AGC.

(B) Testing. Company shall have the right to routinely conduct, from the EMCC, verification testing of the Ramp Rate Availability Factor (RRAF) of the Facility, without prior notice to Seller. RRAF verification testing shall be conducted over the minimum regulating range of Unit(s) being tested, beginning at or below the applicable Minimum Loading of such minimum regulating range and ending at the maximum reported available capacity during the hour of the test (the "specified ramp range"), taking into consideration non-standard ambient conditions which exist at the time of the test. The timed portion of the test used to determine the increasing ramp rate shall begin when the output level of the Unit(s) being tested is at the minimum load point of the specified ramp range and shall end when such output is one MW less than the maximum load point of the specified ramp range. The timed portion of the test used to determine the decreasing ramp rate shall begin when the output level of the Unit(s) being tested is at the maximum load point of the specified ramp range and shall end when such output is one (1) MW greater than the minimum load point of the specified ramp range. The calculated "Actual Ramp Rate" for determining RRAF shall be the mean average of the increasing and decreasing ramp rates for the specified ramp range.

**AGC**

(A) Equipment. Company shall design, purchase, own, install and test telemetry equipment, generation load control equipment and associated circuits from the Facility demark to the EMCC, suitable for Automatic Generation Control of the Facility. Generation load control equipment is defined as the equipment and associated hardware necessary to interpret the request for a generation load change and provide a signal to the governor of Seller's equipment. Seller shall in no way constrict or modify the generation load change signal path without review and written authorization by Company. The telemetry and generation load equipment is to provide the following:

instantaneous net MW and MVar levels, control status (available for automatic generation control), load regulation range limits, remote pulsing circuit, and any other parameters deemed necessary by Company. Seller shall purchase, own, install and test at the Facility the necessary generation load control equipment to interface and respond to Company's generation load control equipment, including equipment that reflects the identical MW and MVar values as those telemetered to the EMCC.

(B) Testing. Company shall monitor the ability of the Facility to be automatically dispatched. It is the expectation of the Parties that the Facility will be available for automatic generation dispatch during 100% of the Facility's on-line hours (excluding periods of failure of Company's telemetry, during which the Facility will manually be dispatched by Company). Company shall notify Seller of any material non-compliance.

\* \* \* \* \*

**EXHIBIT J**  
(to PPA)  
**CAPACITY TESTING**

*General Capacity Testing Criteria:*

For Company's planning, operating and reporting purposes, the Seasonal Capacity Test (a "Test") is the testing procedure to determine the seasonal net dependable capacity of the Facility that can be expected during summer and winter after supplying power to all of the Facility's auxiliary equipment. The Test will be determined and reported as the lowest sustained, seasonally adjusted net kWh for any one clock hour of the two- or four-clock hour Test period. At Company's sole determination, the adjustments required to determine and perform the Test may include such applicable adjustments for ambient air conditions, condensing water availability and temperature, fuels, steam or water injection rates for emission control, steam heating loads, thermal host energy usage, reservoir levels, elevations and scheduled reservoir releases and water flow conditions. The Facility shall be operated in full compliance with Applicable Law during the Test. If the Facility fails to operate during the Test in accordance with any requirements of the Test, Company will require a retest of the Facility.

A Test shall be performed at least once every two years for each of the summer (April 1 to September 30) and winter (October 1 to March 31) seasons to demonstrate and verify that the Test is representative of what can be generated during Company's summer and winter peak load periods. Seller shall perform the initial Test within three months following the Commercial Operation Date. A capacity test performed by or on behalf of Seller, prior to COD, may constitute the initial Test if such test is performed in accordance with all the requirements for capacity testing set forth in this Exhibit.

Company shall conduct each Test on a date mutually agreed upon by Company and Seller. Company shall conduct the Test as outlined below and may install Test equipment, obtain necessary Test readings, and specify equipment operation mode to ensure Test conditions are met as outlined in this Exhibit.

During the Test all auxiliary equipment used in normal operation of the Facility shall be in service and shall be in typical operating condition and in a normal state of maintenance. This includes equipment associated with any process or thermal host connected to the Facility. It shall be Seller's obligation to ensure that all auxiliary equipment needed for normal operation of the Facility is in typical operating condition for the scheduled Test. Emergency capability shall be excluded during the Test and all equipment, which is not intended to be used on a normal daily basis, which could be used to extend capability, shall be excluded during the Test period. Seller shall be required to provide operational records to be used to substantiate the normal mode of operation. NO<sub>x</sub> and CO emissions must be kept in compliance for the duration of the Test.

Steady state operation is required for the Test. The Facility shall be considered to be at steady state prior to starting a test if the Facility has operated at full capacity for at least thirty minutes with power output maintained at a near constant level. If the Facility is unable to maintain a near constant power output level during the scheduled Test period, Company may, in its sole discretion, require a subsequent Test at Seller's expense. Unless found to be inaccurate, the Electric Metering Device(s) will be utilized to measure the Facility's net power output during the Test period. During the Test and its preparation, Seller shall give Company personnel access to the Facility's equipment and instrumentation for observation and recording of process operating parameters and conditions.

Prior to each Test, Seller shall submit for Company's review a description of the Facility. Such Facility description shall include as appropriate:

- a. A description of the system.
- b. Cycle diagram(s) indicating the design/contract values for power generation and any connected process including mass flow rates, pressures, temperatures and enthalpies of the various process flow paths and heat rates.
- c. Any modifications to the Facility that could impact the Facility's capacity output since the last Test. Modifications include:
  - 1) Installation of new equipment or systems
  - 2) Alterations to existing equipment or systems
  - 3) Changes to any digital control system (DCS) control parameters including firing curves, temperature and pressure limits and steam/water injection schemes.
  - 4) Known damage or limitations of equipment or systems
- d. All relevant generation and process correction data, curves, thermal kits and application methodology.
- e. Cooling tower and/or Air Cooled Condenser performance and correction curves.
- f. Description of how the useful thermal output is applied.
- g. All requested historical operating data, in electronic and "hard copy" format. Historic data may be used to identify, analyze and review effects of any changes in the Facility's equipment, DCS control parameters, Facility performance degradation, etc.
- h. The technical support information included in the Facility's state emission permit(s).
- i. Reservoir storage, elevations and water flow data.

For the initial Test, this information shall be submitted to Company no later than 90 Days prior to the Commercial Operation Date. For the initial Test, the Facility's generation and process correction values will be calculated based on design or test information, in lieu of historic operational data, where applicable.

For subsequent Tests, Seller shall provide to Company historic seasonal operational data from Facility's operation, where applicable. Such data shall include thermal energy supplied to and utilized by industrial or commercial processing loads, and heating and/or cooling processing loads. Prior to the Test, Company shall provide Seller with a comprehensive list of the historic seasonal operational data required.

The Test period for will be not less than four continuous hours for the summer season and not less than two continuous hours for the winter season.

If Seller believes that the tested capacity is not fairly representative of the seasonal net dependable capacity of the Facility, Seller may, in its sole discretion, require a re-Test on a date determined by Company.

If Company believes that the tested capacity is not fairly representative of the seasonal net dependable capacity of the Facility, Company may, in its sole discretion, conduct a re-Test on a date determined by Company, *provided* that Company shall pay all fuel commodity costs and any associated fuel imbalance, transportation and other ancillary costs incurred by Company in connection therewith if the original Test complied with this Exhibit.

*Combustion Turbine, Internal Combustion and Combined Cycle Unit Tests:*

For the summer season, as-tested net capacity at the Facility shall be adjusted to ambient temperature and relative humidity conditions of 95°F and 20%, respectively. For the winter season, as-tested net capacity at the Facility shall be adjusted to ambient temperature and relative humidity conditions of 30°F and 60%, respectively. In both cases, the as-tested net capacity will be adjusted to the barometric pressure corresponding with the Facility's elevation above sea level.

The ambient air temperature measurement for the Test will represent surrounding ambient air temperature and not ambient air temperature which is heated or cooled by nearby equipment. For the purpose of the Test, having all compressor intake air conditioning equipment (i.e., evaporative coolers, humidifiers, heaters, etc.) out of service, shall be considered as the normal mode of operations. Air conditioning equipment may be used during the Test only to the extent that Seller can prove, with historical records, that said equipment is normally in service. The performance of intake air conditioning equipment shall be adjusted to historic or design ambient air conditions. Combustion turbine exhaust temperatures shall not exceed the design operating point established by the turbine manufacturer and specific to the combustion turbine being tested. The Test will be conducted using only an approved DCS control scheme governing operating parameters (i.e., turbine firing curve, etc.) as specified in the turbine manufacturer's requirements and consistent with Good Utility Practices.

Steam or water injection rates for emission control shall not exceed the levels specified in the technical support information in the application for the Facility emission permit(s).

For Combined Cycle units, the as-tested net capacity is affected by the turbine exhaust pressure, and shall be seasonally adjusted to values representative of cooling water conditions at Company's corresponding seasonal maximum system load period. This adjustment may be based on historic cooling water temperature measurements, test data and/or design information.

Steam conditions will correspond to the operating standards established by the turbine manufacturer for the Facility. Duct burners, where applicable, will be operated at normal maximum firing levels during the Test. The normal maximum firing level will be determined based on historical and/or design information.

\* \* \* \* \*

## **EXHIBIT K**

(to PPA)

### **HEAT RATE TESTING**

The Actual Net Heat Rate of the Facility shall be determined by heat rate testing by Seller at the full production capacity of the Facility, using Acceptable Natural Gas Fuel, at an ambient temperature of not less than 70° F, with (as applicable) cooling of intake air and full supplemental fuel firing.

For the purposes of heat rate testing and determination of the Actual Net Heat Rate, (i) fuel input shall be measured at the Fuel Delivery Point and (ii) electric output shall be measured at the Point of Delivery. Testing shall be conducted over a continuous period until operation of the Units is held constant for one hour. The Facility will be operated in full compliance with all Permits and Applicable Law throughout the test, with operation of all auxiliary equipment (including thermal export and in-line heaters) used during normal operation of the Facility. Seller may be required to provide operational records to be used to substantiate the normal mode of operation. Testing shall be performed in accordance with the current ASME test codes applicable to the Generating Units, or in accordance with other mutually-agreed test codes/procedures.

Each Party shall have the right to request and schedule a heat rate test on a Business Day, not more often than once during any calendar year and upon Notice to the other Party at least 30 Days prior to the Day of such test, pursuant to the procedures set forth in this Exhibit. Seller shall perform the heat rate test under Company observation and concurrence. Company shall have the right of access to all areas of the Facility necessary to observe and verify testing activities. Company shall have the right to install, during the heat rate test and at Company's expense, any temporary, redundant test equipment complying with governing test codes, that Company deems necessary for the purpose of verifying test measurements obtained by, or on behalf of, Seller.

Seller shall prepare and submit to Company for review and approval, at least 30 Days prior to each heat rate test, the proposed heat rate test procedure. Such test procedure shall include (i) specification of the governing test codes, (ii) the extent to which the test codes will be followed, (iii) provisions for testing, including collection of test data, (iv) any deviations from the test code, and (v) the methodology for calculating test results, including the planned method of adjusting the tested net heat rate to each of the Reference Conditions, and (v) the configuration and operation of the plant equipment (i.e. specific firing curve, turbine governor valve position, use of duct burners, foggers, chillers, etc.). Seller shall be responsible for the full scope of heat rate testing, including, furnishing the test instrumentation, instrument calibration, set-up, data gathering, fuel analysis, data analysis and the issuance of a final report.

Electronic and paper copies of the raw test data shall be provided to Company at the conclusion of each test run. Immediately following each heat rate test Seller shall provide to Company all raw test data. Within 60 Days following performance of each heat rate test, Seller shall provide to Company for review and approval (i) calculations,

fuel analyses and a final test report, in written and electronic format, (ii) all as-built equipment specifications, correction curves, equations and other information necessary for review of the heat rate test results that have not been previously submitted to Company, and (iii) a fully functioning electronic model, in Gates-cycle or a similar program, that Company can use to verify Seller's calculations of, and adjustments to, test data. The final test report shall include clear and complete explanations of the calculations resulting in the test net heat rate and the adjustment of the test net heat rate to each of the Reference Conditions. Uncertainty, as defined in the ASME power test codes, shall not be used to adjust heat rate test results.

In connection with any heat rate test, Company may also require Seller to perform heat rate testing at up to seven Company-specified load points for each possible Facility operating configuration (e.g. with and without supplemental fuel firing, and each simple cycle and combined cycle Unit operating mode) for the sole purpose of developing an accurate dispatch heat rate curve for each possible Facility operating configuration.

Seller shall notify Company of any generation equipment tuning and adjustment that may impact the heat rate performance of the Facility or the accuracy of the correction curves utilized to adjust the results of the most recent heat rate test. Upon such notification, Company may require Seller to perform additional heat rate testing of the Facility and provide new correction curves, that reflect the actual post-tuning condition of the Facility equipment.

The results of such testing shall be adjusted to applicable Company standards for ambient temperature, relative humidity, and barometric pressure using the final design correction curves reflecting expected Facility equipment performance, after all equipment tuning and adjustments have been completed, to determine the Actual Net Heat Rate.

The ambient air temperature measurement for the Test will represent surrounding ambient air temperature and not ambient air temperature which is heated or cooled by nearby equipment. For the purpose of the Test, having all compressor intake air conditioning equipment (i.e., evaporative coolers, humidifiers, heaters, etc.) out of service, shall be considered as the normal mode of operations. Air conditioning equipment may be used during the Test only to the extent that Seller can prove, with historical records, that said equipment is normally in service. The performance of intake air conditioning equipment shall be adjusted to historic ambient air conditions. Combustion turbine exhaust temperatures shall not exceed the design operating point established by the turbine manufacturer and specific to the combustion turbine being tested. The Test will be conducted using only an approved DCS control scheme governing operating parameters (i.e., turbine firing curve, etc.) as specified in the turbine manufacturer's requirements and consistent with Good Utility Practices. Steam or water injection rates for emission control shall not exceed the levels specified in the technical support information in the application for the Facility emission permit(s).



For Combined Cycle units, the as-tested net capacity is affected by the turbine exhaust pressure, and shall be seasonally adjusted to values representative of cooling water conditions at Company's corresponding seasonal maximum system load period. This adjustment may be based on historic cooling water temperature measurements, test data and/or design information.

Steam conditions will correspond to the operating standards established by the turbine manufacturer for the Facility. Duct burners, where applicable, will be operated at normal maximum firing levels during the Test. The normal maximum firing level will be determined based on historical and/or design information.

Seller shall perform the initial heat rate test within three months following the Commercial Operation Date. If the initial heat rate test is performed after COD, the Actual Net Heat Rate resulting from such test shall apply retroactively from the Commercial Operation Date for the purposes of determining the Heat Rate Adjustment pursuant to Section 8.4. The heat rate test performed by or on behalf of Seller, prior to COD, may constitute the initial heat rate test if such test is performed in accordance with all the requirements for heat rate testing set forth in this Exhibit (except that in such case, Company shall waive the requirement that the heat rate test be performed at an ambient temperature of not less than 70° F).

\* \* \* \* \*

**EXHIBIT L**  
(to PPA)  
**MAINTENANCE**

A. Schedules. At least three months prior to COD, Seller shall provide to Company a schedule of the expected Scheduled Outages/Deratings for the Facility ("Maintenance Schedule") for the balance of the calendar year in which COD is projected to occur. Thereafter, on or before February 1 of each successive year, Seller shall submit to Company (i) an annual Maintenance Schedule for such calendar year (including the date, start time and expected duration of the outage), and (ii) a projected long-term Maintenance Schedule encompassing the following four calendar years.

B. Advance Changes. Either Seller or Company may change an annual Maintenance Schedule from time to time, upon prior notice to the other Party, as follows based on the original total duration:

<u>Scheduled Duration of Outage</u>	<u>Minimum Required Advance Notice</u>	
	<u>if Changed by Seller</u>	<u>if Changed by Company*</u>
• Fewer than 2 Days	at least 48 hours	at least <span style="background-color: yellow;">    </span> Days
• 2 to 5 Days	at least 7 Days	at least <span style="background-color: yellow;">    </span> Days
• Major overhauls (over 5 Days)	at least 90 Days	at least <span style="background-color: yellow;">    </span> Days

\* Maintenance changes requested by Company shall be re-scheduled by the Parties consistent with Good Utility Practices.

C. Late Changes. Not less than 12 hours prior to commencement of any Scheduled Outage/Derating, Company may request verbally or in writing, that Seller defer such Scheduled Outage/Derating. Subject to Good Utility Practice, Seller shall comply with any such request and reschedule such deferred maintenance to a subsequent mutually agreed date if Company agrees to pay Seller the actual incremental direct costs incurred by Seller in such deferral or rescheduling. Seller shall provide to Company, in advance, a non-binding good faith estimate of such costs, and Company shall promptly advise Seller whether Company is willing to reimburse Seller to implement such revised schedule.

**[Choose one of the following, as appropriate]:**

**for simple cycle facilities:**

D. SME. Seller shall be entitled to 360 MWh of Scheduled Maintenance Energy ("SME") per MW of Net Capability during each Commercial Operation Year as a credit towards Seller's CAF under Section 8.1, *provided, however*, that such SME is scheduled in advance with Company pursuant to paragraph (A) above and approved in writing by Company prior to Seller's use of such SME. If Seller uses fewer than 360 MWh of SME per MW of Net Capability in a Commercial Operation Year, Seller may carry over unused SME for use in the next Commercial Operation Year as additional credit towards Seller's CAF during the next Commercial Operation Year, *provided, however*, that the total SME per MW of Net Capability that may be accumulated by

Seller for use in any Commercial Operation Year, including carry over SME, shall not exceed 672 MWh per MW of Net Capability. SME may not be advanced from future Commercial Operation Years.

***for combined cycle facilities:***

D. SME. Seller shall be entitled to 456 MWh of Scheduled Maintenance Energy ("SME") per MW of Net Capability during each Commercial Operation Year as a credit towards Seller's CAF under Section 8.1, *provided, however*, that such SME is scheduled in advance with Company pursuant to paragraph (A) above and approved in writing by Company prior to Seller's use of such SME. If Seller uses fewer than 456 MWh of SME per MW of Net Capability in a Commercial Operation Year, Seller may carry over unused SME for use in the next Commercial Operation Year as additional credit towards Seller's CAF during the next Commercial Operation Year, *provided, however*, that the total SME per MW of Net Capability that may be accumulated by Seller for use in any Commercial Operation Year, including carry over SME, shall not exceed 720 MWh per MW of Net Capability. SME may not be advanced from future Commercial Operation Years.

\* \* \* \* \*

**EXHIBIT M**  
(to PPA)

**PRICING**

*This entire Exhibit shall be deemed Confidential Information subject to Section 20.19.*

Commercial Operation Year	Capacity Price (\$/MW)	Tolling Payment Rate (\$/MWh)
1	\$ _____	\$ _____
2	\$ _____	\$ _____
3	\$ _____	\$ _____
4	\$ _____	\$ _____
5	\$ _____	\$ _____
6	\$ _____	\$ _____
7	\$ _____	\$ _____
8	\$ _____	\$ _____
9	\$ _____	\$ _____
10	\$ _____	\$ _____
11	\$ _____	\$ _____

Commercial Operation Year	Capacity Price (\$/MW)	Tolling Payment Rate (\$/MWh)
12	\$ _____	\$ _____
13	\$ _____	\$ _____
14	\$ _____	\$ _____
15	\$ _____	\$ _____
16	\$ _____	\$ _____
	\$ _____	\$ _____
	\$ _____	\$ _____
	\$ _____	\$ _____
	\$ _____	\$ _____
	\$ _____	\$ _____
	\$ _____	\$ _____

## EXHIBIT N

(to PPA)

### ESC EVENT ADJUSTMENTS

(A) ESC Bonuses. If during some or all of an ESC Event the entire Facility is fully mechanically available (or is deemed fully available pursuant to Section 8.1) [on natural gas and/or fuel oil,] Seller shall be entitled to an ESC Bonus with respect to such ESC Event in an amount equal to

$NC \times DE \times ABF$ , where:

NC = the available Net Capability of the Facility, expressed in kW;

DE = the number of hours during the ESC Event, during which the Facility is or is deemed fully available (excluding the number of hours, if any, during the ESC Event when the Facility was subject to an SME Outage); and

ABF = the applicable Availability Bonus Factor (ABF):

Yellow: \$0.005

Orange: \$0.015

Red: \$0.050

The Facility shall not be de-rated for adverse ambient conditions, for purposes of calculations under this Exhibit.

(B) ESC Penalties. If some or all of the Facility is unavailable mechanically (other than due to Scheduled Outages/Deratings eligible for SME under Exhibit L - Maintenance -- "SME Outages") during some or all of an ESC Event, Seller shall be subject to an ESC Penalty with respect to such ESC Event equal to

$ANC \times DO \times ARF$ , where:

ANC = the Affected Net Capability of the Facility (i.e. the portion of the capacity of the Facility subject to the outage), expressed in kW;

DO = the hours during which the Facility is not fully available due to causes other than SME Outages; and

ARF = the applicable Availability Reduction Factor (ARF):

Yellow: (\$0.025)

Orange: (\$0.075)

Red: (\$0.250)

(C) Netting. In the event that Seller is subject to both an ESC Bonus and an ESC Penalty with respect to an ESC Event, the two adjustments shall be netted against each other, to determine the actual ESC Adjustment to be paid / charged to Seller with respect to such ESC Event.

(D) Limits on Seller's Liability. With respect to each Commercial Operation Year:

1. With respect to Yellow ESC Events during such Commercial Operation Year, in no event shall Seller be subject to aggregate negative ESC Adjustments in excess of an amount equal to  $200 \text{ hours} \times \text{Yellow ARF} \times \text{NC}$ ;
2. With respect to Orange ESC Events during such Commercial Operation Year, in no event shall Seller be subject to aggregate negative ESC Adjustments in excess of an amount equal to  $75 \text{ hours} \times \text{Orange ARF} \times \text{NC}$ ; and
3. With respect to Red ESC Events during such Commercial Operation Year, in no event shall Seller be subject to aggregate negative ESC Adjustments in excess of an amount equal to  $40 \text{ hours} \times \text{Red ARF} \times \text{NC}$ .

*[Choose one of the following, as appropriate]:*

*[for gas-only facilities]*

(E) No De-Rating. In determining whether the Facility is “fully available” for purposes of an ESC Event, the Facility will not be de-rated for ambient conditions (notwithstanding Section 8.1 to the contrary).

*or*

*[for dual-fuel facilities]*

(E) No De-Rating / Dual Fuel. In determining whether the Facility is “fully available” during an ESC Event:

1. the Facility will not be de-rated for ambient conditions (notwithstanding Section 8.1 to the contrary);
2. if Acceptable Natural Gas Fuel is available on an interruptible basis at the Fuel Delivery Point, the Facility must be available on Acceptable Natural Gas Fuel; and
3. if Acceptable Natural Gas Fuel is not available on an interruptible basis at the Fuel Delivery Point, the Facility must be available on Acceptable Fuel Oil.  
*if applicable*

\* \* \* \* \*

## EXHIBIT O

(to PPA)

### LENDER CONSENT PROVISIONS

In the event Seller collaterally assigns its rights hereunder to a Facility Lender as security, any related Lender Consent will contain provisions substantially as follows:

1. Seller and Company will neither modify nor terminate the PPA in any material respect, without the prior written consent of the Facility Lender.
2. The Facility Lender shall have the right, but no obligation, to do any act required to be performed by Seller under the PPA, and any such act performed by the Facility Lender shall be as effective to prevent or cure a default as if done by Seller itself.
3. If Company becomes entitled to terminate the PPA due to an Event of Default by Seller, Company shall not terminate the PPA unless it has first given notice of such Event of Default to the Facility Lender and has given the Facility Lender the same cure period afforded to Seller under Article 12 of the PPA, plus an additional 30 Days beyond Seller's cure period to cure such Event of Default; *provided, however,* that if the Facility Lender requires possession of the Facility in order to cure the Event of Default, and if the Facility Lender diligently seeks possession, the Facility Lender's additional 30-Day cure period shall not begin until foreclosure is completed, a receiver is appointed, any bankruptcy stay is removed, or possession is otherwise obtained by or on behalf of the Facility Lender.
4. The Facility Lender shall provide to Company a copy of any notices of default and/or intent to exercise remedies delivered to Seller under the Financing Documents.
5. Upon any foreclosure, deed-in-lieu or other exercise of the rights and remedies of the Facility Lender that results in a successor owner or operator of the Facility, the Facility Lender shall require and cause the successor (i) to assume all of Seller's prospective obligations under the PPA, (ii) to cure any then-existing defaults by Seller that are capable of cure by performance or the payment of money damages, (iii) to have substantial experience in the operation of power generation facilities akin to the Facility, either directly, through its affiliates or through an operator acceptable to Company, and (iv) to enjoy (together with its parents and affiliates) an Investment Grade Credit Rating or other creditworthiness satisfactory to Company. Except for the foregoing, the Facility Lender shall not be obligated to perform or be liable for any obligation of Seller under the PPA.
6. Upon any rejection or other termination of the PPA in connection with any bankruptcy or insolvency of Seller, the Facility Lender (or its successor) and Company shall enter into a new power purchase agreement on the same terms and conditions as the PPA and for the period that would have been remaining under the PPA but for such termination.

\* \* \* \* \*

**EXHIBIT P**  
(to PPA)  
**PSA PROVISIONS**

Any PSA executed to implement exercise of Company's ROFO rights will include provisions substantially as follows:

1. The PSA shall close on such Business Day as may be specified by Company, not more than 180 Days following execution of the PSA (or such longer period as may be required for the PUC to act thereon).
2. Seller shall operate the Facility, and both Parties shall perform the PPA, in the ordinary course of business pending closing of the PSA.
3. Seller shall convey the Facility to Company via special warranty deed, free and clear of all mortgages, deeds of trust, UCC-1s, and other liens materially adverse to Company's ownership and operation thereof.
4. All revenues and expenses of the Facility shall be prorated as of the date of closing.
5. Seller shall provide customary comprehensive representations, warranties and indemnities to Company regarding its legal right to execute and perform the PSA, and regarding title, physical condition, vendors, employees, operations, finances, contracts, maintenance and other relevant matters pertaining to the Facility, unqualified by its knowledge but subject to such factual exceptions as Seller may disclose. Absent fraud, Seller's liability for breach of such reps and warranties shall not exceed 100% of the purchase price. Seller's post-closing obligations shall be secured by a suitable combination of hold-back escrow, letter of credit and/or guaranty from a creditworthy affiliate.
6. Company shall provide customary representations and warranties to Seller regarding its capacity and legal right to execute and perform the PSA, unqualified by its knowledge.
7. Company shall assume all material contracts of Seller related to the Facility that are reviewed and approved by Company (such approval not to be unreasonably withheld) during the due diligence period.
8. Company's obligation to close shall be conditioned upon (i) approval by the PUC, (ii) counterparty consent under all material contracts requiring such consent, (iii) receipt by Company of all Permits needed to own and operate the Facility, and (iv) no material casualty or condemnation of the Facility prior to closing.
9. Company shall have the right of specific performance, without the need to post bond or prove irreparable harm from Seller's failure to close. Venue for any dispute under the PSA shall be the State District Court for the County in which the Facility is located.
10. Such other terms as may then be standard in the market.

\* \* \* \* \*



**EXHIBIT Q**

(to PPA)

**NATURAL GAS FUEL SPECIFICATIONS**

Specifications:

O<sub>2</sub>: ≤ \_\_\_\_ % by volume

H<sub>2</sub>S: ≤ \_\_\_\_ grains / Ccf

Total Sulphur: ≤ \_\_\_\_ grains / Ccf

CO<sub>2</sub>: ≤ \_\_\_\_ % by volume

H<sub>2</sub>O: ≤ \_\_\_\_ lbs / MMcf

Heating Value: ≥ \_\_\_\_ Btu / ft<sup>3</sup>

Temperature: ≤ \_\_\_\_ ° F

Pressure:

Minimum: \_\_\_\_ psi

Maximum: \_\_\_\_ psi

**EXHIBIT R**

(to PPA)

**FUEL OIL**

*[if applicable]*

Fuel Oil Storage Facilities. The Fuel Oil Storage Facilities included in the Facility shall include one or more active storage tanks for Fuel Oil sufficient to operate the Facility at its full capacity exclusively on Fuel Oil for a period of at least 72 and no more than 96 consecutive hours.

Fuel Oil Management Plan. *[insert manufacturer's requirements for periodic testing of the Facility on fuel oil, and for use of fuel oil sufficiently frequently to avoid degradation below Acceptable Fuel Oil standards]*

Specifications for Acceptable Fuel Oil. *[insert manufacturer's requirements for Acceptable Fuel Oil – e.g. ASTM D975-10C Low Sulfur fuel oil; or list specs]*

## **3.2 RENEWABLE RESOURCES RFP**

### **Attachment 3.2-1 Renewable Resources RFP**

Public Service's 2016 ERP Renewable Resources RFP.

### **Attachment 3.2-2 Renewable Resources RFP Forms**

The Forms that are referenced in Appendix A of the 2016 ERP Renewable Resources RFP.

### **Attachment 3.2-3 Model Wind or Solar Energy Purchase Agreement**

The Model Wind Energy Purchase Agreement referenced in Appendix D of the 2016 ERP Renewable Resources RFP.

### **Attachment 3.2-4 Model Renewable Energy Only Purchase Agreement**

The Model Renewable Energy Only Purchase Agreement referenced in Appendix D of the 2016 ERP Renewable Resources RFP.

# **PUBLIC SERVICE COMPANY OF COLORADO**

## **2017 Solicitation**

### **Renewable Resources Request for Proposals**



date

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Form G	Natural Gas and Backup Fuel Supply
Form H	Emission Rates
Form I	Interconnection Information Forms

### **Notice of Disclaimer**

The information contained in this Request for Proposals ("RFP") for energy and capacity resources has been prepared solely to assist bidders in deciding whether or not to submit a proposal. Public Service Company of Colorado ("Public Service" or "Company") does not represent this information to be comprehensive or to contain all of the information that a respondent may need to consider in order to submit a proposal. None of the Company, its affiliates, or their respective employees, directors, officers, customers, agents and consultants makes, or will be deemed to have made, any current or future representation, promise or warranty, express or implied, as to the accuracy, reliability or completeness of the information contained herein, or in any document or information made available to a respondent, whether or not the aforementioned parties knew or should have known of any errors or omissions, or were responsible for their inclusion in, or omission from, this RFP.

The Company reserves the right to modify, supplement or withdraw this RFP at any time, whether due to changes in law or otherwise, and including by issuing one or more addenda to this RFP during this solicitation, which addenda shall become a part of this RFP. No part of this RFP and no part of any subsequent correspondence by the Company, its affiliates, or their respective employees, directors, officers, customers, agents or consultants shall be taken as providing legal, financial or other advice or as establishing a contract or contractual obligation. Contractual obligations on the part of the Company will arise only if and when definitive agreements have been approved and executed by the appropriate parties having the authority to approve and enter into such agreements. The Company reserves the right to request from a respondent (a.k.a., bidder) information that is not explicitly detailed in this document, obtain clarification from bidders concerning proposals, conduct contract development discussions with selected respondents, conduct discussions with members of the evaluation team and other support resources as described in this RFP and in compliance with all FERC Code of Conduct rules and provide data to and conduct discussions with the Independent Evaluator ("IE") as necessary for the IE to satisfy the IE's role as defined by the Colorado Public Utilities Commission ("CPUC" or "Commission") in Decision No. C13-0094.

The Company will, in its sole discretion and without limitation, evaluate proposals and proceed in the manner the Company deems appropriate, which may include deviation from the Company's expected evaluation process, the waiver of any requirements and the request for additional information. The Company reserves the right to reject any, all or portions of any proposal received for failure to meet any criteria set forth in this RFP or otherwise and to accept proposals other than the lowest cost proposal. The Company also may decline to enter into any agreement with any bidder, terminate negotiations with any bidder or abandon the RFP process in its entirety at any time, for any reason and without notice thereof. Respondents that submit proposals agree to do so without legal recourse against the Company, its affiliates, or their respective employees, directors, officers, customers, agents or consultants for rejection of their proposals or for failure to execute an agreement for any reason. The Company and its affiliates shall not be liable to any respondent or other party in law or equity for any reason whatsoever for any acts or omissions arising out of or in connection with this RFP. Except as otherwise provided in the rules and orders of the Public Utilities Commission of the state of Colorado, by submitting its proposal, each respondent waives any right to challenge any valuation by the Company of its proposal. By submitting its proposal, each respondent waives any right to challenge any determination of the Company to select or reject its proposal. Each respondent, in submitting its proposal, irrevocably agrees and acknowledges that it is making its proposal subject to and in agreement with the terms of this RFP.

Each respondent shall be liable for all of its costs incurred to prepare, submit, respond or negotiate its proposal and any resulting agreement and for any other activity related thereto, and the Company shall not be responsible for any of the respondent's costs.



## ***Public Service Company of Colorado 2017 Renewable Resources RFP***

### **Section 1. Introduction**

Public Service Company of Colorado ("Public Service" or the "Company"), an operating company subsidiary of Xcel Energy Inc., is issuing this Request for Proposals ("RFP") as a component of Public Service's 2016 Electric Resource Plan. This RFP is one of four RFPs to be issued. These four requests for proposals are:

- 2017 Dispatchable Resources RFP
- 2017 Renewable Resources RFP (this RFP)
- 2017 Semi-Dispatchable Renewable Capacity Resources RFP
- 2017 Company Ownership RFP

Segmenting the Solicitation into these categories is driven by the differing proposal development and contracting requirements for different generation technologies and by the different ownership models. As a result, each RFP contains a model contract(s) or term sheet(s) that has/have been tailored to address certain issues associated with each technology or ownership structure.

Examples of the types of projects which would be applicable to each RFP are shown in Table 1 below. This list is intended to provide guidance as respondents develop their proposals; more detailed information may be found in the specific RFP documents. Respondents who are uncertain as to which RFP would apply to their project should contact the RFP Project Manager (Section 1.4) for clarification.

**Table 1. Example Resource Types for the Various RFPs**

<b>RFP Document</b>	<b>Resource Types</b>
2017 Dispatchable Resources RFP	<ul style="list-style-type: none"><li>• Simple cycle gas turbines</li><li>• Combined cycle gas turbines</li><li>• Stand-alone storage projects</li></ul>
2017 Semi-Dispatchable Renewable Capacity Resources RFP	<ul style="list-style-type: none"><li>• Solar thermal with thermal storage or fuel back-up</li><li>• Any other intermittent resource with storage or fuel backup</li></ul>
2017 Renewable Resources RFP	<ul style="list-style-type: none"><li>• Wind</li><li>• Solar without storage or fuel backup</li><li>• Hydroelectric</li><li>• Geothermal</li><li>• Biomass</li><li>• Recycled Energy</li></ul>
2017 Company Ownership RFP	<ul style="list-style-type: none"><li>• New or existing simple cycle gas turbines</li><li>• New or existing wind or solar</li></ul>

## **1.1 Regulatory Context**

The CPUC's Resource Planning Rules ("RP Rules") establish a process that jurisdictional electric utilities must follow to determine the need for additional electric resources and to procure needed resources. Public Service filed its 2016 Electric Resource Plan ("ERP") on xxxx in accordance with the RP Rules ("Phase I"). In its 2016 ERP, Public Service identified a need for future generation resources and presented the Commission with multiple portfolios of generic resources that could be used to meet that need. As part of its 2016 ERP, the Company proposed to solicit proposals through a competitive solicitation ("Phase II"). The CPUC heard arguments by multiple parties concerning Public Service's resource need and acquisition plans. The CPUC approved the issuance of this Solicitation as part of Public Service's 2016 ERP in Decision No. Cxx-xxxx.

The RP Rules and Decision No. C13-0094 require that an Independent Evaluator ("IE") conduct a review of Public Service's evaluation of proposals received in response to the Solicitation. The Company will work cooperatively with the IE and shall provide the IE immediate and continuing access to all documents and data reviewed, used, or produced by the utility in this Solicitation and evaluation.

Additionally, the RP Rules require that Public Service: 1) make a communication to bidders concerning bid disclosure and bid model representation dispute resolution; 2) provide the Commission's order or orders specifying the form of nondisclosure agreement; and 3) require of bidders that they provide bidder contact and employment metric information.

### **Commission Required Communications**

#### ***Bid Information Disclosure***

Public Service notifies bidders that, upon completion of the competitive acquisition process begun with this RFP,<sup>1</sup> Public Service will post on its website the following information from all bids and utility proposals: bidder name; bid price and utility cost; generation technology type; size of project; contract duration or expected useful life of facility for utility proposals; and whether the proposed purchased power agreement includes an option for the utility to purchase the bid facility during or at the end of the contract term.

In addition Public Service notifies bidders that, pursuant to RP Rule 3614(b), a reasonable number of attorneys and a reasonable number of subject matter experts representing a party to the Company's 2016 ERP docket can, upon the execution of the appropriate non-disclosure agreement, request access to all Phase II information regarded by the Company as highly-confidential. The Company has claimed that bid information of any sort should be treated as highly-confidential, thus any bid information provided to the Company is subject to release to such individuals regardless of a bidder's claim of confidentiality.

#### ***Model Representation and Dispute Resolution***

Public Service will, within 45 days of bid receipt, provide notice in writing by electronic mail to the bidder whether its bid is advanced to computer-based modeling to evaluate the cost or the ranking of the bid resource, and, if not advanced, the reasons why Public Service will not further

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<sup>1</sup> Completion of the resource acquisition process is defined as the execution of all PPAs and/or completion of asset purchase negotiations and certificate of public convenience and necessity approvals, if any, for the solicited resources.

evaluate the bid using computer-based modeling.<sup>2</sup> With its notice Public Service will also provide bidders the modeling inputs and assumptions that reasonably relate to their bid resource or to the transmission of electricity from their proposed facility to Public Service; these inputs and assumptions may include, among other things, costs related to transmission interconnection, gas supply, and resource integration. Public Service will request that the bidder execute a highly confidential nondisclosure agreement prior to receiving the information. The form of the agreement is included as Appendix F.

For those bids advanced to computer-based modeling, within seven calendar days after receiving the modeling inputs and assumptions the bidder will notify Public Service in writing by electronic mail the specific details of any potential dispute regarding its bid's modeling inputs and assumptions. The bidder must attempt to resolve any dispute with Public Service. If the bidder and Public Service cannot resolve the dispute within three calendar days, Public Service will immediately notify the Commission with a filing in the 2016 ERP docket. If the bidder is not already a party to the 2016 ERP, the bidder will file a notice of intervention as of right pursuant to paragraph 1401(b) of the Commission's Rules of Practice and Procedure, within one business day of Public Service filing the notice of dispute to the Commission, for the limited purpose of resolving the disputed modeling inputs and assumptions.

An Administrative Law Judge ("ALJ") will expeditiously schedule a technical conference at which Public Service and the bidder shall present their dispute for resolution. The ALJ will enter an interim order determining whether corrections to the bid's modeling inputs and assumptions are necessary. If the ALJ determines that corrections to the bid's modeling inputs and assumptions are necessary, Public Service will, within three business days of the issuance of the ALJ's interim decision, provide the corrected information to both the bidder and the Independent Evaluator. In its 120-Day Bid Evaluation Report, Public Service will confirm, by performing additional modeling as necessary, that the bid resource is fairly and accurately represented.

#### Required Bidder Information

Public Service requires that each bidder in its Form C provide the contact name of the owner or developer designated to receive notice of whether the bid is advanced to computer-based modeling.

Public Service requires that bidders provide employment metric information for the bid to be eligible for this RFP. See the requirements for the Employment Metrics Narrative Topic.

### **1.2 Resource Needs Assessment**

This RFP is part of a Solicitation process whose purpose is to acquire sufficient resources to meet the Company's forecasted electric demand (plus reserves) over a resource acquisition period ("RAP") through 2023. Through this Solicitation, the Company seeks to fill an

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<sup>2</sup> See exceptions discussed in Section 5.1, Step 4.

approximate xxx MW capacity need<sup>3</sup> over the RAP to meet summer peak load plus a 16.3% planning reserve.<sup>4</sup> Table 2 illustrates the general timing of this capacity need by year.

**Table 2. Estimated Resource Capacity Need by Year**

Year	2017	2018	2019	2020	2021	2022	2023
Resource Need							

In any year, the Company may acquire more or fewer resources than is shown in Table 2 and the final level of resource need by year may change from that shown due to changed circumstances. While Table 2 shows an estimated capacity need for years beginning 20xx, the Company will review bids for resources that become commercially operational prior to this period.

### **1.3 Resources Sought through this RFP**

Through this Renewable Resources RFP, the Company is requesting proposals for renewable resources that would achieve commercial operation no later than May 1, 2023. The amount of generation that the Company may acquire from this RFP depends, among other things, on the quality of bids received in response to the Solicitation, on economic comparison to other RFP responses and Company Ownership proposals, on updates to the Company's forecasts, on regional transmission availability, and on changes to regulatory or legal requirements.

### **1.4 RFP Project Manager and RFP Website**

The primary point of contact for communications between the Company and potential bidders is the RFP Project Manager. This individual may be contacted at xxxx; all communications between potential bidders and the Company must be conducted through this email account. See Section 4.7 for more information.

The Public Service 2017 Solicitation webpage can be found at [xxxx](#).

### **1.5 Section 123 Resources**

Colorado Revised Statutes ("C.R.S.") 40-2-123(1)(a) states as follows:

"The commission shall give the fullest possible consideration to the cost-effective implementation of new clean energy and energy-efficient technologies in its consideration of generation acquisitions for electric utilities, bearing in mind the beneficial contributions such technologies make to Colorado's energy security, economic prosperity, insulation from fuel price increases, and environmental protection . . . ."

<sup>3</sup> Certain generation resources such as wind and solar will count towards this need at a level less than the nameplate rating of the facility. As a result the final resource mix selected through the Solicitation could include significantly more than xxx MW from a nameplate rating standpoint. Unless otherwise stated, all references to kW, MW, and MWh in this document refer to AC ratings.

<sup>4</sup> The ultimate resource need and/or components of that need may differ as a result of adjustments to reflect any subsequent forecast updates or other events that would impact the identified resource need during the RAP, including decisions of the CPUC.

These “new clean energy and energy-efficient technologies” are referred to as “Section 123 resources.”

The Commission clarified in Decision No. C13-0094 (“Decision”) that a Section 123 resource must be both *new* and *clean* pursuant to the statute. In its Decision the Commission further defined the terms “new” and “clean”:

A new project shall either: (1) incorporate one or more technologies, representing a substantial portion of its overall installed cost, that have not been regularly commercially demonstrated,<sup>5</sup> up to the point in time that the resource is formally bid, or if not bid, acquired; or (2) be a project used to demonstrate the feasibility of a technology not before implemented in its proposed configuration.

A clean project must demonstrate that it would likely cause a decrease in greenhouse gas emissions (e.g., carbon dioxide) or significantly reduce other pollutants. A clean project may also result in reduced water usage.

Respondents to this RFP who believe their proposal meets the definition of a Section 123 resource should indicate in the Beneficial Contributions/Section 123 Resources Bid Narrative Topic why the respondent believes the resource qualifies as a Section 123 resource. Public Service will identify in its 30-Day Report to the Commission a listing of all bids that claim Section 123 status along with its opposition to any claimed Section 123 status and provide the Commission, under seal, a copy of the disputed bids. The Commission will determine whether the disputed bids qualify for further evaluation as a Section 123 resource.

## **Section 2. Eligible Project Information**

### **2.1 Eligible Project Structures**

Renewable RFP proposals will be for the purchase of energy by the Company under a power purchase agreement (“PPA”) which is subject to the accounting considerations and the index pricing considerations discussed in later sections of this RFP. Model PPAs covering solar generation or wind generation, and generic renewable generation technologies are provided in Appendix D.<sup>6</sup>

Respondents interested in selling an existing asset or developing proposals that involve Company ownership of new generating facilities are directed to the 2017 Company Ownership RFP for relevant information regarding opportunities to bid the Company asset purchases as part of the 2017 Solicitation.

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<sup>5</sup> The Commission’s Decision indicated its review of a Section 123 resource would consider the commercial demonstration both within the State of Colorado and elsewhere.

<sup>6</sup> The Model PPA is a sample agreement containing terms and conditions acceptable to the Company. The Company understands that respondents may desire to modify and supplement the Model PPA when submitting their proposals, and anticipates negotiating with selected respondents in an effort to develop documents acceptable to both parties.

## **2.2 Eligible Generation Resources**

For a project to be eligible under this RFP, it must: 1) have a nameplate electric rating greater than 100 kW, and 2) meet all or a portion of the Company's resource needs during the RAP. The Company will not accept bids from coal-fired generation.

A PPA proposal may be for a new, a to-be-built resource, or an existing resource.

Although projects do not need to meet the Commission rule definition of an Eligible Energy Resource (as that term is defined in rule 3652) in order to meet this RFP's eligible generation resource requirement, bidders are advised of the restrictions on the size of certain generation resources in the Commission's Renewable Energy Standard rules. Specifically, in order to be an Eligible Energy Resource: 1) hydro resources in existence on January 1, 2005 must have a nameplate rating of 30 MW or less and hydro resources not in existence on January 1, 2005 must have a nameplate rating of 10 MW or less, and 2) recycled energy resources must be 15 MW or less. The Company reserves the right to weigh the potential benefits of acquiring Renewable Energy Credits ("RECs") and generation from a project deemed to be an Eligible Energy Resource in its Non-Price Factor Analysis; see Section 5.1.

## **2.3 Pricing**

Form D1 provides the pricing template for PPA proposals. All pricing must be in terms of current year dollars, also referred to as escalated or nominal dollars. For example, a \$50 per megawatt-hour ("MWh") energy price proposal for 2018 means that in 2018 energy from the facility will be purchased at a rate of \$50/MWh.

Form D1 requests pricing with assumptions that: 1) the project will qualify for federal tax incentives applicable to the proposed technology and to the proposed in-service date and, 2) that existing federal tax incentives will be applicable to the project even if those incentives are due to expire or decline by the time of the proposed in-service date. Respondents should describe the federal tax incentive assumptions made in their Energy Payment Rates in the Project Description Narrative Topic and in the Notes section on Form D1.

Under the terms of any transaction (including any PPA), all power, RECs, and environmental benefits generated from a proposed project will be conveyed to the Company.

Proposal pricing must include initial cost estimates for any new or upgraded interconnection facilities required for the electrical interconnection of the proposed project to the Public Service transmission system, and must include the cost of any dedicated radial transmission line(s) from the generation facility to the proposed point of interconnection. See Form D2.

The Company will pay any costs required to upgrade or reinforce the Public Service electric transmission system beyond the Point of Delivery, as a consequence of adding a respondent's project to the Public Service system. Respondents, however, will be responsible for procuring transmission service and any associated third-party transmission costs needed to deliver power from the project to the Point of Delivery on the Public Service transmission system. All pricing in respondents' proposals should reflect those costs (to the extent applicable) at the time of submittal.

The Company's preference is for fixed price proposals. However, respondents may take an appropriate exception on the applicable Form(s) and provide a second, alternative pricing

schedule using a fixed price for the first contract year (“Base Year”) that would be adjusted after the Base Year according to one or more known, published and widely recognized indices that are closely related to costs of operation in the proposed technology’s industry. A respondent that wishes to propose such alternate pricing must submit one pricing form in nominal dollars for the entire term of the PPA and another pricing form tied to one or more designated indices meeting the requirements of the preceding sentence. The Company retains the right to select either of the respondent’s pricing schemes. Respondents may not submit proposals with variable Base Year pricing.

## **2.4 Regulatory Approvals**

At the completion of the evaluation process, pursuant to RP Rule 3613(a), the Company will file a report with the Commission that describes the cost-effective resource plans that conform to the Commission’s Phase I decision. Upon Commission approval of Phase II of the Company’s 2016 ERP, Company actions consistent with that approval are presumed prudent under RP Rule 3617(d). However, the Company reserves the right to: 1) inform the Commission that the Company could not reach agreement with the proponent of a selected resource; 2) request Commission approval of any agreements it enters into with successful respondents that vary in any material respect from the Model PPA; and 3) to terminate any agreement if the Company fails to receive Commission approval of submitted agreements.

## **2.5 Contract Lengths**

Contract term lengths may be between one (1) and twenty-five (25) years. The Company’s objectives with respect to term lengths are to avoid the concurrent expiration of multiple contracts, and to avoid or minimize the adverse financial impact of imputed debt, capital or finance lease, and variable interest entity-related obligations. See Section 2.7 for further information regarding such obligations.

## **2.6 RoFO / Purchase Option**

The Model PPA includes a Right of First Offer (“ROFO”) that, subject to specific conditions, may be exercised by the Company. In addition, while not required under the Model PPA, respondents, at their option, may offer the Company an end-of-term or other purchase option that specifies that the Company can purchase the facility (or the stock of the facility owner) for its appraised fair market value at a specified time or times during, or at the end of, the PPA term.

## **2.7 Contract Accounting**

All contracts proposed to be entered into as a result of this RFP will be assessed by the Company for appropriate accounting and/or tax treatment. Respondents shall be required to supply promptly to the Company any and all information that the Company requires in order to make such assessments.

The Company has specific concerns regarding proposals received in response to this RFP that could result in either (i) a contract that must be accounted for by the Company as a capital lease or an operating lease pursuant to Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) 840 or as a finance lease or an operating lease under FASB ASC 842, or (ii) consolidation of the seller or assets owned by the seller onto the Company’s

balance sheet pursuant to the variable interest entity requirements of FASB ASC 810. The following shall therefore apply to any proposal submitted pursuant to this RFP:

- The Company is unwilling to be subject to any accounting or tax treatment that results from a PPA's capital lease, finance lease or consolidated variable interest entity classification. As a result, respondents shall state in their proposal(s) (i) that the respondent has considered applicable accounting standards in regard to capital leases, finance leases and variable interest entities, (ii) summarize any changes that the respondent proposes to the Model PPA in order to attempt to address these issues, and (iii) to the respondent's knowledge and belief, the respondent's proposal should not result in such treatment as of the date of the proposal.
- As applicable, the Company will not execute a PPA without confirmation from the Company's external auditors that the PPA will not be classified as a capital lease, finance lease or a consolidated variable interest entity.

By submitting a proposal, each respondent agrees to make available to the Company at any point in the bid evaluation process any financial data associated with the respondent and its proposed project so the Company may independently verify the respondent's information in the above matters. Financial data may include, but shall not be limited to, data supporting the economic life (both initial and remaining) of the facility, the fair market value of the facility, and any and all other costs (including debt specific to the asset being proposed) associated with the respondent's proposal. The Company may also use financial data contained in the respondent's financial statements (e.g. income statements, balance sheets, etc.) as may be necessary.

### **Section 3. Delivery and Interconnection Information**

#### **3.1 General information**

Bids that propose to interconnect to the Company's transmission system and that do not have an existing Large Generator Interconnection Agreement ("LGIA"), Small Generator Interconnection Agreement ("SGIA"), or an existing interconnection queue position will be studied by Public Service to estimate electric interconnection and delivery requirements and costs. These procedures, and associated respondent responsibilities, are detailed in Appendix C.<sup>7</sup>

Bids that propose to interconnect to the Company's distribution system will be studied pursuant to CPUC rules 3667 or 3900 depending upon facility size.<sup>8</sup>

If the Company has received a certificate of public convenience and necessity ("CPCN") to construct a transmission upgrade the cost of the upgrade will not be included in the evaluation of proposals that use those upgrades; provided, however, that sufficient transmission transfer

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<sup>7</sup> Note that the Company will apply the appropriate study procedure (i.e. LGIP or SGIP) during any formal interconnection study process.

<sup>8</sup> The Company's "Safety, Interference and Interconnection Guidelines for Cogenerators, Small Power Producers and Customer-Owned Generation" is available at:  
<http://www.xcelenergy.com/staticfiles/xcel/Regulatory/Transmission/CO-DG-Tech-Manual.pdf>



capability exists on the transmission project specified in the CPCN after accounting for other generation projects.<sup>9</sup>

Existing generation resources from which the Company currently purchases capacity and energy will not be burdened with any incremental electrical transmission interconnection or network delivery costs provided that the Company currently has sufficient transmission capacity to deliver the entire generation to its load. For existing generation resources with inadequate transmission service, a projection of the purchase of sufficient transmission rights will be added to the bid for evaluation purposes.

### **3.2 Electric Transmission Injection Capability**

Public Service performs transmission studies for Large Generator Interconnect Agreement ("LGIA") requests. The LGIA requests are made to determine the feasibility, cost, time to construct, and injection capability for the transmission system interconnection of an electric generating resource. The Company posts the results of these studies on its OASIS website.<sup>10</sup> The Company performs other transmission studies for purposes of transmission planning that determine like information.

The transmission system is interrelated and generation injection at one point on the system likely changes the injection capability at other points; e.g., incremental generation injections at Pawnee would decrease the generation injection capability at Missile Site and vice versa. The generation injection capability values provided below in Table 3 are approximations based on the stand-alone transmission studies performed for LGIA requests. The generation injection capability values can change when Public Service performs additional specific resource and resource portfolio transmission studies whether for resource evaluation or an LGIA request.

Table 3. Transmission System Injection Capabilities

**(this Table to be updated prior to RFP release to reflect then-current information)**

Location	LGIA Study	Injection Capability (MW)	Time to Construct

## **Section 4. Proposal Content Requirements and Submission Procedure**

### **4.1 Schedule Estimate**

An indicative schedule for this RFP process is provided in Table 4.<sup>11</sup> A graphical timeline is provided in Appendix E.

<sup>9</sup> As the Company is no longer pursuing the SLV-Walsenburg-Comanche transmission project, the Company will not entertain bids that require the construction of that transmission facility.

<sup>10</sup> Information regarding posted studies may be found on a public site:

[http://www.rmao.com/wtpp/psco\\_studies.html](http://www.rmao.com/wtpp/psco_studies.html).

<sup>11</sup> The Company reserves the right to adjust this schedule appropriately, including (but not limited to) for changes to the regulatory calendar.

Table 4. Solicitation Schedule

Activity	Date
Pre-Bid Conference	T-68
Notice of Intent to Respond Due	T-14
Proposals Due	T
120-Day Report to Commission	T+120
Commission Phase II Decision	T+210

## **4.2 Minimum Requirements for Proposals**

This section describes the minimum requirements that all proposals must satisfy to be eligible for consideration in this Solicitation. Unless the Company in its sole discretion elects otherwise, proposals that do not comply with these requirements will be deemed ineligible and will not be considered further. The Company reserves the right to reject any bid and all bids.

- Proposals must include all applicable content requirements described in Section 4.3, including clear and complete written descriptions of all information requested and completed forms.
- Proposals must clearly specify all pricing terms in accordance with Section 2.3.
- Proposals must clearly demonstrate compliance with all power delivery requirements listed in Appendix C, CPUC 3667, or CPUC 3900 as applicable.
- Proposals must demonstrate an acceptable level of development and technology risk, as determined by the Company's evaluation team.
- For non-Section 123 proposals, the respondent's project development team must demonstrate that it has successfully completed the development, construction and commissioning of at least one utility-scale and utility-grade project with technology similar to the proposed project.
- For Section 123 proposals, the respondent's project development team must demonstrate that it has successfully completed the development, construction and commissioning of at least one utility-scale and utility-grade project.
- Respondents must demonstrate to the satisfaction of the Company that they can meet the security requirements contained in the Model PPA.
- Proposals must clearly demonstrate any financing requirements and an indicative financing structure (construction and permanent) for any proposed resources that will be delivered under the proposals. Respondents should include a description of how current financial markets are likely to impact the respondent's ability to access the debt and tax equity markets.
- Each respondent must present clear and sufficient proof that it has or can secure an adequate and confirmed supply of generation equipment sufficient (at a minimum) to meet the required proposal.

- Respondents must provide the required bid fee (described in Section 4.8 below) for each proposal submitted.

### **4.3 Proposal Content Requirements**

This section outlines the content and format requirements for all proposals submitted in response to this RFP. Unless the Company in its sole discretion elects otherwise, proposals that do not include the information requested in this section will be ineligible for further evaluation, unless the information requested is not applicable or relevant to a given proposal. The Company reserves the right to conduct any further due diligence it considers necessary to fully understand and evaluate proposals.

#### **Proposal Format**

The first section of each proposal must contain an Executive Summary that provides an overview of the proposed generating resource characteristics, including any unique aspects or benefits. The second section of the proposal must include a completed set of applicable forms included in Appendix A. These forms will contain essential information about each proposal. A separate set of forms and related information must be submitted with each proposal. The third section of the proposal must include additional information presented in narrative form under specific topic headings.

A complete proposal will include the following components:

1. Executive Summary
2. Complete set of applicable forms
3. Form attachments (as necessary to elaborate on form information)
4. Narrative Topics Discussion
5. Requested maps and electronic data

The proposal forms and topic headings are listed below:

#### **Proposal Forms**

Form A	Notice of Intent to Respond
Form B	Bid Certification Form
Form C	Bid Cover Sheet
Form D1	Pricing
Form D2	Electrical Interconnection Cost Estimates
Form E	Construction Milestones
Form F1	Technical Description_PV
Form F2	Technical Description_Solar Thermal
Form F3	Technical Description_Wind
Form F4	Technical Description_Biomass
Form F5	Technical Description _Other
Form F6	Production Profile
Form F7	Section 123 Qualifications
Form G	Natural Gas and Backup Fuel Supply
Form H	Emission Rates
Form I	Interconnection Information Forms

The individual forms in Appendix A include additional instructions for completion.

## **Narrative Topics**

In addition to completed forms, each proposal must also include a thorough written discussion of each of the following topics. Narrative topics should be organized under the following headings:

- Development Experience
- Financial Information
- Project Description and Development Schedule
- Equipment Description
- Energy Production Profile
- Real Property Acquisition Description and Plan
- Permitting Plan
- Transmission Plan
- Community/State Reaction Assessment
- Operations and Maintenance Plan
- Exceptions to Model PPA
- Beneficial Contributions/Section 123 Resources
- Employment Metrics

***Development Experience.*** All proposals must describe the respondent's qualifications and experience in developing, constructing, commissioning and operating generation facilities similar to the proposed facility, including the experience, qualifications and safety record of key personnel who will manage development and an overview of utility scale and utility grade projects the respondent has developed during the last 5 years. If an EPC team is in place, the proposal should identify the members of the team; if such a group is not in place, the proposal must set forth the respondent's plan for assembling such team (including process and timing).

***Financial Information.*** All proposals must provide detailed financial information about the proposed project. This information shall include two years of audited financial statements or the equivalent for respondents and other responsible parties (including any entities that would provide parent guaranties of the respondents' obligations), whether the project will be financed as a recourse or non-recourse project, the percentages of debt and equity financing, and the expected cost of debt. In addition, respondents shall provide a detailed plan for financing the proposed project during construction and operation including the financing commitments that the respondent has obtained. Proposals shall also explain in detail the plan for meeting the security requirements outlined in the Model PPA and must set forth the credit rating (if any) of any entities that would provide parent guaranties of the respondents' obligations. Proposals must include an organization chart showing the entities that own the respondent's organization and a description of the respondents' organization structure (including primary and secondary businesses). Financial information may be provided primarily in electronic format so long as at least one (1) hard copy of the financial information is provided with each proposal.

***Project Description and Development Schedule.*** All proposals for the construction of new

generation facilities must set out a description of the proposed project, including a description and plans for the proposed site and rights of way, utilities services, equipment configuration, transmission and interconnection construction and procurement, supply of spare parts, opportunities for future expansion of the project, required permits, the nameplate capacity of the resource in MW, the respondent's key consultants (if known) for meteorological studies and permitting studies, and the respondent's construction contractors and prime subcontractors (if known). Such proposals must provide a detailed Gantt chart of project development activities developed using Microsoft Project or similar software (note that .pdf file-type is preferred for submittal) that includes (at a minimum) entering major equipment and construction subcontracts, target completion dates for financing, engineering, permitting, equipment procurement, construction, startup and commissioning, and guaranteed dates for substantial completion. Proposals must describe the overall development strategy that will ensure that the project can be developed in time to meet the proposed commercial operation date. Respondents proposing Section 123 resource generation projects should describe the risks associated with deploying such new technology specifically as those risks impact the proposed commercial operation date and the first years of operation.

It is the Company's expectation that it will have first rights to all proposed projects submitted into the RFP for the period during the proposal review and approval process. Respondents must also provide any and all information which would restrict the respondent from providing the Company with exclusive rights to negotiate a PPA for the proposed project. Such restrictions could include, but are not limited to, prior active submission or participation in other RFPs, exclusivity rights granted to other parties, rights of first offer or refusal, purchase options, and active auctions for the project as applicable.

For biomass-fueled projects, bidders should provide as much detail as possible regarding the target fuel source including details on any potential contracts that fix fuel volume, quality, and/or pricing over the term of the proposed PPA on a delivered and/or non-delivered basis.

**Equipment Description.** At a minimum, proposals should indicate for all major equipment 1) the name of the manufacturer and other vendors, 2) models, 3) key metrics and characteristics of the equipment, 4) performance history of the equipment, 5) contracting status, and 6) planned delivery dates.

**Energy Production Profile.** Proposals must include a description of any on-site meteorological data gathered by, or in the possession of, the respondent and the periods over which those data were collected (start and end dates and data collection frequency). However, Respondents should not provide on-site meteorological data in their initial bid submissions. Upon request, respondents must be prepared to provide the Company with the underlying meteorological data with the understanding that the Company may engage an external consultant for an independent verification and evaluation of the generation resource. The data provided must be sufficient for these purposes.

**Real Property Acquisition Description and Plan.** Proposals must provide a description of the status of real property acquisition and land use permitting for the project that is sufficient for the Company to assess the completeness and sufficiency of the respondent's real property rights, including but not limited to:

- The status of current site ownership or control. Indicate if control is through:
  - Ownership of a leasehold interest in, or a right to develop a site for the purpose of constructing the proposed generating facility,

- An option to purchase or acquire a leasehold site for such purpose, or
- An exclusivity or other business relationship between bidder and the entity having the right to sell, lease, or grant bidder the right to possess or occupy a site for such purpose.
- The plan for acquiring any and all currently uncontrolled necessary real property rights to the project,
- Acreage of real property required for the project and a schedule for the completion of the real property acquisition process,
- A description of any subdivision or zoning modifications and all city, county, or state land use permits that will be required, such as conditional use, special use or other similar permits and approvals, which will be required for any phase of development, construction, or operations of the project, and
- A description of existing and planned land use in all directions surrounding the proposed site.

Proposals must include a USGS-based map showing the location of the proposed site.

**Permitting Plan.** Proposals must describe all air quality permits that will be required for the project. State whether any air permits have been secured, and if not, whether applications have been filed. Report on the status of any pending applications and any feedback from permitting agencies. Describe the expected time frame to obtain the necessary air permits after application submittal to the State.

Describe all other federal, state and local permits and approvals that will be required for the project, including but not limited to:

- Federal environmental assessments under the National Environmental Policy Act ("EA/EIS"),
- Water supply,
- Wastewater discharge permits,
- Hazardous waste permits, and
- No-hazard permits/determinations from the Federal Aviation Administration.

Describe the current status of obtaining these permits and any feedback from permitting agencies.

Describe the water supply strategy for the project, including a description of water requirements, water supply source(s), discharge plans, new water pipeline requirements, and any work completed to date on the water supply plan.

Explain any expected restrictions on operations due to air and/or water permits.

If the proposed site does not currently have the appropriate zoning designation, provide any rezoning requirements, plans to obtain the rezoning, and any known issues as to rezoning.

For projects proposing to utilize an eligible energy resource<sup>12</sup>, proposals must also provide written documentation evidencing that consultation has occurred with appropriate governmental

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<sup>12</sup> Eligible energy resources are defined in the Commission's rules, section 3652, "Definitions".

agencies (for example, the Colorado Division of Wildlife or the U.S. Fish and Wildlife Service) responsible for reviewing potential project development impacts to state and federally listed wildlife species, as well as species and habitats of concern.

**Transmission Plan.** Provide a detailed description of the Point of Delivery to the Public Service electric system, including the location and voltage level of such point. All proposals should include a description of the respondent's plan to transmit power from the Project to the proposed Point of Delivery on the Public Service transmission system as described in Appendix C. The information should include a description and expected route of any radial transmission line dedicated principally to the Project if known, including a summary of the status of obtaining requisite easements and alternatives.

If any new FERC-regulated transmission or any upgrades to non-Public Service transmission will be required to deliver power from the Project to the proposed point of delivery ("New Transmission"), the proposal also should include a complete description of the required New Transmission including:

- The owner and developer of the New Transmission,
- The complete expected route for the New Transmission,
- The voltage and capacity of the New Transmission,
- The status of planning, permitting, financing and construction of the New Transmission, to the extent known to the respondent,
- The location of the interconnection of the Project into the New Transmission, and
- Whether the respondent's Project, if successful, would be sufficient for the New Transmission to be built without the participation of other power projects, and if not, what other projects would need to be built and in what time frame to allow the New Transmission to be built in time for the respondent to meet its scheduled in-service date.

For proposals that will require third-party transmission service(s) to deliver, on a firm transmission service basis, the capacity and energy to the Point of Delivery specified above, provide a detailed description of the interconnection, electric losses, transmission and ancillary service arrangements, by provider, that will be required, including:

- the identity of all third party providers,
- the location and voltage level of the interconnection point to the interconnection service provider's facilities,
- any interconnection facilities that bidder owns or intends to construct and own,
- the specific services provided by each provider, and
- the line losses, point(s) of receipt and point(s) of delivery associated with each third party transmission service.

Provide documentation that the third party services discussed in the paragraph above will be available to bidder during the proposed contract term. This should include:

- any associated transmission studies that directly examined delivery of the proposed energy to the point of delivery,
- detailed information on any and all new transmission facilities and/or upgrades to existing facilities that will be required to deliver the proposed energy to the point of delivery, and
- a detailed discussion of the schedule for siting, permitting, and construction of such new

facilities and/or upgrades.

Attach a USGS-based map that shows the location of the interconnection point with the third-party and the generation facility.

**Community/State Reaction Assessment.** Each respondent must present a current assessment of, and a plan for continuing to monitor, local community and state reaction to the project, and a plan to work with the local community on project issues. Such plan might include the following elements:

- A list of the references used to assess the community reaction, and the methodology used to draw conclusions,
- A list of key local contacts interviewed and their opinions,
- An assessment of the local community reaction at the time of the proposal,
- An action plan for working with the local community/state to successfully complete the project and
- A description of the respondent's proposed conflict resolution methodology.

**Operations and Maintenance Plan.** Respondents shall summarize their operations and maintenance plans and labor arrangements for the generation facilities associated with their proposals.

**Exceptions to Model PPA.** In support of the Company's efforts to complete project evaluation, and contract negotiations in a timely manner, respondents shall review and provide exceptions and/or comments to the Model PPA. To the extent that the validity of a respondent's proposal and/or the respondent's ability to execute a PPA is contingent upon material changes to the language in the Model PPA, respondents should specifically identify the terms in the Model PPA they propose to change and should summarize their proposed changes to such terms. To the extent that a respondent wishes to propose changes to the Model PPA that, if accepted by the Company, would reduce the respondent's proposed pricing the proposal should specifically identify such changes and the associated price reduction. To the extent practicable, respondents should develop exhibits, schedules, attachments and other supplemental documents required by the Model PPA.

Exceptions taken to model PPA terms must be clearly expressed such that the Company can reasonably understand the bidder's concerns. Statements containing language such as "To be discussed" do not provide the Company sufficient information to understand the bidder's concerns. Bidder's providing such comments will be required to more fully explain their concerns so that the Company can adequately conduct its due diligence activities.

**Beneficial Contributions/Section 123 Resources.** Respondents should indicate whether or not they believe their project meets the requirements of a Section 123 resource. Bidders claiming Section 123 status must complete Form F7. Regardless of claimed Section 123 status, **all bidders must provide information concerning the beneficial contributions of their proposed technology** including benefits associated with Colorado's 1) energy security, 2) economic prosperity, 3) environmental protection, and 4) insulation from fuel price increases.

This information is needed from **all bidders** in order to allow the Commission to consider whether certain benefits are common across proposals and whether certain benefits tie



specifically to the implementation of a particular new and clean energy technology.

**Employment Metrics.** Respondents shall include descriptions of each best value employment metric described below as it relates to the bid project.

- The availability of training programs, including training through apprenticeship programs registered with the United States Department of Labor, Office of Apprenticeship and Training,
- The employment of Colorado workers as compared to importation of out-of-state workers,
- Long-term career opportunities, and
- Industry-standard wages, health care, and pension benefits.

#### **4.4 Pre-Bid Conference**

Time:            xxxx  
Date:            xxxx  
Location:       1800 Larimer St.  
                    Denver, Colorado 80202

Public Service will webcast the meeting and will provide means for remote, electronic participation by potential RFP respondents. Public Service will post information concerning webcast access and remote participation on the RFP website once confirmed. Interested parties are encouraged to provide written questions to the Company's RFP Project Manager by email prior to the pre-bid meeting. A summary of the bid conference proceedings, including submitted questions and answers, and answers to any question remaining unanswered at the end of the meeting will be prepared by the Company and posted on the RFP website.

#### **4.5 Notice of Intent to Respond**

Respondents who intend to submit a proposal are encouraged to submit a non-binding Notice of Intent to Respond (NOIR), Form A in Appendix A. Submit the completed NOIR by email no later than 4:00 P.M. Mountain Time on xxxx to the RFP Project Manager. There is no fee required to submit an NOIR.

#### **4.6 Proposal Submission Deadline**

All proposals, including Company self-build proposals will be accepted until 4:00 P.M. Mountain Time on the date indicated in Section 4.1. All proposals must be transmitted by express, certified or registered mail, or hand delivered to the following address:

PSCo 2017 Solicitation  
Attn: RFP Project Manager  
Xcel Energy Services Inc.  
1800 Larimer St, Ste 1400  
Denver, Colorado 80202

Proposals received later than the due date and time indicated will be rejected and returned unopened unless the Company determines, at its sole discretion, to consider such proposals. With the exception of the financial information (of which only one (1) hard copy is required), four

(4) bound hard copies of the proposal must be included in the submittal. In addition, respondents must submit three (3) electronic copies (CD, DVD, or flashdrive) with completed forms in a Microsoft Office format.

Proposals must be submitted in a sealed package with the following information shown on the package:

**Response to PSCo 2017 Renewable Resources RFP  
Confidential Sealed Bid Proposal**

The respondent's company name and address must be clearly indicated on the package containing the proposal.

**4.7 Information Policy**

To obtain additional information about this RFP, potential respondents as well as all other parties may only submit inquiries to the RFP Project Manager via email at [xxxx](#). Potential respondents as well as all other parties should not attempt to acquire information through any other means including telephone calls to the Company. The Company will maintain a log of all inquiries and coordinate the preparation of written responses. Once a response is prepared, the Company will forward the response to the inquiring party and, at the Company's sole discretion if the response is germane to all other respondents, all other respondents that have provided the Company an email address. Parties without email addresses will not receive these responses directly. Questions and responses, when germane, will be periodically posted to the RFP Web Site in a FAQ. The Company has established this information policy to ensure that all respondents have the same timely access and knowledge about the bidding and evaluation process.

All bidders as well as all parties in the resource plan proceeding other than the utility are restricted from initiating contact with the IE.

**4.8 Bid Evaluation Fees**

All respondents are required to pay to the Company a bid evaluation fee with each proposal submitted; bid fees are determined by the nameplate capacity of the bid according to Table 5 below. Public Service may deem proposals that do not satisfy the requirements for a single proposal as multiple proposals, each of which would require a separate bid evaluation fee. For example, a proposal that triggers electric interconnection studies for multiple points or levels of interconnection would be deemed separate proposals for each such point or level. In addition, proposals offering multiple commercial operation dates for the same project or facility will be viewed as multiple proposals. If the Company deems a respondent's proposal to be multiple proposals, the Company will notify the respondent and allow it to elect to pay the incremental bid fee or to revise its proposal to comply with the Company's requirements for a single proposal.

Notwithstanding the above, respondents who submit proposals in this 2017 Renewable Resources RFP for projects greater than 2 MW may also submit a proposal for the same generation facility in the 2017 Company Ownership RFP with no incremental bid fees.

Checks should be made out to "Public Service Company of Colorado" and must be included with the proposal. Bid evaluation fees are non-refundable.

Table 5. Bid Fees

MW >	MW <=	Bid Fee
0.1	1	\$375
1	2	\$750
2	5	\$1,500
5	10	\$3,000
10		\$10,000

#### **4.9 Clarification of Proposals**

While evaluating proposals, the Company may request clarification or additional information about any item in the proposal. Such requests will be sent via email to respondents identified on Form C, by the RFP Project Manager, typically, and respondents are required to provide a written or electronic response back to the RFP Project Manager within five (5) business days, or the Company may deem the respondent to be non-responsive and either suspend or terminate evaluation of the proposal. Respondents are encouraged to provide an alternate point of contact to ensure a timely response to clarification questions.

#### **4.10 Confidentiality**

Respondents are allowed to identify any information in their proposals that respondents claim should be considered to be confidential or proprietary. Nonetheless, the Company reserves the right to release all proposals to its affiliates and to its and such affiliates' agents, advisors, consultants, and the IE for purposes of proposal evaluation. The Company will, to the extent required by law, advise each agent, advisor or consultant that receives such claimed confidential information of its obligations to protect such information. In addition, all information, regardless of its confidential or proprietary nature, will be subject to review by the Commission and other governmental authorities and courts with jurisdiction, and may be subject to legal discovery. It is not the Company's intent to enter into any separate confidentiality, non-disclosure, or similar agreements as a condition to receiving a respondent's proposal.

Notwithstanding the above paragraph and as indicated in Section 1.1, a reasonable number of attorneys and a reasonable number of subject matter experts representing a party to the Company's 2016 ERP docket can, upon the execution of the appropriate non-disclosure agreement, request and receive access to all bid information provided to the Company in response to this RFP regardless of a bidder's claim of confidentiality or propriety. In addition, upon completion of the competitive acquisition process Public Service will post on its website and thereby make publically available the following information from all bids and utility proposals: bidder name; bid price and utility cost; generation technology type; size of facility; contract duration or expected useful life of facility for utility proposals; and whether the proposed purchased power agreement includes an option for the utility to purchase the bid facility during or at the end of the contract term.

#### **4.11 Addenda to RFP**

Any additional responses required from respondents as a result of an Addendum to this RFP shall become part of each proposal. Respondents must list all submitted Addenda at the bottom of the Bid Certification Form (Form B).

## **Section 5. Evaluation and Criteria**

The objective of the Company's Solicitation evaluation is to identify portfolios of proposals that meet the resource needs identified in the solicitation in a reliable and cost-effective manner, while achieving the resource goals of the Commission-approved ERP.

As described below, the evaluation process will include an assessment of both economic and non-economic criteria.

### **5.1 Evaluation Process**

An evaluation team, made up of various groups within Xcel Energy Services and the Company will evaluate proposals; however, the Company reserves the right to retain the services of outside experts to assist in the evaluation of proposals. The RFP Project Manager may contact respondents directly at any point during the evaluation process for the purposes of clarifying proposals. The Company will also cooperate with, and provide access to, information provided by respondents to the Independent Evaluator as required by RP Rule 3612. All bidders as well as all parties in the resource plan proceeding other than the utility are restricted from initiating contact with the IE.

Proposals will be evaluated using a multi-step process as follows:

#### **Step 1 – Bid Eligibility Screening**

Each proposal will be reviewed to ensure it meets the minimum requirements outlined in Section 4.2. The Company will notify each proposal respondent within 15 days of bid receipt as to the Company's bid eligibility evaluation.

#### **Step 2 – Interconnection Assessment and Initial Economic Evaluation**

While not entirely concurrent, the activities described in Steps 2.A., 2.B. and 2.C. below will overlap to some extent.

##### **A. Electric Interconnection Cost Estimates**

The Company will determine or verify electric interconnection cost estimates provided by bidders. If substantial differences occur, the Company will provide its cost estimates to the applicable bidders so that they can update their bid pricing, as they deem appropriate. Such bidders must submit final bid pricing back to the Company within 5 calendar days of the date the interconnection cost estimates are provided.

##### **B. Transmission and Distribution Upgrade Schedule Assessment**

Some or all of the proposals will also be evaluated to assess the general siting, permitting, and construction time requirements associated with Public Service transmission and/or distribution network upgrades, including network upgrades for interconnection, that may be needed for each proposal to:

- Interconnect the proposed generation with the Public Service transmission or distribution system,

- Deliver the entire proposed capacity and energy to the Company's customers, and/or
- Deliver the entire proposed capacity and energy from a third party transmission system to the Public Service electric system.

The impact of these analyses on a respondent's proposed schedule will be a factor in the evaluation of its proposal.

### **C. Initial Economic Screening**

The primary purpose of the initial economic screening is to rank each bid by technology so that the most promising bids can be forwarded to the subject matter experts for their review as quickly as possible and to identify those bids likely to be moved forward for computer modeling of bid portfolios. The initial economic screening consists of calculating an "all-in" levelized cost of energy ("LEC"). Calculations are shown on the "LEC" tab of the bid forms (Appendix A).

In addition to the costs provided in the bid, the Company will estimate incremental costs or benefits, as necessary, such as:

- Electrical interconnection costs and network upgrades not included in Form D1 pricing. These incremental capital costs are converted to a variable rate by assuming a levelized fixed charge rate of 0.12 and an annual capacity factor based on the type of generator proposed.
- Projects that propose to interconnect to the Public Service distribution system will be credited with an avoided line loss assumption in their LEC calculations.
- For bids proposing wind generation, the Company will estimate resource integration costs as determined in the Company's most recent wind integration cost study.
- For bids proposing solar generation (PV or solar thermal), the Company will estimate resource integration costs as determined in the Company's most recent solar integration cost study.
- For bids proposing non-dispatchable renewable generation or recycled energy generation resources that exhibit high levels of off-peak generation (e.g., geothermal, hydro, non-dispatchable biomass, etc.), the Company will estimate resource integration costs as determined by the Company's most recent coal cycling study.
- No renewable energy credit ("REC") value benefits will be credited to the LEC calculations for any renewable generation projects.

Regardless of their LEC calculations all eligible bids from existing generators, all Company self-build projects, and any bid claiming Section 123 status that is unopposed by the Company or, if opposed by the Company but later qualified as Section 123 by the Commission, will be advanced to computer modeling of bid portfolios.

### **Step 3 – Non-Price Factor Analysis**

The Company will assess the non-price characteristics of the proposals. Non-price factors that will be assessed include, as applicable and without limitation, the following:

- Financial strength of the respondent
- Financing plan, including ability to utilize tax advantages

- Development, construction and operation experience
- Generator technology, availability, and warranties
- Environmental permitting and compliance
- Land use permitting and zoning
- Other permitting
- Real property acquisition/site control progress and plan
- Project operational characteristics
- Scale of the project and whether or not it meets the Commission definition of an Eligible Energy Resource
- Community support for the project
- Transmission access plan feasibility and arrangements
- Transmission upgrade schedule assessment
- Construction and equipment supply plans and arrangements
- Project execution planning
- Accredibility of capacity to meet reliability needs
- Accounting assessment

#### **Step 4 – Bidder Notification**

Contingent upon the existence of sufficient bids passing through bid eligibility and due diligence screening, the Company shall pass forward to the computer modeling of bid portfolios a sufficient quantity of bids across the various resource types such that resource plans can be created that conform to the Commission's Phase I decision.

Pursuant to rule 3613(a), within 45 days after bids are received the Company will email each bidder and indicate whether its bid has or has not been advanced to computer-based modeling of bid portfolios and provide each bidder the modeling inputs and assumptions that reasonably relate to that potential resource or to the transmission of electricity from that facility to the Company.<sup>13</sup> For those bids not advanced to computer modeling, the Company will provide the reason(s) why the project will not be evaluated further.

#### **Step 5 – Computer-Based Modeling of Bid Portfolios**

The costs and operational characteristics of any Company self-build proposal and each remaining bid equal to or greater than 10 MW will be input into the Company's Strategist™ planning model.<sup>14</sup> The Strategist™ model will be used to construct portfolios of bids that meet the capacity and energy projections of the Public Service system, as well as the various objectives of the resource plan and Commission decisions. The Strategist™ model simulates operation of proposals together with the Company's existing resources (and to an extent, the

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<sup>13</sup> See Section 5.1 Step 5 for an exception to the notification policy for bids that are included in modeling after 45 days of bid receipt. See Section 5.1 Step 6 for an exception to the notification policy for bids smaller than 10 MW.

<sup>14</sup> Depending upon the pool of proposed projects received, the Company may adjust the specific MW cutoff for various technologies instead of the 10 MW indicated here. Such an adjustment would be done in consultation with the Independent Evaluator.

regional power market), while keeping track of all associated fixed and variable costs of the Company's entire system.

Strategist™ will be utilized to develop portfolios that minimize the net present value of revenue requirements through 2054. The model will also be used to develop alternative resource portfolios that represent the costs and benefits from increasing amounts of renewable technologies and/or Section 123 resources. Portfolios will be developed in accordance with the scenario analysis directives of the Commission.

To the extent initial results indicate that all bids of a specific generation resource type (e.g., all wind bids) passed to computer modeling appear in the least-cost portfolio(s), additional bids utilizing that generation resource type will be included in subsequent model runs. This iterative process will be followed until no incremental bids employing that generation resource type are selected in the least-cost portfolio. Bidders whose projects are passed forward to computer modeling of bid portfolios after the 45 day report will be notified of their project's advancement pursuant to rule 3613(a).

The general planning assumptions that will be used in the development of resource portfolios are included in Appendix B to this RFP. Planning assumptions specific to certain renewable resource types follow.

Wind generation – A wind generation bid will be assigned an hourly generation shape of the typical week for each month based on the proposed site's Wind Zone. Each wind bid in each Wind Zone will be assigned the same typical week shape; however, the typical week shape for each bid will be modified by the bidder-specified monthly peak and total generation to arrive at the bidder's estimated annual capacity factor.

The Company will assign bids to a specific Wind Zone based on the following information:<sup>15</sup>

- Wind Zone 1
  - All of Larimer, Weld, Morgan, Logan, Sedgwick, and Phillips counties,
  - Portions of Washington and Yuma counties north of 40.0° latitude; except projects in GDA #4,<sup>16</sup>
  - In Wyoming, all of Platte, Goshen, and Laramie counties and southern and eastern portions of Albany County.
- Wind Zone 2
  - All of Adams, Arapahoe, Elbert, Lincoln, Kit Carson, and Cheyenne counties,
  - Portions of Washington and Yuma counties south of 40.0° latitude, including projects in GDA #4,
  - Portions of Kiowa county north of 38.5° latitude,
  - Portions of El Paso county east of -104.8° longitude.
- Wind Zone 3
  - All of Bent, Prowers, and Baca counties,
  - Portions of Kiowa county south of 38.5° latitude,
  - Portions of Crowley, Otero, and Las Animas counties east of -103.6° longitude.
- Wind Zone 5
  - All of Pueblo county,

<sup>15</sup> These geographic definitions of Wind Zones are for the sole purpose of assigning proposed wind sites to a proxy wind generation shape to facilitate their evaluation as part of this RFP.

<sup>16</sup> As defined by the SB07-91 Task Force on Renewable Resource Generation Development Areas.

- Portions of Crowley, Otero, and Las Animas counties west of -103.6° longitude,
- Portions of Custer and Huerfano counties on the eastern side of the Sangre De Cristo mountains.

The Company will employ the best meteorological data available to develop typical week wind shapes for projects that propose a site that does not match any of the Wind Zones listed above.

Solar generation – A solar generation bid (without storage) will be assigned an hourly generation shape of the typical week for each month based on the proposed site's Solar Zone and its ability to track. Each fixed system and each tracking system solar bid in each Solar Zone will be assigned the same typical week shape; however, the typical week shape for each bid will be modified by the bidder-specified monthly peak and total generation to arrive at the bidder's estimated annual capacity factor.

The Company will assign bids to a specific Solar Zone based on the following information:<sup>17</sup>

- Northern Front Range
  - Defined as the geographic area north of the southern Denver metro area (e.g., Denver, Boulder, and Greeley).
- Southern Front Range
  - Defined as a broad geographic area around Pueblo.
- Western Slope
  - Defined as a broad geographic area around Grand Junction.
- San Luis Valley

#### **Step 6 – Evaluation of Bids Between 100 kW and 10 MW**

As indicated in Step 5, bids must have nameplate capacity ratings equal to 10 MW or greater to be included in the computer-based portfolio modeling step. In general, bids between 100 kW and 10 MW ("Small Bids") will be evaluated after the computer-based portfolio modeling step.

At the conclusion of Step 5, the Company will review the least-cost portfolio from the base case run (that is, not from a sensitivity case) and determine each generation type selected in the portfolio. For each generation type selected, the Company will determine the all-in levelized energy cost of the most expensive bid. These all-in levelized energy costs will set the price against which Small Bids with similar generation technologies will be compared. The Company will include in all portfolios presented to the Commission each Small Bid with an all-in levelized energy cost less than the most expensive bid with similar technology selected in the least-cost portfolio.

A final check will be made to ensure that the inclusion of all cost-effective Small Bids does not provide excess capacity credit to the least-cost portfolio through the RAP to such an extent that it could replace another source(s) of capacity selected through the Strategist modeling. If it does, two additional sets of ad hoc Strategist runs will be conducted to determine which is most cost-effective: 1) include all cost-effective Small Bids in the final portfolio, or 2) include all cost-effective Small Bids and exclude the other generator(s) that could potentially be displaced. The final portfolio would be the least-cost of these two runs assuming that both runs meet all reliability metrics.

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<sup>17</sup> These geographic definitions of Solar Zones are roughly based on the original TMY2 sites in the National Solar Radiation Database of Alamosa, Boulder, Grand Junction, and Pueblo.



To the extent the least-cost portfolio does not include a certain generation type (e.g. solar) but bids for that generation type were passed through to computer-based modeling and lower priced Small Bids exist, an ad hoc Strategist run including these Small Bids would be conducted to see if the revenue requirements of the least-cost portfolio increases or decreases. If the revenue requirements decrease with the addition of the Small Bids, they would be included in the final portfolios.

For certain generation types (e.g. hydro or gas-fired micro-turbines), the Company would not typically expect to receive bids in excess of 10 MW. For such situations, the lowest all-in LEC proposals (up to a maximum of three per technology) would be advanced to computer modeling and portfolio development along with those bids  $\geq$  10 MW in Step 5 above. To the extent the Strategist model selected all three of the lowest all-in LEC proposals and other proposals for the same technology were also received, then ad hoc Strategist runs would be conducted to determine the cost-effectiveness of these other proposals.

Bidders whose Small Bid projects are passed forward to computer modeling of bid portfolios after the 45 day report will be notified of their project's advancement pursuant to rule 3613(a).

### **Step 7 – Phase II Report to Commission**

Pursuant to rule 3613(d), the Company will file a 120-day report to the Commission describing the cost-effective resource plans that conform to the Commission's Phase I decision.

### **5.2 Independent Evaluator Report**

Within thirty (30) days following the Company's 120-day report filing the IE will report to the Commission its analysis of whether the Company conducted a fair bid solicitation and bid evaluation process, with any deficiencies specifically reported.

### **5.3 Phase II Commission Evaluation**

Within 90 days of the Company's filing of its 120-day report, the Commission will issue a written decision approving, conditioning, modifying, or rejecting the Company's preferred cost-effective plan. The Company is required to complete this RFP process within 18 months after the receipt of bids unless the Company can show good cause for a requested deadline extension.

## Appendix A

### *Proposal Forms and Instructions*

As discussed in Section 4, the completed forms, attachments and narrative topic discussions, will comprise a complete proposal, except that Form I need not be completed by a bidder who has already entered into a formal interconnection process for their project. The contents of each form and any special instructions for completing the forms are described below. These forms can be downloaded from the RFP web site in a format appropriate for respondent input.

If additional space is needed to elaborate on information requested on any form, please attach additional sheets with the heading "Form ☐ – Additional Information."

If certain information is requested that does not apply to the proposal, the respondent must indicate that the information is not applicable. If appropriate, the respondent should explain why the information is not applicable.

In addition to submitting four (4)<sup>18</sup> hard copies of the proposal, respondents must also include three (3) electronic copies (CD, DVD or flashdrive) with all completed Forms in executable format, i.e. not PDF. The Company will provide the IE with one electronic copy of the proposal and, at their request, one hard copy.

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<sup>18</sup> Respondents are required to submit only one (1) hard copy of their financial data with each proposal.

## Appendix B

### *General Planning Assumptions*

The following planning assumptions will underlie the evaluation of proposals received in response to the Company's Solicitation. Note that the following is not a complete listing of all assumptions that will be applied in the evaluation process. Further note that the assumptions noted below represent "base case" assumptions. Sensitivity analyses will be performed in which certain of these assumptions are altered in accordance with Commission directives. To the extent any of these general planning assumptions are updated after release of this 2017 RFP, the updated values will be provided to the Commission and made available to all potential respondents and parties.

**(this Appendix to be updated prior to the RFP release to reflect then-current information and the Commission's Phase I Decision)**

## Appendix C

### Transmission Costs

#### 1. Power Delivery Requirements

Proposals must specify delivery of capacity and energy to the Public Service system at a point of delivery within or at the boundary of the Public Service Control Area and at a Public Service-owned transmission facility.

#### 2. Proposals Requiring Third-Party Transmission Service

For proposals that will require third-party transmission service(s) for the delivery of capacity and energy to the bid-specified point of delivery on the Public Service system, respondents are responsible for any interconnection, electric losses, transmission and ancillary service arrangements required to deliver the proposed capacity and energy to the bid-specified point of delivery on a firm basis. Such proposals must identify all third-party interconnections, electric losses, transmission and ancillary service providers, components and costs, provide a complete description of those service arrangements and provide documentation that such service(s) will be available to a RFP respondent or the Company during the full term of service proposed. The cost of all such third party services, for which a RFP respondent intends to seek compensation from the Company, must be included in the bid prices provided on the applicable forms. Respondents should recognize that wheeling and other costs associated with such services may adversely affect the cost-effectiveness of their proposals.

#### 3. Interconnection Costs

Proposals that will require a new or upgraded electrical interconnection to the Public Service transmission system should include in their proposal pricing any costs for the generator interconnection facilities. To clarify, these are the facilities between the generation project and the point of interconnection to the Public Service transmission system (these types of facilities are commonly referred to as “Generator Interconnection Facilities” and “PSCo-Owned, Customer Funded Interconnection Facilities” in the LGIP and SGIP). Because these facilities are not considered a part of the transmission system, they are part of the cost of the generation project and must therefore be incorporated in the proposal pricing. The following table includes an estimated cost at each voltage level that should be considered if the PSCo (or other Transmission Provider)-Owned, Customer-Funded interconnection cost has not been otherwise estimated for the project, e.g., in an interconnection study report from the Transmission Provider.

Voltage	PSCo-Owned, Customer-Funded Interconnection Facilities Estimated Cost
69 kV	\$660,000
115 kV	\$750,000
230 kV	\$1,200,000
345 kV	\$1,800,000

If the bidder has an active LGIP request, the bidder should provide the LGIP or SGIP identifier(s) associated with its project in its proposal. Bidders are urged not to submit a generation interconnection request or transmission service request pursuant to the Xcel Energy Open Access Transmission Tariff ("OATT") to receive these interconnection cost estimates.

As discussed in Section 5.1 of this RFP, proposal-specific cost estimates of Generator Interconnection Facilities provided by bidders in Form D2 will be verified or determined by the Company and, if required, Company estimates will be provided back to bidders so that they can update their bid pricing as needed. Such bidders must submit final bid pricing back to the Company within 5 calendar days of the date the interconnection cost estimates are provided. These estimates and other transmission and interconnection-related information will be posted, as required, on the Company's OASIS<sup>19</sup> in a manner that preserves individual bidder confidentiality. Information posted on the Company's OASIS will not identify bidder Company name but rather will identify location of proposed interconnection, generation capacity and type proposed, and a summary of the study results.

#### **4. Application of the Xcel Energy OATT**

The Company anticipates that all transmission usage rights associated with bids selected through this RFP will be "network" use rights held by the Company. Under FERC Order No. 888<sup>20</sup> where the Company will hold the transmission service rights, the Company must provide non-discriminatory access to its transmission system, and must designate network resources in the same manner as a similarly situated OATT customer. In addition, under FERC Order No. 2003 (August 2003), Order No. 2003-A (March 2004), Order No. 2003-B (January 2005),<sup>21</sup> all new requests for interconnection of a large generator (larger than 20 MW) to the Public Service transmission system, including interconnection requests associated with this RFP, must be administered in a non-discriminatory manner in compliance with the LGIP contained in the Xcel Energy OATT. Likewise, under FERC Order No. 2006 (May 2005), Order No. 2006-A (November 2005), and Order No. 2006-B (July 2006),<sup>22</sup> all new requests for

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<sup>19</sup> Information regarding posted studies may be found on the public site [http://www.rmao.com/wtpp/psco\\_studies.html](http://www.rmao.com/wtpp/psco_studies.html). This website does not require registration to view, while the Company's OASIS site located at <http://www.westtrans.net> does require registration.

<sup>20</sup> Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities and Transmitting Utilities, Order No. 888, F.E.R.C. Stats. & Regs. 31,036, (1996) ("Order No. 888"), order on reh'g, Order No. 888-A, F.E.R.C. Stats. & Regs. 31,048 (1997), order on reh'g, Order No. 888-B, 81 F.E.R.C. ¶ 61,248 (1997) ("Order No. 888-B"), order on reh'g, Order No. 888-C, 82 F.E.R.C. ¶61,046 (1998), *aff'd* New York, et al. v. FERC, 122 S.Ct. 1012 (2002).

<sup>21</sup> *Standardization of Generator Interconnection Agreements and Procedures*, Order No. 2003, 68 Fed. Reg. 49,845 (Aug. 19, 2003); FERC Stats. & Regs. ¶ 31,146 (2003); *reh'g granted*, Order No. 2003-A, 106 FERC ¶ 61,220 (March 5, 2004), 69 Fed. Reg. 15932 (March 26, 2004); Order No. 2003-B, 109 FERC ¶ 61,287, 70 Fed. Reg. 264 (January 4, 2005).

<sup>22</sup> *Standardization of Small Generator Interconnection Agreements and Procedures*, Order No. 2006, 70 FR 34100 (Jun. 13, 2005), FERC Stats. & Regs. ¶ 31,180 (2005), (Order No. 2006), order on reh'g, Order No. 2006-A, 70 FR 71760 (Nov. 30, 2005), FERC Stats. & Regs. ¶ 31,196 (2005).

interconnection of a small generator (less than 20 MW) to the Public Service transmission system, including interconnection requests associated with this RFP, must be administered in a non-discriminatory manner in compliance with the SGIP contained in the Xcel Energy OATT.

## **5. LGIP and SGIP Interconnection Studies**

Given the short period of time available to evaluate bids, the Company's evaluation team and the Company's Transmission Access group and Transmission Function will employ an abbreviated process for estimating the transmission Network Upgrades, associated costs and construction timeframes necessary to deliver power from proposed facilities to customer loads. In general, this abbreviated process will consist of four stages:

*Stage 1* – The Transmission Access group will rely on existing LGIP or SGIP studies posted on the Public Service OASIS to determine/verify bid-specific interconnection and delivery facilities and costs.

*Stage 2* – The evaluation team will develop a number of portfolios of bids that will meet the Company's needs and the various Commission directives. The Transmission Access group will provide estimates of the network facilities and upgrades required for each portfolio and provide that information to the Transmission Function.

*Stage 3* – The Transmission Function will review the Transmission Access group's estimates of network facilities and upgrades and modify as deemed appropriate. The resulting cost information will be used to determine the bid's levelized energy cost in initial economic screening and will be in the computer-based modeling in the event the bid is advanced to computer-based modeling.

*Stage 4* – Depending on the number of bids received and their location, the Company may decide to also utilize the "Resource Solicitation Cluster" provisions contained in the Xcel Energy OATT for providing more refined estimates of network facilities and upgrades necessary to deliver power from portfolios of bids to customer loads. If this process is utilized, the Transmission Access Group will submit portfolios into the LGIP or SGIP for consideration. A given portfolio submitted into the LGIP or SGIP will occupy a single queue position (based on the date of the portfolio Interconnection Request) for the required Interconnection studies. This Stage will likely not be completed prior to the end of the 120 day evaluation period.

Each bid passed to the Transmission Function for study in the Resource Solicitation Cluster that requires a new or expanded transmission interconnection must provide an Interconnection Request deposit of \$50,000 (or such other amount as is required under the LGIP or SGIP provisions of the Xcel Energy OATT)<sup>23</sup> which will be forwarded to the Transmission Function to pay the cost of Feasibility and/or System Impact studies that will be performed for each portfolio.

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23 The bidder must demonstrate "site control," which the OATT defines as "documentation reasonably demonstrating: (1) ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the Generating Facility; (2) an option to purchase or acquire a leasehold site for such purpose; or (3) an exclusivity or other business relationship between Interconnection Customer and the entity having the right to sell, lease or grant Interconnection Customer the right to possess or occupy a site for such purpose."

Once the Transmission Function has completed the Feasibility and/or System Impact studies, the study results will be posted on the Company's OASIS in a manner that preserves individual bidder confidentiality. Respondents ultimately selected through this process must work directly with the Transmission Function from this point to complete the LGIP or SGIP process and execute an LGIA or SGIA.

Respondents that fail to provide the required LGIP study deposits at any time will be removed from the interconnection queue and will be removed from further consideration in the evaluation process. As required by the OATT, the Transmission Function will refund to bidders all LGIP and SGIP study fees not expended or will bill bidders for any study costs exceeding the deposited amount. The Transmission Access group will act as each bidder's Authorized Representative only through the System Impact Study phase.

**6. Network Designation and Funding of Transmission System Upgrades For Interconnection**

- Network Resource Designation:

As indicated above, the Company anticipates that it will declare each proposal selected through this RFP as a Network Resource of the Company, and that the Company will bear the cost of any network transmission service on the Public Service system (whether or not procured under the OATT) for a proposal that is selected and achieves commercial operation. Each selected proposal not requiring a new transmission interconnection (e.g., either a generator already connected to the Public Service transmission system or each off-system generator not connected to the Public Service transmission system) and each portfolio of bids requiring new or expanded generation interconnections will be evaluated as proposed designated Network Resources pursuant to Article III of the OATT.

- Funding of Network Upgrades for Interconnection:

For purposes of achieving an interconnection, the Company's LGIP provides for the option of funding the network upgrades or requiring the interconnection customer (i.e., the respondent) to fund such upgrades and receive revenue credits based on future transmission services used by the interconnection customer or through some other refunding mechanism.

The Company will make a determination about which, if any, interconnection costs are to be financed by respondents after it completes the LGIP studies that are conducted in connection with this RFP. If the Company determines that certain infrastructure costs are to be funded by respondents, any financing arrangements will be negotiated as part of the LGIA or SGIA.

## **Appendix D**

### **Model Wind or Solar Energy Purchase Agreement**

**See file titled PSCo2017\_PPA\_WindSolar.doc**

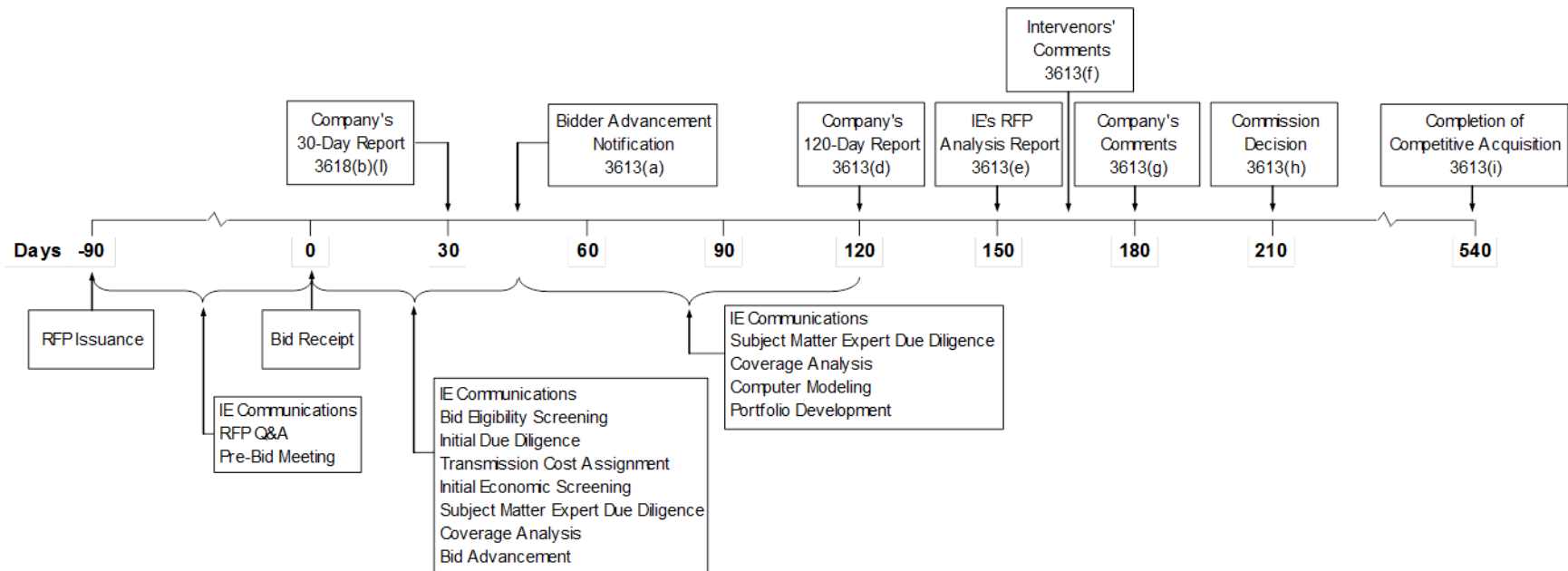
### **Model Renewable Energy Only Purchase Agreement**

**See file titled PSCo2017\_PPA\_Renewable.doc**



## Appendix E

### Solicitation Timeline



## **Appendix F**

### **Commission Confidentiality Order**

#### **BIDDER HIGHLY CONFIDENTIAL NONDISCLOSURE AGREEMENT**

I, \_\_\_\_\_, state that I am employed by a bidder in Public Service Company of Colorado's 2017 Solicitation.

For purposes of this highly confidential nondisclosure agreement "Potential Resource" means the new or existing resource of the bidder by which I am employed.

For purposes of this highly confidential nondisclosure agreement "Highly Confidential Information" means highly confidential modeling inputs and assumptions that reasonably relate to the Potential Resource or to the transmission of electricity from that Potential Resource to Public Service.

I understand that I may obtain Highly Confidential Information for the sole purpose of assisting the bidder to identify modeling errors or omissions concerning its Potential Resource so that the modeling errors or omissions may be corrected before the competitive acquisition process is completed.

I hereby state that I have read the protective provisions relating to confidential information contained in 4 Code of Colorado Regulations 723-1-1100 through 1104. With respect to all Highly Confidential Information that may be provided to me, I agree to be bound by the terms of the protective provisions contained in 4 Code of Colorado Regulations 723-1-1100.

I hereby state that I will properly implement and maintain extraordinary confidentiality provisions for the Highly Confidential Information I receive.

I hereby state that the Highly Confidential Information I receive shall not be used or disclosed for any purpose other than assisting the bidder to identify modeling errors or omissions concerning its Potential Resource so that the modeling errors or omissions may be corrected before the 2017 Solicitation competitive acquisition process is completed.

I hereby state that I will not disclose or disseminate any Highly Confidential Information I receive to any third party other than to those who are specifically authorized to review such Highly Confidential Information and who have signed a highly confidential nondisclosure agreement. At the conclusion of the 2017 Solicitation competitive acquisition process, I agree to return all Highly Confidential Information to Public Service Company of Colorado.

\_\_\_\_\_  
Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Employer or Firm

\_\_\_\_\_  
Business Address

\_\_\_\_\_  
Bidder Represented

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

**Form A – Notice of Intent to Respond (NOIR)**

**Public Service Company of Colorado 2017 Solicitation**

**Notice of Intent to Respond**

Company Name		
Address		
City	State	ZIP
Company Representative Name		
Signature		
Email	Phone Number	FAX Number
Project Name	Resource (PV, wind, biomass, etc.)	
Nameplate Capacity (MW)	Annual Capacity Factor (% Nameplate)	Expected Annual MWh (at Point of Delivery)
Project Location (City, County, State)	Proposed Commercial Operation Date	PPA – Contract Term (years)
<input type="checkbox"/> Project Proposed as a Section 123 Resource		
Notes (as appropriate)		

Submit the NOIR by email to xxxx@xcelenergy.com by xxxx.

## Form B - Bid Certification

The bidder hereby certifies that all of the statements and representations made in this proposal are true to the best of the bidder's knowledge and belief, and agrees to be bound by the representations, terms, and conditions contained in the RFP including restrictions on the bidder's claim of confidentiality. The bidder accepts the Model PPA included in the RFP, except as specifically noted in writing. The bidder certifies that (i) the bidder has considered applicable accounting standards in regard to capital lease and variable interest entities, and (ii) to the bidder's knowledge and belief, the bidder's proposal should not result in capital lease or VIE treatment to Public Service. The bidder acknowledges that the officer whose signature appears below is able to contractually commit the bidder for its proposal.

Submitted by:

(exact legal name of firm)

Bidder:

(if different than above)

Signature of an  
officer of bidder:

Name of officer:

Title:

Date Signed:

RFP Addenda  
Information:

**Form C - Bid Cover Sheet**

<b>1) Project / Facility Name:</b>			
<b>2) Project Location (city, county, state):</b>			
<b>(latitude, longitude):</b>		°N	°W
	(decimal format; accurate to three (3) decimal places)		
<b>3) Bidder Contact:</b>			
(The individual whose name appears as the Bidder Contact will be the person designated by the bid respondent to receive notice pursuant to Commission rule 3613(a) as it pertains to the Company's 45-day report to bidders.			
Name:			
Company:			
Address:			
Phone / Fax:			
email:			
<b>4) <input type="checkbox"/> Alternate Contact:</b>			
<input type="checkbox"/> Name:			
<input type="checkbox"/> Company:			
<input type="checkbox"/> Address:			
<input type="checkbox"/> Phone / Fax:			
<input type="checkbox"/> email:			
<b>5) Technology Type:</b>	<b>Facility Nameplate Capacity *</b>		
<b>Biomass</b>		kW	
<b>Geothermal</b>		kW	
<b>Hydro</b>		kW	
<b>Solar</b> <input type="checkbox"/>	<input type="checkbox"/>		
Photovoltaic <input type="checkbox"/>	<input type="checkbox"/>	kW	
Solar Thermal <input type="checkbox"/>		kW	
<b>Wind</b>		kW	
<b>Other (describe)</b>			
		kW	
<b>6) First Year Generation:</b>		0 MWh	<b>Capacity Factor:</b> 0%
<b>7) Proposed Commercial Operation Date:</b>			
<b>8) Proposed PPA Term (years):</b>			
<b>9) Point of Delivery Description:</b>			
<b>9) Point of Delivery is on the:</b>	Transmission System	Distribution System	
<b>11) Proposed Facility Status:</b>	Qualifying Facility	Exempt Wholesale Generator	
	Community-Based Project		
<b>12) Estimated Useful Life of Facility at Commercial Operation Date (years):</b>			
<b>13) Utility Providing Retail Service at Proposed Location:</b>			

\* Unless noted otherwise, kW, kWh, MW, MWh refer to AC power and energy.

### Form D1 - Pricing and Quantity

Provide Committed Energy levels for each year of the proposed PPA Term, including expected degradation impacts, if any. Provide Energy Payment Rates based on: 1) existing federal tax incentives applicable to the proposed generation type and proposed in-service date, and 2) an assumption that existing federal tax incentives applicable to the proposed generation type are extended to include the proposed in-service date, if applicable. State the federal tax assumptions included in the Energy Payment Rates below in the Project Description Narrative Topic and in the Notes section on this form. See Section 2.3 of the Renewable RFP for more information.

If bidders propose alternate pricing that is tied to a clearly and closely related index, a second Form D1 with alternate pricing must also be submitted with the proposal. Forms with such alternate pricing must describe the index used in the Project Description Narrative Topic and in the Notes section on this form. All dollar amounts should be expressed in nominal dollars.

Committed Energy levels should be estimated at the Point of Delivery to the Public Service system and should be net of any 3rd-party transmission wheeling losses. Indicate wheeling losses on Form D2 and document assumed wheeling losses in the Transmission Plan Narrative Topic.

Commercial Operating Year	Committed Energy (MWh)	Energy Payment Rate (Existing Fed Tax Incentive) (\$/MWh)	Energy Payment Rate (Extended Fed Tax Incentive) (\$/MWh)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			

Notes to Pricing:

## Form D2 - Electric Interconnection Cost Estimates

### 1) Electric Interconnection Costs Included in Form D1 Pricing

LGIP Identifier (or source of estimate if no LGIP)	
Generator Interconnection Facilities (including Radial Lines)	\$ -
PSCo-Owned, Generator-Funded Interconnection Facilities	\$ -

### 2) 3rd-Party Transmission Costs Included in Form D1 Pricing

3rd-Party Transmission Provider	
Wheeling and Ancillary Charges:	
OATT Schedule 1 (\$/kW-mo)	\$ -
OATT Schedule 2 (\$/kW-mo)	\$ -
OATT Schedule 7 (\$/kW-mo)	\$ -

### 3) Electric Interconnection Costs Not Included in Form D1 Pricing (List, if known; else, Public Service will estimate and complete)

LGIP Identifier (or source of estimate if no LGIP)	
PSCo-Owned, PSCo-Funded Interconnection Facilities	
Network Upgrades for Delivery	

### 4) Wheeling Losses

If the facility is not located at the Point of Delivery, provide an estimate of the wheeling losses between the facility and the Point of Delivery.	0.0%
---	------



## Form E - Construction Milestones

Insert the proposed date for each milestone shown here as would be found on the detailed Development Schedule provided with the proposal. Milestones should be based on the requirements to achieve the proposed commercial operation date.

(Construction Milestones shown below are for wind energy bids. See Exhibit B of the Model PPAs for solar or energy-only projects for specific milestones for those generation types.)

Construction Milestone	Construction Milestones
	Seller and all required counterparties have executed major procurement contracts, the Construction Contract, any operating agreements, and the Interconnection Agreement needed to commence construction of the Facility.
	Seller shall have achieved closing on financing for the Facility or provided Company with proof of financial capability to construct the Facility.
	Seller shall have laid the foundation for all Facility buildings, generating facilities and step-up transformation facilities.
	The turbine(s)/generator(s)/step-up transformer shall have been delivered to, and installed at, the Site.
	Seller shall have constructed Seller's Interconnection Facilities and such facilities are capable of being energized.
	Start-up testing of the Facility commences.
	Seller shall make all applications and/or filings required by Applicable Law for REC accreditation and for the provision of such RECs to Company.
	Commercial Operation Milestone.

**Form F1 - Technical Description - Photovoltaic**

**Module Level Information**

Manufacturer:	
Model #:	
Cell Material:	
Total # of Modules:	

**Array Level Information**

# Modules per String:	
Strings in Parallel:	<input type="checkbox"/>
Total Active Surface Area (m <sup>2</sup> ):	

**Inverter Information**

Manufacturer:	
Model #:	
Total # Inverters:	

Confirm that the facility meets the Exhibit H  
Operating Standards as shown in the Model PPA

Yes

No

**Mounting/Orientation**

Fixed		azimuth (deg)		elevation (deg)
1-axis tracking		azimuth (deg)		elevation (deg)
2-axis tracking				

**Facility Level Information**

Annual Plant Availability (%)	
Ground Coverage Ratio:	
Estimated Land Area (acres):	
Consumptive Water Use (gallon/MWh):	

\* Standard Test Conditions (25 °C, 1 kW/m<sup>2</sup>, AM 1.5)

Notes to PV Technical Description:

--

**Form F2 - Technical Description - Solar Thermal**

**Reflector Information**

Manufacturer / Model #:	
Reflector Material:	
Total Field Aperture Area (m <sup>2</sup> ):	

**Receiver Information**

Manufacturer / Model #:	
Heat Transfer Fluid:	
Field Thermal Output (MW th):	*
Solar Multiple:	*
Estimated Annual Solar Collection Efficiency:	

**Freeze Protection Information**

Estimated Annual Gas Burn (MMBtu/yr):	
Estimated Peak Winter Electrical Load (MWh/yr):	

**Power Block Information**

Working Fluid:	
Turbine Manufacturer / Model #:	
Nameplate Capacity (MWe):	*
Cooling: wet, dry, or hybrid	
If wet cooled, estimated reduction in annual delivered energy production from dry cooling <input type="checkbox"/> <input type="checkbox"/> (MWh/yr):	
If wet cooled, estimated reduction in summer peak generation capability from dry cooling (MW):	

**Facility Level Information**

Solar to Net Electricity Efficiency:	*
Consumptive Water Use (gallon/MWh):	
Annual Plant Availability (%):	
Estimated Annual Maintenance (hours):	
Estimated Land Area (acres):	

Confirm that facility meets the Exhibit H Operating Standards as shown in the Model PPA:

Yes No

\* Standard Test Conditions (25 °C, 1 kW/m<sup>2</sup>, AM 1.5)

Notes to Solar Thermal Technical Description:

--

## Form F3 - Technical Description - Wind

### Turbine Level Information

Manufacturer:	
Model #:	
Nameplate per Turbine (MW):	
Rotor Diameter (meters):	
Tower Height (meters):	
Lower Operating Temperature, standard package (° C):	
Lower Operating Temperature, cold weather package (° C):	
Indicative Form D1 Energy Payment Rate Increase for Cold Weather Package, if not already included (\$/MWh)	

### Facility Level Information ☐

Number of Turbines:	
Annual Plant Availability (%):	
Estimated Land Area (acres):	

Confirm that facility meets the Exhibit H Operating Standards as shown in the Model PPA:

Yes      No

Notes to Wind Technical Description:

--

**Form F4 - Technical Description - Biomass**

**1) Fuel Source:**

Maximum Hourly Fuel Usage Rate  
(Tons, As Delivered):

Annual Fuel Usage Rate consistent  
with Form F6 Production Profile  
(Tons, As Delivered):

**Expected Fuel Quality**

Btu/lb  
% Moisture  
% Sulfur  
% Ash

**Fuel Costs**

Fuel Cost at Source (\$/Ton)  
Fuel Delivery Cost (\$/Ton)  
**-or-**  
Delivered Fuel Cost (\$/Ton)

On-Site Fuel Storage Requirements  
(Days)

On-Site Fuel Processing Cost (\$/Ton)

**2) Outages:**

Annual Expected Forced Outage Rate (%):

Expected Average Annual  
Maintenance Requirements  
(days/year):

**3) Manual Control:**

Lowest stable operating point on  
manual control  
(% of full load):

Highest stable operating point on  
manual control  
(% of full load):

Normal Up Ramp Rate on manual  
control (MW/min):

Normal Down Ramp Rate on manual  
control (MW/min):

Emergency Up Ramp Rate on manual  
control (MW/min):

Emergency Down Ramp Rate on  
manual control (MW/min):

**4) Automatic Generation Control** (leave blank if no AGC capability):

Lowest stable operating point on AGC  
(% of full load):

Highest stable operating point on  
AGC (% of full load):

Maximum Up Ramp Rate on AGC  
(MW/min):

Maximum Down Ramp Rate on AGC  
(MW/min):

**5) Start Times** (time to start unit, sync to grid, and reach minimum load):

Off-line for 6 hours (minutes):

Off-line for 8 hours (minutes):

Off-line for 12 hours (minutes):

Off-line for 3 days (minutes):

Maximum load achievable in  
10 minutes (% of full load):

**6) Minimum Up Time** (min. time between generator breaker close and re-open) (minutes):

**7) Minimum Down Time** (min. time generator must be off-line before restarting) (minutes):

**8) Consumptive Water Use** (gallons/MWh at 100% annual average base capacity)

Notes to Technical Description - Biomass:

### Form F5 - Technical Description - Other

For bids proposing projects utilizing a primary energy source other than solar, wind or biomass (e.g., geothermal, hydro, recycled energy), complete Form F5. Ensure that other relevant, quantitative information is included in the Project Description Bid Narrative Topic.

Consumptive Water Use  
☐ (gal./h/MWh):

Confirm that facility meets the Exhibit H Operating Standards as shown in the Model PPA:

Yes

No

Notes to Other Technical Description:

**Form F6 - Energy Production Profile - Annual and Monthly**

Assuming the facility had been in commercial operation during 2009, 2010, and 2011, estimate annual energy production for each of these years utilizing whatever historical meteorological data are available for the site or a nearby site with similar meteorological characteristics. Explain fully in the Energy Production Profile Narrative Topic the meteorological data used for the annual estimates. Indicate the average expected hourly generation from the proposed project by month and time of day. Provide the month's total expected average generation, not just the generation from a single day. To the extent the sum of the values in the grid are different from the first year Committed Energy value on Form D1, explain fully the cause of the difference in the Energy Production Profile Narrative Topic. Estimated energy production should be gross of any expected plant degradation over time. Time is hour ending, Mountain Standard Time; i.e., do not adjust for daylight savings time.

If applicable, average expected monthly generation will form the basis for Exhibit K of the model solar PPA.

Calendar Year	Estimated Annual Energy Production (MWh)
2009	
2010	
2011	

**Maximum expected hourly generation (MWh)**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
max												

**Average (P50) expected hourly generation (MWh)**

HE (MST)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
sum	-	-	-	-	-	-	-	-	-	-	-	-
% of total												
total	-											

Notes to Energy Production Profile:

## Form F7 - Section 123 Qualifications

In Decision C13-0094, the Colorado Public Utilities Commission set out its criteria for a proposed project to qualify as a Section 123 resource. For those bids claiming Section 123 status, to meet the Commission's definitions of "New" indicate in Question 1 under Method 1 and/or Method 2 below the attributes of the proposed project for which Section 123 status is claimed. To meet the Commission's definition of "Clean" complete Question 2.

### 1) Qualification as New:

#### Method 1

List the proposed technology or technologies that have not been regularly commercially demonstrated, within Colorado or elsewhere, for which Section 123 status is claimed:

What percent of the overall installed cost is represented by this technology or technologies?

#### Method 2

List the proposed technology that has not before been implemented in the proposed configuration:

### 2) Qualification as Clean:

List the attributes of the proposed project that demonstrate that it would likely cause 1) a decrease in greenhouse gas emissions or significantly reduce other pollutants and/or 2) result in reduced water usage:



**Form G - Natural Gas and Backup Fuel Supply**

**1) Natural Gas Supply**

Identify whether the proposal is for a tolling arrangement or an electric energy sale arrangement. For tolling bids, identify the pipeline to which the bidder plans to interconnect. For energy sale (non-tolling) bids in which bidder plans to acquire and manage the fuel supply, describe supply plan and identify all contracts that support the supply of firm gas transportation and firm supply to the proposed plant.

--

**2) Natural Gas Interconnection**

Describe the gas interconnection facilities that have been included in the Form D1 bid price, including the size, length and location of the lateral interconnection and fuel delivery point. State the capital cost estimates included in the Form D1 pricing and the change in that pricing for a \$100,000 change in the capital cost estimate. Attach a USGS-based map showing the gas pipeline delivery point, the location of any lateral lines, compressors and meters.

--

Gas interconnection capital costs included in Form D1 pricing:

--

Impact on Form D1 prices for a \$100,000 change in capital cost estimate (\$/kW-mo, levelized):

**3) Natural Gas Pressure**

Minimum pressure required at gas interconnection point:

	(psig)
--	--------

Maximum pressure required at gas interconnection point:

	(psig)
--	--------

<input type="checkbox"/>
--------------------------

Minimum pressure required at plant burner tip:

	(psig)
--	--------

☐ Gas delivery pressure **guaranteed** by the interconnecting pipeline at the fuel delivery point:

	(psig)
--	--------

**4) Natural Gas Quantities**

Indicate the maximum daily and hourly gas consumption at the proposed plant.

Maximum Daily Consumption for Electrical Generation (MMBtu/day)

Summer	Winter

Maximum Hourly Consumption for Electrical Generation (MMBtu/hour)

Describe any ancillary equipment which may utilize fuel when the facility is off-line and describe who is responsible for the ancillary gas usage costs. Indicate the maximum ancillary volumes below.

--

Maximum Daily Consumption for Ancillaries (MMBtu/day)

Summer	Winter

Maximum Hourly Consumption for Ancillaries (MMBtu/hour)

**5) Natural Gas Quality**

Indicate if any of the following pipelines have **unacceptable** gas quality. If yes, indicate in Notes why.

Colorado Interstate Gas

Wyoming Interstate Gas

Public Service Company of Colorado

**6) Secondary Fuel Supply**

If secondary, on-site fuel storage is proposed, describe the fuel type, including quality specifications, quantity, and maximum number of full-load run hours on secondary fuel.

--

Proposed secondary fuel, on-site storage volume (gallon)

--

Estimated, Net Capability run hours on secondary fuel (hours)

Notes to Gas Supply:

--

## Form H - Emission Rates

Provide emission rate information for the proposed generator(s), including fuel requirements for base and supplemental capacity and/or freeze protection.

Emission Rates on <b>Primary Fuel</b> :		
	Full Load on Base Capacity (lbs/MMBtu)	Full Load on Base and Supplemental Capacity (lbs/MMBtu)
Oxides of Sulfur:		
Oxides of Nitrogen:		
Carbon Dioxide:		
Carbon Monoxide:		
Volatile Organic Compounds:		
Particulate Matter - PM10:		
Particulate Matter - PM2.5:		
Lead:		
Mercury:		
Maximum NO <sub>x</sub> emission rate (in parts per million):		
Maximum CO emission rate (in parts per million):		
Maximum permitted/permittable annual capacity factor (% of Net Capability):		

Emission Rates on <b>Secondary Fuel</b> (if applicable):		
	Full Load on Base Capacity (lbs/MMBtu)	Full Load on Base and Supplemental Capacity (lbs/MMBtu)
Oxides of Sulfur:		
Oxides of Nitrogen:		
Carbon Dioxide:		
Carbon Monoxide:		
Volatile Organic Compounds:		
Particulate Matter - PM10:		
Particulate Matter - PM2.5:		
Lead:		
Mercury:		
Maximum NO <sub>x</sub> emission rate (in parts per million):		
Maximum CO emission rate (in parts per million):		
Maximum permitted/permittable annual capacity factor (% of Net Capability):		

Notes to Emission Rates:

--

## **Public Service Company of Colorado 2017 Solicitation**

### **Additional Appendix A Forms**

<b>Form</b>	<b>Title</b>
<a href="#"><u>I1</u></a>	Small Generator – Distribution Interconnection
<a href="#"><u>I2</u></a>	Small Generator – Transmission Interconnection
<a href="#"><u>I3</u></a>	Large Generator – Transmission Interconnection

## **Form I1**

Small Generator Interconnection Information – Distribution Interconnection

## SMALL GENERATOR INTERCONNECTION INFORMATION

This Form should be completed by those bidders proposing to interconnect to the Company's distribution system. This is not a formal request to interconnect.

<b>OWNER/APPLICANT INFORMATION</b>			
Company:			
Representative:	Phone Number:	FAX Number:	
Title:	Email Address:		
Mailing Address:			
<b>PROPOSED LOCATION OF GENERATING PLANT AND PROPOSED INTERCONNECTION</b>			
Address:			
<b>PROJECT DESIGN / ENGINEERING</b>			
Company:			
Representative:	Phone:	FAX Number:	
Mailing Address:	Email Address:		
<b>ELECTRICAL CONTRACTOR</b>			
Company:			
Representative:	Phone:	FAX Number:	
Mailing Address	Email Address:		
<b>ESTIMATED LOAD INFORMATION</b>			
The following information will be used to help properly design the Xcel-Customer interconnection. This information is not intended as a commitment or contract for billing purposes.			
Minimum anticipated load (generation not operating):		kVA:	Time:
Maximum anticipated load (generation not operating):		kVA:	Time:

**Existing Electric Service:**

Capacity: \_\_\_\_\_ Amperes      Voltage: \_\_\_\_\_ Volts  
 Service Character:    ☐ Single Phase      ☐ Three Phase

**Estimated In-Service Date:** \_\_\_\_\_

**Site Control Documentation:** Documentation of site control must be submitted with the interconnection request as required by Code of Colorado Regulations, CCR 4 723-3, Rule 3667.

Site Control: ☐ Ownership of Site    ☐ Option to Purchase Site    ☐ Other – Specify \_\_\_\_\_

## SMALL GENERATOR INTERCONNECTION INFORMATION

### Energy Producing Equipment/Inverter Summary:

Manufacturer: \_\_\_\_\_  
 Model No.: \_\_\_\_\_ Version No.: \_\_\_\_\_  
☐ Synchronous ☐ Induction ☐ Inverter ☐ Other \_\_\_\_\_  
 Rating: \_\_\_\_\_ kW Rating: \_\_\_\_\_ kVA  
 Generator Connection: ☐ Delta ☐ Wye Ungrounded ☐ Wye Grounded  
 Generator Voltage: \_\_\_\_\_ Volts  
 System Type Tested (Total System): ☐ Yes ☐ No; attach product literature  
 Equipment Type Tested: ☐ Yes (i.e. Inverter, Protection System) ☐ No; attach product literature  
 (Type Tested per IEEE 1547.1 or IEEE 929; i.e., Pre-certified)

(Complete all applicable items, Copy this page as required for additional generators)			
<b>SYNCHRONOUS GENERATOR DATA</b>			
Unit Designation:		Total number of units with listed specifications on site:	
Manufacturer:			
Type:		Date of manufacture:	
Serial Number (each):			
Phases: 1 or 3	Speed:	RPM:	Frequency: Hz
Rated Output (each unit) Kilowatt:		kW Kilovolt-Ampere: kVA	
Rated Power Factor: %	Rated Voltage: V	Rated Current: A	
Field Voltage: V	Field Current: A	Motoring Power: kW	
Synchronous Reactance ( $X_d$ ):	% on	kVA base	
Transient Reactance ( $X'_d$ ):	% on	kVA base	
Subtransient Reactance ( $X''_d$ ):	% on	kVA base	
Negative Sequence Reactance ( $X_s$ ):	% on	kVA base	
Zero Sequence Reactance ( $X_o$ ):	% on	kVA base	
Neutral Grounding Resistor (if applicable):	Yes No	Resistance:	Ohms
I <sup>2</sup> t or K (heating time constant):			
Exciter data:			
Governor data:			
Additional Information:			
<b>INDUCTION GENERATOR DATA</b>			
Rotor Resistance ( $R_r$ ):	Ohms	Stator Resistance ( $R_s$ ):	Ohms
Rotor Reactance ( $X_r$ ):	Ohms	Stator Reactance ( $X_s$ ):	Ohms
Magnetizing Reactance ( $X_m$ ):	Ohms	Short Circuit Reactance ( $X_d''$ ):	Ohms
Design Letter:	Frame Size:		
Exciting Current:	Temp Rise (deg C°):		
Rated Output:	kW		
Reactive Power Required:	kVAr (no Load)		kVAr (full load)
For a wound-rotor machine, describe external equipment to be connected (resistor, rheostat, power converter, etc.) to rotor circuit, and circuit configuration. Describe ability, if any, to adjust generator reactive power output.			

## SMALL GENERATOR INTERCONNECTION INFORMATION

<b>PRIME MOVER</b> (Complete all applicable items)				
Unit Designation:		Type:		
Manufacturer:				
Serial Number:		Date of Manufacture:		
H.P. Rated:	H.P. Max:	Inertia Constant:		lb.-ft. <sup>2</sup>
Energy Source (hydro, steam, wind, etc.):				
Additional Information:				
<b>Type of Interconnected operation</b>				
Long term Parallel operation:		Yes	No	
Closed momentary transition:		Yes	No	Transition Closed Time: seconds
Other (describe):				
<b>TRANSFORMER</b> (If applicable)				
Manufacturer:		kVA:		
Date of Manufacture:		Serial Number:		
High Voltage:	V	Connection: <input type="checkbox"/> delta <input type="checkbox"/> wye	Neutral solidly grounded? Yes No	
Low Voltage:	V	Connection: <input type="checkbox"/> delta <input type="checkbox"/> wye	Neutral solidly grounded? Yes No	
Transformer Impedance (Z):		% on	kVA base	
Transformer Resistance (R):		% on	kVA base	
Transformer Reactance (X):		% on	kVA base	
Neutral Grounding Resistor (if applicable)		Yes	No	Resistance: Ohms
Additional Information:				
<b>INVERTER DATA</b> (If applicable)				
UL Pre-certified per UL 1741 and IEEE 929?		Yes	No	Certification Number:
Manufacturer:		Model:		
Rated Power Factor (%):	Rated Voltage (Volts):	V	Rated Current (Amperes):	A
Inverter Type (ferroresonant, step, pulse-width modulation, etc.):				
Type of Commutation: <input type="checkbox"/> forced <input type="checkbox"/> line		Minimum Short Circuit Ratio required:		
Minimum voltage for successful commutation:				
Current Harmonic Distortion:		Maximum Individual Harmonic (%):		
		Maximum Total Harmonic Distortion (%):		
Voltage Harmonic Distortion:		Maximum Individual Harmonic (%):		
		Maximum Total Harmonic Distortion (%):		
Describe capability, if any, to adjust reactive output to provide voltage regulation:				
Additional Information:				
<b>NOTE:</b> Attach all available calculations, test reports, and oscillographic prints showing inverter output voltage and current waveforms.				

## SMALL GENERATOR INTERCONNECTION INFORMATION

<b>POWER CIRCUIT BREAKER</b> (if applicable)		
Manufacturer:		Model:
Rated Voltage: kV		Rated Ampacity (Amperes): A
Interrupting Rating: A		BIL Rating: kV
Interrupting Medium (vacuum, oil, gas, etc.):		Insulating Medium (vacuum, oil, gas, etc.):
Control Voltage (Closing): (Volts) <input type="checkbox"/> AC <input type="checkbox"/> DC		
Control Voltage (Tripping): (Volts) <input type="checkbox"/> AC <input type="checkbox"/> DC <input type="checkbox"/> Battery <input type="checkbox"/> Charged Capacitor		
Close Energy: <input type="checkbox"/> Spring <input type="checkbox"/> Motor <input type="checkbox"/> Hydraulic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Other		
Trip Energy: <input type="checkbox"/> Spring <input type="checkbox"/> Motor <input type="checkbox"/> Hydraulic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Other		
Bushing Current Transformers (Max. ratio):		Relay Accuracy Class:
Multi Ratio? <input type="checkbox"/> No <input type="checkbox"/> Yes: (Available taps):		
Construction Schedule:	Start date:	Completion date:
<b>MISCELLANEOUS</b> (Use this area and any additional sheets for applicable notes and comments)		

**ADDITIONAL REQUIREMENTS:** In addition to the items listed on this form, please attach:

- 1) Detailed One Line Diagram: ☐ Yes
- 2) Installation Test Plan: ☐ Yes
- 3) Site plan: ☐ Yes
- 4) Major equipment (generators, transformers, inverters, circuit breakers, protective relays, isolation disconnect, etc.) specifications: ☐ Yes
- 5) Relaying detail: ☐ Yes Date: \_\_\_\_\_
- 6) Metering telemetry: ☐ Yes Date: \_\_\_\_\_
- 7) Test reports attached: ☐ Yes Date: \_\_\_\_\_
- 8) Other applicable drawings or documents necessary for the proper design of the interconnection:  
Describe \_\_\_\_\_



## **Form I2**

Small Generator Interconnection Information – Transmission Interconnection

## SMALL GENERATOR INTERCONNECTION INFORMATION

This Form should be completed by those bidders proposing to interconnect to the Company's transmission system. This is not a formal request to interconnect.

### Transmission Provider:

Designated Contact Person: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

Fax: \_\_\_\_\_

E-Mail Address: \_\_\_\_\_

### Interconnection Customer Information

Legal Name of the Interconnection Customer (or, if an individual, individual's name)

Name: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Facility Location (if different from above): \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ Telephone (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Alternative Contact Information (if different from the Interconnection Customer)

Contact Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Telephone (Day): \_\_\_\_\_ Telephone (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Application is for:    \_\_\_\_\_ New Small Generating Facility  
                              \_\_\_\_\_ Capacity addition to Existing Small Generating Facility

If capacity addition to existing facility, please describe: \_\_\_\_\_

\_\_\_\_\_

Will the Small Generating Facility be used for any of the following?

Net Metering? Yes \_\_\_\_ No \_\_\_\_

To Supply Power to the Interconnection Customer? Yes \_\_\_\_ No \_\_\_\_

To Supply Power to Others? Yes \_\_\_\_ No \_\_\_\_

For installations at locations with existing electric service to which the proposed Small Generating Facility will interconnect, provide:

\_\_\_\_\_  
(Local Electric Service Provider\*)

\_\_\_\_\_  
(Existing Account Number\*)

[\*To be provided by the Interconnection Customer if the local electric service provider is different from the Transmission Provider]

Contact Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Telephone (Day): \_\_\_\_\_ Telephone (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Requested Point of Interconnection: \_\_\_\_\_

Interconnection Customer's Requested In-Service Date: \_\_\_\_\_

**Small Generating Facility Information**

Data apply only to the Small Generating Facility, not the Interconnection Facilities.

Energy Source: \_\_\_ Solar \_\_\_ Wind \_\_\_ Hydro \_\_\_ Hydro Type (e.g. Run-of-River): \_\_\_\_\_  
Diesel \_\_\_ Natural Gas \_\_\_ Fuel Oil \_\_\_ Other (state type) \_\_\_\_\_

Prime Mover: \_\_\_ Fuel Cell \_\_\_ Recip Engine \_\_\_ Gas Turb \_\_\_ Steam Turb  
\_\_\_ Microturbine \_\_\_ PV \_\_\_ Other

Type of Generator: \_\_\_ Synchronous \_\_\_ Induction \_\_\_ Inverter

Generator Nameplate Rating: \_\_\_\_\_ kW (Typical) Generator Nameplate kVAR: \_\_\_\_\_

Interconnection Customer or Customer-Site Load: \_\_\_\_\_ kW (if none, so state)

Typical Reactive Load (if known): \_\_\_\_\_

Maximum Physical Export Capability Requested: \_\_\_\_\_ kW

List components of the Small Generating Facility equipment package that are currently certified:

Equipment Type	Certifying Entity
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____

Is the prime mover compatible with the certified protective relay package? \_\_\_ Yes \_\_\_ No

Generator (or solar collector)

Manufacturer, Model Name & Number: \_\_\_\_\_

Version Number: \_\_\_\_\_

Nameplate Output Power Rating in kW: (Summer) \_\_\_\_\_ (Winter) \_\_\_\_\_

Nameplate Output Power Rating in kVA: (Summer) \_\_\_\_\_ (Winter) \_\_\_\_\_

Individual Generator Power Factor

Rated Power Factor: Leading: \_\_\_\_\_ Lagging: \_\_\_\_\_

Total Number of Generators in wind farm to be interconnected pursuant to this  
Interconnection Request: \_\_\_\_\_ Elevation: \_\_\_\_\_ \_\_\_ Single phase \_\_\_ Three phase

Inverter Manufacturer, Model Name & Number (if used): \_\_\_\_\_

List of adjustable set points for the protective equipment or software: \_\_\_\_\_

Note: A completed Power Systems Load Flow data sheet must be supplied with the Interconnection Request.

Small Generating Facility Characteristic Data (for inverter-based machines)

Max design fault contribution current: \_\_\_\_\_ Instantaneous \_\_\_ or RMS? \_\_\_

Harmonics Characteristics: \_\_\_\_\_

Start-up requirements: \_\_\_\_\_

Small Generating Facility Characteristic Data (for rotating machines)

RPM Frequency: \_\_\_\_\_

(\*) Neutral Grounding Resistor (If Applicable): \_\_\_\_\_

Synchronous Generators:

Direct Axis Synchronous Reactance,  $X_d$ : \_\_\_\_\_ P.U.

Direct Axis Transient Reactance,  $X'_d$ : \_\_\_\_\_ P.U.

Direct Axis Subtransient Reactance,  $X''_d$ : \_\_\_\_\_ P.U.

Negative Sequence Reactance,  $X_2$ : \_\_\_\_\_ P.U.

Zero Sequence Reactance,  $X_0$ : \_\_\_\_\_ P.U.

KVA Base: \_\_\_\_\_

Field Volts: \_\_\_\_\_

Field Amperes: \_\_\_\_\_

Induction Generators:

Motoring Power (kW): \_\_\_\_\_

$I_2^2t$  or K (Heating Time Constant): \_\_\_\_\_

Rotor Resistance,  $R_r$ : \_\_\_\_\_

Stator Resistance,  $R_s$ : \_\_\_\_\_

Stator Reactance,  $X_s$ : \_\_\_\_\_

Rotor Reactance,  $X_r$ : \_\_\_\_\_

Magnetizing Reactance,  $X_m$ : \_\_\_\_\_

Short Circuit Reactance,  $X_d''$ : \_\_\_\_\_  
Exciting Current: \_\_\_\_\_  
Temperature Rise: \_\_\_\_\_  
Frame Size: \_\_\_\_\_  
Design Letter: \_\_\_\_\_  
Reactive Power Required In Vars (No Load): \_\_\_\_\_  
Reactive Power Required In Vars (Full Load): \_\_\_\_\_  
Total Rotating Inertia, H: \_\_\_\_\_ Per Unit on kVA Base

Note: Please contact the Transmission Provider prior to submitting the Interconnection Request to determine if the specified information above is required.

Excitation and Governor System Data for Synchronous Generators Only

Provide appropriate IEEE model block diagram of excitation system, governor system and power system stabilizer (PSS) in accordance with the regional reliability council criteria. A PSS may be determined to be required by applicable studies. A copy of the manufacturer's block diagram may not be substituted.

**Interconnection Facilities Information**

Will a transformer be used between the generator and the point of common coupling? \_\_\_\_ Yes \_\_\_\_ No

Will the transformer be provided by the Interconnection Customer? \_\_\_\_ Yes \_\_\_\_ No

Transformer Data (If Applicable, for Interconnection Customer-Owned Transformer):

Is the transformer: \_\_\_\_ single phase \_\_\_\_ three phase? Size: \_\_\_\_\_ kVA  
Transformer Impedance: \_\_\_\_\_ % on \_\_\_\_\_ kVA Base

If Three Phase:

Transformer Primary: \_\_\_\_\_ Volts \_\_\_\_\_ Delta \_\_\_\_\_ Wye \_\_\_\_\_ Wye Grounded  
Transformer Secondary: \_\_\_\_\_ Volts \_\_\_\_\_ Delta \_\_\_\_\_ Wye \_\_\_\_\_ Wye Grounded  
Transformer Tertiary: \_\_\_\_\_ Volts \_\_\_\_\_ Delta \_\_\_\_\_ Wye \_\_\_\_\_ Wye Grounded

Transformer Fuse Data (If Applicable, for Interconnection Customer-Owned Fuse):

(Attach copy of fuse manufacturer's Minimum Melt and Total Clearing Time-Current Curves)

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Size: \_\_\_\_\_ Speed: \_\_\_\_\_

Interconnecting Circuit Breaker (if applicable):

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_  
Load Rating (Amps): \_\_\_\_\_ Interrupting Rating (Amps): \_\_\_\_\_ Trip Speed (Cycles): \_\_\_\_\_

Interconnection Protective Relays (If Applicable):

If Microprocessor-Controlled:

List of Functions and Adjustable Setpoints for the protective equipment or software:

Setpoint Function	Minimum	Maximum
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____
6. _____	_____	_____

If Discrete Components:

(Enclose Copy of any Proposed Time-Overcurrent Coordination Curves)

Manufacturer: _____	Type: _____	Style/Catalog No.: _____	Proposed Setting: _____
Manufacturer: _____	Type: _____	Style/Catalog No.: _____	Proposed Setting: _____
Manufacturer: _____	Type: _____	Style/Catalog No.: _____	Proposed Setting: _____
Manufacturer: _____	Type: _____	Style/Catalog No.: _____	Proposed Setting: _____
Manufacturer: _____	Type: _____	Style/Catalog No.: _____	Proposed Setting: _____

Current Transformer Data (If Applicable):

(Enclose Copy of Manufacturer's Excitation and Ratio Correction Curves)

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_ Proposed Ratio Connection: \_\_\_\_

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_ Proposed Ratio Connection: \_\_\_\_

Potential Transformer Data (If Applicable):

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_ Proposed Ratio Connection: \_\_\_\_

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_ Proposed Ratio Connection: \_\_\_\_

**General Information**

Enclose copy of site electrical one-line diagram showing the configuration of all Small Generating Facility equipment, current and potential circuits, and protection and control schemes. This one-line diagram must be signed and stamped by a licensed Professional Engineer if the Small Generating Facility is larger than 50 kW. Is One-Line Diagram Enclosed? \_\_\_\_Yes \_\_\_\_No

Enclose copy of any site documentation that indicates the precise physical location of the proposed Small Generating Facility (e.g., USGS topographic map or other diagram or documentation).

Proposed location of protective interface equipment on property (include address if different from the Interconnection Customer's address) \_\_\_\_\_

Enclose copy of any site documentation that describes and details the operation of the protection and control schemes. Is Available Documentation Enclosed? \_\_\_\_Yes \_\_\_\_No

Enclose copies of schematic drawings for all protection and control circuits, relay current circuits, relay potential circuits, and alarm/monitoring circuits (if applicable).

Are Schematic Drawings Enclosed? \_\_\_\_Yes \_\_\_\_No



## **Form I3**

Large Generator Interconnection Information – Transmission Interconnection

**APPENDIX 1 to LGIP  
INTERCONNECTION REQUEST FOR A  
LARGE GENERATING FACILITY**

**This Form should be completed by those bidders proposing to interconnect to the Company's transmission system. This is not a formal request to interconnect.**

1. The undersigned Interconnection Customer submits this request to interconnect its Large Generating Facility with Transmission Provider's Transmission System pursuant to a Tariff.
2. This Interconnection Request is for (check one):  
☐ A proposed new Large Generating Facility.  
☐ An increase in the generating capacity or a Material Modification of an existing Generating Facility.  
☐ A Generating Facility proposed for inclusion in a resource solicitation process.
3. The type of interconnection service requested (check one):  
☐ Energy Resource Interconnection Service  
☐ Network Resource Interconnection Service
4. ☐ Check here only if Interconnection Customer requesting Network Resource Interconnection Service also seeks to have its Generating Facility studied for Energy Resource Interconnection Service
5. Interconnection Customer provides the following information:
  - a. Address or location of the proposed new Large Generating Facility site (to the extent known) or, in the case of an existing Generating Facility, the name and specific location of the existing Generating Facility;
  - b. Maximum summer at degrees C and winter at degrees C megawatt electrical output of the proposed new Large Generating Facility or the amount of megawatt increase in the generating capacity of an existing Generating Facility;
  - c. General description of the equipment configuration;
  - d. Commercial Operation Date (Day, Month, and Year);
  - e. Name, address, telephone number, and e-mail address of Interconnection Customer's contact person;
  - f. Approximate location of the proposed Point of Interconnection (optional);

- g. Interconnection Customer Data (set forth in Attachment A)
- 6. Applicable deposit amount as specified in the LGIP.
- 7. Evidence of Site Control as specified in the LGIP (check one)
  - ☐ Is attached to this Interconnection Request
  - ☐ Will be provided at a later date in accordance with this LGIP

8. This Interconnection Request shall be submitted to the representative indicated below:

[To be completed by Transmission Provider]

9. Representative of Interconnection Customer to contact:

[To be completed by Interconnection Customer]

10. This Interconnection Request is submitted by:

Name of Interconnection Customer: \_\_\_\_\_

By (signature): \_\_\_\_\_

Name (type or print): \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Attachment A to Appendix 1  
Interconnection Request**

**LARGE GENERATING FACILITY DATA**

**UNIT RATINGS**

kVA \_\_\_\_\_ °F \_\_\_\_\_ Voltage \_\_\_\_\_  
 Power Factor \_\_\_\_\_  
 Speed (RPM) \_\_\_\_\_ Connection (e.g. Wye) \_\_\_\_\_  
 Short Circuit Ratio \_\_\_\_\_ Frequency, Hertz \_\_\_\_\_  
 Stator Amperes at Rated kVA \_\_\_\_\_ Field Volts \_\_\_\_\_  
 Max Turbine MW \_\_\_\_\_ °F \_\_\_\_\_

**COMBINED TURBINE-GENERATOR-EXCITER INERTIA DATA**

Inertia Constant, H = \_\_\_\_\_ kW sec/kVA  
 Moment-of-Inertia,  $WR^2$  = \_\_\_\_\_ lb. ft.<sup>2</sup>

**REACTANCE DATA (PER UNIT-RATED KVA)**

	DIRECT AXIS	QUADRATURE AXIS
Synchronous – saturated	$X_{dv}$ _____	$X_{qv}$ _____
Synchronous – unsaturated	$X_{di}$ _____	$X_{qi}$ _____
Transient – saturated	$X'_{dv}$ _____	$X'_{qv}$ _____
Transient – unsaturated	$X'_{di}$ _____	$X'_{qi}$ _____
Subtransient – saturated	$X''_{dv}$ _____	$X''_{qv}$ _____
Subtransient – unsaturated	$X''_{di}$ _____	$X''_{qi}$ _____
Negative Sequence – saturated	$X_{2v}$ _____	
Negative Sequence – unsaturated	$X_{2i}$ _____	
Zero Sequence – saturated	$X_{0v}$ _____	
Zero Sequence – unsaturated	$X_{0i}$ _____	
Leakage Reactance	$X_{lm}$ _____	
	_____ (Saturated)	
	_____ (Unsaturated)	

**FIELD TIME CONSTANT DATA (SEC)**

Open Circuit	$T'_{do}$ _____	$T'_{qo}$ _____
Three-Phase Short Circuit Transient	$T'_{d3}$ _____	$T'_q$ _____
Line to Line Short Circuit Transient	$T'_{d2}$ _____	
Line to Neutral Short Circuit Transient	$T'_{d1}$ _____	
Short Circuit Subtransient	$T''_d$ _____	$T''_q$ _____
Open Circuit Subtransient	$T''_{do}$ _____	$T''_{qo}$ _____

### ARMATURE TIME CONSTANT DATA (SEC)

Three Phase Short Circuit	$T_{a3}$
Line to Line Short Circuit	$T_{a2}$
Line to Neutral Short Circuit	$T_{a1}$

NOTE: If requested information is not applicable, indicate by marking "N/A."

### MW CAPABILITY AND PLANT CONFIGURATION LARGE GENERATING FACILITY DATA

#### ARMATURE WINDING RESISTANCE DATA (PER UNIT)

Positive	$R_1$
Negative	$R_2$
Zero	$R_0$

Rotor Short Time Thermal Capacity  $I_2^2 t =$  \_\_\_\_\_  
 Field Current at Rated kVA, Armature Voltage and PF = \_amps  
 Field Current at Rated kVA and Armature Voltage, 0 PF = \_amps  
 Three Phase Armature Winding Capacitance = \_microfarad  
 Field Winding Resistance = ohms °C  
 Armature Winding Resistance (Per Phase) = \_ohms °C

### CURVES

Provide Saturation, Vee, Reactive Capability, Capacity Temperature Correction curves.  
 Designate normal and emergency Hydrogen Pressure operating range for multiple curves.

### GENERATOR STEP-UP TRANSFORMER DATA RATINGS

Capacity	Self-cooled/ Maximum Nameplate
____kVA	

Voltage Ratio(Generator Side/System side/Tertiary)  
 \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_ kV

Winding Connections (Low V/High V/Tertiary V (Delta or Wye))  
 \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

Fixed Taps Available \_\_\_\_\_

Present Tap Setting \_\_\_\_\_

### IMPEDANCE

Positive  $Z_1$  (on self-cooled kVA rating) \_\_\_\_\_ % \_\_\_\_\_ X/R  
Zero  $Z_0$  (on self-cooled kVA rating) \_\_\_\_\_ % \_\_\_\_\_ X/R

### EXCITATION SYSTEM DATA

Identify appropriate IEEE model block diagram of excitation system and power system stabilizer (PSS) for computer representation in power system stability simulations and the corresponding excitation system and PSS constants for use in the model.

### GOVERNOR SYSTEM DATA

Identify appropriate IEEE model block diagram of governor system for computer representation in power system stability simulations and the corresponding governor system constants for use in the model.

### WIND GENERATORS

Number of generators to be interconnected pursuant to this Interconnection Request:

\_\_\_\_\_

Elevation: \_\_\_\_\_ Single Phase \_\_\_\_\_ Three Phase

Inverter manufacturer, model name, number, and version:

\_\_\_\_\_

List of adjustable setpoints for the protective equipment or software:

\_\_\_\_\_

Note: A completed General Electric Company Power Systems Load Flow (PSLF) data sheet or other compatible formats, such as IEEE and PTI power flow models, must be supplied with the Interconnection Request. If other data sheets are more appropriate to the proposed device, then they shall be provided and discussed at Scoping Meeting.

**PSCo Model [Wind] [Solar] Energy Purchase Agreement**

**[WIND] [SOLAR] ENERGY PURCHASE AGREEMENT**

**BETWEEN**

**PUBLIC SERVICE COMPANY OF COLORADO**

**AND**

**[REDACTED]**



**- [date] -**



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**[WIND] [SOLAR] ENERGY PURCHASE AGREEMENT**  
**BETWEEN**  
**PUBLIC SERVICE COMPANY OF COLORADO**  
**AND**

**[REDACTED], LLC**

This [Wind] [Solar] Energy Purchase Agreement (this “PPA”) is made as of this [REDACTED] day of [REDACTED], 20[REDACTED], by and between (i) **Public Service Company of Colorado**, a Colorado corporation with a principal place of business at 1800 Larimer Street, Denver, CO 80202 (“Company”), and (ii) [REDACTED] LLC, a [REDACTED] [limited liability company] with a principal place of business at [REDACTED] (“Seller”). Company and Seller are hereinafter referred to individually as a “Party” and collectively as the “Parties.”

WHEREAS Seller desires to develop, design, construct, interconnect, own, operate and maintain the Facility as defined herein; and

WHEREAS Seller desires to sell and deliver, and Company desires to accept and receive, certain products and services generated and delivered from the Facility to the Point of Delivery at the prices and on the terms and conditions set forth in this PPA.

NOW THEREFORE, in consideration of the mutual covenants herein contained, the sufficiency and adequacy of which are hereby acknowledged, the Parties agree to the following:

**Article 1 - Rules of Interpretation**

**1.1 Interpretation.**

(A) Capitalized terms listed in this PPA shall have the meanings set forth in Exhibit A - Definitions or as otherwise defined in this PPA, whether in the singular or the plural or in the present or past tense. Words not otherwise defined in this PPA shall (i) have meanings as commonly used in the English language, (ii) be given their generally accepted meaning consistent with Good Utility Practice, and (iii) be given their well-known and generally accepted technical or trade meanings.

(B) The following rules of interpretation shall apply: (1) The masculine shall include the feminine and neuter; (2) references to “Articles,” “Sections” or “Exhibits” shall be to articles, sections, or exhibits of this PPA except as the context may otherwise require; (3) all Exhibits are incorporated into this PPA (*provided, however*, that in the event of a conflict with the terms of this PPA, the PPA shall control); and (4) use of the words “include” or “including” or similar words shall be interpreted as “include without limitation” or “including, without limitation.”

(C) This PPA was negotiated and prepared by both Parties with the advice and participation of counsel. None of the provisions hereof shall be construed against one Party on the ground that such Party is the author of this PPA or any part hereof.

## 1.2 Interpretation with Other Agreements.

(A) This PPA does not provide Seller authorization to interconnect the Facility or inject power into the Transmission Authority's System. Seller shall contract for interconnection services in accordance with the applicable Transmission Tariff. Seller acknowledges that the Interconnection Agreement is/will be a separate contract and that (i) this PPA is not binding on the Transmission Authority, (ii) this PPA does not create any rights between Seller and the Transmission Authority, and (iii) the Interconnection Agreement does not modify the Parties' rights and obligations under this PPA. The applicable Transmission Authority shall be deemed to be a separate and unaffiliated contracting party for purposes of this PPA, regardless whether such Transmission Authority is Company or an Affiliate of Company.

(B) This PPA does not provide for the supply of retail power for purposes of operating the Facility, including start-up, shut-down, oil heating, [turbine] [panel] adjustment, HVAC or any other purpose ("House Power"). Seller shall contract with the utility providing House Power to the Site (the "Local Provider") for the supply of House Power. Seller acknowledges that (i) Seller must obtain House Power independently, (ii) this PPA is not binding on the Local Provider, (iii) this PPA does not create any rights between Seller and the Local Provider, and (iv) Seller's contract for House Power does not affect the Parties' rights and obligations under this PPA. For purposes of this PPA, the Local Provider shall be deemed to be a separate and unaffiliated contracting party regardless whether the Local Provider is Company or an Affiliate of Company; *provided* that, if (and only if) the Local Provider is Company or an Affiliate of Company, Seller may obtain House Power by self-generating and netting such self-generation from the Contract Energy provided to Company unless prohibited by Applicable Law .

1.3 Good Faith and Fair Dealing. The Parties shall act reasonably and in accordance with the principles of good faith and fair dealing in the performance of this PPA. Unless expressly provided otherwise in this PPA, (a) when this PPA specifically references the consent, approval, or similar action by a Party, such consent or approval shall not be unreasonably withheld, conditioned or delayed, and (b) wherever this PPA specifically gives a Party a right to determine, require, specify or take similar action with respect to a matter, such determination, requirement, specification or similar action shall be Commercially Reasonable.

## **Article 2 - Term and Termination**

This PPA shall become effective as of the date of its execution, and shall remain in full force and effect until the 11:59 pm on the last Day of the calendar month during which occurs the [ ]<sup>th</sup> anniversary of the Commercial Operation Date (the "Scheduled Termination Date"), subject to early termination as provided in this PPA. Applicable provisions of this PPA shall continue in effect after termination to the extent necessary to (i) provide for final billings, payments and adjustments, (ii) enforce or complete the duties, obligations or responsibilities of the Parties (including under Section 12.1(B)-(D), Section 12.2(C), Section 12.3(B)-(C), Article 13 and Article 17 below), and (iii) address any remedies or indemnifications arising prior to termination.

### Article 3 - Facility Description

3.1 Description. Seller shall construct, interconnect, own, operate, and maintain the Facility, as further described in Exhibit C - Facility Description. A scaled map that identifies the Site, the location of the Facility, the Interconnection Point and Interconnection Facilities, the Point of Delivery, and other important facilities, is included in Exhibit C - Facility Description.

#### 3.2 General Design of the Facility.

(A) Seller shall design, construct, operate and maintain the Facility according to Good Utility Practices and the Interconnection Agreement.

(B) The Facility shall include all equipment specified in Exhibit C - Facility Description and otherwise necessary to fulfill Seller's obligations under this PPA, including all equipment necessary (i) to meet the requirements of Exhibit I - Operating Standards, and (ii) to interconnect successfully with the Transmission Authority's System for the delivery of Renewable Energy to the Point of Delivery.

(C) The Nameplate Capacity of the Facility shall be [ ] MW. *solar: add "AC" +/- 0.5%.* Seller shall certify to Company the final actual Nameplate Capacity of the Facility promptly following COD.

### Article 4 - Implementation

#### 4.1 Project Development.

(A) Seller shall enter into and perform at its expense all contracts required for (i) the engineering, procurement, construction, acquisition, manufacture, delivery and installation of the Facility, and (ii) the generation and delivery of Renewable Energy from the Facility to the Point of Delivery (generally, the "Construction Contracts") with qualified and experienced contractors. Upon written request by Company, Seller shall provide copies of any or all Construction Contracts to Company. All Construction Contracts obtained by Company shall be deemed Confidential Information subject to Section 20.18 below.

(B) In its efforts to achieve COD, Seller shall use Commercially Reasonable Efforts to achieve the milestones set forth in Exhibit B – Construction Milestones, and shall notify Company promptly following achievement of each such milestone.

(C) Prior to the Commercial Operation Date, Seller shall (i) submit monthly progress reports to Company in a form agreed by the Parties, advising Company of the current status of each Construction Milestone, any significant developments or delays (along with an action plan for making up delays), and Seller's best estimate of the Commercial Operation Date; (ii) provide copies of reports submitted to the Facility Lender relating to status, progress and development of the project, and (iii) invite Company to participate in monthly meetings to discuss the progress reports,

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answer questions, and assess the schedule. Seller shall make all relevant counterparties under the Construction Contracts available to Company, upon request, in order to keep Company fully informed on the status of development.

(D) Upon request, Company shall have the right to monitor the construction, start-up, testing, and operation of the Facility at the Site to verify compliance with this PPA, *provided, however*, that Company shall comply with all of Seller's applicable safety and health rules and requirements.

(E) Neither Company's review of Construction Contracts and Seller's reports, nor its discussions with Seller and its contractors, nor its monitoring of development and construction the Facility, shall be construed as endorsement by Company of the design, engineering, construction or testing thereof nor as any express or implied warranty as to the performance, safety, durability, or reliability of the Facility.

**4.2 Environmental Matters.**

(A) No later than 60 Days following PUC Approval, Seller shall complete and provide to Company a comprehensive independent "Phase I" environmental investigation of the Site or its equivalent (including associated raw data, if requested by Company). Seller shall notify Company promptly (i) if (and to what extent) any Environmental Contamination on the Site will preclude or interfere with Seller's ability to perform its obligations under this PPA, and (ii) Seller's plan for remediation thereof that would allow Seller to perform this PPA as and when due. The Phase I report delivered to Company under this paragraph shall be deemed Confidential Information for purposes of Section 20.18.

(B) Throughout the Term, Seller promptly shall

1. disclose to Company and remediate any Environmental Contamination identified at the Site;
2. provide to Company copies of any further environmental assessments or investigations of the Site (including associated raw data, if requested by Company); and
3. disclose to Company the existence of any enforcement, legal, or regulatory action or proceeding relating to any alleged presence of Environmental Contamination and/or the alleged violation of any Applicable Law related to the protection of endangered, migratory or other protected species.

(C) For purposes hereof:

1. "Environmental Contamination" means the introduction or presence of Hazardous Materials at such levels, quantities or location, or of such form or character, that (i) requires remediation under Applicable Law, (ii) present a material risk that the Site will not be available or usable for the purposes



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contemplated by this PPA, and/or (iii) will preclude or interfere with Seller's ability to perform its obligations under this PPA as and when due.

2. "Hazardous Materials" means any substance, material, gas, or particulate matter that is regulated by any Governmental Authority as an environmental pollutant or dangerous to public health, public welfare, or the natural environment (including protection of non-human forms of life, land, water, groundwater, and air), including any material or substance that is (i) defined as "toxic," "polluting," "hazardous waste," "hazardous material," "hazardous substance," "extremely hazardous waste," "solid waste" or "restricted hazardous waste" under any provision of local, state, or federal law; (ii) petroleum, including any fraction, derivative or additive; (iii) asbestos; (iv) polychlorinated biphenyls; (v) radioactive material; (vi) designated as a "hazardous substance" pursuant to the Clean Water Act, 33 U.S.C. §1251 *et seq.* (33 U.S.C. §1251); (vii) defined as a "hazardous waste" pursuant to the Resource Conservation and Recovery Act, 42 U.S.C. §6901 *et seq.* (42 U.S.C. §6901); (viii) defined as a "hazardous substance" pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §9601 *et seq.* (42 U.S.C. §9601); (ix) defined as a "chemical substance" under the Toxic Substances Control Act, 15 U.S.C. §2601 *et seq.* (15 U.S.C. §2601); or (x) defined as a pesticide under the Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. §136 *et seq.* (7 U.S.C. §136).

**4.3 Permits.**

(A) Seller shall obtain and pay for all Permits necessary or advisable under Good Utility Practice for the construction, ownership, operation and maintenance of the Facility and the generation and delivery of the output from the Facility to Company. Seller shall keep Company informed as to the status of its permitting efforts and shall provide Company the opportunity to review and comment on major applications for draft and final Permits. Seller shall promptly inform Company of (i) any Permits which Seller is unable to obtain, that are delayed, limited, suspended, terminated or otherwise constrained, along with a statement of whether and to what extent this circumstance may limit or preclude Seller's ability to perform under this PPA, and (ii) Seller's plan to overcome such issue(s) to allow Seller to perform this PPA as and when due. Company shall have the right to inspect and obtain copies of all Permits held by Seller.

(B) Seller represents and warrants to Company that, except for those Permits identified in Exhibit F - Seller's Needed Permits (each of which Seller anticipates will be obtained by Seller in the ordinary course of business), all Permits and other actions required or recommended by applicable Governmental Authorities to authorize Seller's execution, delivery and performance of this PPA (including "takings" permits with respect to protected species – *parenthetical for wind only*) have been duly obtained and are in full force and effect.

(C) Throughout the Term, Seller promptly shall disclose to Company the existence of any enforcement, legal, or regulatory action or proceeding relating to the

**PSCo Model [Wind] [Solar] Energy Purchase Agreement**

alleged violation of any Permit held by Seller, which proceeding (if successful) could materially interfere with Seller's performance of this PPA.

(D) For purposes hereof, "Permits" means all applicable construction, land use, air quality, emissions control, environmental, protected species, and other permits, licenses and approvals from any Governmental Authority for construction, ownership, operation and maintenance of the Facility and the generation and delivery of Renewable Energy therefrom.

4.4 Governmental Inspections. Seller shall notify Company (i) sufficiently in advance of any known upcoming significant inspections by any Governmental Authority relating to the Facility, to allow Company the opportunity to attend, and (ii) promptly after any unscheduled or impromptu inspection with a description of the nature and outcome of such inspection.

4.5 Commercial Operation.

(A) Seller shall cause COD to occur no later than [REDACTED], 20[REDACTED] (the "Target COD"). Company shall not be obligated to accept and establish a Commercial Operation Date earlier than [REDACTED], 20[REDACTED] (*insert date that is 92 days prior to Target COD*).

(B) Seller shall notify Company of the date on which Seller believes the Facility has achieved Commercial Operation (a "COD Notice"). A COD Notice shall include all necessary supporting documentation of the satisfaction or occurrence of all COD Conditions. Company shall have 10 Business Days to review a COD Notice and raise any Commercially Reasonable objection to Seller's satisfaction of any of the COD Conditions, *provided, however*, that Seller's COD Notice shall be deemed accepted by Company if Company fails to object within such time period. Seller may notify Company of completion of one or more COD Conditions on an individual and incremental basis prior to COD, *provided, however*, that Company shall in all cases have up to 10 Business Days to review and object to each such notice.

(C) For purposes hereof:

1. the "Commercial Operation Date" or "COD" means 12:01 am on the Day following the date on which Company receives Seller's COD Notice, without valid objection thereto by Company; and

2. the "COD Conditions" are:

(a) an officer of Seller, authorized to bind Seller and who is familiar with the Facility, has provided written confirmation that (1) all necessary and material Permits have been obtained and are in full force and effect, (2) Seller is in compliance with this PPA in all material respects, (3) Seller has made all necessary arrangements to obtain and pay the Local Provider for House Power, and (4) the Facility is available to commence normal operations in accordance with Seller's operating agreements, Construction Contracts, and applicable manufacturers' warranties;

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(b) Seller has proven to Company's reasonable satisfaction that (1) Seller and the Transmission Authority have signed the Interconnection Agreement, and Seller has received no notice of breach thereof from the Transmission Authority, (2) the Facility is interconnected to the Transmission Authority's System, has been fully tested, has achieved initial synchronization, and has been successfully operated at a generation level acceptable to the Transmission Authority, without experiencing any abnormal or unsafe operating conditions on any interconnected system, and (3) Seller has made all other arrangements necessary to deliver Renewable Energy from the Facility to the Point of Delivery during the Term;

(c) Seller has obtained and provided to Company an independent registered professional engineer's certification stating that the Facility has been completed in all material respects, except for "punch list" items that do not have a Material Adverse Effect on the ability of the Facility to operate for its intended purpose;

(d) Seller has complied and provided to Company the certifications required by 4 CCR 723-3668 (or has provided suitable evidence that the Facility is exempt from such rule);

(e) Seller has demonstrated the reliability of the Facility's communications systems and AGC interface with Company's EMCC, and the capability of the Facility to receive and respond to signals from Company's SCADA System; and

(f) [Wind Turbines] [Solar Units] comprising at least 95% of the Nameplate Capacity planned for the Facility, and associated equipment sufficient to allow such [Wind Turbines] [Solar Units] to generate and deliver Renewable Energy to the Point of Delivery, have been installed and become operable.

(D) For purposes hereof, the first "Commercial Operation Year" shall mean the period starting at 12:01 a.m. on the Commercial Operation Date and ending at 11:59 pm on the last Day of the calendar month in which the first anniversary of COD occurs, and each successive "Commercial Operation Year" shall mean the 12 month period following the prior Commercial Operation Year.

**4.6 Test Energy.**

(A) Seller shall provide Company and Transmission Authority with the information necessary to have the Facility registered with the Transmission Authority for inclusion in any generation modeling maintained by the Transmission Authority, sufficiently in advance to allow the Facility to be registered in such model at least four months prior to generating any Test Energy. Company shall cooperate reasonably to assist in the registration of the Facility to allow generation of Test Energy.

(B) Seller shall coordinate the production and delivery of Test Energy with Company, with not less than seven Business Days' prior Notice, or such other Commercially Reasonable prior Notice as Company may reasonably request.

(C) For purposes hereof, "Test Energy" means Renewable Energy generated by the Facility prior to COD, required to satisfy the COD Conditions.

## **Article 5 - Delivery**

### **5.1 Arrangements.**

(A) Seller shall be responsible for arranging, maintaining and paying the costs associated with the interconnection of the Facility to the Transmission Authority's System. Seller shall comply with the Transmission Authority's requirements for interconnection and shall comply with all requirements set forth in the applicable Transmission Tariff. Seller's interconnection application shall request that the Transmission Authority study the Facility for both Energy Resource Interconnection Service and Network Resource Interconnection Service under the Transmission Tariff. The resulting Interconnection Agreement must include Energy Resource Interconnection Service at a minimum. Seller shall cooperate reasonably in any request by Company to assist in Company's efforts to have the Facility approved as a Network Resource or equivalent classification pursuant to the applicable Transmission Tariff.

(B) Seller hereby authorizes Company to contact, discuss and obtain information concerning the Facility and Interconnection Facilities directly with/from the Transmission Authority. Promptly upon request by Company, Seller shall confirm such authorization in writing to the Transmission Authority and any applicable transmission owners in such form as may be requested by Company or the Transmission Authority.

(C) To the extent required, Company shall arrange and be responsible for scheduling and transmission services at and beyond the Point of Delivery. To the extent applicable, Company shall be the market participant for the Facility, as defined by the Transmission Authority.

(D) Seller shall be responsible for all interconnection, electric losses, transmission and ancillary service arrangements and costs required to deliver, on a firm transmission service basis, Renewable Energy from the Facility to the Point of Delivery. Company shall be responsible for all electric losses, transmission and ancillary service arrangements and costs required to transmit and deliver Renewable Energy beyond the Point of Delivery.

### **5.2 Market Changes.**

(A) If at any time during the Term, the Transmission Authority changes or the facilities at the Point of Delivery cease to be subject to the Transmission Tariff, the Parties shall cooperate in good faith to facilitate the delivery of Renewable Energy from the Point of Delivery to Company's load, at the least possible cost to the Parties, consistent with this PPA to the extent possible.

(B) If at any time during the Term, the Transmission Authority, the ERO or any other Governmental Authority with jurisdiction imposes an organized market or

Company elects to join a regional transmission organization or participate in an organized market that changes the manner in which the Facility is scheduled and dispatched, the Parties shall cooperate in good faith to change their protocols for operation of the Facility accordingly, at the least possible cost to the Parties, consistent with this PPA to the extent possible.

(C) In the event that improvements to the Facility or other expenditures by Seller are necessary to comply with this Section 5.2, which expenditures must be capitalized by Seller under generally accepted accounting principles consistently applied, Company shall reimburse Seller one percent (1%) of such expenditures per month, beginning with the first month following substantial completion of such expenditures and ending upon the earlier to occur of (i) the 100<sup>th</sup> month following the start of such reimbursements, and (ii) the end of the Term of this PPA.

### 5.3 Electric Metering Devices.

(A) All Electric Metering Devices used to measure energy shall be owned, installed, and maintained in accordance with the Interconnection Agreement, at no cost to Company.

1. Meter readings will be adjusted to reflect losses from the Electric Metering Devices to the Point of Delivery in accordance with applicable manufacturers' parameters or as otherwise agreed by the Parties.

2. Seller shall arrange any necessary authorization to provide Company access to all Electric Metering Devices for purposes ancillary to this PPA, and shall provide Company the opportunity to be present at any time when such Electric Metering Devices are to be inspected, tested or adjusted.

(B) Either Party may elect to install and maintain, at its own expense, backup metering devices ("Back-Up Metering"), *provided, however*, that the specifications, installation and testing of any such Back-Up Metering shall be consistent with the requirements for the Electric Metering Devices. Upon written request from the other Party, the installing Party shall test the Back-Up Metering. The actual cost of any such test shall be borne by the Party requesting the test, unless, upon such test, Back-Up Metering is inaccurate by more than one percent, in which case the cost of the retest shall be borne by the installing Party. If requested in writing, the installing Party shall provide copies of any inspection or testing reports to the requesting Party.

(C) If an Electric Metering Device or Back-Up Metering fails to register, or if the measurement is inaccurate by more than one percent, an adjustment shall be made correcting all measurements as follows:

1. If the Electric Metering Device is found to be defective or inaccurate, the Parties shall use Back-up Metering, if installed, to determine the amount of such inaccuracy, *provided, however*, that Back-Up Metering has been tested and maintained and adjusted for losses on the same basis as the Electric Metering Device. If Back-Up Metering is not installed, or Back-Up Metering is also

found to be inaccurate by more than one percent, the Parties shall use the best available information for the period of inaccuracy, adjusted for losses to the Point of Delivery in accordance with applicable manufacturers' parameters or as otherwise agreed by the Parties.

2. If the Parties cannot agree on the actual period during which inaccurate measurements were made, the period shall be the shorter of (i) the last one-half of the period from the last previous test of the Electric Metering Device to the test that found the Electric Metering Device to be defective or inaccurate, or (ii) 180 Days immediately preceding the test that found the Electric Metering Device to be defective or inaccurate.

3. To the extent that an adjustment period covers a period of deliveries for which payment has already been made by Company, Company shall use the corrected measurements as determined in accordance with this Article 5 to re-compute the amount due for the period of the inaccuracy and shall subtract the previous payments made by Company for this period from such re-computed amount. The net difference shall be reflected as an adjustment on the next regular invoice in accordance with Article 9.

## **Article 6 - Conditions Precedent**

### **6.1 PUC Approval.**

(A) No later than 45 Days after the date of this PPA, Company may apply to the PUC for PUC Approval. If Company fails to apply for PUC Approval within 45 Days following the date of this PPA, Company shall be deemed to have waived its right to obtain PUC Approval and to terminate this PPA under this Section 6.1, and this PPA shall remain in full force and effect thereafter.

(B) If Company applies for PUC Approval, Company shall use Commercially Reasonable Efforts to obtain PUC Approval as soon as reasonably practicable. Seller shall cooperate with Company's efforts to obtain PUC Approval, including provision of site-specific surveys for endangered species, avian migration pathways and critical habitats, and certification of consultation with the Colorado Division of Wildlife with respect thereto, as required by 4 CCR 723-3668.

(C) If Company applies for PUC Approval, Company shall have the right to terminate this PPA, without any further financial or other obligation to Seller as a result of such termination, by notice to Seller

1. at any time within 30 Days following issuance of a written order by the PUC rejecting PUC Approval, or granting PUC Approval with conditions unacceptable to Company in its sole discretion;

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2. at any time between the 180<sup>th</sup> and 215<sup>th</sup> Day following Company's application for PUC Approval, if prior to the date of such termination the PUC has not issued a written order granting or rejecting PUC Approval;

3. at any time within 30 Days following timely request for reconsideration (in whole or in any material part) by any third party with standing, of a written PUC order granting PUC Approval; and/or

4. at any time within 30 Days following timely appeal by any party with standing, of a written PUC order granting PUC Approval.

If Company is eligible but fails to terminate this PPA by the applicable date, Company shall be deemed to have waived its right to terminate this PPA under this Section 6.1(C), and this PPA shall remain in full force and effect thereafter.

(D) For purposes of this PPA, "PUC Approval" means a written order of the PUC making an affirmative determination that all costs incurred under this PPA are recoverable from Company's retail customers pursuant to Applicable Law, subject only to the requirement that the PUC retains ongoing prudence review of Company's performance and administration of this PPA.

6.2 Other Company CPs. *[if any].*

6.3 Seller CPs. *[if any - bid specific].*

**Article 7 - Sale and Purchase**

7.1 General Obligation.

(A) Beginning on the Commercial Operation Date, Seller shall generate from the Facility, deliver to the Point of Delivery, and sell to Company, and Company shall receive and purchase at the Point of Delivery, the Renewable Energy and other products and services required by this PPA. Seller shall not curtail or interrupt deliveries of Renewable Energy to Company for economic reasons of any type.

(B) Title and risk of loss of the products and services transacted by this PPA shall transfer from Seller to Company at the Point of Delivery.

7.2 AGC. Beginning on the Commercial Operation Date, Company shall dispatch the Facility through the EMCC AGC system. Seller shall ensure that, throughout the Term:

(A) the SCADA signal is capable of functioning on all AGC Set Points within the margin of error specified in the manufacturer's energy set point margin of error; and

(B) the Facility AGC Remote/Local status is in "Remote" set-point control during normal operations.

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**7.3 Green Benefits.** The Parties acknowledge that existing and future Applicable Laws create significant value in the ownership, use and allocation of Green Benefits. To the full extent allowed by Applicable Law, Seller hereby assigns to Company (and Company shall own and be entitled to claim) all Green Benefits to the extent existing or created during the Term associated with the Facility and the Renewable Energy purchased by Company hereunder, at no additional charge to Company under this PPA.

(A) Seller hereby irrevocably assigns to Company all rights, title and authority for Company to register the Facility as an Eligible Energy Resource and own, hold and manage the Green Benefits associated with the Facility in Company's own name and to Company's account, including any rights associated with any renewable energy information or tracking system that exists or may be established (including participation in any applicable REC Registration Program) with regard to monitoring, registering, tracking, certifying, and/or trading such Green Benefits. Seller hereby authorizes Company to act as its agent for the purposes of registering the Facility as an Eligible Energy Resource, and tracking, certifying, registering and reporting such Green Benefits. Seller grants to Company full authority to hold, use, sell and/or trade such Green Benefits for its own account in all applicable renewable energy information or tracking systems. Upon the request of Company, at no cost to Company, (i) Seller shall deliver or cause to be delivered to Company appropriate attestations/certifications of Green Benefits, and (ii) Seller shall cooperate with Company's tracking, registration, reporting and certification of Green Benefits.

(B) Prior to the Commercial Operation Date, Seller shall make all applications and/or filings required by Applicable Law for accreditation of Green Benefits and for the assignment of such Green Benefits to Company.

(C) For purposes hereof, "Green Benefits" means existing and future environmental credits, benefits or attributes, emissions reductions and avoidances (including emission rate credits), offsets, allowances and green tags, attributable to the Facility during the Term and/or Renewable Energy sold to Company under this PPA, recognized by Applicable Law, including any rights to compensation therefor. Green Benefits include

1. Renewable Energy Credits;
2. Avoided emissions of pollutants to the air, soils or waters, such as sulfur oxides (SO<sub>x</sub>), nitrogen oxides (NO<sub>x</sub>) and carbon monoxide (CO);
3. Avoided emissions of greenhouse gases (such as carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF<sub>6</sub>)) that have been or may in the future be determined by the United Nations Intergovernmental Panel on Climate Change or by Applicable Law to contribute to the threat of climate change; and
4. Reporting rights for avoided emissions, such as Green Tag Reporting Rights.



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**7.4 Ancillary Services.**

(A) Company shall be entitled and Seller shall make available to Company all Ancillary Services associated with the Facility, at no additional charge to Company. Seller shall use Commercially Reasonable Efforts to maximize the Ancillary Services available from the Facility.

(B) Any compensation Seller receives under the Interconnection Agreement or otherwise from third parties for Ancillary Services shall be provided to Company at no additional cost to Company under this PPA. To implement the foregoing, Seller shall credit Company, as a reduction to Seller's monthly invoice or other mutually-agreed mechanism, for any compensation that Seller receives from third parties for Ancillary Services; *provided*, that if a Governmental Authority or Transmission Authority implements new or revised requirements for generators to create, modify, or supply Ancillary Services, requiring Seller to install additional equipment after the date hereof to meet such requirements, then Seller shall be allowed to reduce the amount to be credited to Company for Ancillary Services by an amount sufficient to recover the cost of such additional equipment. Any cost not so recovered by Seller in any billing period shall be carried forward as a reduction of the amount of the credit in subsequent billing periods.

(C) For purposes hereof, "Ancillary Services" means ancillary services addressed under the Transmission Tariff from time to time (if any), which are associated, directly or indirectly, with the capacity of the Facility or the generation and/or transmission of Renewable Energy from the Facility from time to time, including any rights to compensation therefor. By way of example only, "Ancillary Services" may include capacity or reliability attributes, resource adequacy characteristics, locational benefit attributes, and/or VaR generation.

**Article 8 - Payment Calculations**

**8.1 Payment for Renewable Energy.**

(A) Company shall pay Seller a payment rate equal to 70% of the Energy Payment Rate for the first Commercial Operation Year, for all Test Energy delivered to Company.

(B) Commencing on the Commercial Operation Date, Company shall pay the Energy Payment Rate to Seller for all Renewable Energy, up to 115% of the Committed Energy in each Commercial Operation Year, *provided* that Company shall never be required to pay for net instantaneous output of the Facility (as measured at the Point of Delivery) in excess of the Nameplate Capacity.

(C) The Energy Payment Rate shall be deemed Confidential Information for purposes of Section 20.18 below.

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**8.2 Excess Energy.**

(A) Seller shall notify Company promptly upon Seller's delivery of Renewable Energy hereunder that exceeds 110% of the Committed Energy for a Commercial Operation Year. Within 10 Business Days of any such notice, Company shall elect by notice to Seller either to accept or to decline any Excess Energy generated by the Facility through the balance of such Commercial Operation Year. Failure by Company to deliver such notice shall be deemed an election by Company to decline any Excess Energy for that Commercial Operation Year.

(B) If Company elects to accept Excess Energy, Company shall pay Seller the full Energy Payment Rate for all Excess Energy for the balance of that Commercial Operation Year.

(C) If Company declines Excess Energy, (1) Company's purchases of Renewable Energy with respect to the applicable Commercial Operation Year shall cease when Renewable Energy generated by the Facility and delivered to the Point of Delivery reaches 115% of the Committed Energy for such Commercial Operation Year, and (2) Seller shall have the right to sell such Excess Energy (including associated RECs) to one or more third parties until the end of the applicable Commercial Operation Year, after which the Parties' obligations shall resume pursuant to this PPA. Seller shall be solely responsible for all costs and logistics associated with such third-party sales, including arranging transmission service and delivery at no cost to Company.

(D) For purposes hereof, "Excess Energy" means all energy generated by the Facility in any Commercial Operation Year (including any Compensable Curtailment Energy) in excess of 115% of the Committed Energy for such Commercial Operation Year.

**8.3 Curtailment.**

(A) Company may require Seller, by telephonic communication or through use of the AGC Set Point, to curtail the delivery of Renewable Energy to Company from the Facility, for any reason and in Company's sole discretion. Seller shall promptly comply with each such notification.

(B) For purposes hereof:

1. "Compensable Curtailment" means a curtailment of generation or delivery of Renewable Energy following COD arising out of the following (and only the following):

- i. a curtailment of the Facility by Company under Section 8.3(A) ;
- ii. disconnection of the Facility from the Transmission Authority's System pursuant to the Interconnection Agreement (due to an Emergency, event of Force

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Majeure or other problem beyond the Point of Delivery), provided that the disconnection is not caused by actions of Seller or problems with the Facility;

- iii. Company's scheduling and other market participation activities, including any energy offer made by Company with respect to the Facility; and
- iv. an election by Company to utilize non-firm transmission service to transmit Renewable Energy from the Point of Delivery to its load, and such non-firm transmission service is restricted or reduced by the applicable transmission service provider, except as provided in paragraph 2(iii) below.

2. "Non-Compensable Curtailment" means any curtailment of the output of the Facility other than a Compensable Curtailment. By way of example only, Non-Compensable Curtailments include curtailments of generation or delivery of Renewable Energy arising out of:

- (i) the restriction or reduction of firm transmission service by the applicable transmission service provider;
- (ii) the restriction or reduction of non-firm transmission service by the applicable transmission service provider to the extent such restriction or reduction would also have been imposed even if firm transmission service had been in place;
- (iii) maintenance outages, whether planned or unplanned, of any part of the transmission system or any testing of the transmission system;
- (iv) the lack of available transmission from the Facility to the Point of Delivery;
- (v) Seller's failure to maintain in full force and effect any Permit to own, operate and/or maintain the Facility;
- (vi) a civil, regulatory or criminal proceeding for the protection of endangered, migratory or other protected species; and,
- (vii) Seller's failure to abide by the AGC Protocols, or a failure of the Facility to respond to AGC instructions from the EMCC.

3. "Compensable Curtailment Energy" for any period of Compensable Curtailment means the MWh represented by the Potential Energy less the Renewable Energy actually generated (if any), during such period. For purposes of determining Compensable Curtailment Energy, the amount of Potential Energy at

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any given time shall be calculated using the best-available data and methods to determine an accurate representation of the amount of curtailed Renewable Energy:

a. To the extent available, the Parties shall use Seller's real time Park Potential communicated to Company through the SCADA System as the proxy for Potential Energy, except to the extent that Park Potential is demonstrated not to accurately reflect the Potential Energy (plus or minus 2% average error for non-curtailement periods where generation exceeds 50% of nameplate capacity during one month).

b. During those periods of time when the Park Potential is unavailable or does not accurately represent Potential Energy, the Parties shall use the best available data obtained through Commercially Reasonable methods to determine the Potential Energy.

4. "Tax Benefits" means an amount equal to (a) the PTCs to which Seller would have been entitled with respect to Renewable Energy that could have been delivered but for a Compensated Curtailment pursuant to Section 8.2 of this PPA, plus (b) a "gross up" amount to take into account the federal, state and local income tax to Seller on such payments in lieu of PTCs so that the net amount retained by Seller, after payment of federal, state and local income taxes, is equal to the amount set forth in clause (A) of this definition. *wind only*

(C) No payment shall be due to Seller from Company for Renewable Energy curtailed as a consequence of any Non-Compensable Curtailment, or for Compensable Curtailment Energy prior to COD.

(D) For all Compensable Curtailments following COD, Company shall pay to Seller (i) all amounts that Seller would have received from Company under this PPA had the resulting Compensable Curtailment Energy actually been delivered [, plus (ii) the amount of any associated Tax Benefits to which Seller would have been entitled but did not receive as a result, on a grossed-up basis, assuming that Seller has elected to receive PTCs. For the avoidance of doubt, Seller shall not be entitled to recover any Tax Benefits to the extent Seller would not have been entitled to receive PTCs had the Compensable Curtailment Energy actually been delivered.] *bracketed material for wind only*

**Article 9 - Billing and Payment**

**9.1 Billing.**

(A) The billing period under this PPA shall be the calendar month.

(B) As soon as practicable and in any event within 20 Days after the end of each month, Company shall provide to Seller a statement containing Company's calculation of the amount due to Seller for such month, including the applicable billing parameters based upon Company's reading of the Electric Metering Devices consistent with Section 5.2.

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(C) No later than 15 Business Days following receipt of Company's billing statement, Seller shall submit an invoice to Company in a form and by a method to be agreed by the Parties, showing the amount due Seller for the relevant month, specifying the products and services provided, all billing parameters, rates and factors, and any other data relevant to the calculation of payments due to Seller. Such invoice shall include an explanation of any items in dispute, as well as all supporting documentation upon which Seller relies.

9.2 Payment. All payments shall be remitted via check or electronic funds transfer, as designated by the owed Party, on or before the 15<sup>th</sup> Business Day following receipt of the invoice. Remittances received by mail will be considered to have been paid when due if the postmark indicates the payment was mailed on or before the 15<sup>th</sup> Business Day following receipt of the billing invoice.

(A) If a payment is late, a late payment charge shall be applied to the unpaid balance for the number of days payment was late and shall be added to the next billing statement. Late payment charges shall include interest calculated using the prime rate of interest as published on the date of the invoice in *The Wall Street Journal* (or, if unavailable, an equivalent publication on or about that date).

(B) Company at any time may offset against amounts owed to Seller, any liquidated amounts, accrued damages and other payments, and undisputed billing errors and adjustments, which are owed by Seller to Company.

(C) Seller and Company may and shall net their obligations to each other under this PPA, and payment of the net amount shall discharge all mutual undisputed obligations between the Parties.

9.3 Billing Disputes. Either Party may dispute invoiced amounts pursuant to Section 13.1, but shall pay to the other Party at least the portion of invoiced amounts that is not disputed, on or before the invoice due date. When the billing dispute is resolved, the owing Party shall pay the amount owed within five (5) Business Days of the date of such resolution, with late payment interest charges calculated on the amount owed in accordance with Section 9.2(A).

**Article 10 - Operations and Maintenance**

**10.1 Operation and Administration.**

(A) Seller shall staff, control, and operate the Facility consistent with Good Utility Practices, Exhibit I – AGC Protocols; Data Collection; Technical Specifications and this PPA. Personnel of Seller shall be available 24x7 via telephone or other electronic means with (i) the capability of remotely starting, operating and stopping the Facility within 10 minutes, and (ii) the ability to be present at the Site within 30 minutes.

(B) Seller shall comply with Good Utility Practices, the requirements of all Governmental Authorities and all reasonable requirements of Company in the operation of the Facility. By way of example only, Seller shall perform all capacity testing of the Facility and related reporting, as and when required by Governmental Authorities.

(C) Seller shall provide to Company a day-ahead availability forecast in accordance with Exhibit I - AGC Protocols; Data Collection; Technical Specifications and any other reporting requirements required for compliance with NERC reliability standards. Company shall forward Seller's forecast to the applicable local reliability coordinator on Seller's behalf, *provided, however*, that Seller shall remain responsible to ensure the timeliness and accuracy of forecasts and any changes to the real-time or forecast availability of the Facility. If and to the extent that the ERO modifies the forecasting or other reporting requirements imposed on Company or the Facility, Seller shall timely provide required data to Company or the ERO, as applicable.

#### 10.2 Facility Maintenance.

(A) Seller shall maintain the Facility in accordance with Good Utility Practice. Seller shall coordinate its regular maintenance requirements for the Facility with Company ("Maintenance Schedules"). Maintenance Schedules shall be provided to Company in writing and sufficiently in advance for Commercially Reasonable review, and shall be subject to Company's Commercially Reasonable approval. Seller shall coordinate with Company and the Transmission Authority on the timing and duration of planned outages. Company has the right to not permit a planned outage if it conflicts with the requirement of the ERO.

(B) Seller shall minimize the amount of scheduled maintenance during the months of January, February, June, July, August, September and December to the maximum extent consistent with Good Utility Practices. Seller shall coordinate with Company and the Transmission Authority the timing and duration of planned outages.

(C) When Forced Outages occur, Seller shall notify Company's EMCC of the existence, nature, start time, and expected duration of the Forced Outage as soon as practical, but in no event later than one hour after the Forced Outage occurs. Seller shall immediately inform Company's EMCC of changes in the expected duration of the Forced Outage except to the extent relieved of this obligation by Company's EMCC with respect thereto.

#### 10.3 Books and Records.

(A) Seller shall maintain an accurate and up-to-date operating log at the Facility, in electronic format, with records of production for each clock hour; changes in operating status; Forced Outages; information required by Governmental Authorities in the prescribed format; and other information reasonably requested by Company.

(B) Seller and Company shall each keep complete and accurate records and all other data required by each of them for the purposes of proper administration of

this PPA, including metering, billing and payment records, and such records as may be required by Governmental Authorities. Originals or copies of all Operating Records shall be maintained at the Facility or such other Colorado location as may be specified by Seller from time to time. Company may examine and make copies of such Operating Records from time to time upon request, during normal business hours.

10.4 Access to Facility. Representatives of Company shall have access to the Facility from time to time, on Commercially Reasonable prior notice, to read meters, perform inspections and take such other actions as may be appropriate to facilitate Company's performance of this PPA. While at the Facility, such representatives shall observe Seller's standard safety precautions and shall conduct themselves in a manner that will not interfere with operation of the Facility.

10.5 Real Time Data.

(A) Seller shall communicate all data necessary for Company to integrate the Facility into Company's EMCC in real time through the Facility's SCADA System in accordance with Exhibit I - AGC Protocols; Data Collection; Technical Specifications. Seller shall maintain the Facility's SCADA System so that it is capable of interfacing with and reacting to Company's AGC Set-Point and responding to signals from the Company's EMCC in accordance with the AGC Protocols.

(B) Seller shall use Commercially Reasonable Efforts to adjust the real time Park Potential of the Facility when Company communicates to Seller a measured difference of plus or minus two percent between the metered Renewable Energy and Park Potential, during periods when generation is not curtailed.

(C) From and after the Commercial Operation Date, Seller shall provide Company, at Seller's expense, real time performance and meteorological data for all [Wind Turbines] [Solar Units] and meteorological towers at the Facility in accordance with Exhibit I - AGC Protocols; Data Collection; Technical Specifications for the Term of this PPA. Seller shall maintain Seller-owned data collection systems that are compatible with Company's PI System. Seller shall ensure that real time communications capabilities are available and maintained for transmission to Company's PI System. Seller shall ensure that all meteorological equipment at a minimum meets the specifications set forth in Exhibit I - AGC Protocols; Data Collection; Technical Specifications. Company shall have the right to disclose data gathered through the Company's PI System publicly; *provided, however*, that such data is (i) masked to obscure the origin of the data and (ii) aggregated so that the data cannot be correlated and used by competitors of Seller and/or the supplier of the [Wind Turbines] [Solar Units].

10.6 Accreditation. Seller shall perform from time to time, at its expense, any reporting and testing (including capacity testing) of the Facility required by Governmental Authorities.

10.7 Operating Committee and Operating Procedures.

(A) Company and Seller shall each appoint one representative and one alternate representative to act as the Operating Committee in matters relating to the Parties' performance obligations under this PPA and to develop operating arrangements for the generation, delivery and receipt of Renewable Energy from the Facility. The Parties' initial representatives on the Operating Committee are set forth in Exhibit D - Notices.

(B) The Operating Committee may develop mutually agreeable written Operating Procedures consistent with the requirements of this PPA, to address matters such as day-to-day communications; key personnel; operations-center interface; metering, telemetering, telecommunications, and data acquisition procedures; operations and maintenance scheduling and reporting; reports; operations log; testing procedures; and such other matters as may be mutually agreed upon by the Operating Committee.

(C) The Operating Committee shall review the requirements for AGC and Data Collection from time to time after the date hereof and may agree on modifications thereto to the extent necessary or convenient for operation of the Facility in accordance with this PPA.

(D) The Operating Committee shall have authority to act in all technical and day-to-day operational matters relating to performance of this PPA and to attempt to resolve potential disputes, *provided, however*, that except as explicitly provided herein, the Operating Committee shall have no authority to amend or waive any provision of this PPA.

**Article 11 - Security for Performance**

11.1 Security Fund.

(A) During the Term of this PPA, Seller shall fund and maintain security in favor of Company, at Seller's expense, to secure Seller's obligations to Company under this PPA (the "Security Fund"), in accordance with this Article 11.

(B) Seller shall establish and fund the initial Security Fund in the amount of [insert \$125/kW multiplied by the number of kW in the Facility Nameplate Capacity], no later than 30 Days following the date on which Company obtains or waives (or is deemed to have waived) PUC Approval under Section 6.1. Within 5 Business Days following COD, the amount of the Security Fund shall be reduced to [insert \$75/kW multiplied by the number of kW in the Facility Nameplate Capacity].



(C) Company may draw from the Security Fund such amounts as are necessary to recover amounts owing to Company pursuant to this PPA, including any Liquidated Delay Damages, Actual Damages, liquidated damages for failure to achieve COD, and any amounts for which Company is entitled to indemnification under this PPA. Company may, in its sole discretion, draw all or any part of such amounts from any form of security to the extent available pursuant to this Article 11 and in any sequence Company may select. Company's failure or delay to draw any amount from the Security Fund in any instance shall not prejudice Company's rights to subsequently recover such amount from the Security Fund or in any other manner.

(D) Company shall notify Seller within 5 Business Days following any draw on the Security Fund by Company, including the amount thereof and the basis therefor.

#### 11.2 Replenishment.

(A) Within 15 Days following each draw by Company on the Security Fund in respect of damages described in Section 12.4(B), Seller shall replenish the Security Fund by an amount equal to such draw.

(B) Within 15 Days following any other draw by Company on the Security Fund, Seller shall replenish the Security Fund by the amount of such draw, provided that the aggregate amount of replenishments under this Section 11.2(B) shall not exceed the Damage Cap.

#### 11.3 Form.

(A) The Security Fund may be in the form of an irrevocable standby letter of credit substantially in the form of Exhibit G – Form of Letter of Credit (a "Letter of Credit") from a financial institution acceptable to Company ("Issuer").

1. The Issuer of the Letter of Credit shall have and maintain a Credit Rating equivalent to A- (or better) by Standard & Poors and A3 (or better) from Moodys. If such Credit Rating is A- or A3, the Issuer must not be on credit watch by any rating agency.

2. The Letter of Credit must be for a minimum term of 360 Days. Seller shall give Company at least 30 Days advance notice prior to any expiration or earlier termination of the Letter of Credit. Seller shall cause the renewal or extension of the Letter of Credit for additional consecutive terms of 360 Days or more (or, if shorter, the remainder of the Term) more than 30 Days prior to each expiration date of the security. If the Letter of Credit is not renewed or extended at least 30 Days prior to its expiration date or otherwise is terminated early, Company shall have the right to draw immediately upon the Letter of Credit and to place the amounts so drawn, at Seller's cost and with Seller's funds, in an Escrow Account in accordance with paragraph (B) below, until and unless Seller provides a substitute form of security meeting the requirements of this Section 11.3.

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(B) The Security Fund may be in the form of U.S. currency deposited into an escrow account with a state- or federally-chartered commercial bank with an office in the State of Colorado, with net assets of at least \$1 billion (the “Escrow Account”).

1. The Escrow Account shall be governed by an escrow agreement in form mutually satisfactory to Seller, Company and the escrow agent, provided that (a) Company shall hold a first and exclusive perfected security interest in the funds in the Escrow Account, (b) Company shall be permitted unilaterally to draw down any amount therein, regardless of any protest by Seller or any other party liable thereon (*provided* that nothing in the Escrow Agreement shall preclude any protest against Company by Seller, following any draw, that such draw did not comply with this Agreement), and (c) Seller shall pay all fees and expenses of the escrow agent.

2. Funds held in the Escrow Account may be invested as Seller may direct in any of the following:

- a money-market fund sponsored by the escrow agent;
- U.S. treasury obligations with a maturity of 90 Days or less;
- commercial paper rated “A” or better, with a maturity of 90 days or less; and
- other liquid investment-grade investments with maturities of three months or less, approved by Company in advance (such approval not to be unreasonably withheld or delayed).

3. All investment income on the Escrow Account shall be taxable to, and accrue for the benefit of, Seller. After the Commercial Operation Date, periodic sweeps by Seller for recovery of interest earned by the escrowed funds shall be allowed, and, at any time the balance in the Escrow Account exceeds the required amount of security, the escrow agent may remit any excess to Seller.

(C) Following COD, the Security Fund may consist of a guaranty substantially in the form of Exhibit H – Form of Guaranty, from a parent or other guarantor (“Guarantor”) with a minimum of net worth of at least \$250,000,000 and an Investment Grade Credit Rating (and if such Credit Rating is exactly equivalent to BBB-[S&P] / Baa3 [Moody’s], the Guarantor must not be on credit watch by any rating agency). If the Credit Rating of the Guarantor is downgraded below Investment Grade, put on credit watch, or an event occurs that (in the reasonable determination of Company) portends a Material Adverse Effect in the creditworthiness of the Guarantor, then Company may require Seller to convert the guaranty to a Security Fund instrument meeting the criteria set forth in either paragraph (A) or paragraph (B) above no later than 10 Days after notice from Company.

(D) Upon request by Seller, Company shall negotiate in good faith immaterial changes to Exhibit G – Form of Letter of Credit and/or Exhibit H – Form of Guaranty, provided that Seller shall pay or reimburse Company for the incremental

direct expenses (including the fees and expenses of counsel) incurred by Company in connection therewith.

(E) Seller may change the form of the Security Fund at any time and from time to time upon Commercially Reasonable prior notice to Company, *provided, however*, that the Security Fund must at all times satisfy the requirements of this Article 11.

11.4 Replacement. In the event that the Security Fund ever fails to comply with the requirements of this Article 11 or Company determines in a commercially reasonable manner that an event has occurred or circumstances have developed that threaten to cause the Security Fund to fail to comply with the requirements of this Article 11 (e.g. a Guarantor is placed on negative credit watch by a rating agency), Seller shall be required to replace the Security Fund with security in compliance with Section 11.3 within 5 Days following notice thereof from Company.

11.5 Survival. The Security Fund shall survive termination of this PPA to be available to pay any amounts owed to Company arising prior to or upon termination. Promptly following (i) the end of the Term and the completion of all of Seller's obligations under this PPA, or (ii) termination of this PPA for any reason prior to the Scheduled Termination Date, Company shall determine the amount, if any, owed by Seller for any obligations or damages arising out of this PPA. Company may draw such amount and shall release the balance of the Security Fund (including any accumulated interest, if applicable) to Seller.

11.6 Expenses. Seller shall reimburse Company for its direct expenses (including the fees and expenses of counsel) incurred by Company in connection with the preparation, negotiation, execution and/or release (including making a draw of funds) of the Security Fund under this Article 11.

## **Article 12 - Default and Remedies**

### **12.1 Default by Seller: General**

(A) Events. Any of the following events shall constitute a default by Seller under this PPA. If no cure period is provided below, such default shall be deemed an Event of Default by Seller immediately upon its occurrence. If a cure period is provided below, such default shall mature into an Event of Default if not cured within the indicated cure period, subject to Section 13.3 below.

1. Seller's application for, or consent (by admission of material allegations of a petition or otherwise) to, the appointment of a receiver, trustee or liquidator for Seller or for all or substantially all of its assets, or its authorization of such application or consent, or the commencement of any proceedings seeking such appointment without such authorization, consent or application, which proceedings continue undismissed or unstayed for a period of 60 Days from inception.

*Cure Period:* None.

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2. Seller's authorization or filing of a voluntary petition in bankruptcy or application for or consent (by admission of material allegations of a petition or otherwise) to the application of any bankruptcy, reorganization, readjustment of debt, insolvency, dissolution, liquidation or other similar law of any jurisdiction or the institution of such proceedings against Seller without such authorization, application or consent, which proceedings remain undismissed or unstayed for 60 Days from its inception or which result in adjudication of bankruptcy or insolvency within such time.

*Cure Period:* None.

3. Seller's assignment of this PPA or the Facility, or any Change of Control, not permitted by Section 19.1.

*Cure Period:* None.

4. Any representation or warranty by Seller in this PPA that has a Material Adverse Effect on Seller's ability to perform this PPA is proven to have been false in any material respect when made.

*Cure Period:* None.

5. Seller's failure to establish and maintain the Security Fund as and in the amounts required under Article 11.

*Cure Period:* Five (5) Business Days after Company provides notice of Seller's failure.

6. Seller's failure to obtain and maintain insurance in scope and amounts required under Article 16.

*Cure Period:* Five (5) Business Days after Company provides notice of Seller's failure.

7. Seller's failure to make any payment to Company as and when required by this PPA, including Liquidated Delay Damages, Actual Damages, and any required indemnification.

*Cure Period:* 10 Business Days after the date Seller receives notice from Company that the amount is overdue.

8. Any representation or warranty by Seller in this PPA that has a Material Adverse Effect on Seller's ability to perform this PPA ceases to remain true during the Term, other than due to a change of law.

*Cure Period:* 30 Days after Company provides notice of such breach.

9. A breach by Seller of the Interconnection Agreement, which breach materially interferes with Seller's delivery of Renewable Energy to the Point of Delivery, Company's ability to accept Renewable Energy at the Point of Delivery, Company's ability to transmit Renewable Energy beyond the Point of Delivery, and/or otherwise has a Material Adverse Effect on Company.

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*Cure Period:* 30 Days from the breach or the cure period allowed by the Interconnection Agreement (whichever is longer).

**wind:** 10. Beginning with the second Commercial Operation Year, the failure of the Facility to achieve an Availability Factor for any Commercial Operation Year (as determined pursuant to Exhibit M) of 85% or more.

*Cure Period:* Seller shall be deemed to have cured this default if, in the following Commercial Operation Year, the Facility achieves an Availability Factor for such Commercial Operation Year (again as determined pursuant to Exhibit M) of 90% or more.

**solar:** 12. Beginning with the second Commercial Operation Year, Seller's failure to deliver to Company at least 85% of the Committed Energy for such Commercial Operation Year. For purposes of establishing a default by Seller under this paragraph, the Committed Solar Energy shall be adjusted as provided in Exhibit M.

*Cure Period:* Seller shall be deemed to have cured this default if, in the following Commercial Operation Year, Seller delivers to Company at least 95% of the Committed Energy for such Commercial Operation Year (again as adjusted pursuant to Exhibit M).

13. The failure by Seller to perform or observe any other material obligation to Company under this PPA, unexcused by Force Majeure (other than failure to achieve COD, which is addressed in Section 12.2 below).

*Cure Period:* 30 Days after notice thereof shall have been given by Company; *provided*, that if such default is not reasonably capable of cure within such 30-Day period, Seller shall have such additional period of time (not to exceed 90 Days in any event) as is reasonably necessary for cure, so long as Seller initiates cure within such 30-Day period and diligently prosecutes the cure to conclusion thereafter.

(B) Remedies for Default. In connection with any default by Seller under this Section 12.1 (whether or not cured by Seller), Company may

1. Seek Actual Damages in such amounts and on such basis for the default as authorized by this PPA;
2. Offset against any payments due to Seller, any Actual Damages and other amounts due from Seller; and/or
3. Draw any Actual Damages and other amounts due from Seller, from the Security Fund.

(C) Termination for Event of Default. Upon and at any time following an Event of Default by Seller under this Section 12.1, in addition to its rights under Section

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12.1(B) above, Company may terminate this PPA immediately upon notice to Seller, without penalty or further obligation to Seller. In connection with any such termination, Company may collect from Seller (subject to the Damage Cap) all Actual Damages arising from such Event of Default through the Scheduled Termination Date.

(D) Specific Performance. In addition to the other remedies specified herein, upon any Event of Default of Seller under this Section 12.1, Company may elect to treat this PPA as being in full force and effect and Company shall have the right to specific performance.

**12.2 Default by Seller: Failure to Achieve COD.**

(A) COD Delay. Seller shall be in default under this PPA if the Facility fails to achieve COD by the Target COD ("COD Delay"). Seller shall be liable to pay \$250 per MW of Facility Nameplate Capacity per Day ("Liquidated Delay Damages") to Company as a liquidated damage and not a penalty, in lieu of Actual Damages, for any COD Delay. Except as provided in Section 12.2(C) below, the payment of Liquidated Delay Damages shall be Company's sole and exclusive remedy for a COD Delay. Liquidated Delay Damages shall begin to accrue on the Day after the Target COD (as it may be extended due to Force Majeure) until the first to occur of COD or termination of this PPA pursuant to Section 12.2(C) below.

(B) Cure. Seller shall have a cure period of 45 days for its failure to achieve Commercial Operation by the Target COD, *provided, however*, that if during such period Seller provides a written opinion from a mutually-agreeable independent engineer that COD can reasonably be achieved within an additional 45 Day period, then the cure period shall be 90 Days after the Target COD to achieve Commercial Operation. The payment of accrued Liquidated Delay Damages shall be a condition to any such cure.

(C) Termination. Failure to cure a COD Delay within the applicable cure period set forth in Section 12.2(B) shall be an Event of Default by Seller. Upon such an Event of Default, Company may (i) terminate this PPA immediately upon notice to Seller, without penalty or further obligation to Seller except as to costs and balances incurred prior to the effective date of such termination, and (ii) in connection therewith, in addition to accrued Liquidated Delay Damages but in lieu of Actual Damages for the balance of the Term, collect from Seller liquidated damages therefor in the amount of \$100/kW x Facility Nameplate Capacity.

**12.3 Default by Company.**

(A) Events. Any of the following events shall constitute a default by Company under this PPA. If no cure period is provided below, such default shall be deemed an Event of Default by Company immediately upon its occurrence. If a cure period is provided below, such default shall mature into an Event of Default if not cured within the indicated cure period, subject to Section 13.3 below.

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1. Company's application for, or consent (by admission of material allegations of a petition or otherwise) to, the appointment of a receiver, trustee or liquidator for Company or for all or substantially all of its assets, or its authorization of such application or consent, or the commencement of any proceedings seeking such appointment without such authorization, consent or application, which proceedings continue undismissed or unstayed for a period of 60 Days from inception.

*Cure Period:* None.

2. Company's authorization or filing of a voluntary petition in bankruptcy or application for or consent (by admission of material allegations of a petition or otherwise) to the application of any bankruptcy, reorganization, readjustment of debt, insolvency, dissolution, liquidation or other similar law of any jurisdiction or the institution of such proceedings against Company without such authorization, application or consent, which proceedings remain undismissed or unstayed for 60 Days from its inception or which result in adjudication of bankruptcy or insolvency within such time.

*Cure Period:* None.

3. Company's assignment of this PPA, not permitted by Section 19.2.

*Cure Period:* None.

4. Any representation or warranty by Company in this PPA that has a Material Adverse Effect on Company's ability to perform this PPA is proven to have been false in any material respect when made.

*Cure Period:* None.

5. Company's failure to make any payment to Company as and when required by this PPA, including invoiced amounts, Actual Damages and any required indemnification.

*Cure Period:* 10 Business Days after the date Company receives notice from Seller that the amount is overdue.

6. Any representation or warranty by Company in this PPA that has a Material Adverse Effect on Company's ability to perform this PPA ceases to remain true during the Term, other than due to a change of law.

*Cure Period:* 30 Days after Seller provides notice of such breach.

7. The failure by Company to perform or observe any other material obligation to Seller under this PPA, unexcused by Force Majeure.

*Cure Period:* 30 Days after notice thereof shall have been given by Seller; *provided*, that if such default is not reasonably capable of cure within such 30-Day period, Company shall have such additional period of time (not to exceed 120 Days in any event) as is reasonably necessary for cure, so

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long as Company initiates cure within such 30-Day period and diligently prosecutes the cure to conclusion thereafter.

(B) Remedies for Default. In connection with any default by Company (whether or not cured by Company), Seller may

1. Seek Actual Damages in such amounts and on such basis for the default as authorized by this PPA; and/or
2. Offset against any payments due to Company, any Actual Damages and other amounts due from Company.

(C) Termination for Event of Default. Upon an Event of Default by Company, in addition to its rights under Section 12.3(B) above, Seller may terminate this PPA immediately upon notice to Company, without penalty or further obligation to Company, and in connection therewith, collect from Company all Actual Damages arising from such Event of Default through the Scheduled Termination Date.

**12.4 Limitations on Damages.**

(A) Except as otherwise provided in Section 12.4(B), Seller's aggregate financial liability to Company for Actual Damages following COD shall not exceed \$75/kW x Facility Nameplate Capacity (the "Damage Cap"). If at any time following COD, Company incurs damages in excess of the Damage Cap that Seller does not pay when billed by Company, Company shall have the right to terminate this PPA upon notice to Seller, without further obligation by either Party except as to costs and balances incurred prior to the effective date of such termination.

(B) Actual Damages payable by Seller arising out of any of the following events shall not be subject to the Damage Cap and shall not be credited against the Damage Cap:

1. damage to Company-owned facilities proximately caused by negligence, breach of this PPA or other misconduct by Seller, its directors, officers, employees and agents;
2. Seller's intentional misrepresentation or intentional misconduct in connection with this PPA or the operation of the Facility;
3. the sale or diversion by Seller to a third party of any capacity or energy from the Facility, excluding sales of Excess Energy under Section 8.2 and any sales in mitigation of damages;
4. Seller's failure (i) to maintain insurance coverages in the types and amounts required by this PPA or (ii) to apply any insurance proceeds as required by Section 16.4;
5. any claim for indemnification under this PPA;



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6. any Environmental Contamination caused by Seller; or

7. damages incurred by Company in connection with any bankruptcy or insolvency proceeding involving Seller, including Company's loss of the benefit of its bargain due to rejection or other termination of this PPA in such proceeding.

(C) The Parties confirm that the express remedies and measures of damages provided in this PPA satisfy the essential purposes hereof. If no remedy or measure of damages is expressly herein provided, the obligor's liability shall be limited to all direct damages proximately caused by such default ("Actual Damages") incurred by the non-defaulting Party, provided that if Seller is the defaulting Party, Actual Damages recoverable by Company hereunder may include Replacement Power Costs. **Neither Party shall be liable to the other Party for consequential, incidental, punitive, exemplary, special, treble, equitable or indirect damages, lost profits or other business interruption damages regardless of whether the relevant cause of action arises from statute, in tort or contract** (except to the extent expressly provided herein); *provided, however*, that if either Party is held liable to a third party for such damages and the Party held liable for such damages is entitled to indemnification from the other Party hereto, the indemnifying Party shall be liable for, and obligated to reimburse the indemnified Party for all such damages.

(D) To the extent damages required to be paid hereunder are liquidated, the Parties acknowledge that actual damages would be substantial but difficult or impossible to determine, that otherwise obtaining an adequate remedy is inconvenient, and that the liquidated damages constitute a reasonable approximation of the harm or loss.

**12.5 Step-In Rights.**

(A) Upon the occurrence of a default by Seller following COD that could be cured by Company's possession of the Facility, Company shall have the right, but not the obligation, to assume control and operate the Facility as agent for Seller (whether voluntary or involuntary) in accordance with Seller's rights, obligations, and interest under this PPA ("Step-In Rights"). Company shall give Seller and the Facility Lender at least 10 Days' notice in advance of exercising Company's Step-In Rights. Exercise of Step-In Rights *per se* shall not be deemed to cure the associated default, and shall not preclude or limit Company's right to exercise its other remedies against Seller under this PPA.

(B) Seller irrevocably appoints Company as Seller's attorney-in-fact for the exclusive purpose of executing such documents and taking such other actions as Company may reasonably deem necessary, appropriate or prudent to implement its Step-In Rights.

(C) Company acknowledges that Company may be required and shall relinquish or delay exercise of its Step-In Rights in the event that the Facility Lender

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elects to appoint a receiver, foreclose and/or otherwise obtain possession of the Facility under the Financing Documents. Seller shall not grant any person, other than the Facility Lender, a right to possess, assume control of, or operate the Facility in derogation of Company's Step-In Rights.

(D) Seller shall reimburse Company for its expenses and costs (including the fees and expenses of counsel) incurred by Company in connection with exercising its Step-In Rights ("Step-In Costs").

(E) During the period of Company's exercise of its Step-In Rights:

1. Company shall implement its Step-In Rights and operate the Facility in conformance with Good Utility Practice.
2. Company shall perform Seller's obligations in a manner consistent with Seller's duties under this PPA.
3. Seller shall retain legal title to and ownership of the Facility.
4. Seller shall make available at the Facility all documents, contracts, books, manuals, reports, and records required for Company to construct, operate, and maintain the Facility.
5. Seller shall give Company, its employees and contractors, unrestricted access to the Site and the Facility.
6. Seller shall cooperate in the implementation of Company's Step-In Rights.
7. Company shall devote the Renewable Energy generated and delivered from the Facility during such period towards satisfaction of Seller's obligations hereunder.

(F) During the period of Company's exercise of its Step-In Rights, Company shall purchase the Renewable Energy from the Facility as provided herein; *provided* that Company may withhold its Step-In Costs from payments due to Seller hereunder. In the event that net revenues due to Seller are insufficient to cover such Step-In Costs, Company may draw upon the Security Fund to cover such Step-In Costs.

(G) Company may relinquish its Step-In Rights at any time, on at least 15 days' notice to Seller and the Facility Lender. Company shall relinquish its Step-In Rights on the earliest of (i) termination of this PPA, or (ii) Seller's cure of the default that led to exercise of Company's Step-In Rights within the applicable cure period set forth herein.

(H) This Section 12.5 shall be specifically enforceable by Company, without bond and without the need to prove irreparable harm.

(I) Exercise of its Step-In Rights shall not constitute an assumption by Company of any liability of Seller.

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12.6 Bankruptcy. This PPA grants each Party the contractual right to “cause the liquidation, termination or acceleration” of the transactions within the meaning of Sections 556, 560 and 561 of the U.S. Bankruptcy Code, as they may be amended superseded or replaced from time to time. Upon a bankruptcy, a non-defaulting Party shall be entitled to exercise its rights and remedies under this PPA in accordance with the safe harbor provisions of the Bankruptcy Code set forth in, *inter alia*, Sections 362(b)(6), 362(b)(17), 362(b)(27), 362(o), 546(e), 548(d)(2), 556, 560 and 561, as they may be amended, superseded or replaced from time to time.

12.7 Cumulative Remedies. Except as explicitly provided to the contrary in this PPA, each right or remedy of the Parties provided for in this PPA shall be cumulative of and shall be in addition to every other right or remedy provided for in this PPA, and the exercise of one or more of the rights or remedies provided for herein shall not preclude the simultaneous or later exercise by such Party of any other rights or remedies provided for herein

12.8 Duty to Mitigate. Each Party shall use Commercially Reasonable Efforts to mitigate any damages it may incur as a result of a default by the other Party under this PPA.

**Article 13 - Dispute Resolution**

13.1 Negotiation.

(A) In the event of any dispute arising under or associated with the Parties’ performance of this PPA (a “Dispute”), within 10 Business Days following notice by either Party (a “Dispute Notice”), (i) each Party shall appoint a representative, and (ii) the representatives shall meet, negotiate and attempt in good faith to resolve the Dispute quickly, informally and inexpensively.

(B) In the event the Parties’ representatives cannot resolve the Dispute within 30 Days after the first meeting, either Party may request that consideration and resolution of the Dispute be transferred to senior management. Within 10 Days following such a request, each Party shall submit a written summary of the Dispute describing the issues and claims to a senior officer of each Party designated to address the Dispute. Within 10 Business Days after receipt of each Party’s Dispute summaries, the designated senior managers for both Parties shall negotiate in good faith to resolve the Dispute. If such senior managers are unable to resolve the Dispute thereafter, either Party may seek available legal remedies, subject to Sections 13.3 and 19.3.

13.2 Time Bar. If no Dispute Notice has been issued within 18 months following the occurrence of events or circumstances giving rise to the Dispute (regardless of the actual knowledge of either Party of such events and circumstances), all claims related to such Dispute (including any allegations of billing errors) shall be deemed waived and the aggrieved Party shall thereafter be barred from proceeding thereon.

13.3 No Termination Pending Dispute Resolution. Notwithstanding Section 12.1 or Section 12.3 to the contrary:

(A) An Event of Default shall not be deemed to have occurred (and hence neither Party may terminate this PPA) for failure by the other Party to pay any amount(s) allegedly due totaling less than \$100,000, if (1) such amount(s) are disputed in good faith, (2) the Party alleged to owe such amount(s) promptly commences and diligently pursues resolution of the Dispute pursuant to Section 13.1, and (3) the owed amount (if any) is paid within 10 Business Days after all dispute resolution mechanisms are completed with respect thereto.

(B) An Event of Default by Seller shall not be deemed to have occurred (and hence Company may not terminate this PPA) for failure by Seller to pay any amount(s) allegedly due totaling \$100,000 or more, if

1. such amount(s) are disputed by Seller in good faith;
2. Seller promptly commences and diligently pursues resolution of the Dispute pursuant to Section 13.1;
3. Seller either holds an Investment Grade Credit Rating, or posts cash collateral to secure its obligations (if any) with respect to the disputed amount(s), in an amount equal to the amount(s) in dispute, under a mutually agreeable third-party escrow agreement, in addition to the Security Fund; and
4. the owed amount (if any) is paid by Seller within 10 Business Days after all dispute resolution mechanisms are completed with respect thereto.

(C) An Event of Default by Company shall not be deemed to have occurred (and hence Seller may not terminate this PPA) for failure by Company to pay any amount(s) allegedly due totaling \$100,000 or more, if

1. such amount(s) are disputed by Company in good faith;
2. Company promptly commences and diligently pursues resolution of the Dispute pursuant to Section 13.1;
3. Company either holds an Investment Grade Credit Rating, or posts cash collateral to secure its obligations (if any) with respect to the disputed amount(s), in an amount equal to the amount(s) in dispute, under a mutually agreeable third-party escrow and account control agreement; and
4. the owed amount (if any) is paid by Company within 10 Business Days after all dispute resolution mechanisms are completed with respect thereto.

13.4 Governing Law. The interpretation and performance of this PPA and all actions related hereto (whether sounding in contract, tort or otherwise), shall be governed and construed in accordance with the laws of the State of Colorado, exclusive of conflict of laws principles.

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13.5 Venue. The Parties submit to the exclusive jurisdiction of the state courts of the State of Colorado for purposes of resolving any Dispute hereunder, except as provided in Section 19.3. Venue for any court proceedings shall lie exclusively in the Colorado District Court for the City and County of Denver or, if jurisdictionally available, the U.S. District Court for the District of Colorado.

13.6 Waiver of Jury Trial. **Seller and Company each hereby knowingly, voluntarily and intentionally waive any rights they may have to a trial by jury** in respect of any litigation based hereon, or arising out of, under, or in connection with, this PPA or any course of conduct, course of dealing, statements (whether oral or written) or actions of Seller and Company related hereto and expressly agree to have any Disputes be adjudicated by a judge of the court having jurisdiction, without a jury, subject only to Section 19.3.

**Article 14 - Force Majeure**

14.1 Definition. For purposes hereof, “Force Majeure” means an event or circumstance that prevents a Party from performing its obligations under this PPA, which event or circumstance (i) was not anticipated as of the date of this PPA, (ii) is not within the control of or the result of the fault or negligence of the Party claiming excuse, and (iii) which by exercise of due diligence and foresight could not reasonably have been avoided; *provided, however*, that Force Majeure shall not include:

- a. inability, or excess cost, to procure any equipment necessary to perform this PPA;
- b. acts or omissions of a third party (including vendors and contractors to Seller), unless such acts or omissions are themselves excused by reason of Force Majeure;
- c. failure timely to apply for, or diligently pursue, the Permits set forth on Exhibit F – Seller’s Needed Permits hereto;
- d. mechanical or equipment breakdown or inability to operate, attributable to circumstances occurring within design criteria and normal operating tolerances of similar equipment;
- e. Environmental Contamination at the Site;
- f. changes in market conditions;
- g. changes of law; or
- h. labor strikes, slowdowns, work stoppages, or other labor disruptions.

By way of example only, “Force Majeure” includes any delay or failure by the Transmission Authority to perform its obligations under the Interconnection Agreement.

14.2 Applicability of Force Majeure. A Party shall be relieved of its obligations to perform this PPA and shall not be considered to be in default with respect to any

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obligation under this PPA if and to the extent such Party is prevented from fulfilling such obligation by Force Majeure, *provided, however*, that: (i) such Party gives prompt notice describing the circumstances and impact of the Force Majeure; (ii) the relief from its obligations sought by such Party is of no greater scope and of no longer duration than is required by the Force Majeure; (iii) such Party proceeds with due diligence to overcome the Force Majeure and resumes performance of its obligations under this PPA as soon as practicable thereafter; and (iv) such Party provides notice upon conclusion of the Force Majeure.

**14.3 Limitations on Effect of Force Majeure.**

(A) Force Majeure shall only relieve a Party of such obligations as are actually precluded by the Force Majeure.

(B) In no event will the existence of Force Majeure extend this PPA beyond its stated Term.

(C) If Force Majeure affecting Seller continues for a period of 90 consecutive Days or any 150 non-consecutive Days (with respect to Force Majeure occurring prior to COD) or for a period of 180 consecutive Days or any 270 non-consecutive Days (with respect to Force Majeure occurring after COD), Company may, at any time following the end of such period, terminate this PPA upon notice to Seller, without further obligation by either Party except as to costs and balances incurred prior to the effective date of such termination.

**Article 15 - Representations and Warranties**

Each Party hereby represents and warrants to the other as follows, which representations and warranties shall be deemed to be repeated, if applicable, by each Party throughout the Term:

(A) Such Party is a valid separate legal entity, duly organized, validly existing and in good standing under Applicable Law. It is qualified to do business in the State in which the Facility is located and each other jurisdiction where the failure to so qualify would have a Material Adverse Effect on the business or financial condition of the other Party. It has all requisite power and authority to conduct its business, to own its properties, and to execute, deliver, and perform its obligations under this PPA.

(B) The Party's execution, delivery, and performance of all of its obligations under this PPA have been duly authorized by all necessary organizational action, and do not and will not:

1. require any consent or approval by any governing corporate or management body, other than that which has been obtained and is in full force and effect (evidence of which shall be delivered to the other Party upon its request);

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2. violate any Applicable Law, the violation of which could have a Material Adverse Effect on the representing Party's ability to perform its obligations under this PPA;

3. result in a breach or constitute a default under the representing Party's formation documents, bylaws or equivalent, or under any agreement relating to its management or affairs, any indenture or loan or credit agreement, or any other agreement, lease, or instrument to which it is a party or by which it or its properties or assets may be bound or affected, the breach or default of which could reasonably be expected to have a Material Adverse Effect on the representing Party's ability to perform its obligations under this PPA; or

4. result in, or require the creation or imposition of any mortgage, deed of trust, pledge, lien, security interest, or other charge or encumbrance of any nature (other than as may be contemplated by this PPA) upon or with respect to any of the assets or properties of the representing Party now owned or hereafter acquired, the creation or imposition of which could reasonably be expected to have a Material Adverse Effect on the representing Party's ability to perform its obligations under this PPA.

(C) This PPA is a valid and binding obligation of the representing Party.

(D) The execution and performance of this PPA will not conflict with or constitute a breach or default under any contract or agreement of any kind to which the representing Party is a party or any judgment, order, or Applicable Law, applicable to it or its business.

(E) Within the meaning of the U.S. Bankruptcy Code, (i) this PPA constitutes a "master netting agreement," (ii) all transactions pursuant to this PPA constitute "forward contracts" or a "swap agreement," (iii) the representing Party is a "forward contract merchant" and "master netting agreement participant," and (iv) all payments made or to be made pursuant to this PPA constitute "settlement payments."

(F) Such Party is (i) an "eligible contract participant" as defined in the Commodity Exchange Act, as amended, 7 U.S.C. §1a(12), (ii) a "market participant" under applicable exchange and market rules; (iii) a producer, processor, or commercial user of, or a merchant handling, the commodity which is the subject of this PPA, or the products or by products thereof; and (iv) entering into this PPA solely for purposes related to its business as such.

**Article 16 - Insurance**

16.1 Evidence of Insurance. No later than commencement of construction and thereafter at least five Days prior to each applicable expiration date, Seller shall provide Company with two copies of insurance certificates acceptable to Company evidencing that insurance coverages for the Facility are in force and in compliance with the specifications for insurance coverage set forth in Exhibit E - Insurance to this PPA. Such certificates shall

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(A) name Company as an additional insured (except worker's compensation);

(B) provide that Company shall receive 30 Days prior written notice of non-renewal, cancellation of, or significant modification to any of the corresponding policies (except that such notice may be 10 Days for non-payment of premiums);

(C) provide a waiver of any rights of subrogation against Company, its Affiliates and their officers, directors, agents, subcontractors, and employees; and

(D) indicate that the Commercial General Liability policy has been endorsed as described above.

16.2 Policy Requirements. All policies shall be written with insurers with an AM Best rating of at least A-VII or a Standard & Poor's rating of at least A. All policies shall be written on an occurrence basis, except as provided in Section 16.4. All policies shall contain an endorsement that Seller's policy shall be primary in all instances regardless of like coverages, if any, carried by Company. Seller may satisfy its insurance requirements using any reasonable combination of primary and secondary coverage.

16.3 No Implied Limitation. Seller's liability under this PPA is not limited to the amount of insurance coverage required herein.

16.4 Term and Modification of Insurance.

(A) All insurance required under this PPA shall cover occurrences during the Term and for a period of two years after the Term. In the event that any insurance as required herein is commercially available only on a "claims-made" basis, such insurance shall provide for a retroactive date not later than the date of this PPA and such insurance shall be maintained by Seller for a minimum of six years after the Term.

(B) Company shall have the right, at times deemed appropriate to Company during the Term, to request Seller to modify the insurance minimum limits specified in Exhibit E - Insurance in order to maintain Commercially Reasonable coverage amounts. Seller shall make Commercially Reasonable Efforts to comply with any such request.

(C) If any insurance required to be maintained by Seller hereunder ceases to be reasonably available and commercially feasible in the commercial insurance market, Seller shall provide notice to Company, accompanied by a certificate from an independent insurance advisor of recognized national standing, certifying that such insurance is not reasonably available and commercially feasible in the commercial insurance market for electric generating plants of similar type, geographic location and capacity. Upon receipt of such notice, Seller shall use Commercially Reasonable Efforts to obtain other insurance that would provide comparable protection against the risk to be insured.



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16.5 Application of Proceeds. Except to the extent otherwise required by the Financing Documents, Seller shall apply any casualty insurance proceeds to reconstruction of the Facility following any material casualty to the Facility that occurs more than eighteen (18) months prior to the Scheduled Termination Date.

**Article 17 - Indemnity**

17.1 Indemnification: General. Each Party (the "Indemnifying Party") shall indemnify, defend and hold the other Party (the "Indemnified Party") harmless from and against all claims, demands, lawsuits (including citizen suits), losses, liabilities, fines, penalties, and expenses (including attorneys' fees) (generally, "Losses"), to the extent caused by

- a default under this PPA by the Indemnifying Party;
- a violation or alleged violation of Applicable Laws by the Indemnifying Party; and
- the negligence, intentional acts and other misconduct of the directors, officers, employees, or agents of the Indemnifying Party.

17.2 Indemnification: Environmental. Seller shall indemnify, defend and hold Company harmless from and against all Losses arising out of any claim by any Governmental Authority or other third party alleging Environmental Contamination at the Site and/or illegal disposal of Hazardous Materials off-Site, regardless of merit and regardless of Seller's responsibility therefor.

17.3 Limitations.

(A) The foregoing indemnification obligations shall apply notwithstanding any contributory misconduct of the Indemnified Party, but the Indemnifying Party's liability to indemnify the Indemnified Party shall be reduced in proportion to the percentage by which the Indemnified Party's misconduct caused the damages.

(B) Neither Party shall be indemnified for Losses resulting from the sole negligence or willful misconduct of the directors, officers, employees, or agents of such Party.

(C) These indemnity provisions shall not be construed to relieve any insurer of its obligation to pay claims consistent with the provisions of a valid insurance policy. Nothing in this Article 17 shall enlarge or relieve Seller or Company of any liability to the other for any breach of this PPA.

17.4 Procedures.

(A) Promptly after receipt by a Party of any claim or notice of the commencement of any action, administrative, or legal proceeding, or investigation as to which the indemnity provided for in this Article 17 may apply, the Indemnified Party shall provide notice thereof to the Indemnifying Party; *provided* that a delay in providing such

notice shall limit the obligations of the Indemnifying Party only to the extent that such delay actually prejudices the ability of the Indemnifying Party to contest the claim or defend the proceeding.

(B) The Indemnifying Party shall assume the defense thereof with counsel designated by such Party and satisfactory to the Indemnified Party, *provided, however,* if the defendants in any such action include both the Indemnified Party and the Indemnifying Party, and the Indemnified Party shall reasonably conclude that there may be legal defenses available to it which are different from or additional to, or inconsistent with, those available to the Indemnifying Party, the Indemnified Party shall have the right to select and be represented by separate counsel, at the Indemnifying Party's expense.

(C) If an Indemnifying Party fails to assume the defense of a claim meriting indemnification, the Indemnified Party may contest, settle, or pay such claim at the expense of the Indemnifying Party, *provided, however, that* settlement or full payment of any such claim may be made only following consent of the Indemnifying Party or, absent such consent, written opinion of the Indemnified Party's counsel that such claim is meritorious or otherwise warrants settlement.

17.5 Amounts Owed. In the event that a Party is obligated for indemnification under this Article 17, the amount owing to the Indemnified Party will be the amount of the Indemnified Party's actual loss net of any insurance proceeds received by the Indemnified Party following a Commercially Reasonable effort by the Indemnified Party to obtain such insurance proceeds.

## **Article 18 - Lender Provisions**

### **18.1 Accommodation of Facility Lender.**

(A) Company shall provide such consents to collateral assignment, certifications, representations, estoppels, information or other documents, as may be reasonably requested by Seller in connection with the financing of the Facility consistent with the terms set forth in Exhibit K – Lender Consent Provisions (generally, a "Lender Consent"), *provided, however,* that in providing a Lender Consent, Company shall have no obligation to

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1. modify the terms of this PPA;
2. provide any consent or enter into any agreement that has a Material Adverse Effect on any of Company's rights, benefits, risks, or obligations under this PPA;
3. transfer or release any property or property interests of Company;
4. release or subordinate (or cause the release or subordination) of any lien on any property of Company for the benefit of Seller or the Facility Lender; or
5. permit any lien to be placed on property of Company.

(B) Seller shall reimburse, or shall cause the Facility Lender to reimburse, Company for the direct expenses (including the fees and expenses of counsel) incurred by Company in the preparation, negotiation, execution and/or delivery of each Lender Consent and any documents requested by Seller or the Facility Lender pursuant to this Section 18.1.

**18.2 Notices.**

(A) Seller shall provide Company with a notice identifying the Facility Lender and providing appropriate contact information for the Facility Lender. Following receipt of such notice, Company shall provide to the Facility Lender a copy of each notice of alleged default delivered to Seller under Section 12.1 or Section 12.2, and Company will accept a cure thereof performed by the Facility Lender, so long as the cure is accomplished within the applicable cure period set forth in this PPA or the relevant Lender Consent.

(B) Within 10 Days following Seller's receipt of each notice of default or Facility Lender's intent to exercise any remedies under the Financing Documents, Seller shall deliver a copy of such notice to Company.

**Article 19 - Assignment**

**19.1 Assignment by Seller.**

(A) Seller shall not sell, exchange or otherwise transfer the Facility or any material portion thereof to any third party, nor shall Seller undergo any Change of Control (whether voluntary or by operation of law), absent the prior written consent of Company, which shall not be unreasonably withheld or delayed. Company shall have no obligation to provide any consent under this Section unless

1. Seller has complied with Sections 19.3 and 19.4, if and as applicable;

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2. Seller has provided to Company such information concerning the transferee's direct and indirect ownership as Company reasonably requests;

3. the transferee has substantial experience in the operation of power generation facilities akin to the Facility, either directly, through its affiliates or through an operator acceptable to Company;

4. the transferee (together with its parents and affiliates) enjoys an Investment Grade Credit Rating or other creditworthiness satisfactory to Company;

5. Seller has provided to Company at least 30 days' prior notice of the transaction; and

6. Seller pays or reimburses Company for the direct expenses (including the fees and expenses of counsel) incurred by Company in connection with the transaction.

(B) Any Change of Control or sale, transfer, or assignment of any interest in the Facility effected without fulfilling the requirements of this PPA shall be null, void and a breach of this PPA.

(C) Seller shall assign this PPA to any successor owner of the Facility, and shall cause such successor to assume all obligations of Seller (accrued and prospective) hereunder via a writing reasonably satisfactory to Company. Seller also may assign this PPA for collateral purposes to any Facility Lender, and may subcontract some or all of its duties under this PPA, upon notice to but without the consent of Company

(D) Except as permitted in this Section 19.1, Seller may not assign this PPA or any portion hereof. No assignment shall relieve Seller of its obligations under this PPA, nor impair any security posted by Seller unless such security is replaced in accordance with Article 11. Before this PPA is assigned by Seller, the assignee must first obtain such approvals as may be required by all applicable Governmental Authorities.

**19.2 Assignment by Company.**

(A) Company may assign this PPA to any Affiliate, or to any successor that provides retail electric service in all or substantially all of Company's service territory and is subject to rate and quality service regulation under the jurisdiction of the PUC. Any other assignment of this PPA by Company shall require the prior written consent of Seller, not to be unreasonably withheld or delayed.

(B) If an assignee of Company enjoys a Credit Rating equal to or better than Investment Grade or Company's Credit Rating as of the date of assignment (whichever is higher), Seller shall release Company from its obligations hereunder if so

requested by Company. Except for the foregoing, no assignment shall relieve Company of its obligations under this PPA.

(C) Any assignee of Company shall assume all obligations of Company (accrued and prospective) hereunder via a writing reasonably satisfactory to Seller. Before this PPA is assigned by Company, the assignee must first obtain such approvals as may be required by all applicable Governmental Authorities.

### 19.3 ROFO.

(A) At any time after the Commercial Operation Date,

- (1) if Seller proposes to sell the Facility to an unaffiliated third party, Seller shall first offer to sell the Facility to Company via notice to Company,
- (2) if Seller's parent proposes to sell a majority of the equity interests in Seller to an unaffiliated third party, Seller shall cause its parent first to offer to sell such equity interests to Company via notice to Company, and
- (3) if Seller's parent owns no assets other than its equity interests in Seller and the parent of Seller's parent proposes to sell a majority of the equity interests in Seller's parent to an unaffiliated third party, Seller shall cause its parent's parent first to offer to sell such equity interests to Company via notice to Company

(in each case, a "ROFO Notice") Any ROFO Notice shall describe the proposed transaction, including the minimum price, status of title to the Site, liabilities to be assumed and other terms which Seller or its relevant parent (as applicable) is willing to accept to proceed with the contemplated transaction. The contents of a ROFO Notice shall be deemed Confidential Information for purposes of Section 20.18 below.

(B) Following issuance of a ROFO Notice, Seller shall allow Company 60 Days to investigate the proposed transaction and conduct due diligence. Due diligence shall include such physical inspections, surveys and operating tests of the Facility and the Site, such reviews of Seller's contracts, books and records, and interviews of such personnel, as Company may reasonably request. All information obtained by Company from such investigations shall be deemed Confidential Information subject to Section 20.18 below. Within such 60-Day period, Company may elect to purchase the Facility or the relevant equity interests (as applicable) on substantially the same terms as set forth in the ROFO Notice. If Company fails to notify Seller of Company's election within such 60-Day period, Company shall be deemed to have rejected the transaction.

(C) If Company elects to purchase the Facility or the specified equity interests (as applicable), the Parties shall negotiate and execute a definitive contract for the transaction (a "PSA"). The PSA shall include the price and other terms set forth in

the ROFO Notice and such other terms as are set forth in Exhibit L – PSA Provisions. In the event that the Parties cannot agree on the final form of PSA, (i) the issue shall be submitted to “baseball” arbitration in Denver, Colorado before one arbitrator appointed by the Arbitration Service, i.e. each Party shall submit to the arbitrator a form of proposed PSA, and the arbitrator shall be required to select one of the two forms to be used as the PSA in the transaction, without compromise, as the arbitral award, (ii) the period for closing of the transaction shall be extended for the period required to complete arbitration, and (iii) the Party whose form PSA is rejected shall pay the fees and costs of the Arbitration Service.

(D) If Company rejects the transaction described in a ROFO Notice, Seller shall have the right to sell the Facility (or Seller’s relevant parent shall have the right to sell the specified equity interests, as applicable) on terms not more favorable to Seller or its parent vs. the terms set forth in the ROFO Notice, at any time within the twelve-month period following issuance of the ROFO Notice. If Seller or its relevant parent fails to close a transaction on such terms within such 12-month period, any sale of the Facility or equity interests in Seller shall again be subject to this Section 19.3.

(E) This Section 19.3 shall be specifically enforceable by Company, without bond and without the need to prove irreparable harm.

(F) Seller shall cooperate in all respects reasonably necessary for Company to exercise its ROFO rights, and shall operate the Facility in the ordinary course of business following the date of issuance of a ROFO Notice.

#### 19.4 PFT.

(A) Seller shall give Company at least 90 Days’ prior notice (a “PFT Notice”) of any Pending Facility Transaction that does not otherwise trigger Company’s ROFO rights under Section 19.3, in order to provide Company with an opportunity to discuss and negotiate with Seller the possible sale of the Facility to Company. Any PFT Notice shall include a fair summary of Seller’s plans with respect to the Facility in connection with the proposed Pending Facility Transaction, to the extent then known by Seller. The contents of a PFT Notice shall be deemed Confidential Information for purposes of Section 20.18 below.

(B) Seller shall have no obligation to sell nor shall Company have any obligation to purchase the Facility, following any PFT Notice. Issuance of a PFT Notice shall not relieve Seller of its obligation to offer a ROFO to Company if and when applicable pursuant to Section 19.3. In the event that the transaction giving rise to the PFT Notice has not been completed within twelve months following a PFT Notice, Seller shall be required to resubmit a PFT Notice for such transaction.

(C) Any breach of this Section 19.4 shall entitle Company to liquidated damages from Seller in the amount of \$5 x number of kW of Nameplate Capacity.

(D) For purposes hereof, a “Pending Facility Transaction” or “PFT” means:

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1. any Change of Control of Seller;
2. the issuance by Seller or any of its Affiliates of a request for proposals or the response by Seller or any of its Affiliates to a request for proposal or similar process (e.g., auction) for the purchase or sale to any unaffiliated third party of any equity interests in Seller or the Facility, or any group(s) of assets or equity interests that includes the Facility;
3. the commencement by Seller or any of its Affiliates of substantive negotiations with any unaffiliated third party with respect to the sale of any equity interests in Seller or the Facility, or any group(s) of assets or equity interests that includes the Facility; or
4. the execution by Seller or any of its Affiliates of any letter of intent, memorandum of understanding or similar document, whether or not legally binding, which contemplates the sale or lease to an unaffiliated third party of any equity interests in Seller or the Facility or any group(s) of assets or equity interests that includes the Facility;

*provided, however,* that a PFT does not include (i) any financing or refinancing of the Facility Debt, (ii) any transaction among Affiliates of Seller, and/or (iii) any transaction for which Seller offers ROFO rights to Company under Section 19.3.

**Article 20 - Miscellaneous**

**20.1 Notices.**

(A) Notices required by this PPA shall be in writing and addressed to the other Party at the addresses noted in Exhibit D - Notices, as either Party updates such addresses from time to time by notice to the other Party. Notices shall be deemed effective when receipt is acknowledged in writing by the counterparty (or absent such acknowledgement, when delivered via third-party messenger or via FedEx or other reputable overnight courier service). Any notice shall be deemed to have been received by the close of the Business Day on which it was delivered. Real-time or routine communications concerning Facility operations shall be exempt from this Section 20.1(A).

(B) The Parties recognize the need for accurate communications between them. Each Party consents to the recording of telephone conversations between their employees and representatives, related to the performance and administration of this PPA.

**20.2 Taxes.**

(A) Company shall purchase all Renewable Energy on a wholesale basis, for resale to Company's wholesale and retail customers. Company shall obtain and provide Seller with any certificates required by any Governmental Authority or otherwise reasonably requested by Seller to evidence that the deliveries of Renewable Energy hereunder are sales for resale.

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(B) As between the Parties, Company shall be solely responsible for the payment of (1) any sales, use or equivalent taxes imposed by Governmental Authorities, whether now in existence or hereafter enacted, on the purchase of Renewable Energy hereunder at the Point of Delivery, and (2) any taxes imposed by Governmental Authorities, whether now in existence or hereafter enacted, on the transmission of Renewable Energy beyond the Point of Delivery.

(C) Subject to Section 20.2(B), Seller shall be solely responsible for any and all present and future taxes and other impositions of Governmental Authorities relating to the construction, ownership or leasing, operation or maintenance of the Facility and the Site (including *ad valorem* taxes on the Facility and the Site), and any taxes imposed prior to the Point of Delivery with respect to the products and services to be sold and delivered to Company hereunder, whether calculated based upon cost, value, labor, capital, production, savings, green attributes or other parameters. Seller's prices under Article 8 are inclusive of such taxes and impositions during the Term, and Seller assumes the risk of changes in such taxes after the date hereof.

(D) The Parties shall cooperate to minimize tax exposure, *provided, however*, that neither Party shall be obligated to incur any financial burden to reduce taxes for which the other Party is responsible hereunder.

**20.3 Applicable Laws.** Each Party shall comply with all Applicable Laws (including the Transmission Authority Tariff), except for any non-compliance that (individually or in the aggregate) could not reasonably be expected to have a Material Adverse Effect on the other Party or on such Party's ability to perform this PPA.

(A) As applicable, each Party shall give all required notices, shall procure and maintain all Permits necessary for performance of this PPA, and shall pay its respective charges and fees in connection therewith.

(B) Each Party shall promptly disclose to the other Party, any violation of any Applicable Laws arising out of the Facility and/or performance of this PPA.

(C) Upon permanent cessation of generation from the Facility, Seller shall decommission and remove the Facility and remediate the Site as, if and when required by Applicable Laws.

(D) Seller acknowledges that as a government contractor Company is subject to Applicable Laws regarding equal employment opportunity and affirmative action, including 41 C.F.R. §60-1.4(a)(1-7). Such Applicable Laws may also be applicable to Seller as a subcontractor to Company. All such Applicable Laws shall be deemed to be incorporated herein as required by Applicable Law.

(E) Each Party assumes the risk of changes in Applicable Laws following the date hereof, that affect such Party's costs of ownership and operation of its assets, and its performance of this PPA, except as otherwise specifically set forth herein.



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**20.4 Fines and Penalties.** Seller shall pay when due all fees, fines, penalties and costs incurred by Company, Seller and/or their agents, employees or contractors arising from noncompliance by Seller, its employees, or subcontractors with any provision of this PPA, or any contractual obligation, Permit or requirements of Applicable Law, except for such fines, penalties and costs that are being actively contested in good faith and with due diligence by Seller and for which adequate financial reserves have been set aside to pay such fines, penalties or costs in the event of an adverse determination

**20.5 Rate Changes.**

(A) The terms and conditions and the rates for service specified in this PPA shall remain in effect for the Term hereof. Neither Party shall seek (nor support any third party seeking) any prospective or retroactive change to the rates or terms of service under this PPA pursuant to Section 205, 206 or 306 of the Federal Power Act.

(B) The standard of review for changes to this PPA whether proposed by a Party, a non-party, or FERC acting *sua sponte* shall be the “public interest” standard of review set forth in *United Gas Pipe Line v. Mobile Gas Service Corp.*, 350 U.S. 332 (1956) and *Federal Power Commission v. Sierra Pacific Power Co.*, 350 U.S. 348 (1956) (aka the “Mobile-Sierra doctrine”), as interpreted in *Morgan Stanley Capital Group, Inc. v. Public Util. Dist. No. 1*, 128 S. Ct. 2733 (2008).

**20.6 Certifications.** Each Party shall deliver or cause to be delivered to the other Party certificates of its officers, accountants, engineers or agents as to matters as may be reasonably requested, and shall make available personnel and records relating to the Facility to the extent that the requesting Party requires the same in order to fulfill any regulatory reporting requirements, or to assist the requesting Party in litigation, including administrative proceedings before the [PUC] [MN PUC and/or ND PSC].

**20.7 Disclaimer of Third Party Beneficiaries.** In executing this PPA, Company does not and does not intend to extend its credit or financial support for the benefit of any Facility Lender or any other third party transacting with Seller. Nothing in this PPA shall be construed to create any duty to, or standard of care with reference to, or any liability to, any person not a party to this PPA.

**20.8 Relationship of the Parties.**

(A) This PPA shall not be interpreted to create an association, joint venture, or partnership between the Parties, nor to impose any partnership obligation or liability upon either Party. Except as specifically provided for in this PPA to the contrary, neither Party shall have any right, power, or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as an agent or representative of, the other Party.

(B) Seller shall be solely liable for the payment of all wages, taxes, and other costs related to the employment of persons to perform such services, including all federal, state, and local income, social security, payroll, and employment taxes and

statutorily mandated workers' compensation coverage. None of the persons employed by Seller shall be considered employees of Company for any purpose; nor shall Seller represent to any person that he or she is or shall become a Company employee.

20.9 Survival of Obligations. Cancellation, expiration, or earlier termination of this PPA shall not relieve the Parties of obligations, including warranties, remedies, or indemnities, that by their nature should survive such cancellation, expiration, or termination, which obligations shall survive for the period of the applicable statute(s) of limitation.

20.10 Severability. In the event any of the terms, covenants, or conditions of this PPA, its Exhibits, or the application of any such terms, covenants, or conditions, shall be held invalid, illegal, or unenforceable by any court or administrative body having jurisdiction, all other terms, covenants, and conditions of the PPA and their application not adversely affected thereby shall remain in force and effect; *provided, however, that* Company and Seller shall negotiate in good faith to attempt to implement an equitable adjustment in the provisions of this PPA with a view toward effecting the purposes of this PPA by replacing the provision that is held invalid, illegal, or unenforceable with a valid provision the economic effect of which comes as close as possible to that of the provision that has been found to be invalid, illegal or unenforceable.

20.11 Complete Agreement; Amendments. The terms and provisions contained in this PPA constitute the entire agreement between Company and Seller with respect to the Facility and shall supersede all previous communications, representations, or agreements, either verbal or written, between Company and Seller with respect to the sale of Renewable Energy from the Facility. Any amendment of this PPA, or any waiver of any provision hereof, shall be evidenced by a writing signed by the Party/ies to be bound thereby.

20.12 Waiver. The failure of either Party to enforce or insist upon compliance with or strict performance of any of the terms or conditions of this PPA, or to take advantage of any of its rights hereunder, shall not constitute a waiver or relinquishment of any such terms, conditions, or rights, but the same shall be and remain at all times in full force and effect.

20.13 Binding Effect. This PPA is binding upon and shall inure to the benefit of the Parties hereto and their respective successors, legal representatives, and assigns.

20.14 Headings. Captions and headings used in this PPA are for ease of reference only and do not constitute a part of this PPA.

20.15 Counterparts. This PPA may be executed in counterparts, and each executed counterpart shall have the same force and effect as an original instrument.

20.16 Press Release. Upon the request of either Party, the Parties shall develop a mutually agreed joint press release to be issued describing the location, size and nature of the Facility, the term of this PPA, and other relevant factual information about the relationship.

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20.17 Exhibits. Either Party may change the information in Exhibit D - Notices at any time by notice without the approval of the other Party. All other Exhibits may be changed to the extent allowed by specific provisions of this PPA or with the mutual consent of both Parties.

20.18 Confidentiality.

(A) For purposes hereof, "Confidential Information" means

1. information specifically designated as Confidential Information in this PPA; and

2. written information delivered by one Party to the other from time to time during the Term, which information is labeled prominently as "Confidential," "Proprietary" or the like and specifically references this PPA.

*Provided, however,* that "Confidential Information" shall not include information that:

- (x) is publicly available as of the date hereof, or becomes publicly available during the Term through no fault of the recipient Party;
- (y) can be documented was independently developed by the recipient Party; and/or
- (z) is disclosed to the recipient Party from an ultimate source other than the protected Party, without breach of this PPA by the recipient Party.

(B) The recipient Party shall (i) maintain the confidentiality of all Confidential Information of the protected Party, using the same degree of care used by the recipient Party to protect its own Confidential Information (and in any event not less than a reasonable degree of care), and (ii) shall use Confidential Information only in connection with its performance of this PPA. Confidential Information may be disclosed by the recipient Party to its agents, employees, directors, officers, consultants, auditors, lenders and equity investors, subject to their acceptance of the obligations of confidentiality imposed hereby and for whose violations of this Section 20.18 the recipient Party shall be responsible.

(C) In the event that Confidential Information is disclosed to the PUC, its staff, interveners or consumer counsel in any regulatory or administrative proceedings before the PUC, the disclosing Party shall submit such Confidential information in accordance with applicable PUC confidentiality rules and procedures. In the event that Confidential Information must otherwise be disclosed by Applicable Law (e.g. pursuant to subpoena or civil discovery), the Party required to make disclosure shall notify the protected Party sufficiently in advance to allow the protected Party a reasonable opportunity to obtain a protective order or seek other remedies, prior to disclosure by the recipient Party.

*[remainder of this page intentionally left blank]*

IN WITNESS WHEREOF, the Parties have executed this PPA as of the date first set forth above.

*Seller:*

\_\_\_\_\_ **[LLC]**

By: \_\_\_\_\_  
[name and title]

*Company:*

**Public Service Company of Colorado**

By: \_\_\_\_\_  
[ ] as Vice President of Xcel  
Energy Services, Inc., its authorized agent

## EXHIBIT A

### DEFINITIONS

The following terms shall have the meanings set forth herein:

“Actual Damages” has the meaning set forth in Section 12.4(C).

“Affiliate” of any designated Person means any person or entity that directly or indirectly controls, is under the control of, or is under common control with, the designated Person by the power to direct or cause the direction of the management of the policies of designated Person, whether through ownership interest, by contract or otherwise.

“AGC” or “Automatic Generation Control” means the equipment and capability of an electric generation facility automatically to adjust the generation quantity within the applicable Balancing Authority with the purpose of interchange balancing and specifically, the Facility’s capability of accepting an AGC Set-Point electronically, and the automatic adjustment and regulation of the Facility’s energy production via the SCADA System.

“AGC Protocols” means the protocols for AGC included in Exhibit I - AGC Protocols; Data Collection; Technical Specifications, as such protocols may be modified from time to time in accordance with Section 10.7.

“AGC Remote/Local” means a handshake electronic signal sent from the Facility to the EMCC AGC system, and from the EMCC AGC system to the Facility, indicating the Facility is receiving AGC Set-Point locally (from the Facility) or remotely (EMCC AGC system) and is following that AGC Set-Point.

“AGC Set-Point” means the Company-generated analog or digital signal sent by the SCADA System to the Facility, representing the quantity of Renewable Energy to be generated by the Facility. The AGC Set-Point is calculated by the EMCC AGC system and communicated electronically to the Facility via the SCADA System.

“Applicable Law” means all laws, statutes, treaties, codes, ordinances, regulations, certificates, orders, licenses and permits of any Governmental Authority that are applicable to a Party, the business of a Party or the Facility, now in effect or hereafter enacted, including amendments to or interpretations of any of the foregoing by a Governmental Authority having jurisdiction, and all applicable judicial, administrative, arbitration and regulatory decrees, judgments, injunctions, writs, orders, awards and/or like actions.

“Arbitration Service” means Judicial Arbitration and Mediation Services, Inc. (aka JAMS).

“Availability Factor” shall have the meaning set forth in Exhibit M. *wind only*

“Back-Up Metering” shall have the meaning set forth in Section 5.2(B).

“Balancing Authority” means the system of electrical generation, distribution and transmission facilities within which generation is regulated in order to maintain interchange schedules with other such systems.

“Business Day” means any Day that is not a Saturday, a Sunday, or a NERC recognized holiday.

“Change of Control” means the occurrence of any one of the following events with respect to Seller or any direct or indirect owner of a majority of the ownership interests in Seller: (a) a transfer of a majority of the ownership interests in Seller or such owner; (b) any consolidation or merger of Seller or such owner in which Seller or such owner, as the case may be, is not the continuing or surviving entity; or (c) a sale or conveyance of any direct or indirect ownership interest in Seller following which [REDACTED] (“Ultimate Parent”) is no longer the direct or indirect owner of at least 50% of the ownership interests of Seller, *provided, however*, that a Change of Control shall not be deemed to have occurred as a result of

- (i) transactions exclusively among Affiliates of Seller,
- (ii) any exercise by the Facility Lender of its rights and remedies under the Financing Documents,
- (iii) a change of control of Ultimate Parent, or
- (iv) any change of economic and/or voting rights triggered in Seller’s organizational documents arising from a tax-equity financing of the Facility.

“COD Conditions” means all of the requirements that must be satisfied by Seller as a prerequisite to achieving Commercial Operation. The COD Conditions are set forth in Section 4.5.

“Commercial Operation” means the period beginning on the Commercial Operation Date and continuing through the balance of the Term of this PPA.

“Commercial Operation Date” or “COD” shall have the meaning set forth in Section 4.5.

“Commercial Operation Year” shall have the meaning set forth in Section 4.5(E).

“Commercially Reasonable” or “Commercially Reasonable Efforts” means, with respect to any action to be taken or attempted by a Party under this PPA, the level of effort in light of the facts known to such Party at the time a decision is made that: (a) can reasonably be expected to accomplish the desired action at a reasonable cost; (b) is consistent with Good Utility Practices; and (c) takes into consideration the amount of advance notice required to take such action, the duration and type of action, and the competitive environment in which such action occurs.

“Committed Energy” from the Facility for each Commercial Operation Year is set forth on Exhibit J hereto. The amount of Committed Energy shall be deemed Confidential Information for purposes of Section 20.18.

“Compensable Curtailment” and “Compensable Curtailment Energy” shall have the meanings set forth in Section 8.3(B).

“Confidential Information” shall have the meaning set forth in Section 20.18(A).

“Construction Contracts” shall have the meaning set forth in Section 4.1.

“Construction Milestones” means the dates set forth in Exhibit B – Construction Milestones.

“Credit Rating” of any Person means the lowest rating assigned to such Person’s long-term debt or deposit obligations (unenhanced by third-party support) by Standard & Poors and Moody’s. If such Person has no outstanding long-term debt or deposit obligations, or if no rating is assigned to such obligations, “Credit Rating” shall mean the lowest general corporate credit rating or long-term issuer rating assigned to such Person by Standard & Poors or Moody’s.

“Damage Cap” shall have the meaning set forth in Section 12.4.

“Day” means a calendar day.

“Dispute” shall have the meaning set forth in Article 13.

“Electric Metering Devices” means revenue quality meters, metering equipment and data processing equipment used to measure, record and transmit data with respect to the output of Renewable Energy from the Facility, including metering current transformers and metering voltage transformers.

“Eligible Energy Resource” means any generation resource eligible to be certified to generate, claim, own or use Renewable Energy Credits and green tags pursuant to the protocols and procedures developed and approved by applicable Government Authorities for the REC Registration Program.

“Energy Markets Control Center” or “EMCC” means Company’s merchant representatives responsible for dispatch of generating units, including the Facility.

“Energy Payment Rate” shall have the meaning set forth in Exhibit J.

“Energy Resource Interconnection Service” means the type of interconnection service which allows Seller to connect the Facility to the transmission or distribution system, as applicable, as an “Energy Resource” as defined by the Transmission Tariff, and be eligible to deliver the Facility’s output using the existing firm or non-firm capacity on the transmission system on an as-available basis. *if needed*

“Environmental Contamination” shall have the meaning set forth in Section 4.2.

“ERO” means the Electric Reliability Organization certified by FERC pursuant to Section 215 of the Federal Power Act or any successor organization. The certified ERO as of the date of this PPA is the Western Electricity Coordinating Council (WECC) and Peak Reliability.

“Event of Default” shall have the meaning set forth in Article 12.

“Excess Energy” shall have the meaning set forth in Section 8.2.

“Facility” means Seller’s electric generating facilities, associated balance of plant, parts, fixtures and equipment, and all equipment necessary to interconnect to the Transmission Authority’s System, all as further described in Exhibit C - Facility Description, including Seller’s rights to the Site and all of the following: buildings, turbines, generators, step-up transformers, output breakers, facilities necessary to connect to the Interconnection Point, protective and associated equipment, improvements, and other tangible and intangible assets, contract rights, Permits, easements, rights of way, surface use agreements and other interests or rights in real estate, owned or used for construction, operation, maintenance, generation and delivery of the capacity and energy subject to this PPA.

“Facility Debt” means the obligations of Seller or its Affiliates to any lender or tax equity investor pursuant to the Financing Documents, including principal of, premium and interest on indebtedness, fees, expenses or penalties, amounts due upon acceleration, prepayment or restructuring, swap or interest rate hedging breakage costs and any fees or interest due with respect to any of the foregoing.

“Facility Lender” means, collectively, any lenders or tax equity investors providing Facility Debt, including any successors or assigns thereof.

“Federal Power Act” means the provisions of 16 U.S.C. §791(A) *et seq.* and amendments or supplements thereto.

“FERC” means the Federal Energy Regulatory Commission or any successor agency.

“Financing Documents” means the loan and credit agreements, notes, bonds, indentures, security agreements, lease financing agreements, mortgages, deeds of trust, interest rate exchanges, swap agreements and other documents relating to the development, bridge, construction or permanent debt financing and/or tax equity financing for the Facility, including any credit enhancement, credit support, working capital financing, or refinancing documents, and any and all amendments, modifications, or supplements to the foregoing that may be entered into from time to time at the discretion of Seller in connection with development, construction, ownership, leasing, operation or maintenance of the Facility.



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“Forced Outage” means any condition at the Facility that requires the immediate and unplanned removal of the Facility, or at least ten percent thereof, from service, another outage state, or a reserve shutdown state, resulting from immediate mechanical/electrical/hydraulic control system trips and operator-initiated trips in response to abnormal Facility conditions or alarms.

“Good Utility Practices” means the practices, methods, standards and acts engaged in or approved by a significant portion of the applicable segment of the electric power generation industry pertaining to facilities of the type, similar size and location to the Facility that, at a particular time, in the exercise of Commercially Reasonable judgment, in light of the facts that are known (or reasonably should have been known) at the time a decision was made, would have been expected to accomplish the desired result in a manner consistent with Applicable Law, Permits, codes, standards, equipment manufacturer’s recommendations, reliability, safety, environmental protection, economy, and expedition. Good Utility Practices is not limited to the optimum practice, method, standard or act to the exclusion of all others, but rather to those practices, methods, standards and acts generally acceptable or approved by a significant portion of the applicable segment of the electric power generation industry in the relevant region, during the relevant period.

“Governmental Authority” means any federal, state, local or municipal governmental body; any governmental, quasi-governmental, regulatory or administrative agency, commission, body or other authority exercising or entitled to exercise any administrative, executive, judicial, legislative, policy, regulatory or taxing authority or power; and/or any court or governmental tribunal. By way of example only, “Governmental Authorities” include NERC, the ERO, the Market Operator (if any), an applicable PUC, the Transmission Authority and FERC, and successor organizations.

“Interconnection Agreement” means the separate contract for interconnection of the Facility to the Transmission Authority’s System, as such agreement may be amended from time to time. For purposes of this PPA, the Interconnection Agreement shall be interpreted to include any third party facility construction agreement or other agreement required by the Transmission Authority to interconnect the Facility in accordance with the Transmission Tariff. For the avoidance of doubt, “Interconnection Agreement” excludes any temporary or provisional interconnection agreement or any agreement where the Transmission Provider may limit the operational output of the Facility.

“Interconnection Facilities” means those facilities designated in the Interconnection Agreement for the direct purpose of interconnecting the Facility at the Interconnection Point, along with any easements, rights of way, surface use agreements and other interests or rights in real estate reasonably necessary for the construction, operation and maintenance of such facilities, whether owned by Seller, the Transmission Authority or another entity. This equipment is conceptually depicted in Exhibit C - Facility Description to this PPA.

“Interconnection Point” means the physical point within the operational authority of the Transmission Authority as specified in the Interconnection Agreement as project [REDACTED], at which electrical interconnection is made between the Facility and the Transmission Authority’s System in accordance with the Transmission Tariff and the Interconnection Agreement.

“Investment Grade” means a Credit Rating of both (a) Baa3 or higher by Moody’s, and (b) BBB- or higher by Standard & Pools.

“kW” means kilowatt, and “kWh” means kilowatt hour.

“Lender Consent” shall have the meaning set forth in Section 18.1.

“Maintenance Schedule” has the meaning set forth in Section 10.2.

“Market Operator” means the entity that instructs market participants and/or generators to regulate generation assets (including the Facility) within any energy market in which Company participates, based on price-based offer curves for the purpose of matching generation output to system load demand while maintaining bulk electric system reliability. If such entity is the Transmission Authority, then “Market Operator” shall mean such entity acting in its capacity as such.

“Material Adverse Effect” means any effect (or effects taken together) that is materially adverse to the present or future business, operations, assets, liabilities, properties, results in operations or condition (financial or otherwise), prospects, or property of a Party, its business, or this PPA.

“MW” means megawatt or one thousand kW, and “MWh” means megawatt hours.

“Nameplate Capacity” of the Facility means the sum of the designed maximum outputs of each [Wind Turbine] [Solar Unit] comprising the Facility, as designated by the turbine manufacturer.

“NERC” means the North American Electric Reliability Council or any successor organization.

“Non-Compensable Curtailment” shall have the meaning set forth in Section 8.3(B).

“Operating Committee” means one representative each from Company and Seller, pursuant to Section 10.7.

“Operating Procedures” means those procedures developed by the Operating Committee pursuant to Section 10.7, if any.

“Operating Records” means all agreements associated with the Facility, operating logs, blueprints for construction, operating manuals, all warranties on

equipment, and all documents, whether in printed or electronic format, that Seller uses or maintains for the operation of the Facility.

“Park Potential” means the number of MW that depicts Seller’s real time calculation of the Potential Energy capable of being provided by the Facility to Company at the Point of Delivery. Park Potential shall be calculated using the best-available data obtained through Commercially Reasonable methods; and shall be dependent upon measured wind speeds, power curves, [Wind Turbine] [Solar Unit] availability, and derate(s) and transmission line losses, and any other adjustment necessary to accurately reflect the Potential Energy at the Point of Delivery. Park Potential should be provided to the Company in real time through the Company’s SCADA System in accordance with the AGC Protocols.

“Party” and “Parties” shall have the meanings set forth in the introductory paragraph.

“Pending Facility Transaction” or “PFT” shall have the meaning set forth in Section 19.4.

“Permit” shall have the meaning set forth in Section 4.3.

“PFT Notice” shall have the meaning set forth in Section 19.4.

“PI System” means the “plant information” system for the Facility, as described and implemented in Exhibit I - AGC Protocols; Data Collection; Technical Specifications.

“Point of Delivery” means the physical point within the operational authority of Transmission Authority at which Seller makes available and delivers to Company the Renewable Energy being provided by Seller to Company under this PPA. The Point of Delivery is specified in Exhibit C - Facility Description to this PPA.

“Potential Energy” for any period of time means the MWh of energy that the Facility is actually capable of delivering to the Point of Delivery by virtue of the Park Potential during such period.

“PTCs” means Production Tax Credits applicable to electricity produced from certain renewable resources pursuant to 26 U.S.C. §45, or such substantially equivalent tax credit that provides Seller with a tax credit based on energy production from the Facility. **wind only**

“PUC” means the Colorado Public Utilities Commission or any successor agency.

“PUC Approval” shall have the meaning set forth in Section 6.1(D).

“REC Registration Program” means the applicable Colorado, regional, or federal program established to register Eligible Energy Resources such as the Facility,

and create and certify RECs arising from energy generated from such Resources, including any rights associated with any renewable energy information or tracking system that exists or may be established by Applicable Law with regard to monitoring, registering, tracking, certifying, or trading such credits. For purposes of this PPA, the REC Registration program shall mean the Western Renewable Energy Generation Information System (aka WREGIS).

“Renewable Energy” means all electric energy generated by the Facility and delivered to Company at the Point of Delivery during the Term, including all Test Energy and any Excess Energy purchased by Company. “Renewable Energy” shall be deemed to include all RECs associated with such electric energy.

“Renewable Energy Credits” or “RECs” means the right to all non-energy and environmental attributes (including economic, carbon and pollutant-related tags and credits, benefits, avoided or reduced emissions reductions, offsets, emission rate reductions, tags and allowances, howsoever titled) attributable to the capacity available and/or energy generated by the Facility, including environmental air quality credits, tags and allowances created by Applicable Law by virtue of the Facility’s environmentally favorable or renewable characteristics or attributes. “RECs” includes but is not necessarily limited to rights eligible for registration, trading and/or use under the REC Registration Program. In Colorado, “REC” shall include renewable energy credits as defined and used in Colorado’s Renewable Energy Standard, 4 CCR 723-3650 *et seq.*

For the avoidance of doubt, “RECs” exclude (i) PTCs, ITCs and other local, state or federal tax credits providing a tax benefit to Seller based on ownership of the Facility or energy production therefrom, including the [production tax credit] [investment tax credit] that may be available to Seller with respect to the Facility under IRC [§45] [§48], and (ii) depreciation and other tax benefits arising from ownership or operation of the Facility unrelated to its status as a generator of renewable or environmentally clean energy.

“Replacement Power Costs” for any period mean the costs incurred by Company to replace the products and services which Seller was required to provide under this PPA (but failed to so provide) during such period, less the sum of any payments from Company to Seller under this PPA that were eliminated with respect to such period as a result of such failure. Replacement Power Costs shall be determined on an hourly basis and shall equal the sum of the following for each hour where the following calculation achieves a positive number:

Hourly Replacement Power Costs = (A + B + C + D) – E, where

“A” = the product of (x) the number of MW of lost capacity, derived by subtracting the number of MW of capacity of the Facility that qualifies for capacity credit actually made available to Company from the amount of qualifying capacity associated with the entire Facility, and

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(y) the applicable market price for capacity made available to Company's system, for such hour;

"B" = the price paid by Company for the MWh of energy purchased by Company to replace the Contract Energy that was not delivered under this PPA during such hour;

"C" = the product of (x) the number of MWh of energy purchased by Company with respect to such hour, to replace the Committed Energy that was not delivered under this PPA, and (y) the actual cost of registered RECs for that number of MWh, for such hour;

"D" = the actual cost of transmission, ancillary services, fuel and fuel transportation, other incremental costs, and any related penalties that could not be avoided or mitigated, and transaction charges to deliver reasonably available energy to Company in amounts equal to the number of MWh for which Replacement Power Costs are owed; and

"E" = the sum of all payments avoided by Company as a result of Seller's breach, for such hour, including avoided payments under Article 8.

"ROFO" and "ROFO Notice" shall have the meanings set forth in Section 19.3.

"SCADA" means supervisory control and data acquisition.

"Scheduled Termination Date" shall have the meaning set forth in Article 2.

"Security Fund" shall have the meaning set forth in Section 11.1.

"Site" means the parcel of real property on which the Facility will be located, including any easements, rights of way, surface use agreements and other interests or rights in real estate necessary for the construction, operation and maintenance of the Facility. The Site is more specifically described in Exhibit C - Facility Description to this PPA.

"Solar Units" means the photovoltaic arrays, mirrors, lenses, tracking devices and other equipment necessary for the Facility to collect sunlight at the Site and convert it into electricity or thermal energy. The manufacturer and model number of the Solar Units is identified on Exhibit C – Facility Description. **solar only**

"Step-In Rights" shall have the meaning set forth in Section 12.5.

"Target COD" shall have the meaning set forth in Section 4.5(A).

"Term" means the period of time during which this PPA remains in full force and effect, as further defined in Article 2.

"Test Energy" shall have the meaning set forth in Section 4.6.

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“Transmission Authority” means collectively those entities owning and/or operating the interconnected transmission system applicable to Seller and the Facility pursuant to a Transmission Tariff, including (i) Public Service Company of Colorado operating under and in accordance with its Transmission Tariff, and (ii) all entity(s) responsible under the Interconnection Agreement for providing the transmission lines, any Interconnection Facilities and other equipment and facilities with which the Facility interconnects at the Interconnection Point and transmission system.

“Transmission Authority’s System” means the contiguously interconnected electric transmission and sub-transmission facilities, over which the Transmission Authority has rights (by ownership or contract) to provide bulk transmission of capacity and energy from the Interconnection Point.

“Transmission Tariff” means the applicable Open Access Transmission Tariff of the Transmission Authority, as amended from time to time.

“Wind Turbine(s)” means the wind-energy generating devices that are included in the Facility. The manufacturer and model number of the Wind Turbines is identified on Exhibit C – Facility Description. *wind only*

\* \* \* \* \*

**EXHIBIT B**  
**CONSTRUCTION MILESTONES**

<b>Construction Milestone</b>	<b>Outcome</b>
<i>[Date]</i>	Seller and all required counterparties shall have executed such Construction Contracts as are needed to construct the Facility.
<i>[Date]</i>	Seller and the Transmission Authority shall have executed the Interconnection Agreement.
<i>[Date]</i>	Seller shall have achieved closing on financing for the Facility or provided Company with proof of financial capability to construct the Facility.
<i>[Date]</i>	Seller shall have laid the foundation for all Facility buildings, generating facilities and step-up transformation facilities.
<i>[Date]</i>	The [Wind Turbines] [Solar Units] and step-up transformer shall have been delivered and installed at the Site.
<i>[Date]</i>	Seller's Interconnection Facilities shall have been constructed, and such facilities are capable of being energized.
<i>[Date]</i>	Start-up testing of the Facility commences.
<i>[Date]</i>	Seller shall make all applications and/or filings required by Applicable Law for REC accreditation and for the assignment of such RECs to Company.

## EXHIBIT C

### FACILITY DESCRIPTION AND SITE MAPS

***[This Exhibit shall include a description of the Facility and all material components thereof, including map, aerial pictures, one-line diagram, Point of Delivery and (if different) the Interconnection Point.]***

The Facility shall be located on the Site and shall be identified as Seller's [REDACTED] Generation Facility. Maps and one-line diagrams of the Facility and associated equipment are included as part of this Exhibit.

The address of the Facility is [REDACTED].

The Facility must include the following specific components:

- \* have the panel space and 125VDC battery supplied voltage necessary to accommodate the metering, telemetering and communications equipment required by the PPA;
- \* communication circuits from the Facility to the EMCC for the purpose of telemetering, supervisory control/data acquisition, and voice communications as required by Company;
- \* equipment and software necessary to receive, accept and react to an AGC signal from the Company's SCADA System and to comply with the AGC Protocols as further specified on Exhibit I - AGC Protocols; Data Collection; Technical Specifications;
- \* [each Wind Turbine equipped with meteorological measurement equipment (e.g. anemometers), individually linked to Seller's information system;]
- \* capability of sending real time data and OPC interface to Company's PI System;

**[Additional Bid Specific requirements to be added]**



**EXHIBIT D**  
**NOTICES AND CONTACT INFORMATION**

<u><b>Company</b></u>	<u><b>Seller</b></u>
<p><b>Notices:</b></p> <p>_____ Renewable Purchased Power Manager Xcel Energy Services Inc. 1800 Larimer Street, Suite _____ Denver, CO 80202</p> <p><i>with a cc to:</i></p> <p>_____ Purchased Power Analyst Xcel Energy Services Inc. 1800 Larimer Street, Suite 1000 Denver, CO 80202</p>	<p><b>Notices:</b></p> <p>_____ _____ _____</p> <p><i>with a cc to:</i></p> <p>_____ _____ _____</p>
<p><b>Operating Committee Representative:</b></p> <p>_____ Renewable Purchased Power Manager Xcel Energy Services Inc. 1800 Larimer Street, Suite 1000 Denver, CO 80202</p> <p><b>Alternate:</b></p> <p>_____ Purchased Power Analyst Xcel Energy Services Inc. 1800 Larimer Street, Suite 1000 Denver, CO 80202</p>	<p><b>Operating Committee Representative:</b></p> <p>_____ _____ _____</p> <p><b>Alternate:</b></p> <p>_____ _____ _____</p>
<p><b>Real-Time Contact Information</b></p> <p><u>EMCC (24 hour coverage):</u> Phone: 303-571-6280 E-mail: _____@xcelenergy.com</p> <p><u>Transmission Ops:</u> Phone: 303-571-6490 E-mail: _____@xcelenergy.com</p>	<p><b>Real-Time Contact Information</b></p> <p><u>[Operations Command Center]</u> (24 hour coverage): Phone: _____ E-mail: _____</p>

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**EXHIBIT E  
INSURANCE COVERAGE**

<u><b>Type of Insurance</b></u>	<u><b>Minimum Limits of Coverage</b></u>
Commercial General Liability (CGL) and commercial umbrella	\$11,000,000 combined single limit each occurrence and the aggregate, where applicable. If CGL insurance contains a general aggregate limit, it shall apply separately to the Facility.

CGL insurance shall be written on ISO occurrence form CG 00 01 01 96 (or a substitute form providing equivalent coverage) and shall cover liability arising from premises, operations, independent contractors, products/completed operations, contracts, property damage, personal injury and advertising injury, and liability assumed under an insured contract (including the tort liability of another assumed in a business contract), all with limits as specified above. CGL insurance shall include ISO endorsement CG 24 17 (or an equivalent endorsement) which modifies the definition of "Insured contract" to eliminate the exclusion of easement or license agreements in connection with construction or demolition operations on or within 50 feet of a railroad. There shall be no endorsement or modification of the CGL insurance limiting the scope of coverage for liability arising from explosion, collapse, or underground property damage.

Company shall be included as an insured under the CGL policy, using ISO additional insured endorsement CG 20 10 (or a substitute providing equivalent coverage), and under the commercial umbrella insurance. The commercial umbrella insurance shall provide coverage over the top of the CGL insurance, the Business Automobile Liability insurance, and the Employers Liability insurance. The CGL and commercial umbrella insurance to be obtained by or on behalf of Seller shall be endorsed as follows:

Such insurance as afforded by this policy for the benefit of Company shall be primary as respects any claims, losses, damages, expenses, or liabilities arising out of this PPA, and insured hereunder, and any insurance carried by Company shall be excess of and noncontributing with insurance afforded by this policy.

Business Automobile Liability	\$2,000,000 combined single limit (each accident), including all Owned, Non-Owned, Hired and Leased Autos.
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Business Automobile Liability insurance shall be written on ISO form CA 00 01, CA 00 05, CA 00 12, CA 00 20, or a substitute form providing equivalent liability coverage. If necessary, the policy shall be endorsed to provide contractual liability coverage equivalent to that provided in the 1990 and later editions of CA 00 01.

Workers Compensation	Statutory Requirements. Seller may comply with these requirements through the use of a qualified self-insurance plan.
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**PSCo Model [Wind] [Solar] Energy Purchase Agreement**

[Exhibit E - continued]

<u><b>Type of Insurance</b></u>	<u><b>Minimum Limits of Coverage</b></u>
Employers Liability	\$2,000,000 each accident for bodily injury by accident, or \$2,000,000 each employee for bodily injury by disease.
Builder's Risk	Replacement value of the Facility.  Builder's Risk insurance, or an installation floater, shall include coverage for earthquake and flood, collapse, faulty workmanship, materials and design, testing of machinery or equipment, freezing or changes in temperature, debris removal, and partial occupancy.
Environmental Impairment Liability	\$5,000,000 each occurrence.
All-Risk Property insurance covering physical loss or damage to the Facility	Full replacement value of the Facility. A deductible may be carried which deductible shall be the absolute responsibility of Seller.  All-Risk Property insurance shall include: (i) coverage for fire, flood, wind and storm, tornado and earthquake with respect to facilities similar in construction, location and occupancy to the Facility, with sub limits of no less than \$10,000,000 each for flood and earthquake; and (ii) Boiler and Machinery insurance covering all objects customarily subject to such insurance, including boilers and turbines, in an amount equal to their full replacement value.
Business Interruption insurance	Amount required to cover Seller's continuing or increased expenses, resulting from full interruption, for a period of 12 calendar months.  Business Interruption insurance shall cover loss of revenues or the increased expense to resume operations attributable to the Facility by reason of total or partial suspension or delay of, or interruption in, the operation of the Facility as a result of an insured peril covered under Property insurance as set forth above, to the extent available on Commercially Reasonable terms as determined by Company, subject to a Commercially Reasonable deductible that shall be the responsibility of Seller. Notwithstanding any other provision of this PPA, Seller shall not be required to have Business Interruption insurance until the Commercial Operation Date.

**EXHIBIT F**  
**SELLER'S NEEDED PERMITS**

Bid Specific

**EXHIBIT G**  
**FORM OF LETTER OF CREDIT**

[LETTERHEAD OF ISSUING BANK]

Irrevocable Standby Letter of Credit No.: \_\_\_\_\_

Date of Issuance: \_\_\_\_\_

Initial Expiration Date: [Must be at least one year after date of issuance]

Beneficiary: **Public Service Company of Colorado**

Applicant: \_\_\_\_\_

As the Issuing Bank ("Issuer"), we, [Name of Issuing Bank], hereby establish this irrevocable Standby Letter of Credit No. \_\_\_\_\_ (this "Letter of Credit") in favor of the above-named beneficiary ("Beneficiary") for the account of the above-named applicant ("Applicant") in the amount of US\$\_\_\_\_\_ (\_\_\_\_\_ Million U.S. Dollars).

Beneficiary may draw all or any portion of this Letter of Credit at any time and from time to time, and Issuer will make funds immediately available to Beneficiary upon presentation of Beneficiary's draft(s) at sight in substantially the form attached hereto as Exhibit "A" ("Sight Draft"), drawn on Issuer and accompanied by this Letter of Credit. All Sight Drafts must be signed on behalf of Beneficiary, and the signator must indicate his or her title or other official capacity. No other documents will be required to be presented. Issuer will effect payment under this Letter of Credit within twenty-four (24) hours after presentment of any Sight Draft. Payment shall be made in U.S. Dollars with Issuer's own funds in immediately available funds.

Issuer will honor any Sight Draft presented in substantial compliance with the terms of this Letter of Credit at the Issuer's letterhead office, the office located at \_\_\_\_\_ or any other full service office of the Issuer on or before the above-stated expiration date, as such expiration date may be extended hereunder. Partial and multiple draws and presentations are permitted on any number of occasions. Following any partial draw, Issuer will endorse this Letter of Credit and return the original to Beneficiary.

This Letter of Credit is issued pursuant to the provisions of that certain [Wind] [Solar] Energy Purchase Agreement between Beneficiary and [Applicant] dated as of \_\_\_\_\_, 20\_\_ (as the same may have been or may be amended from time to time, the "PPA"). Notwithstanding any reference in this Letter of Credit to the PPA or any other documents, instruments or agreements, or references in the PPA or any other documents, instruments or agreements to this Letter of Credit, this Letter of Credit contains the entire agreement between Beneficiary and Issuer relating to the obligations of Issuer hereunder.

This Letter of Credit will be automatically extended each year without amendment for a period of one (1) year from the expiration date hereof, as extended, unless at least thirty (30) days prior to the expiration date, Issuer notifies Beneficiary by registered or certified mail that it elects not to extend this Letter of Credit for such additional period. Notice of non-extension will be given by Issuer to Beneficiary at Beneficiary's address set forth herein or at such other address as Beneficiary may designate to Issuer in writing at Issuer's letterhead address.

This Letter of Credit is freely transferable by Beneficiary in whole or in part and the number of transfers is unlimited. Issuer shall affect any transfers immediately upon presentation to Issuer of this Letter of Credit and a completed written transfer request substantially in the form attached hereto as Exhibit "B." Such transfer will be effected at no cost to Beneficiary. Any transfer fees assessed by Issuer will be payable solely by Applicant, and the payment of any transfer fees will not be a condition to the validity or effectiveness of the transfer of this Letter of Credit.

Issuer waives any rights it may have, at law or otherwise, to subrogate to any claims which Beneficiary may have against Applicant or Applicant may have against Beneficiary.

This Letter of Credit is subject to the uniform customs and practice for documentary credits (2007 Revision), International Chamber of Commerce publication No. 600 (the "UCP"), except to the extent that the terms hereof are inconsistent with the provisions of the UCP, including but not limited to Articles 14(b) and 36 of the UCP, in which case the terms of this Letter of Credit shall govern. With respect to Article 14(b) of the UCP, Issuer shall have a reasonable amount of time, not to exceed three (3) banking days following the date of Issuer's receipt of documents from Beneficiary (to the extent required herein), to examine the documents and determine whether to take up or refuse the documents and to inform Beneficiary accordingly.

In the event of an act of God, riot, civil commotion, insurrection, war or any other cause beyond Issuer's control that interrupts Issuer's business and causes the place for presentation of this Letter of Credit to be closed for business on the last day for presentation, the expiry date of this Letter of Credit will be automatically extended without amendment to a date thirty (30) calendar days after the place for presentation reopens for business.

ISSUER:

By: \_\_\_\_\_  
Authorized Signature

**EXHIBIT "A"**  
TO LETTER OF CREDIT

**SIGHT DRAFT**

Draft Number \_\_\_\_\_  
\$ \_\_\_\_\_

At sight, pay to the order of Public Service Company of Colorado, the amount of USD \$ \_\_\_\_\_ ( \_\_\_\_\_ and 00/100ths U.S. Dollars).

Value received and charged to the account of: [Name of Issuer and address].  
Drawn under [Name of Issuer to be inserted] Standby Letter of Credit No.  
\_\_\_\_\_.

Dated: \_\_\_\_\_

Public Service Company of Colorado

By: \_\_\_\_\_  
[name and title]

Account: [Applicant to be inserted]

**EXHIBIT "B"**  
TO LETTER OF CREDIT

**FORM OF TRANSFER REQUEST**

Irrevocable Standby Letter of Credit No. \_\_\_\_\_

Current Beneficiary:

Public Service Company of Colorado  
1800 Larimer Street  
Denver, CO 80202

Applicant:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

To: [Name of Issuer] ("Issuer")

The undersigned, as the current "Beneficiary" of the above-referenced Letter of Credit, hereby requests that you reissue the Letter of Credit in favor of the transferee named below [insert transferee name and address below]:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

From and after the date this transfer request is delivered to Issuer, the transferee shall be the "Beneficiary" under the Letter of Credit for all purposes and shall be entitled to exercise and enjoy all of the rights, privileges and benefits thereof.

Dated: \_\_\_\_\_

Public Service Company of Colorado

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

[Notary Acknowledgement]

To be signed by a person purporting to be an authorized representative of Beneficiary and indicating his or her title or other official capacity, and acknowledged by a notary public.



**EXHIBIT H**  
**FORM OF GUARANTY**

**GUARANTY**

This Guaranty is executed and delivered as of this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ by \_\_\_\_\_, a \_\_\_\_\_ [corporation] ("Guarantor"), in favor of **Public Service Company of Colorado** ("Company"), in connection with the performance by \_\_\_\_\_, a \_\_\_\_\_ [limited liability company] ("Seller") of a [Wind] [Solar] Energy Purchase Agreement dated \_\_\_\_\_, 20\_\_\_\_ between Seller and Company (the "PPA").

- RECITALS -

A. Seller owns and operates a [wind] [solar] power electric generation facility having total nameplate capacity of approximately \_\_\_\_\_ MW located in \_\_\_\_\_ County, [Colorado] (the "Facility").

B. Seller and Company have entered into the PPA for the purchase and sale of capacity and electrical energy from the Facility on the terms and conditions set forth therein.

C. Seller is controlled by Guarantor. Guarantor expects to derive substantial benefits from the performance of the PPA by Seller and Company. To induce Company to enter into and continue the PPA and to consummate the purchase and sale of electrical energy contemplated by the PPA, Guarantor has agreed to guarantee the obligations of Seller as provided in this Guaranty.

NOW, THEREFORE, in consideration of the foregoing, Guarantor agrees as follows:

- AGREEMENT -

1. Guaranty. Subject to the provisions of this Guaranty, Guarantor hereby absolutely, irrevocably, unconditionally, and fully guarantees to Company the due, prompt, and complete observance, performance, and discharge of each and every payment obligation of Seller under the PPA, whether incurred before or after the date of delivery of this Guaranty (the "Obligations"). This is a guaranty of payment, not of collection, and as such, Company shall not be required to institute, pursue, or exhaust any remedies against Seller before instituting suit, obtaining judgment, and executing thereon against Guarantor under this Guaranty. This Guaranty shall survive termination of the PPA to the extent necessary to enforce and complete the rights, duties and obligations of Company and Seller thereunder.

2. Maximum Liability. Notwithstanding anything herein to the contrary, Guarantor's maximum liability under this Guaranty shall be limited to \_\_\_\_\_ dollars (US\$\_\_\_\_\_) plus costs of collection under Section 10 below.

**PSCo Model [Wind] [Solar] Energy Purchase Agreement**

3. Rights of Company. Guarantor hereby grants to Company, in Company's discretion and without the need to notify or obtain any consent from Guarantor, and without termination, impairment, or any other effect upon Guarantor's duties hereunder, the power and authority from time to time:

(a) to renew, compromise, extend, accelerate, or otherwise change, substitute, supersede, or terminate the terms of performance of any of the Obligations, in each case in accordance with the PPA;

(b) to grant any indulgences, forbearances, and waivers, on one or more occasions, for any length of time, with respect to Seller's performance of any of the Obligations; and

(c) to accept collateral, further guaranties, and/or other security for the Obligations, and, if so accepted, then to impair, exhaust, exchange, enforce, waive, or release any such security.

4. Performance. If any of the Obligations are not performed according to the tenor thereof, and any applicable notice and cure period provided by the PPA has expired ("Default"), Guarantor shall immediately upon receipt of written demand by Company (a) perform or cause Seller to perform the Obligation in Default, and (b) pay, reimburse, and indemnify Company against any liabilities, damages, and related costs (including attorneys' fees) incurred by Company as a result thereof, all in such manner and at such times as Company may reasonably direct.

5. Satisfaction. Satisfaction by Guarantor of any duty hereunder incident to a particular Default or the occurrence of any other Default shall not discharge Guarantor except with respect to the Default satisfied, it being the intent of Guarantor that this Guaranty be continuing until such time as all of the Obligations have irrevocably been discharged in full, at which time this Guaranty shall automatically terminate. If at any time the performance of any Obligation by Seller or Guarantor is rescinded or voided under the federal Bankruptcy Code or otherwise, then Guarantor's duties hereunder shall continue and be deemed to have been automatically reinstated, restored, and continued with respect to that Obligation, as though the performance of that Obligation had never occurred, regardless or whether this Guaranty otherwise had terminated or would have been terminated following or as a result of that performance.

6. Notice of Acceptance. Guarantor waives and acknowledges notice of acceptance of this Guaranty by Company.

7. Waivers by Guarantor. Guarantor hereby waives and agrees not to assert or take advantage of:

(a) all set-offs, counterclaims, and, subject to Section 4 above, all presentments, demands for performance, notices of non-performance, protests, and notices of every kind that may be required by Applicable Laws;

**PSCo Model [Wind] [Solar] Energy Purchase Agreement**

(b) any right to require Company to proceed against Seller or any other person, or to require Company first to exhaust any remedies against Seller or any other person, before proceeding against Guarantor hereunder;

(c) any defense based upon an election of remedies by Company;

(d) any duty of Company to protect or not impair any security for the Obligations;

(e) the benefit of any laws limiting the liability of a surety;

(f) any duty of Company to disclose to Guarantor any facts concerning Seller, the PPA or the Facility, or any other circumstances, that would or allegedly would increase the risk to Guarantor under this Guaranty, whether now known or hereafter learned by Company, it being understood that Guarantor is capable of and assumes the responsibility for being and remaining informed as to all such facts and circumstances; and

(g) until all Obligations in Default have been fully paid and/or performed, any rights of subrogation, contribution, reimbursement, indemnification, or other rights of payment or recovery for any payment or performance by it hereunder. For the avoidance of doubt, if any amount is paid to Guarantor in violation of this provision, such amount shall be held by Guarantor for the benefit of, and promptly paid to, Company.

8. Cumulative Remedies. The rights and remedies of Company hereunder shall be cumulative and not alternative to any other rights, powers, and remedies that Company may have at law, in equity, or under the PPA. The obligations of Guarantor hereunder are independent of those of Seller and shall survive unaffected by the bankruptcy of Seller. Company need not join Seller in any action against Guarantor to preserve its rights set forth herein.

9. Representations and Warranties. Guarantor represents and warrants to Company as follows:

(a) Guarantor is a corporation, duly organized, validly existing, and in good standing under the laws of the state of its incorporation. Seller is a direct or indirect wholly-owned subsidiary of Guarantor. Guarantor has all necessary corporate power and authority to execute and deliver this Guaranty and to perform its obligations hereunder.

(b) The execution, delivery and performance of this Guaranty has been duly and validly authorized by all corporate proceedings of Guarantor and is not in violation of any law, judgment of court or government agency. This Guaranty has been duly and validly executed and delivered by Guarantor and constitutes a legal, valid and binding obligation of Guarantor, enforceable against Guarantor in accordance with its terms.

10. Collection Costs. Guarantor shall pay to Company, upon demand, and in addition to the maximum liability set forth in Section 3 hereof, all reasonable attorneys' fees and other expenses which Company may expend or incur in enforcing the Obligations against Seller and/or enforcing this Guaranty against Guarantor, whether or not suit is filed, including, without limitation, all attorneys' fees, and other expenses incurred by Company in connection with any insolvency, bankruptcy, reorganization, arrangement, or other similar proceedings involving Seller that in any way affect the exercise by Company of its rights and remedies hereunder.

11. Severability. Should any one or more provisions of this Guaranty be determined to be illegal or unenforceable, all other provisions nevertheless shall be effective.

12. Waiver or Amendment. No provision of this Guaranty or right of Company hereunder can be waived, nor can Guarantor be released from Guarantor's duties hereunder, except by a writing duly executed by Company. This Guaranty may not be modified, amended, revised, revoked, terminated, changed, or varied in any way whatsoever except by the express terms of a writing duly executed by Company.

13. Successors and Assigns. This Guaranty shall inure to the benefit of and bind the successors and assigns of Company and Guarantor.

14. Governing Law. This Guaranty shall be governed by and construed in accordance with the law of the State of *[insert home state of Company]* without regard to the principles of conflicts of law thereof. Venue for any dispute hereunder shall be as set forth in Section 13.5 of the PPA.

15. Notices. All notices, requests, claims, demands, and other communications hereunder shall be in writing and shall be given (and shall be deemed to have been duly given upon receipt) by delivery in the manner contemplated by the PPA, addressed as follows:

(a) if to Company: as provided in the PPA

(b) if to Guarantor: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Attn:

with a copy to: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Attn:

or to such other address (es) as the person to whom notice is given may have previously furnished to the others in writing in the manner set forth above.

IN WITNESS WHEREOF, Guarantor has caused this Guaranty to be duly executed and delivered to Company as of the day and year first above written.

**[Name of Guarantor]**

By: \_\_\_\_\_

Name:

Title:

STATE OF \_\_\_\_\_ )  
 ) ss.  
COUNTY OF \_\_\_\_\_ )

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by \_\_\_\_\_, as \_\_\_\_\_ of \_\_\_\_\_.

Witness my hand and official seal.

My commission expires:\_\_\_\_\_.

( S E A L )

Notary Public

## EXHIBIT I

### AGC PROTOCOLS; DATA COLLECTION; TECHNICAL SPECIFICATIONS

#### AGC

##### 1. AGC Communications between Company and Seller

Company will receive and send AGC Set-Point and related data over an analog or digital line. The data points covered under this PPA, as described below, may overlap data requirements for the Transmission Authority or Company's applicable forecasting group.

##### 2. AGC Data Points to be sent from Seller to Company via SCADA

The following data points will be transmitted via SCADA from Seller to Company and represent Facility level data:

<u>Description</u>	<u>Units</u>
AGC Set-Point (echo)	MW
Power demand	MW
Actual power	MW
Park Potential	MW
Actual reactive power	Mvars
Average Voltage	kV
Number of turbines online and running	Integer
AGC Status	Remote/Local

##### 3. Response times and limitations of Facility in regards to AGC

The following protocols outline the expectations for responding to the AGC Set-Point. Except in the case of the Frequency of Changes, these protocols will be generally bound by the manufacturers' specifications for the equipment that Seller has chosen for the Facility.

a. Allowable Variances in Excess of AGC Set-Point. Once the Facility has reached the AGC Set-Point, there may be variances in excess of such set-point up to 2% on average as measured during a 10-minute period. This is due to changing wind conditions vs. the manufacturer's specifications for responding to those new conditions.

b. Frequency of Changes. Company may send a new AGC Set-Point to the Facility as frequently as the Wind Turbine manufacturer specifications allow.

c. Range of AGC Set-Point. The range of set point values can be between 0% and 100% of Park Potential.

#### **4. Backup Communications**

In the event of an AGC failure, Company and Seller shall communicate via telephone in order to correct the failure.

*For solar:*

#### **DATA COLLECTION**

At least two months prior to the Commercial Operation Date, Seller shall deliver to Company a report showing (i) manufacturer, model and year of all panels, inverters and meteorological instrumentation, and (ii) the latitude and longitude of the center of the solar panels for every inverter and every meteorological tower. Beginning upon COD, Seller shall transmit and provide to Company the real-time data set forth below, refreshed as frequently as allowed by the SCADA System, not to exceed sixty (60) second intervals:

- A. Two (2) data points from each inverter:
  - 1. Inverter generation (kW)
  - 2. Inverter availability
- B. Five (5) data points from each meteorological tower:
  - 1. Direct normal solar insolation (solar intensity)
  - 2. Temperature
  - 3. Barometric pressure
  - 4. Wind speed (meters per second)
  - 5. Wind direction (degrees relative to true north)

Seller shall provide a map and key for each inverter sufficient to allow Company to correlate the data received through Company's data historian system to each individual inverter.

\* \* \* \* \*

*For wind:*

#### **DATA COLLECTION**

##### **1. Data**

At least two months prior to the Commercial Operation Date, Seller will deliver to Company a report showing (i) manufacturer, model, and year of all Wind Turbines and meteorological instrumentation and (ii) the latitude, longitude and hub height at every Wind Turbine and meteorological tower.

Beginning upon COD, Seller shall transmit and provide to Company the real-time data set forth below, refreshed in approximately four-ten (4-10) second intervals with regard to its generation of Renewable Energy at the Facility:

a. Five data points from each Wind Turbine:

1. Turbine generation (kW)
2. Wind Speed (meters per second - mps)
3. Turbine Availability
4. Wind Direction (in degrees relative to true north)
5. Temperature (Celsius)

b. Five data points from each Meteorological Tower:

1. Wind Speed\*\* (mps)
2. Wind Direction\*\* (degrees relative to true north)
3. Temperature (Celsius)
4. Pressure (mb)
5. Air Density (kg/m<sup>3</sup>)

\*\* = at all metered heights.

c. In addition to the other requirements for data collection, Seller shall install, maintain and operate at least one meteorological tower that is installed at hub height and is placed upstream of the prevailing wind path. The data stream from this meteorological tower to the Company's PI System must be reliable during periods of transmission-related curtailments and must include battery back-up at the meteorological tower and a local source of electricity to power the PI System and interconnectivity between the Facility and Company during transmission outages.

d. Seller shall provide a map and key for each Wind Turbine sufficient to allow Company to correlate the data received through the PI System to each individual Wind Turbine.

## 2. Forecasting Requirements

a. Not later than 5:00 am on each Day, Seller shall post an availability and production forecast for the Facility through 11:00 pm on the following Day. The forecast shall be submitted through an availability forecast system specified by Company to Seller. Prior to the Commercial Operation Date, Company shall provide Seller with information necessary for Seller to access the chosen availability forecast system.

b. If any events or circumstances reduce the forecasted availability of the Facility by 5 MW or more, such reduction shall be (1) communicated to the real-time operator via telephone with (2) immediate update to the availability forecast in the availability forecast system. For example:

i. A disturbance at a 100.5 MW (67 x 1.5 MW wind turbines) wind plant causes 26 wind turbines (39 MW) to become unavailable. Only two turbines were planned to be down for maintenance (3 MW). The expected reduction in the



available capacity is 39 MW; exceeding the 5 MW requirement. A phone call to real-time operations with immediate update of the availability forecast is required. At the time of the outage, the estimated expected duration was thought to be six hours. Three hours into the outage, it became known that the 26 turbines would be available in an hour. A phone call notifying real-time of the change in availability is required with a coincident update in the availability forecast system.

ii. A disturbance at a 10 MW (8 x 1.25 MW turbines) wind plant forces 4 turbines (5 MW) off-line. Because the disturbance equals 5 MW, a phone call to real-time operations with immediate update of the availability forecast is required. If the disturbance had only affected 3 turbines (3.75MW), then no immediate action would be necessary.

iii. A 20 MW (20 x 1 MW turbines) wind plant is off-line for transmission maintenance. The maintenance work is completed 2 hours ahead of the projected completion. Because the change is greater than 10 MW, prior to coming on-line, a phone call is required coincident with an update to the availability forecast system to indicate the new availability.

#### **SURFACE WEATHER SYSTEM TECHNICAL SPECIFICATIONS** *for wind only*

The Surface Weather System shall satisfy the following technical specifications, all at Seller's cost:

##### Vaisala Hydromet System AWS301 (Quantity: 1)

- Data Collection and Processing System (DCP)
- AWS base unit w/ QML201C logger and BOX652 enclosure for DCP with Installation Frame and Radiation Shield
- Basic 24VDC main power supply
- Extra 24VDC main power supply
- Interface for 2x12V/26Ah Internal Batteries
- BAR0-1QML press. sensor Class A calibration
- PWD22 heated 3.85m cable + mounting
- QMD202 display and keypad inside enclosure
- Standard AWS310 configuration for data collection unit with non-metric (US) units
- Wall/H Frame installation kit
- Rubber enclosure flanges Option
- TERMBOX-1212 option
- MCC301 Observation Software (Standard)
- RS-232 Maintenance Cable for DCP
- Removable CF Card 2 GB for DCP with Industrial Temperature Range (2 pcs)

- RS-485 (2-w) Interface with DCP with Connector, Wiring and Surge Protector Using COM 1
- DSI486 Dual RS-485 Module for DCP (2 x RS-485 (2-w) + 1 x SDI-12) DSI486 Dual RS-485 Module for DCP (2 x RS-485 (2-w) + 1 x SDI-12)
- Sensor Interface for DCP with Connector and Wiring to one (1) HMP155 Air Temperature and Relative Humidity Sensor, Heated RH, via RS-485 (2-w) using mod 2 DSI486 port 2
- Sensor Interface for DCP Surge Protection, Connectors and Wiring to one (1) WMT702 Ultrasonic Wind Sensor (Heated) via RS-485 (2-w). ADC40V60 req. using mod 1 DSI486 port 2
- Sensor Interface for DCP Surge Protection, Connectors and Wiring to one (1) WMT702 Ultrasonic Wind Sensor (Heated) via RS-485 (2-w). ADC40V60 req. using mod 2 DSI486 port 2

Backup Batteries (Quantity: 1)

- Battery 12V 26Ah

LCD Display & Keyboard Unit (Quantity: 1)

- Display/Keyboard for MAWS Enclosure Door

Hub Height Level Sensors/ 1 RHAT & 2 WIND - Air Temp, RH and Dew Point

- 1 x HMP155 Humidity and Temperature Probe, Heated RH (separate T and RH via RS485)
- 2 x WMT702 transd.+arms heat 10m cable + mast mount
- 1 x Radiation Shield for Humidity and Temperature Probe with Mounting Kit (installed on pole mast 60-100 mm)
- Cable, Extension M112 8N Female to Male, 3M (8-pin F-M connectors)
- Cable to connect sensor to WSP150, cut to length, plus connection from WSP150 to Termination Box
- Surge Protector — For Data and Power Wiring
- 2 x WMT702 transducers+ arms heated 10m cable + mast mount
  - Stainless Steel Enclosure
  - Heated transducers and arms
  - RS-485/RS-422/RS-232
  - Metric Setup
  - No Power Supply or Cable
  - No Mounting Adaptor
  - Basic Configuration Work
  - Manual
- Mounting Adaptor 30 mm
- RS-485 and Power Cable for MAWS/WMT702, 10M Cable to connect sensor to WSP150, cut to length, plus connection from WSP150 to Termination Box
- Surge Protector — For Data and Power Wiring

- 8' Retractable Boom w/Sensor Mount (Quantity: 2)
- 12 pair data cable, 22 gauge, open leads, Hub Height
- Termination Box with Mounting Kit (Hub Height), mounted at Hub Height Level
- 5 Conductor Power Cables, 16 gauge, open leads, Hub Height

OPTIONAL Ice Condition Monitoring : PWD22 heated 3.85m cable + mounting

Extended Warranty

- Extended Warranty for up to four (4) years

Additionally, the installation of the Vaisala Surface Weather System shall require the following services: Configuration Work, Site Survey, Instrument Installation Day on Site-Vaisala, and Project Engineering/Management Work.

\* \* \* \* \*

**PSCo Model [Wind] [Solar] Energy Purchase Agreement**

**EXHIBIT J**

**ENERGY PAYMENT RATE; COMMITTED ENERGY**

*This entire Exhibit shall be deemed Confidential Information subject to Section 20.18.*

Commercial Operation Year	Energy Payment Rate (\$/MWh)	Committed Energy (MWh)	Commercial Operation Year	Energy Payment Rate (\$/MWh)	Committed Energy (MWh)
1	\$ _____	_____		\$ _____	_____
2	\$ _____	_____		\$ _____	_____
3	\$ _____	_____		\$ _____	_____
4	\$ _____	_____		\$ _____	_____
5	\$ _____	_____		\$ _____	_____
6	\$ _____	_____		\$ _____	_____
7	\$ _____	_____		\$ _____	_____
8	\$ _____	_____		\$ _____	_____
9	\$ _____	_____		\$ _____	_____
10	\$ _____	_____		\$ _____	_____
	\$ _____	_____		\$ _____	_____

**PSCo Model [Wind] [Solar] Energy Purchase Agreement**

**EXHIBIT K**  
**LENDER CONSENT PROVISIONS**

In the event Seller collaterally assigns its rights hereunder to a Facility Lender as security, any related Lender Consent will contain provisions substantially as follows:

1. Seller and Company will neither modify nor terminate the PPA in any material respect, without the prior written consent of the Facility Lender.
2. The Facility Lender shall have the right, but no obligation, to do any act required to be performed by Seller under the PPA, and any such act performed by the Facility Lender shall be as effective to prevent or cure a default as if done by Seller itself.
3. If Company becomes entitled to terminate the PPA due to an Event of Default by Seller, Company shall not terminate the PPA unless it has first given notice of such Event of Default to the Facility Lender and has given the Facility Lender the same cure period afforded to Seller under Article 12 of the PPA, plus an additional 30 Days beyond Seller's cure period to cure such Event of Default; *provided, however*, that if the Facility Lender requires possession of the Facility in order to cure the Event of Default, and if the Facility Lender diligently seeks possession, the Facility Lender's additional 30-Day cure period shall not begin until foreclosure is completed, a receiver is appointed, any bankruptcy stay is removed, or possession is otherwise obtained by or on behalf of the Facility Lender.
4. The Facility Lender shall provide to Company a copy of any notices of default and/or intent to exercise remedies delivered to Seller under the Financing Documents.
5. Upon any foreclosure, deed-in-lieu or other exercise of the rights and remedies of the Facility Lender that results in a successor owner or operator of the Facility, the Facility Lender shall require and cause the successor (i) to assume all of Seller's prospective obligations under the PPA, (ii) to cure any then-existing defaults by Seller that are capable of cure by performance or the payment of money damages, (iii) to have substantial experience in the operation of power generation facilities akin to the Facility, either directly, through its affiliates or through an operator acceptable to Company, and (iv) to enjoy (together with its parents and affiliates) an Investment Grade Credit Rating or other creditworthiness satisfactory to Company. Except for the foregoing, the Facility Lender shall not be obligated to perform or be liable for any obligation of Seller under the PPA.
6. Upon any rejection or other termination of the PPA in connection with any bankruptcy or insolvency of Seller, the Facility Lender (or its successor) and Company shall enter into a new power purchase agreement on the same terms and conditions as the PPA and for the period that would have been remaining under the PPA but for such termination.

\* \* \* \* \*

**PSCo Model [Wind] [Solar] Energy Purchase Agreement**

**EXHIBIT L**  
**PSA PROVISIONS**

Any PSA executed to implement exercise of Company's ROFO rights will include provisions substantially as follows:

1. The PSA shall close on such Business Day as may be specified by Company, not more than 180 Days following execution of the PSA (or such longer period as may be required for the PUC to act thereon).

2. Seller shall operate the Facility, and both Parties shall perform the PPA, in the ordinary course of business pending closing of the PSA.

3. Seller shall convey the Facility to Company via special warranty deed, free and clear of all mortgages, deeds of trust, UCC-1s, and other liens materially adverse to Company's ownership and operation thereof.

4. All revenues and expenses of the Facility shall be prorated as of the date of closing.

5. Seller shall provide customary comprehensive representations, warranties and indemnities to Company regarding its legal right to execute and perform the PSA, and regarding title, physical condition, vendors, employees, operations, finances, contracts, maintenance and other relevant matters pertaining to the Facility, unqualified by its knowledge but subject to such factual exceptions as Seller may disclose. Absent fraud, Seller's liability for breach of such reps and warranties shall not exceed 100% of the purchase price. Seller's post-closing obligations shall be secured by a suitable combination of hold-back escrow, letter of credit and/or guaranty from a creditworthy affiliate.

6. Company shall provide customary representations and warranties to Seller regarding its capacity and legal right to execute and perform the PSA, unqualified by its knowledge.

7. Company shall assume all material contracts of Seller related to the Facility that are reviewed and approved by Company (such approval not to be unreasonably withheld) during the due diligence period.

8. Company's obligation to close shall be conditioned upon (i) approval by the PUC, (ii) counterparty consent under all material contracts requiring such consent, (iii) receipt by Company of all Permits needed to own and operate the Facility, and (iv) no material casualty or condemnation of the Facility prior to closing.

9. Company shall have the right of specific performance, without the need to post bond or prove irreparable harm from Seller's failure to close. Venue for any dispute under the PSA shall be the [Colorado] District Court for the County in which the Facility is located.

10. Such other terms as may then be standard in the market.

\* \* \* \* \*

**EXHIBIT M**

*[Wind only]*

**AVAILABILITY GUARANTY CALCULATION**

*[insert definitions and calculations of “Availability” and “Availability Factor” from the Guaranty section of Seller’s Turbine Supply Agmt or O&M Agmt – Seller to provide – example may be included]*

## EXHIBIT M

*[Solar only]*

### METHODOLOGY FOR ADJUSTING COMMITTED SOLAR ENERGY

In determining whether a default by Seller has occurred under Section 12.1(A)(10):

A. Periods when the Facility is incapacitated in whole or in part due to Force Majeure shall be excluded from the calculation.

For example, if the Facility is 50% unavailable during the entire month of March 2025 due to Force Majeure, (i) the Committed Energy required from Seller for the relevant Commercial Operation Year shall be reduced by   %   *[insert March % from Exhibit N]*, and (ii) the output of the Facility for the month of March shall be excluded in determining the quantity of Renewable Energy delivered by Seller during the relevant Commercial Operation Year.

B. Periods of Non-Compensable Curtailment shall be excluded from the calculation.

For example, if the Facility is off-line for 8 days in October 2027 due to a maintenance outage on the transmission system beyond the Point of Delivery, the Committed Energy required from Seller for the relevant Commercial Operation Year shall be reduced by   %   *[insert 8/31 x October % from Exhibit N]*.

C. Energy generation foregone due to Compensable Curtailments shall be deemed to have been delivered to Company.

D. The Committed Solar Energy for the relevant Commercial Operation Year shall be multiplied by the ratio of the actual global horizontal irradiance for such Commercial Operation Year to the annual expected global horizontal irradiance for the Facility. Seller represents and warrants that the annual expected global horizontal irradiance for the Facility is            kWh/m<sup>2</sup>/yr (+/- 1%). ***ntd: Seller should provide proof to Xcel as part of bid process***

For example, if during the sixth Commercial Operation Year, the Facility actually generates        MWh of Renewable Energy but the actual solar irradiance for such Commercial Operation Year was        kWh/m<sup>2</sup>, the Committed Energy for such Commercial Operation Year (assuming no other adjustments under paragraphs A-C above) shall be reduced from        MWh to        MWh for purposes of determining a default by Seller under Section 12.1(A)(10).

The actual solar irradiance for a Commercial Operation Year shall be determined by the pyranometer readings at the Site (or from *[insert alternate – e.g. “NSRDB site at \_\_\_\_\_” or “GeoModel Solar GIS DataBase published by \_\_\_\_\_, for \_\_\_\_\_”]*), for any periods when the pyranometer at the Site is inoperable). Seller shall provide to Company upon request all pertinent GeoModel SolarGIS data and on-site pyranometer data for any Commercial Operation Year.

\* \* \* \* \*



**PSCo Model [Wind] [Solar] Energy Purchase Agreement**

**EXHIBIT N**

*[solar only]*

**EXPECTED MONTHLY GENERATION PROFILE**

Calendar Month	Percent of Annual Generation
January	__ %
February	__ %
March	__ %
April	__ %
May	__ %
June	__ %
July	__ %
August	__ %
September	__ %
October	__ %
November	__ %
December	__ %
Total	100 %

**PSCo Model Renewable Energy Only Purchase Agreement**

**RENEWABLE ENERGY ONLY PURCHASE AGREEMENT**

**BETWEEN**

**PUBLIC SERVICE COMPANY OF COLORADO**

**AND**

[REDACTED]



- [date] -

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**PSCO MODEL RENEWABLE ENERGY ONLY PURCHASE AGREEMENT**  
**BETWEEN**  
**PUBLIC SERVICE COMPANY OF COLORADO**  
**AND**

[REDACTED], LLC

This Renewable Energy Only Purchase Agreement (this “PPA”) is made as of this [REDACTED] day of [REDACTED], 20[REDACTED], by and between (i) **Public Service Company of Colorado**, a Colorado corporation with a principal place of business at 1800 Larimer Street, Denver, CO 80202 (“Company”), and (ii) [REDACTED], LLC, a [REDACTED] [limited liability company] with a principal place of business at [REDACTED] (“Seller”). Company and Seller are hereinafter referred to individually as a “Party” and collectively as the “Parties.”

WHEREAS Seller desires to develop, design, construct, interconnect, own, operate and maintain the Facility as defined herein; and

WHEREAS Seller desires to sell and deliver, and Company desires to accept and receive, certain products and services generated and delivered from the Facility to the Point of Delivery at the prices and on the terms and conditions set forth in this PPA.

NOW THEREFORE, in consideration of the mutual covenants herein contained, the sufficiency and adequacy of which are hereby acknowledged, the Parties agree to the following:

**Article 1 - Rules of Interpretation**

1.1 Interpretation.

(A) Capitalized terms listed in this PPA shall have the meanings set forth in Exhibit A - Definitions or as otherwise defined in this PPA, whether in the singular or the plural or in the present or past tense. Words not otherwise defined in this PPA shall (i) have meanings as commonly used in the English language, (ii) be given their generally accepted meaning consistent with Good Utility Practice, and (iii) be given their well known and generally accepted technical or trade meanings.

(B) The following rules of interpretation shall apply: (1) The masculine shall include the feminine and neuter; (2) references to “Articles,” “Sections” or “Exhibits” shall be to articles, sections, or exhibits of this PPA except as the context may otherwise require; (3) all Exhibits are incorporated into this PPA (*provided, however*, that in the event of a conflict with the terms of this PPA, the PPA shall control); and (4) use of the words “include” or “including” or similar words shall be interpreted as “include without limitation” or “including, without limitation.”

(C) This PPA was negotiated and prepared by both Parties with the advice and participation of counsel. None of the provisions hereof shall be construed against one Party on the ground that such Party is the author of this PPA or any part hereof.

## 1.2 Interpretation with Other Agreements.

(A) This PPA does not provide Seller authorization to interconnect the Facility or inject power into the Transmission Authority's System. Seller shall contract for interconnection services in accordance with the applicable Transmission Tariff. Seller acknowledges that the Interconnection Agreement is/will be a separate contract and that (i) this PPA is not binding on the Transmission Authority, (ii) this PPA does not create any rights between Seller and the Transmission Authority, and (iii) the Interconnection Agreement does not modify the Parties' rights and obligations under this PPA. The applicable Transmission Authority shall be deemed to be a separate and unaffiliated contracting party for purposes of this PPA, regardless whether such Transmission Authority is Company or an Affiliate of Company.

(B) This PPA does not provide for the supply of retail power for purposes of operating the Facility, including start-up, shut-down, oil heating, [turbine] [panel] adjustment, HVAC or any other purpose ("House Power"). Seller shall contract with the utility providing House Power to the Site (the "Local Provider") for the supply of House Power. Seller acknowledges that (i) Seller must obtain House Power independently, (ii) this PPA is not binding on the Local Provider, (iii) this PPA does not create any rights between Seller and the Local Provider, and (iv) Seller's contract for House Power does not affect the Parties' rights and obligations under this PPA. For purposes of this PPA, the Local Provider shall be deemed to be a separate and unaffiliated contracting party regardless whether the Local Provider is Company or an Affiliate of Company; *provided* that, if (and only if) the Local Provider is Company or an Affiliate of Company, Seller may obtain House Power by self-generating and netting such self-generation from the Contract Energy provided to Company unless prohibited by Applicable Law .

1.3 Good Faith and Fair Dealing. The Parties shall act reasonably and in accordance with the principles of good faith and fair dealing in the performance of this PPA. Unless expressly provided otherwise in this PPA, (a) when this PPA specifically references the consent, approval, or similar action by a Party, such consent or approval shall not be unreasonably withheld, conditioned or delayed, and (b) wherever this PPA specifically gives a Party a right to determine, require, specify or take similar action with respect to a matter, such determination, requirement, specification or similar action shall be Commercially Reasonable.

## **Article 2 - Term and Termination**

This PPA shall become effective as of the date of its execution, and shall remain in full force and effect until the 11:59 pm on the last Day of the calendar month during which occurs the [ ]<sup>th</sup> anniversary of the Commercial Operation Date (the "Scheduled Termination Date"), subject to early termination as provided in this PPA. Applicable provisions of this PPA shall continue in effect after termination to the extent necessary to (i) provide for final billings, payments and adjustments, (ii) enforce or complete the duties, obligations or responsibilities of the Parties (including under Section 12.1(B)-(D), Section 12.2(C), Section 12.3(B)-(C), Article 13 and Article 17 below), and (iii) address any remedies or indemnifications arising prior to termination.



### Article 3 - Facility Description

3.1 Description. Seller shall construct, interconnect, own, operate, and maintain the Facility, as further described in Exhibit C - Facility Description. A scaled map that identifies the Site, the location of the Facility, the Interconnection Point and Interconnection Facilities, the Point of Delivery, and other important facilities, is included in Exhibit C - Facility Description.

#### 3.2 General Design of the Facility.

(A) Seller shall design, construct, operate and maintain the Facility according to Good Utility Practices and the Interconnection Agreement.

(B) The Facility shall include all equipment specified in Exhibit C - Facility Description and otherwise necessary to fulfill Seller's obligations under this PPA, including all equipment necessary (i) to meet the requirements of Exhibit I - Operating Standards, and (ii) to interconnect successfully with the Transmission Authority's System for the delivery of Renewable Energy to the Point of Delivery.

(C) The Nameplate Capacity of the Facility shall be [ ] MW. *solar: add "DC" or "AC"* +/- 0.5%. Seller shall certify to Company the final actual Nameplate Capacity of the Facility promptly following COD.

### Article 4 - Implementation

#### 4.1 Project Development.

(A) Seller shall enter into and perform at its expense all contracts required for (i) the engineering, procurement, construction, acquisition, manufacture, delivery and installation of the Facility, and (ii) the generation and delivery of Renewable Energy from the Facility to the Point of Delivery (generally, the "Construction Contracts") with qualified and experienced contractors. Upon written request by Company, Seller shall provide copies of any or all Construction Contracts to Company. All Construction Contracts obtained by Company shall be deemed Confidential Information subject to Section 20.18 below.

(B) In its efforts to achieve COD, Seller shall use Commercially Reasonable Efforts to achieve the milestones set forth in Exhibit B – Construction Milestones, and shall notify Company promptly following achievement of each such milestone.

(C) Prior to the Commercial Operation Date, Seller shall (i) submit monthly progress reports to Company in a form agreed by the Parties, advising Company of the current status of each Construction Milestone, any significant developments or delays (along with an action plan for making up delays), and Seller's best estimate of the Commercial Operation Date; (ii) provide copies of reports submitted to the Facility Lender relating to status, progress and development of the project, and (iii) invite Company to participate in monthly meetings to discuss the progress reports,

answer questions, and assess the schedule. Seller shall make all relevant counterparties under the Construction Contracts available to Company, upon request, in order to keep Company fully informed on the status of development.

(D) Upon request, Company shall have the right to monitor the construction, start-up, testing, and operation of the Facility at the Site to verify compliance with this PPA, *provided, however*, that Company shall comply with all of Seller's applicable safety and health rules and requirements.

(E) Neither Company's review of Construction Contracts and Seller's reports, nor its discussions with Seller and its contractors, nor its monitoring of development and construction the Facility, shall be construed as endorsement by Company of the design, engineering, construction or testing thereof nor as any express or implied warranty as to the performance, safety, durability, or reliability of the Facility.

#### 4.2 Environmental Matters.

(A) No later than 60 Days following PUC Approval, Seller shall complete and provide to Company a comprehensive independent "Phase I" environmental investigation of the Site or its equivalent (including associated raw data, if requested by Company). Seller shall notify Company promptly (i) if (and to what extent) any Environmental Contamination on the Site will preclude or interfere with Seller's ability to perform its obligations under this PPA, and (ii) Seller's plan for remediation thereof that would allow Seller to perform this PPA as and when due. The Phase I report delivered to Company under this paragraph shall be deemed Confidential Information for purposes of Section 20.18.

(B) Throughout the Term, Seller promptly shall

1. disclose to Company and remediate any Environmental Contamination identified at the Site;
2. provide to Company copies of any further environmental assessments or investigations of the Site (including associated raw data, if requested by Company); and
3. disclose to Company the existence of any enforcement, legal, or regulatory action or proceeding relating to any alleged presence of Environmental Contamination and/or the alleged violation of any Applicable Law related to the protection of endangered, migratory or other protected species.

(C) For purposes hereof:

1. "Environmental Contamination" means the introduction or presence of Hazardous Materials at such levels, quantities or location, or of such form or character, that (i) requires remediation under Applicable Law, (ii) present a material risk that the Site will not be available or usable for the purposes

contemplated by this PPA, and/or (iii) will preclude or interfere with Seller's ability to perform its obligations under this PPA as and when due.

2. "Hazardous Materials" means any substance, material, gas, or particulate matter that is regulated by any Governmental Authority as an environmental pollutant or dangerous to public health, public welfare, or the natural environment (including protection of non-human forms of life, land, water, groundwater, and air), including any material or substance that is (i) defined as "toxic," "polluting," "hazardous waste," "hazardous material," "hazardous substance," "extremely hazardous waste," "solid waste" or "restricted hazardous waste" under any provision of local, state, or federal law; (ii) petroleum, including any fraction, derivative or additive; (iii) asbestos; (iv) polychlorinated biphenyls; (v) radioactive material; (vi) designated as a "hazardous substance" pursuant to the Clean Water Act, 33 U.S.C. §1251 *et seq.* (33 U.S.C. §1251); (vii) defined as a "hazardous waste" pursuant to the Resource Conservation and Recovery Act, 42 U.S.C. §6901 *et seq.* (42 U.S.C. §6901); (viii) defined as a "hazardous substance" pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §9601 *et seq.* (42 U.S.C. §9601); (ix) defined as a "chemical substance" under the Toxic Substances Control Act, 15 U.S.C. §2601 *et seq.* (15 U.S.C. §2601); or (x) defined as a pesticide under the Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. §136 *et seq.* (7 U.S.C. §136).

#### 4.3 Permits.

(A) Seller shall obtain and pay for all Permits necessary or advisable under Good Utility Practice for the construction, ownership, operation and maintenance of the Facility and the generation and delivery of the output from the Facility to Company. Seller shall keep Company informed as to the status of its permitting efforts and shall provide Company the opportunity to review and comment on major applications for draft and final Permits. Seller shall promptly inform Company of (i) any Permits which Seller is unable to obtain, that are delayed, limited, suspended, terminated or otherwise constrained, along with a statement of whether and to what extent this circumstance may limit or preclude Seller's ability to perform under this PPA, and (ii) Seller's plan to overcome such issue(s) to allow Seller to perform this PPA as and when due. Company shall have the right to inspect and obtain copies of all Permits held by Seller.

(B) Seller represents and warrants to Company that, except for those Permits identified in Exhibit F - Seller's Needed Permits (each of which Seller anticipates will be obtained by Seller in the ordinary course of business), all Permits and other actions required or recommended by applicable Governmental Authorities to authorize Seller's execution, delivery and performance of this PPA have been duly obtained and are in full force and effect.

(C) Throughout the Term, Seller promptly shall disclose to Company the existence of any enforcement, legal, or regulatory action or proceeding relating to the

alleged violation of any Permit held by Seller, which proceeding (if successful) could materially interfere with Seller's performance of this PPA.

(D) For purposes hereof, "Permits" means all applicable construction, land use, air quality, emissions control, environmental, protected species, and other permits, licenses and approvals from any Governmental Authority for construction, ownership, operation and maintenance of the Facility and the generation and delivery of Renewable Energy therefrom.

4.4 Governmental Inspections. Seller shall notify Company (i) sufficiently in advance of any known upcoming significant inspections by any Governmental Authority relating to the Facility, to allow Company the opportunity to attend, and (ii) promptly after any unscheduled or impromptu inspection with a description of the nature and outcome of such inspection.

4.5 Commercial Operation.

(A) Seller shall cause COD to occur no later than [REDACTED], 20[REDACTED] (the "Target COD"). Company shall not be obligated to accept and establish a Commercial Operation Date earlier than [REDACTED], 20[REDACTED] (*insert date that is 92 days prior to Target COD*).

(B) Seller shall notify Company of the date on which Seller believes the Facility has achieved Commercial Operation (a "COD Notice"). A COD Notice shall include all necessary supporting documentation of the satisfaction or occurrence of all COD Conditions. Company shall have 10 Business Days to review a COD Notice and raise any Commercially Reasonable objection to Seller's satisfaction of any of the COD Conditions, *provided, however*, that Seller's COD Notice shall be deemed accepted by Company if Company fails to object within such time period. Seller may notify Company of completion of one or more COD Conditions on an individual and incremental basis prior to COD, *provided, however*, that Company shall in all cases have up to 10 Business Days to review and object to each such notice.

(C) For purposes hereof:

1. the "Commercial Operation Date" or "COD" means 12:01 am on the Day following the date on which Company receives Seller's COD Notice, without valid objection thereto by Company; and

2. the "COD Conditions" are:

(a) an officer of Seller, authorized to bind Seller and who is familiar with the Facility, has provided written confirmation that (1) all necessary and material Permits have been obtained and are in full force and effect, (2) Seller is in compliance with this PPA in all material respects, (3) Seller has made all necessary arrangements to obtain and pay the Local Provider for House Power, and (4) the Facility is available to commence normal operations in accordance with Seller's operating agreements, Construction Contracts, and applicable manufacturers' warranties;

(b) Seller has proven to Company's reasonable satisfaction that (1) Seller and the Transmission Authority have signed the Interconnection Agreement, and Seller has received no notice of breach thereof from the Transmission Authority, (2) the Facility is interconnected to the Transmission Authority's System, has been fully tested, has achieved initial synchronization, and has been successfully operated at a generation level acceptable to the Transmission Authority, without experiencing any abnormal or unsafe operating conditions on any interconnected system, and (3) Seller has made all other arrangements necessary to deliver Renewable Energy from the Facility to the Point of Delivery during the Term;

(c) Seller has obtained and provided to Company an independent registered professional engineer's certification stating that the Facility has been completed in all material respects, except for "punch list" items that do not have a Material Adverse Effect on the ability of the Facility to operate for its intended purpose;

(d) Seller has complied and provided to Company the certifications required by 4 CCR 723-3668 (or has provided suitable evidence that the Facility is exempt from such rule);

(e) Seller has demonstrated the reliability of the Facility's communications systems and AGC interface with Company's EMCC, and the capability of the Facility to receive and respond to signals from Company's SCADA System; and

(f) Generators comprising at least 95% of the Nameplate Capacity planned for the Facility, and associated equipment sufficient to allow such generators to generate and deliver Renewable Energy to the Point of Delivery, have been installed and become operable.

(D) For purposes hereof, the first "Commercial Operation Year" shall mean the period starting at 12:01 a.m. on the Commercial Operation Date and ending at 11:59 pm on the last Day of the calendar month in which the first anniversary of COD occurs, and each successive "Commercial Operation Year" shall mean the 12 month period following the prior Commercial Operation Year.

#### 4.6 Test Energy.

(A) Seller shall provide Company and Transmission Authority with the information necessary to have the Facility registered with the Transmission Authority for inclusion in any generation modeling maintained by the Transmission Authority, sufficiently in advance to allow the Facility to be registered in such model at least four months prior to generating any Test Energy. Company shall cooperate reasonably to assist in the registration of the Facility to allow generation of Test Energy.

(B) Seller shall coordinate the production and delivery of Test Energy with Company, with not less than seven Business Days' prior Notice, or such other Commercially Reasonable prior Notice as Company may reasonably request.

(C) For purposes hereof, "Test Energy" means Renewable Energy generated by the Facility prior to COD, required to satisfy the COD Conditions.

## **Article 5 - Delivery**

### **5.1 Arrangements.**

(A) Seller shall be responsible for arranging, maintaining and paying the costs associated with the interconnection of the Facility to the Transmission Authority's System. Seller shall comply with the Transmission Authority's requirements for interconnection and shall comply with all requirements set forth in the applicable Transmission Tariff. Seller's interconnection application shall request that the Transmission Authority study the Facility for both Energy Resource Interconnection Service and Network Resource Interconnection Service under the Transmission Tariff. The resulting Interconnection Agreement must include Energy Resource Interconnection Service at a minimum. Seller shall cooperate reasonably in any request by Company to assist in Company's efforts to have the Facility approved as a Network Resource or equivalent classification pursuant to the applicable Transmission Tariff.

(B) Seller hereby authorizes Company to contact, discuss and obtain information concerning the Facility and Interconnection Facilities directly with/from the Transmission Authority. Promptly upon request by Company, Seller shall confirm such authorization in writing to the Transmission Authority and any applicable transmission owners in such form as may be requested by Company or the Transmission Authority.

(C) To the extent required, Company shall arrange and be responsible for scheduling and transmission services at and beyond the Point of Delivery. To the extent applicable, Company shall be the market participant for the Facility, as defined by the Transmission Authority.

(D) Seller shall be responsible for all interconnection, electric losses, transmission and ancillary service arrangements and costs required to deliver, on a firm transmission service basis, Renewable Energy from the Facility to the Point of Delivery. Company shall be responsible for all electric losses, transmission and ancillary service arrangements and costs required to transmit and deliver Renewable Energy beyond the Point of Delivery.

### **5.2 Market Changes.**

(A) If at any time during the Term, the Transmission Authority changes or the facilities at the Point of Delivery cease to be subject to the Transmission Tariff, the Parties shall cooperate in good faith to facilitate the delivery of Renewable Energy from the Point of Delivery to Company's load, at the least possible cost to the Parties, consistent with this PPA to the extent possible.

(B) If at any time during the Term, the Transmission Authority, the ERO or any other Governmental Authority with jurisdiction imposes an organized market or

Company elects to join a regional transmission organization or participate in an organized market that changes the manner in which the Facility is scheduled and dispatched, the Parties shall cooperate in good faith to change their protocols for operation of the Facility accordingly, at the least possible cost to the Parties, consistent with this PPA to the extent possible.

(C) In the event that improvements to the Facility or other expenditures by Seller are necessary to comply with this Section 5.2, which expenditures must be capitalized by Seller under generally accepted accounting principles consistently applied, Company shall reimburse Seller one percent (1%) of such expenditures per month, beginning with the first month following substantial completion of such expenditures and ending upon the earlier to occur of (i) the 100<sup>th</sup> month following the start of such reimbursements, and (ii) the end of the Term of this PPA.

### 5.3 Electric Metering Devices.

(A) All Electric Metering Devices used to measure energy shall be owned, installed, and maintained in accordance with the Interconnection Agreement, at no cost to Company.

1. Meter readings will be adjusted to reflect losses from the Electric Metering Devices to the Point of Delivery in accordance with applicable manufacturers' parameters or as otherwise agreed by the Parties.

2. Seller shall arrange any necessary authorization to provide Company access to all Electric Metering Devices for purposes ancillary to this PPA, and shall provide Company the opportunity to be present at any time when such Electric Metering Devices are to be inspected, tested or adjusted.

(B) Either Party may elect to install and maintain, at its own expense, backup metering devices ("Back-Up Metering"), *provided, however*, that the specifications, installation and testing of any such Back-Up Metering shall be consistent with the requirements for the Electric Metering Devices. Upon written request from the other Party, the installing Party shall test the Back-Up Metering. The actual cost of any such test shall be borne by the Party requesting the test, unless, upon such test, Back-Up Metering is inaccurate by more than one percent, in which case the cost of the retest shall be borne by the installing Party. If requested in writing, the installing Party shall provide copies of any inspection or testing reports to the requesting Party.

(C) If an Electric Metering Device or Back-Up Metering fails to register, or if the measurement is inaccurate by more than one percent, an adjustment shall be made correcting all measurements as follows:

1. If the Electric Metering Device is found to be defective or inaccurate, the Parties shall use Back-up Metering, if installed, to determine the amount of such inaccuracy, *provided, however*, that Back-Up Metering has been tested and maintained and adjusted for losses on the same basis as the Electric Metering Device. If Back-Up Metering is not installed, or Back-Up Metering is also

found to be inaccurate by more than one percent, the Parties shall use the best available information for the period of inaccuracy, adjusted for losses to the Point of Delivery in accordance with applicable manufacturers' parameters or as otherwise agreed by the Parties.

2. If the Parties cannot agree on the actual period during which inaccurate measurements were made, the period shall be the shorter of (i) the last one-half of the period from the last previous test of the Electric Metering Device to the test that found the Electric Metering Device to be defective or inaccurate, or (ii) 180 Days immediately preceding the test that found the Electric Metering Device to be defective or inaccurate.

3. To the extent that an adjustment period covers a period of deliveries for which payment has already been made by Company, Company shall use the corrected measurements as determined in accordance with this Article 5 to re-compute the amount due for the period of the inaccuracy and shall subtract the previous payments made by Company for this period from such re-computed amount. The net difference shall be reflected as an adjustment on the next regular invoice in accordance with Article 9.

## **Article 6 - Conditions Precedent**

### **6.1 PUC Approval.**

(A) No later than 45 Days after the date of this PPA, Company may apply to the PUC for PUC Approval. If Company fails to apply for PUC Approval within 45 Days following the date of this PPA, Company shall be deemed to have waived its right to obtain PUC Approval and to terminate this PPA under this Section 6.1, and this PPA shall remain in full force and effect thereafter.

(B) If Company applies for PUC Approval, Company shall use Commercially Reasonable Efforts to obtain PUC Approval as soon as reasonably practicable. Seller shall cooperate with Company's efforts to obtain PUC Approval, including provision of site-specific surveys for endangered species, avian migration pathways and critical habitats, and certification of consultation with the Colorado Division of Wildlife with respect thereto, as required by 4 CCR 723-3668.

(C) If Company applies for PUC Approval, Company shall have the right to terminate this PPA, without any further financial or other obligation to Seller as a result of such termination, by notice to Seller

1. at any time within 30 Days following issuance of a written order by the PUC rejecting PUC Approval, or granting PUC Approval with conditions unacceptable to Company in its sole discretion;



**PSCo Model Renewable Energy Only Purchase Agreement**

2. at any time between the 180<sup>th</sup> and 215<sup>th</sup> Day following Company's application for PUC Approval, if prior to the date of such termination the PUC has not issued a written order granting or rejecting PUC Approval;

3. at any time within 30 Days following timely request for reconsideration (in whole or in any material part) by any third party with standing, of a written PUC order granting PUC Approval; and/or

4. at any time within 30 Days following timely appeal by any party with standing, of a written PUC order granting PUC Approval.

If Company is eligible but fails to terminate this PPA by the applicable date, Company shall be deemed to have waived its right to terminate this PPA under this Section 6.1(C), and this PPA shall remain in full force and effect thereafter.

(D) For purposes of this PPA, "PUC Approval" means a written order of the PUC making an affirmative determination that all costs incurred under this PPA are recoverable from Company's retail customers pursuant to Applicable Law, subject only to the requirement that the PUC retains ongoing prudence review of Company's performance and administration of this PPA.

6.2 Other Company CPs. *[if any].*

6.3 Seller CPs. *[if any - bid specific].*

**Article 7 - Sale and Purchase**

7.1 General Obligation.

(A) Beginning on the Commercial Operation Date, Seller shall generate from the Facility, deliver to the Point of Delivery, and sell to Company, and Company shall receive and purchase at the Point of Delivery, the Renewable Energy and other products and services required by this PPA. Seller shall not curtail or interrupt deliveries of Renewable Energy to Company for economic reasons of any type.

(B) Title and risk of loss of the products and services transacted by this PPA shall transfer from Seller to Company at the Point of Delivery.

7.2 AGC. Beginning on the Commercial Operation Date, Company shall dispatch the Facility through the EMCC AGC system. Seller shall ensure that, throughout the Term:

(A) the SCADA signal is capable of functioning on all AGC Set Points within the margin of error specified in the manufacturer's energy set point margin of error; and

(B) the Facility AGC Remote/Local status is in "Remote" set-point control during normal operations.

**7.3 Green Benefits.** The Parties acknowledge that existing and future Applicable Laws create significant value in the ownership, use and allocation of Green Benefits. To the full extent allowed by Applicable Law, Seller hereby assigns to Company (and Company shall own and be entitled to claim) all Green Benefits to the extent existing or created during the Term associated with the Facility and the Renewable Energy purchased by Company hereunder, at no additional charge to Company under this PPA.

(A) Seller hereby irrevocably assigns to Company all rights, title and authority for Company to register the Facility as an Eligible Energy Resource and own, hold and manage the Green Benefits associated with the Facility in Company's own name and to Company's account, including any rights associated with any renewable energy information or tracking system that exists or may be established (including participation in any applicable REC Registration Program) with regard to monitoring, registering, tracking, certifying, and/or trading such Green Benefits. Seller hereby authorizes Company to act as its agent for the purposes of registering the Facility as an Eligible Energy Resource, and tracking, certifying, registering and reporting such Green Benefits. Seller grants to Company full authority to hold, use, sell and/or trade such Green Benefits for its own account in all applicable renewable energy information or tracking systems. Upon the request of Company, at no cost to Company, (i) Seller shall deliver or cause to be delivered to Company appropriate attestations/certifications of Green Benefits, and (ii) Seller shall cooperate with Company's tracking, registration, reporting and certification of Green Benefits.

(B) Prior to the Commercial Operation Date, Seller shall make all applications and/or filings required by Applicable Law for accreditation of Green Benefits and for the assignment of such Green Benefits to Company.

(C) For purposes hereof, "Green Benefits" means existing and future environmental credits, benefits or attributes, emissions reductions and avoidances (including emission rate credits), offsets, allowances and green tags, attributable to the Facility during the Term and/or Renewable Energy sold to Company under this PPA, recognized by Applicable Law, including any rights to compensation therefor. Green Benefits include

1. Renewable Energy Credits;
2. Avoided emissions of pollutants to the air, soils or waters, such as sulfur oxides (SO<sub>x</sub>), nitrogen oxides (NO<sub>x</sub>) and carbon monoxide (CO);
3. Avoided emissions of greenhouse gases (such as carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydro fluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF<sub>6</sub>)) that have been or may in the future be determined by the United Nations Intergovernmental Panel on Climate Change or by Applicable Law to contribute to the threat of climate change; and
4. Reporting rights for avoided emissions, such as Green Tag Reporting Rights.

#### 7.4 Ancillary Services.

(A) Company shall be entitled and Seller shall make available to Company all Ancillary Services associated with the Facility, at no additional charge to Company. Seller shall use Commercially Reasonable Efforts to maximize the Ancillary Services available from the Facility.

(B) Any compensation Seller receives under the Interconnection Agreement or otherwise from third parties for Ancillary Services shall be provided to Company at no additional cost to Company under this PPA. To implement the foregoing, Seller shall credit Company, as a reduction to Seller's monthly invoice or other mutually-agreed mechanism, for any compensation that Seller receives from third parties for Ancillary Services; *provided*, that if a Governmental Authority or Transmission Authority implements new or revised requirements for generators to create, modify, or supply Ancillary Services, requiring Seller to install additional equipment after the date hereof to meet such requirements, then Seller shall be allowed to reduce the amount to be credited to Company for Ancillary Services by an amount sufficient to recover the cost of such additional equipment. Any cost not so recovered by Seller in any billing period shall be carried forward as a reduction of the amount of the credit in subsequent billing periods.

(C) For purposes hereof, "Ancillary Services" means ancillary services addressed under the Transmission Tariff from time to time (if any), which are associated, directly or indirectly, with the capacity of the Facility or the generation and/or transmission of Renewable Energy from the Facility from time to time, including any rights to compensation therefor. By way of example only, "Ancillary Services" may include capacity or reliability attributes, resource adequacy characteristics, locational benefit attributes, and/or VaR generation.

### **Article 8 - Payment Calculations**

#### 8.1 Payment for Renewable Energy.

(A) Company shall pay Seller a payment rate equal to 70% of the Energy Payment Rate for the first Commercial Operation Year, for all Test Energy delivered to Company.

(B) Commencing on the Commercial Operation Date, Company shall pay the Energy Payment Rate to Seller for all Renewable Energy, up to 115% of the Committed Energy in each Commercial Operation Year, *provided* that Company shall never be required to pay for net instantaneous output of the Facility (as measured at the Point of Delivery) in excess of the Nameplate Capacity.

(C) The Energy Payment Rate shall be deemed Confidential Information for purposes of Section 20.18 below.

## 8.2 Excess Energy.

(A) Seller shall notify Company promptly upon Seller's delivery of Renewable Energy hereunder that exceeds 110% of the Committed Energy for a Commercial Operation Year. Within 10 Business Days of any such notice, Company shall elect by notice to Seller either to accept or to decline any Excess Energy generated by the Facility through the balance of such Commercial Operation Year. Failure by Company to deliver such notice shall be deemed an election by Company to decline any Excess Energy for that Commercial Operation Year.

(B) If Company elects to accept Excess Energy, Company shall pay Seller the full Energy Payment Rate for all Excess Energy for the balance of that Commercial Operation Year.

(C) If Company declines Excess Energy, (1) Company's purchases of Renewable Energy with respect to the applicable Commercial Operation Year shall cease when Renewable Energy generated by the Facility and delivered to the Point of Delivery reaches 115% of the Committed Energy for such Commercial Operation Year, and (2) Seller shall have the right to sell such Excess Energy (including associated RECs) to one or more third parties until the end of the applicable Commercial Operation Year, after which the Parties' obligations shall resume pursuant to this PPA. Seller shall be solely responsible for all costs and logistics associated with such third-party sales, including arranging transmission service and delivery at no cost to Company.

(D) For purposes hereof, "Excess Energy" means all energy generated by the Facility in any Commercial Operation Year (including any Compensable Curtailment Energy) in excess of 115% of the Committed Energy for such Commercial Operation Year.

## 8.3 Curtailment.

(A) Company may require Seller, by telephonic communication or through use of the AGC Set Point, to curtail the delivery of Renewable Energy to Company from the Facility, for any reason and in Company's sole discretion. Seller shall promptly comply with each such notification.

(B) For purposes hereof:

1. "Compensable Curtailment" means a curtailment of generation or delivery of Renewable Energy following COD arising out of the following (and only the following):

- i. a curtailment of the Facility by Company under Section 8.3(A) ;
- ii. disconnection of the Facility from the Transmission Authority's System pursuant to the Interconnection Agreement (due to an Emergency, event of Force

Majeure or other problem beyond the Point of Delivery), provided that the disconnection is not caused by actions of Seller or problems with the Facility;

- iii. Company's scheduling and other market participation activities, including any energy offer made by Company with respect to the Facility; and
- iv. an election by Company to utilize non-firm transmission service to transmit Renewable Energy from the Point of Delivery to its load, and such non-firm transmission service is restricted or reduced by the applicable transmission service provider, except as provided in paragraph 2(iii) below.

2. "Non-Compensable Curtailment" means any curtailment of the output of the Facility other than a Compensable Curtailment. By way of example only, Non-Compensable Curtailments include curtailments of generation or delivery of Renewable Energy arising out of:

- (i) the restriction or reduction of firm transmission service by the applicable transmission service provider;
- (ii) the restriction or reduction of non-firm transmission service by the applicable transmission service provider to the extent such restriction or reduction would also have been imposed even if firm transmission service had been in place;
- (iii) maintenance outages, whether planned or unplanned, of any part of the transmission system or any testing of the transmission system;
- (iv) the lack of available transmission from the Facility to the Point of Delivery;
- (v) Seller's failure to maintain in full force and effect any Permit to own, operate and/or maintain the Facility;
- (vi) a civil, regulatory or criminal proceeding for the protection of endangered, migratory or other protected species; and,
- (vii) Seller's failure to abide by the AGC Protocols, or a failure of the Facility to respond to AGC instructions from the EMCC.

3. "Compensable Curtailment Energy" for any period of Compensable Curtailment means the MWh represented by the Potential Energy less the Renewable Energy actually generated (if any), during such period. For purposes of determining Compensable Curtailment Energy, the amount of Potential Energy at

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any given time shall be calculated using the best-available data and methods to determine an accurate representation of the amount of curtailed Renewable Energy:

a. To the extent available, the Parties shall use Seller's real time Park Potential communicated to Company through the SCADA System as the proxy for Potential Energy, except to the extent that Park Potential is demonstrated not to accurately reflect the Potential Energy (plus or minus 2% average error for non-curtailement periods where generation exceeds 50% of nameplate capacity during one month).

b. During those periods of time when the Park Potential is unavailable or does not accurately represent Potential Energy, the Parties shall use the best available data obtained through Commercially Reasonable methods to determine the Potential Energy.

4. "Tax Benefits" means an amount equal to (a) the PTCs to which Seller would have been entitled with respect to Renewable Energy that could have been delivered but for a Compensated Curtailment pursuant to Section 8.2 of this PPA, plus (b) a "gross up" amount to take into account the federal, state and local income tax to Seller on such payments in lieu of PTCs so that the net amount retained by Seller, after payment of federal, state and local income taxes, is equal to the amount set forth in clause (A) of this definition.

(C) No payment shall be due to Seller from Company for Renewable Energy curtailed as a consequence of any Non-Compensable Curtailment, or for Compensable Curtailment Energy prior to COD.

(D) For all Compensable Curtailments following COD, Company shall pay to Seller (i) all amounts that Seller would have received from Company under this PPA had the resulting Compensable Curtailment Energy actually been delivered, plus (ii) the amount of any associated Tax Benefits to which Seller would have been entitled but did not receive as a result, on a grossed-up basis, assuming that Seller has elected to receive PTCs. For the avoidance of doubt, Seller shall not be entitled to recover any Tax Benefits to the extent Seller would not have been entitled to receive PTCs had the Compensable Curtailment Energy actually been delivered.

**Article 9 - Billing and Payment**

**9.1 Billing.**

(A) The billing period under this PPA shall be the calendar month.

(B) As soon as practicable and in any event within 20 Days after the end of each month, Company shall provide to Seller a statement containing Company's calculation of the amount due to Seller for such month, including the applicable billing parameters based upon Company's reading of the Electric Metering Devices consistent with Section 5.2. No later than 15 Business Days following receipt of Company's billing statement, Seller shall submit an invoice to Company in a form and by a method to be

agreed by the Parties, showing the amount due Seller for the relevant month, specifying the products and services provided, all billing parameters, rates and factors, and any other data relevant to the calculation of payments due to Seller. Such invoice shall include an explanation of any items in dispute, as well as all supporting documentation upon which Seller

(C) Such invoice shall include an explanation of any items in dispute, as well as all supporting documentation upon which Seller relies.

**9.2 Payment.** All payments shall be remitted via check or electronic funds transfer, as designated by the owed Party, on or before the 15<sup>th</sup> Business Day following receipt of the invoice. Remittances received by mail will be considered to have been paid when due if the postmark indicates the payment was mailed on or before the 15<sup>th</sup> Business Day following receipt of the billing invoice.

(A) If a payment is late, a late payment charge shall be applied to the unpaid balance for the number of days payment was late and shall be added to the next billing statement. Late payment charges shall include interest calculated using the prime rate of interest as published on the date of the invoice in *The Wall Street Journal* (or, if unavailable, an equivalent publication on or about that date).

(B) Company at any time may offset against amounts owed to Seller, any liquidated amounts, accrued damages and other payments, and undisputed billing errors and adjustments, which are owed by Seller to Company.

(C) Seller and Company may and shall net their obligations to each other under this PPA, and payment of the net amount shall discharge all mutual undisputed obligations between the Parties.

**9.3 Billing Disputes.** Either Party may dispute invoiced amounts pursuant to Section 13.1, but shall pay to the other Party at least the portion of invoiced amounts that is not disputed, on or before the invoice due date. When the billing dispute is resolved, the owing Party shall pay the amount owed within five (5) Business Days of the date of such resolution, with late payment interest charges calculated on the amount owed in accordance with Section 9.2(A).

## **Article 10 - Operations and Maintenance**

### **10.1 Operation and Administration.**

(A) Seller shall staff, control, and operate the Facility consistent with Good Utility Practices, Exhibit I – AGC Protocols; Data Collection; Technical Specifications and this PPA. Personnel of Seller shall be available 24x7 via telephone or other electronic means with (i) the capability of remotely starting, operating and stopping the Facility within 10 minutes, and (ii) the ability to be present at the Site within 30 minutes.

(B) Seller shall comply with Good Utility Practices, the requirements of all Governmental Authorities and all reasonable requirements of Company in the operation of the Facility. By way of example only, Seller shall perform all capacity testing of the Facility and related reporting, as and when required by Governmental Authorities.

(C) Seller shall provide to Company a day-ahead availability forecast in accordance with Exhibit I - AGC Protocols; Data Collection; Technical Specifications and any other reporting requirements required for compliance with NERC reliability standards. Company shall forward Seller's forecast to the applicable local reliability coordinator on Seller's behalf, *provided, however*, that Seller shall remain responsible to ensure the timeliness and accuracy of forecasts and any changes to the real-time or forecast availability of the Facility. If and to the extent that the ERO modifies the forecasting or other reporting requirements imposed on Company or the Facility, Seller shall timely provide required data to Company or the ERO, as applicable.

#### 10.2 Facility Maintenance.

(A) Seller shall maintain the Facility in accordance with Good Utility Practice. Seller shall coordinate its regular maintenance requirements for the Facility with Company ("Maintenance Schedules"). Maintenance Schedules shall be provided to Company in writing and sufficiently in advance for Commercially Reasonable review, and shall be subject to Company's Commercially Reasonable approval.

(B) Seller shall minimize the amount of scheduled maintenance during the months of January, February, June, July, August, September and December to the maximum extent consistent with Good Utility Practices. Seller shall coordinate with Company and the Transmission Authority the timing and duration of planned outages.

(C) When Forced Outages occur, Seller shall notify Company's EMCC of the existence, nature, start time, and expected duration of the Forced Outage as soon as practical, but in no event later than one hour after the Forced Outage occurs. Seller shall immediately inform Company's EMCC of changes in the expected duration of the Forced Outage except to the extent relieved of this obligation by Company's EMCC with respect thereto.

#### 10.3 Books and Records.

(A) Seller shall maintain an accurate and up-to-date operating log at the Facility, in electronic format, with records of production for each clock hour; changes in operating status; Forced Outages; information required by Governmental Authorities in the prescribed format; and other information reasonably requested by Company.

(B) Seller and Company shall each keep complete and accurate records and all other data required by each of them for the purposes of proper administration of this PPA, including metering, billing and payment records, and such records as may be required by Governmental Authorities. Originals or copies of all Operating Records shall be maintained at the Facility or such other Colorado location as may be specified



by Seller from time to time. Company may examine and make copies of such Operating Records from time to time upon request, during normal business hours.

10.4 Access to Facility. Representatives of Company shall have access to the Facility from time to time, on Commercially Reasonable prior notice, to read meters, perform inspections and take such other actions as may be appropriate to facilitate Company's performance of this PPA. While at the Facility, such representatives shall observe Seller's standard safety precautions and shall conduct themselves in a manner that will not interfere with operation of the Facility.

10.5 Real Time Data.

(A) Seller shall communicate all data necessary for Company to integrate the Facility into Company's EMCC in real time through the Facility's SCADA System in accordance with Exhibit I - AGC Protocols; Data Collection; Technical Specifications. Seller shall maintain the Facility's SCADA System so that it is capable of interfacing with and reacting to Company's AGC Set-Point and responding to signals from the Company's EMCC in accordance with the AGC Protocols.

(B) Seller shall use Commercially Reasonable Efforts to adjust the real time Park Potential of the Facility when Company communicates to Seller a measured difference of plus or minus two percent between the metered Renewable Energy and Park Potential, during periods when generation is not curtailed.

(C) From and after the Commercial Operation Date, Seller shall provide Company, at Seller's expense, real time performance and meteorological data for all generators and meteorological towers at the Facility in accordance with Exhibit I - AGC Protocols; Data Collection; Technical Specifications for the Term of this PPA. Seller shall maintain Seller-owned data collection systems that are compatible with Company's PI System. Seller shall ensure that real time communications capabilities are available and maintained for transmission to Company's PI System. Seller shall ensure that all meteorological equipment at a minimum meets the specifications set forth in Exhibit I - AGC Protocols; Data Collection; Technical Specifications. Company shall have the right to disclose data gathered through the Company's PI System publicly; *provided, however*, that such data is (i) masked to obscure the origin of the data and (ii) aggregated so that the data cannot be correlated and used by competitors of Seller and/or the supplier of the generators.

10.6 Accreditation. Seller shall perform from time to time, at its expense, any reporting and testing (including capacity testing) of the Facility required by Governmental Authorities.

10.7 Operating Committee and Operating Procedures.

(A) Company and Seller shall each appoint one representative and one alternate representative to act as the Operating Committee in matters relating to the Parties' performance obligations under this PPA and to develop operating arrangements for the generation, delivery and receipt of Renewable Energy from the Facility. The

Parties' initial representatives on the Operating Committee are set forth in Exhibit D - Notices.

(B) The Operating Committee may develop mutually agreeable written Operating Procedures consistent with the requirements of this PPA, to address matters such as day-to-day communications; key personnel; operations-center interface; metering, telemetering, telecommunications, and data acquisition procedures; operations and maintenance scheduling and reporting; reports; operations log; testing procedures; and such other matters as may be mutually agreed upon by the Operating Committee.

(C) The Operating Committee shall review the requirements for AGC and Data Collection from time to time after the date hereof and may agree on modifications thereto to the extent necessary or convenient for operation of the Facility in accordance with this PPA.

(D) The Operating Committee shall have authority to act in all technical and day-to-day operational matters relating to performance of this PPA and to attempt to resolve potential disputes, *provided, however*, that except as explicitly provided herein, the Operating Committee shall have no authority to amend or waive any provision of this PPA.

## **Article 11 - Security for Performance**

### **11.1 Security Fund.**

(A) During the Term of this PPA, Seller shall fund and maintain security in favor of Company, at Seller's expense, to secure Seller's obligations to Company under this PPA (the "Security Fund"), in accordance with this Article 11.

(B) Seller shall establish and fund the initial Security Fund in the amount of *[insert \$125/kW multiplied by the number of kW in the Facility Nameplate Capacity]*, no later than 30 Days following the date on which Company obtains or waives (or is deemed to have waived) PUC Approval under Section 6.1. Within 5 Business Days following COD, the amount of the Security Fund shall be reduced to *[insert \$75/kW multiplied by the number of kW in the Facility Nameplate Capacity]*.

(C) Company may draw from the Security Fund such amounts as are necessary to recover amounts owing to Company pursuant to this PPA, including any Liquidated Delay Damages, Actual Damages, liquidated damages for failure to achieve COD, and any amounts for which Company is entitled to indemnification under this PPA. Company may, in its sole discretion, draw all or any part of such amounts from any form of security to the extent available pursuant to this Article 11 and in any sequence Company may select. Company's failure or delay to draw any amount from the Security Fund in any instance shall not prejudice Company's rights to subsequently recover such amount from the Security Fund or in any other manner.

(D) Company shall notify Seller within 5 Business Days following any draw on the Security Fund by Company, including the amount thereof and the basis therefor.

#### 11.2 Replenishment.

(A) Within 15 Days following each draw by Company on the Security Fund in respect of damages described in Section 12.4(B), Seller shall replenish the Security Fund by an amount equal to such draw.

(B) Within 15 Days following any other draw by Company on the Security Fund, Seller shall replenish the Security Fund by the amount of such draw, provided that the aggregate amount of replenishments under this Section 11.2(B) shall not exceed the Damage Cap.

#### 11.3 Form.

(A) The Security Fund may be in the form of an irrevocable standby letter of credit substantially in the form of Exhibit G – Form of Letter of Credit (a “Letter of Credit”) from a financial institution acceptable to Company (“Issuer”).

1. The Issuer of the Letter of Credit shall have and maintain a Credit Rating equivalent to A- (or better) by Standard & Poors and A3 (or better) from Moodys. If such Credit Rating is A- or A3, the Issuer must not be on credit watch by any rating agency.

2. The Letter of Credit must be for a minimum term of 360 Days. Seller shall give Company at least 30 Days advance notice prior to any expiration or earlier termination of the Letter of Credit. Seller shall cause the renewal or extension of the Letter of Credit for additional consecutive terms of 360 Days or more (or, if shorter, the remainder of the Term) more than 30 Days prior to each expiration date of the security. If the Letter of Credit is not renewed or extended at least 30 Days prior to its expiration date or otherwise is terminated early, Company shall have the right to draw immediately upon the Letter of Credit and to place the amounts so drawn, at Seller’s cost and with Seller’s funds, in an Escrow Account in accordance with paragraph (B) below, until and unless Seller provides a substitute form of security meeting the requirements of this Section 11.3.

(B) The Security Fund may be in the form of U.S. currency deposited into an escrow account with a state- or federally-chartered commercial bank with an office in the State of Colorado, with net assets of at least \$1 billion (the “Escrow Account”).

1. The Escrow Account shall be governed by an escrow agreement in form mutually satisfactory to Seller, Company and the escrow agent, provided that (a) Company shall hold a first and exclusive perfected security interest in the funds in the Escrow Account, (b) Company shall be permitted unilaterally to draw down any amount therein, regardless of any protest by Seller or any other

party liable thereon (*provided* that nothing in the Escrow Agreement shall preclude any protest against Company by Seller, following any draw, that such draw did not comply with this Agreement), and (c) Seller shall pay all fees and expenses of the escrow agent.

2. Funds held in the Escrow Account may be invested as Seller may direct in any of the following:

- a money-market fund sponsored by the escrow agent;
- U.S. treasury obligations with a maturity of 90 Days or less;
- commercial paper rated “A” or better, with a maturity of 90 days or less; and
- other liquid investment-grade investments with maturities of three months or less, approved by Company in advance (such approval not to be unreasonably withheld or delayed).

3. All investment income on the Escrow Account shall be taxable to, and accrue for the benefit of, Seller. After the Commercial Operation Date, periodic sweeps by Seller for recovery of interest earned by the escrowed funds shall be allowed, and, at any time the balance in the Escrow Account exceeds the required amount of security, the escrow agent may remit any excess to Seller.

(C) Following COD, the Security Fund may consist of a guaranty substantially in the form of Exhibit H – Form of Guaranty, from a parent or other guarantor (“Guarantor”) with a minimum of net worth of at least \$250,000,000 and an Investment Grade Credit Rating (and if such Credit Rating is exactly equivalent to BBB-[S&P] / Baa3 [Moody’s], the Guarantor must not be on credit watch by any rating agency). If the Credit Rating of the Guarantor is downgraded below Investment Grade, put on credit watch, or an event occurs that (in the reasonable determination of Company) portends a Material Adverse Effect in the creditworthiness of the Guarantor, then Company may require Seller to convert the guaranty to a Security Fund instrument meeting the criteria set forth in either paragraph (A) or paragraph (B) above no later than 10 Days after notice from Company.

(D) Upon request by Seller, Company shall negotiate in good faith immaterial changes to Exhibit G – Form of Letter of Credit and/or Exhibit H – Form of Guaranty, provided that Seller shall pay or reimburse Company for the incremental direct expenses (including the fees and expenses of counsel) incurred by Company in connection therewith.

(E) Seller may change the form of the Security Fund at any time and from time to time upon Commercially Reasonable prior notice to Company, *provided, however*, that the Security Fund must at all times satisfy the requirements of this Article 11.

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11.4 Replacement. In the event that the Security Fund ever fails to comply with the requirements of this Article 11 or Company determines in a commercially reasonable manner that an event has occurred or circumstances have developed that threaten to cause the Security Fund to fail to comply with the requirements of this Article 11 (e.g. a Guarantor is placed on negative credit watch by a rating agency), Seller shall be required to replace the Security Fund with security in compliance with Section 11.3 within 5 Days following notice thereof from Company.

11.5 Survival. The Security Fund shall survive termination of this PPA to be available to pay any amounts owed to Company arising prior to or upon termination. Promptly following (i) the end of the Term and the completion of all of Seller's obligations under this PPA, or (ii) termination of this PPA for any reason prior to the Scheduled Termination Date, Company shall determine the amount, if any, owed by Seller for any obligations or damages arising out of this PPA. Company may draw such amount and shall release the balance of the Security Fund (including any accumulated interest, if applicable) to Seller.

11.6 Expenses. Seller shall reimburse Company for its direct expenses (including the fees and expenses of counsel) incurred by Company in connection with the preparation, negotiation, execution and/or release (including making a draw of funds) of the Security Fund under this Article 11.

**Article 12 - Default and Remedies**

**12.1 Default by Seller: General.**

(A) Events. Any of the following events shall constitute a default by Seller under this PPA. If no cure period is provided below, such default shall be deemed an Event of Default by Seller immediately upon its occurrence. If a cure period is provided below, such default shall mature into an Event of Default if not cured within the indicated cure period, subject to Section 13.3 below.

1. Seller's application for, or consent (by admission of material allegations of a petition or otherwise) to, the appointment of a receiver, trustee or liquidator for Seller or for all or substantially all of its assets, or its authorization of such application or consent, or the commencement of any proceedings seeking such appointment without such authorization, consent or application, which proceedings continue undismissed or unstayed for a period of 60 Days from inception.

*Cure Period:* None.

2. Seller's authorization or filing of a voluntary petition in bankruptcy or application for or consent (by admission of material allegations of a petition or otherwise) to the application of any bankruptcy, reorganization, readjustment of debt, insolvency, dissolution, liquidation or other similar law of any jurisdiction or the institution of such proceedings against Seller without such authorization, application or consent, which proceedings remain undismissed or

unstayed for 60 Days from its inception or which result in adjudication of bankruptcy or insolvency within such time.

*Cure Period:* None.

3. Seller's assignment of this PPA or the Facility, or any Change of Control, not permitted by Section 19.1.

*Cure Period:* None.

4. Any representation or warranty by Seller in this PPA that has a Material Adverse Effect on Seller's ability to perform this PPA is proven to have been false in any material respect when made.

*Cure Period:* None.

5. Seller's failure to establish and maintain the Security Fund as and in the amounts required under Article 11.

*Cure Period:* Five (5) Business Days after Company provides notice of Seller's failure.

6. Seller's failure to obtain and maintain insurance in scope and amounts required under Article 16.

*Cure Period:* Five (5) Business Days after Company provides notice of Seller's failure.

7. Seller's failure to make any payment to Company as and when required by this PPA, including Liquidated Delay Damages, Actual Damages, and any required indemnification.

*Cure Period:* 10 Business Days after the date Seller receives notice from Company that the amount is overdue.

8. Any representation or warranty by Seller in this PPA that has a Material Adverse Effect on Seller's ability to perform this PPA ceases to remain true during the Term, other than due to a change of law.

*Cure Period:* 30 Days after Company provides notice of such breach.

9. A breach by Seller of the Interconnection Agreement, which breach materially interferes with Seller's delivery of Renewable Energy to the Point of Delivery, Company's ability to accept Renewable Energy at the Point of Delivery, Company's ability to transmit Renewable Energy beyond the Point of Delivery, and/or otherwise has a Material Adverse Effect on Company.

*Cure Period:* 30 Days from the breach or the cure period allowed by the Interconnection Agreement (whichever is longer).

10. Beginning with the second Commercial Operation Year, the failure of the Facility to achieve an Availability Factor for any Commercial Operation Year (as determined pursuant to Exhibit M) of 85% or more.

*Cure Period:* Seller shall be deemed to have cured this default if, in the following Commercial Operation Year, the Facility achieves an Availability Factor for such Commercial Operation Year (again as determined pursuant to Exhibit M) of 90% or more.

11. The failure by Seller to perform or observe any other material obligation to Company under this PPA, unexcused by Force Majeure (other than failure to achieve COD, which is addressed in Section 12.2 below).

*Cure Period:* 30 Days after notice thereof shall have been given by Company; *provided*, that if such default is not reasonably capable of cure within such 30-Day period, Seller shall have such additional period of time (not to exceed 90 Days in any event) as is reasonably necessary for cure, so long as Seller initiates cure within such 30-Day period and diligently prosecutes the cure to conclusion thereafter.

(B) Remedies for Default. In connection with any default by Seller under this Section 12.1 (whether or not cured by Seller), Company may

1. Seek Actual Damages in such amounts and on such basis for the default as authorized by this PPA;

2. Offset against any payments due to Seller, any Actual Damages and other amounts due from Seller; and/or

3. Draw any Actual Damages and other amounts due from Seller, from the Security Fund.

(C) Termination for Event of Default. Upon and at any time following an Event of Default by Seller under this Section 12.1, in addition to its rights under Section 12.1(B) above, Company may terminate this PPA immediately upon notice to Seller, without penalty or further obligation to Seller. In connection with any such termination, Company may collect from Seller (subject to the Damage Cap) all Actual Damages arising from such Event of Default through the Scheduled Termination Date.

(D) Specific Performance. In addition to the other remedies specified herein, upon any Event of Default of Seller under this Section 12.1, Company may elect to treat this PPA as being in full force and effect and Company shall have the right to specific performance.

## 12.2 Default by Seller: Failure to Achieve COD.

(A) COD Delay. Seller shall be in default under this PPA if the Facility fails to achieve COD by the Target COD ("COD Delay"). Seller shall be liable to pay [insert \$250 per MW of Facility Nameplate Capacity] per Day ("Liquidated Delay Damages") to Company as a liquidated damage and not a penalty, in lieu of Actual Damages, for any COD Delay. Except as provided in Section 12.2(C) below, the payment of Liquidated Delay Damages shall be Company's sole and exclusive remedy for a COD Delay. Liquidated Delay Damages shall begin to accrue on the Day after the Target COD (as it may be extended due to Force Majeure) until the first to occur of COD or termination of this PPA pursuant to Section 12.2(C) below.

(B) Cure. Seller shall have a cure period of 45 days for its failure to achieve Commercial Operation by the Target COD, *provided, however*, that if during such period Seller provides a written opinion from a mutually-agreeable independent engineer that COD can reasonably be achieved within an additional 45 Day period, then the cure period shall be 90 Days after the Target COD to achieve Commercial Operation. The payment of accrued Liquidated Delay Damages shall be a condition to any such cure.

(C) Termination. Failure to cure a COD Delay within the applicable cure period set forth in Section 12.2(B) shall be an Event of Default by Seller. Upon such an Event of Default, Company may (i) terminate this PPA immediately upon notice to Seller, without penalty or further obligation to Seller except as to costs and balances incurred prior to the effective date of such termination, and (ii) in connection therewith, in addition to accrued Liquidated Delay Damages but in lieu of Actual Damages for the balance of the Term, collect from Seller liquidated damages therefor in the amount of [insert \$100/kW x Facility Nameplate Capacity].

## 12.3 Default by Company.

(A) Events. Any of the following events shall constitute a default by Company under this PPA. If no cure period is provided below, such default shall be deemed an Event of Default by Company immediately upon its occurrence. If a cure period is provided below, such default shall mature into an Event of Default if not cured within the indicated cure period, subject to Section 13.3 below.

1. Company's application for, or consent (by admission of material allegations of a petition or otherwise) to, the appointment of a receiver, trustee or liquidator for Company or for all or substantially all of its assets, or its authorization of such application or consent, or the commencement of any proceedings seeking such appointment without such authorization, consent or application, which proceedings continue undismissed or unstayed for a period of 60 Days from inception.

*Cure Period:* None.



2. Company's authorization or filing of a voluntary petition in bankruptcy or application for or consent (by admission of material allegations of a petition or otherwise) to the application of any bankruptcy, reorganization, readjustment of debt, insolvency, dissolution, liquidation or other similar law of any jurisdiction or the institution of such proceedings against Company without such authorization, application or consent, which proceedings remain undismissed or unstayed for 60 Days from its inception or which result in adjudication of bankruptcy or insolvency within such time.

*Cure Period:* None.

3. Company's assignment of this PPA, not permitted by Section 19.2.

*Cure Period:* None.

4. Any representation or warranty by Company in this PPA that has a Material Adverse Effect on Company's ability to perform this PPA is proven to have been false in any material respect when made.

*Cure Period:* None.

5. Company's failure to make any payment to Company as and when required by this PPA, including invoiced amounts, Actual Damages and any required indemnification.

*Cure Period:* 10 Business Days after the date Company receives notice from Seller that the amount is overdue.

6. Any representation or warranty by Company in this PPA that has a Material Adverse Effect on Company's ability to perform this PPA ceases to remain true during the Term, other than due to a change of law.

*Cure Period:* 30 Days after Seller provides notice of such breach.

7. The failure by Company to perform or observe any other material obligation to Seller under this PPA, unexcused by Force Majeure.

*Cure Period:* 30 Days after notice thereof shall have been given by Seller; *provided*, that if such default is not reasonably capable of cure within such 30-Day period, Company shall have such additional period of time (not to exceed 120 Days in any event) as is reasonably necessary for cure, so long as Company initiates cure within such 30-Day period and diligently prosecutes the cure to conclusion thereafter.

(B) Remedies for Default. In connection with any default by Company (whether or not cured by Company), Seller may

1. Seek Actual Damages in such amounts and on such basis for the default as authorized by this PPA; and/or

2. Offset against any payments due to Company, any Actual Damages and other amounts due from Company.

(C) Termination for Event of Default. Upon an Event of Default by Company, in addition to its rights under Section 12.3(B) above, Seller may terminate this PPA immediately upon notice to Company, without penalty or further obligation to Company, and in connection therewith, collect from Company all Actual Damages arising from such Event of Default through the Scheduled Termination Date.

#### 12.4 Limitations on Damages.

(A) Except as otherwise provided in Section 12.4(B), Seller's aggregate financial liability to Company for Actual Damages following COD shall not exceed insert [\$75/kW x Facility Nameplate Capacity] (the "Damage Cap"). If at any time following COD, Company incurs damages in excess of the Damage Cap that Seller does not pay when billed by Company, Company shall have the right to terminate this PPA upon notice to Seller, without further obligation by either Party except as to costs and balances incurred prior to the effective date of such termination.

(B) Actual Damages payable by Seller arising out of any of the following events shall not be subject to the Damage Cap and shall not be credited against the Damage Cap:

1. damage to Company-owned facilities proximately caused by negligence, breach of this PPA or other misconduct by Seller, its directors, officers, employees and agents;

2. Seller's intentional misrepresentation or intentional misconduct in connection with this PPA or the operation of the Facility;

3. the sale or diversion by Seller to a third party of any capacity or energy from the Facility, excluding sales of Excess Energy under Section 8.2 and any sales in mitigation of damages;

4. Seller's failure (i) to maintain insurance coverages in the types and amounts required by this PPA or (ii) to apply any insurance proceeds as required by Section 16.4;

5. any claim for indemnification under this PPA;

6. any Environmental Contamination caused by Seller; or

7. damages incurred by Company in connection with any bankruptcy or insolvency proceeding involving Seller, including Company's loss of the benefit of its bargain due to rejection or other termination of this PPA in such proceeding.

(C) The Parties confirm that the express remedies and measures of damages provided in this PPA satisfy the essential purposes hereof. If no remedy or measure of damages is expressly herein provided, the obligor's liability shall be limited to all direct damages proximately caused by such default ("Actual Damages") incurred by the non-defaulting Party, provided that if Seller is the defaulting Party, Actual Damages recoverable by Company hereunder may include Replacement Power Costs. **Neither Party shall be liable to the other Party for consequential, incidental, punitive, exemplary, special, treble, equitable or indirect damages, lost profits or other business interruption damages regardless of whether the relevant cause of action arises from statute, in tort or contract** (except to the extent expressly provided herein); *provided, however*, that if either Party is held liable to a third party for such damages and the Party held liable for such damages is entitled to indemnification from the other Party hereto, the indemnifying Party shall be liable for, and obligated to reimburse the indemnified Party for all such damages.

(D) To the extent damages required to be paid hereunder are liquidated, the Parties acknowledge that actual damages would be substantial but difficult or impossible to determine, that otherwise obtaining an adequate remedy is inconvenient, and that the liquidated damages constitute a reasonable approximation of the harm or loss.

#### 12.5 Step-In Rights.

(A) Upon the occurrence of a default by Seller following COD that could be cured by Company's possession of the Facility, Company shall have the right, but not the obligation, to assume control and operate the Facility as agent for Seller (whether voluntary or involuntary) in accordance with Seller's rights, obligations, and interest under this PPA ("Step-In Rights"). Company shall give Seller and the Facility Lender at least 10 Days' notice in advance of exercising Company's Step-In Rights. Exercise of Step-In Rights *per se* shall not be deemed to cure the associated default, and shall not preclude or limit Company's right to exercise its other remedies against Seller under this PPA.

(B) Seller irrevocably appoints Company as Seller's attorney-in-fact for the exclusive purpose of executing such documents and taking such other actions as Company may reasonably deem necessary, appropriate or prudent to implement its Step-In Rights.

(C) Company acknowledges that Company may be required and shall relinquish or delay exercise of its Step-In Rights in the event that the Facility Lender elects to appoint a receiver, foreclose and/or otherwise obtain possession of the Facility under the Financing Documents. Seller shall not grant any person, other than the Facility Lender, a right to possess, assume control of, or operate the Facility in derogation of Company's Step-In Rights.

(D) Seller shall reimburse Company for its expenses and costs (including the fees and expenses of counsel) incurred by Company in connection with exercising its Step-In Rights ("Step-In Costs").

(E) During the period of Company's exercise of its Step-In Rights:

1. Company shall implement its Step-In Rights and operate the Facility in conformance with Good Utility Practice.

2. Company shall perform Seller's obligations in a manner consistent with Seller's duties under this PPA.

3. Seller shall retain legal title to and ownership of the Facility.

4. Seller shall make available at the Facility all documents, contracts, books, manuals, reports, and records required for Company to construct, operate, and maintain the Facility.

5. Seller shall give Company, its employees and contractors, unrestricted access to the Site and the Facility.

6. Seller shall cooperate in the implementation of Company's Step-In Rights.

7. Company shall devote the Renewable Energy generated and delivered from the Facility during such period towards satisfaction of Seller's obligations hereunder.

(F) During the period of Company's exercise of its Step-In Rights, Company shall purchase the Renewable Energy from the Facility as provided herein; *provided* that Company may withhold its Step-In Costs from payments due to Seller hereunder. In the event that net revenues due to Seller are insufficient to cover such Step-In Costs, Company may draw upon the Security Fund to cover such Step-In Costs.

(G) Company may relinquish its Step-In Rights at any time, on at least 15 days' notice to Seller and the Facility Lender. Company shall relinquish its Step-In Rights on the earliest of (i) termination of this PPA, or (ii) Seller's cure of the default that led to exercise of Company's Step-In Rights within the applicable cure period set forth herein.

(H) This Section 12.5 shall be specifically enforceable by Company, without bond and without the need to prove irreparable harm.

(I) Exercise of its Step-In Rights shall not constitute an assumption by Company of any liability of Seller.

12.6 Bankruptcy. This PPA grants each Party the contractual right to "cause the liquidation, termination or acceleration" of the transactions within the meaning of Sections 556, 560 and 561 of the U.S. Bankruptcy Code, as they may be amended superseded or replaced from time to time. Upon a bankruptcy, a non-defaulting Party

shall be entitled to exercise its rights and remedies under this PPA in accordance with the safe harbor provisions of the Bankruptcy Code set forth in, *inter alia*, Sections 362(b)(6), 362(b)(17), 362(b)(27), 362(o), 546(e), 548(d)(2), 556, 560 and 561, as they may be amended, superseded or replaced from time to time.

**12.7 Cumulative Remedies.** Except as explicitly provided to the contrary in this PPA, each right or remedy of the Parties provided for in this PPA shall be cumulative of and shall be in addition to every other right or remedy provided for in this PPA, and the exercise of one or more of the rights or remedies provided for herein shall not preclude the simultaneous or later exercise by such Party of any other rights or remedies provided for herein

**12.8 Duty to Mitigate.** Each Party shall use Commercially Reasonable Efforts to mitigate any damages it may incur as a result of a default by the other Party under this PPA.

### **Article 13 - Dispute Resolution**

#### **13.1 Negotiation.**

(A) In the event of any dispute arising under or associated with the Parties' performance of this PPA (a "Dispute"), within 10 Business Days following notice by either Party (a "Dispute Notice"), (i) each Party shall appoint a representative, and (ii) the representatives shall meet, negotiate and attempt in good faith to resolve the Dispute quickly, informally and inexpensively.

(B) In the event the Parties' representatives cannot resolve the Dispute within 30 Days after the first meeting, either Party may request that consideration and resolution of the Dispute be transferred to senior management. Within 10 Days following such a request, each Party shall submit a written summary of the Dispute describing the issues and claims to a senior officer of each Party designated to address the Dispute. Within 10 Business Days after receipt of each Party's Dispute summaries, the designated senior managers for both Parties shall negotiate in good faith to resolve the Dispute. If such senior managers are unable to resolve the Dispute thereafter, either Party may seek available legal remedies, subject to Sections 13.3 and 19.3.

**13.2 Time Bar.** If no Dispute Notice has been issued within 18 months following the occurrence of events or circumstances giving rise to the Dispute (regardless of the actual knowledge of either Party of such events and circumstances), all claims related to such Dispute (including any allegations of billing errors) shall be deemed waived and the aggrieved Party shall thereafter be barred from proceeding thereon.

**13.3 No Termination Pending Dispute Resolution.** Notwithstanding Section 12.1 or Section 12.3 to the contrary:

(A) An Event of Default shall not be deemed to have occurred (and hence neither Party may terminate this PPA) for failure by the other Party to pay any

amount(s) allegedly due totaling less than \$100,000, if (1) such amount(s) are disputed in good faith, (2) the Party alleged to owe such amount(s) promptly commences and diligently pursues resolution of the Dispute pursuant to Section 13.1, and (3) the owed amount (if any) is paid within 10 Business Days after all dispute resolution mechanisms are completed with respect thereto.

(B) An Event of Default by Seller shall not be deemed to have occurred (and hence Company may not terminate this PPA) for failure by Seller to pay any amount(s) allegedly due totaling \$100,000 or more, if

1. such amount(s) are disputed by Seller in good faith;
2. Seller promptly commences and diligently pursues resolution of the Dispute pursuant to Section 13.1;
3. Seller either holds an Investment Grade Credit Rating, or posts cash collateral to secure its obligations (if any) with respect to the disputed amount(s), in an amount equal to the amount(s) in dispute, under a mutually agreeable third-party escrow agreement, in addition to the Security Fund; and
4. the owed amount (if any) is paid by Seller within 10 Business Days after all dispute resolution mechanisms are completed with respect thereto.

(C) An Event of Default by Company shall not be deemed to have occurred (and hence Seller may not terminate this PPA) for failure by Company to pay any amount(s) allegedly due totaling \$100,000 or more, if

1. such amount(s) are disputed by Company in good faith;
2. Company promptly commences and diligently pursues resolution of the Dispute pursuant to Section 13.1;
3. Company either holds an Investment Grade Credit Rating, or posts cash collateral to secure its obligations (if any) with respect to the disputed amount(s), in an amount equal to the amount(s) in dispute, under a mutually agreeable third-party escrow and account control agreement; and
4. the owed amount (if any) is paid by Company within 10 Business Days after all dispute resolution mechanisms are completed with respect thereto.

13.4 Governing Law. The interpretation and performance of this PPA and all actions related hereto (whether sounding in contract, tort or otherwise), shall be governed and construed in accordance with the laws of the State of Colorado, exclusive of conflict of laws principles.

13.5 Venue. The Parties submit to the exclusive jurisdiction of the state courts of the State of Colorado for purposes of resolving any Dispute hereunder, except as provided in Section 19.3. Venue for any court proceedings shall lie exclusively in the

Colorado District Court for the City and County of Denver or, if jurisdictionally available, the U.S. District Court for the District of Colorado.

13.6 Waiver of Jury Trial. **Seller and Company each hereby knowingly, voluntarily and intentionally waive any rights they may have to a trial by jury** in respect of any litigation based hereon, or arising out of, under, or in connection with, this PPA or any course of conduct, course of dealing, statements (whether oral or written) or actions of Seller and Company related hereto and expressly agree to have any Disputes be adjudicated by a judge of the court having jurisdiction, without a jury, subject only to Section 19.3.

#### **Article 14 - Force Majeure**

14.1 Definition. For purposes hereof, “Force Majeure” means an event or circumstance that prevents a Party from performing its obligations under this PPA, which event or circumstance (i) was not anticipated as of the date of this PPA, (ii) is not within the control of or the result of the fault or negligence of the Party claiming excuse, and (iii) which by exercise of due diligence and foresight could not reasonably have been avoided; *provided, however*, that Force Majeure shall not include:

- a. inability, or excess cost, to procure any equipment necessary to perform this PPA;
- b. acts or omissions of a third party (including vendors and contractors to Seller), unless such acts or omissions are themselves excused by reason of Force Majeure;
- c. failure timely to apply for, or diligently pursue, the Permits set forth on Exhibit F – Seller’s Needed Permits hereto;
- d. mechanical or equipment breakdown or inability to operate, attributable to circumstances occurring within design criteria and normal operating tolerances of similar equipment;
- e. Environmental Contamination at the Site;
- f. changes in market conditions;
- g. changes of law; or
- h. labor strikes, slowdowns, work stoppages, or other labor disruptions.

By way of example only, “Force Majeure” includes any delay or failure by the Transmission Authority to perform its obligations under the Interconnection Agreement.

14.2 Applicability of Force Majeure. A Party shall be relieved of its obligations to perform this PPA and shall not be considered to be in default with respect to any obligation under this PPA if and to the extent such Party is prevented from fulfilling such obligation by Force Majeure, *provided, however*, that: (i) such Party gives prompt notice describing the circumstances and impact of the Force Majeure; (ii) the relief from its

obligations sought by such Party is of no greater scope and of no longer duration than is required by the Force Majeure; (iii) such Party proceeds with due diligence to overcome the Force Majeure and resumes performance of its obligations under this PPA as soon as practicable thereafter; and (iv) such Party provides notice upon conclusion of the Force Majeure.

**14.3 Limitations on Effect of Force Majeure.**

(A) Force Majeure shall only relieve a Party of such obligations as are actually precluded by the Force Majeure.

(B) In no event will the existence of Force Majeure extend this PPA beyond its stated Term.

(C) If Force Majeure affecting Seller continues for a period of 90 consecutive Days or any 150 non-consecutive Days (with respect to Force Majeure occurring prior to COD) or for a period of 180 consecutive Days or any 270 non-consecutive Days (with respect to Force Majeure occurring after COD), Company may, at any time following the end of such period, terminate this PPA upon notice to Seller, without further obligation by either Party except as to costs and balances incurred prior to the effective date of such termination.

**Article 15 - Representations and Warranties**

Each Party hereby represents and warrants to the other as follows, which representations and warranties shall be deemed to be repeated, if applicable, by each Party throughout the Term:

(A) Such Party is a valid separate legal entity, duly organized, validly existing and in good standing under Applicable Law. It is qualified to do business in the State in which the Facility is located and each other jurisdiction where the failure to so qualify would have a Material Adverse Effect on the business or financial condition of the other Party. It has all requisite power and authority to conduct its business, to own its properties, and to execute, deliver, and perform its obligations under this PPA.

(B) The Party's execution, delivery, and performance of all of its obligations under this PPA have been duly authorized by all necessary organizational action, and do not and will not:

1. require any consent or approval by any governing corporate or management body, other than that which has been obtained and is in full force and effect (evidence of which shall be delivered to the other Party upon its request);

2. violate any Applicable Law, the violation of which could have a Material Adverse Effect on the representing Party's ability to perform its obligations under this PPA;



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3. result in a breach or constitute a default under the representing Party's formation documents, bylaws or equivalent, or under any agreement relating to its management or affairs, any indenture or loan or credit agreement, or any other agreement, lease, or instrument to which it is a party or by which it or its properties or assets may be bound or affected, the breach or default of which could reasonably be expected to have a Material Adverse Effect on the representing Party's ability to perform its obligations under this PPA; or

4. result in, or require the creation or imposition of any mortgage, deed of trust, pledge, lien, security interest, or other charge or encumbrance of any nature (other than as may be contemplated by this PPA) upon or with respect to any of the assets or properties of the representing Party now owned or hereafter acquired, the creation or imposition of which could reasonably be expected to have a Material Adverse Effect on the representing Party's ability to perform its obligations under this PPA.

(C) This PPA is a valid and binding obligation of the representing Party.

(D) The execution and performance of this PPA will not conflict with or constitute a breach or default under any contract or agreement of any kind to which the representing Party is a party or any judgment, order, or Applicable Law, applicable to it or its business.

(E) Within the meaning of the U.S. Bankruptcy Code, (i) this PPA constitutes a "master netting agreement," (ii) all transactions pursuant to this PPA constitute "forward contracts" or a "swap agreement," (iii) the representing Party is a "forward contract merchant" and "master netting agreement participant," and (iv) all payments made or to be made pursuant to this PPA constitute "settlement payments."

(F) Such Party is (i) an "eligible contract participant" as defined in the Commodity Exchange Act, as amended, 7 U.S.C. §1a(12), (ii) a "market participant" under applicable exchange and market rules; (iii) a producer, processor, or commercial user of, or a merchant handling, the commodity which is the subject of this PPA, or the products or by products thereof; and (iv) entering into this PPA solely for purposes related to its business as such.

**Article 16 - Insurance**

16.1 Evidence of Insurance. No later than commencement of construction and thereafter at least five Days prior to each applicable expiration date, Seller shall provide Company with two copies of insurance certificates acceptable to Company evidencing that insurance coverages for the Facility are in force and in compliance with the specifications for insurance coverage set forth in Exhibit E - Insurance to this PPA. Such certificates shall

(A) name Company as an additional insured (except worker's compensation);

(B) provide that Company shall receive 30 Days prior written notice of non-renewal, cancellation of, or significant modification to any of the corresponding policies (except that such notice may be 10 Days for non-payment of premiums);

(C) provide a waiver of any rights of subrogation against Company, its Affiliates and their officers, directors, agents, subcontractors, and employees; and

(D) indicate that the Commercial General Liability policy has been endorsed as described above.

**16.2 Policy Requirements.** All policies shall be written with insurers with an AM Best rating of at least A-VII or a Standard & Poor's rating of at least A. All policies shall be written on an occurrence basis, except as provided in Section 16.4. All policies shall contain an endorsement that Seller's policy shall be primary in all instances regardless of like coverages, if any, carried by Company. Seller may satisfy its insurance requirements using any reasonable combination of primary and secondary coverage.

**16.3 No Implied Limitation.** Seller's liability under this PPA is not limited to the amount of insurance coverage required herein.

**16.4 Term and Modification of Insurance.**

(A) All insurance required under this PPA shall cover occurrences during the Term and for a period of two years after the Term. In the event that any insurance as required herein is commercially available only on a "claims-made" basis, such insurance shall provide for a retroactive date not later than the date of this PPA and such insurance shall be maintained by Seller for a minimum of six years after the Term.

(B) Company shall have the right, at times deemed appropriate to Company during the Term, to request Seller to modify the insurance minimum limits specified in Exhibit E - Insurance in order to maintain Commercially Reasonable coverage amounts. Seller shall make Commercially Reasonable Efforts to comply with any such request.

(C) If any insurance required to be maintained by Seller hereunder ceases to be reasonably available and commercially feasible in the commercial insurance market, Seller shall provide notice to Company, accompanied by a certificate from an independent insurance advisor of recognized national standing, certifying that such insurance is not reasonably available and commercially feasible in the commercial insurance market for electric generating plants of similar type, geographic location and capacity. Upon receipt of such notice, Seller shall use Commercially Reasonable Efforts to obtain other insurance that would provide comparable protection against the risk to be insured.

**16.5 Application of Proceeds.** Except to the extent otherwise required by the Financing Documents, Seller shall apply any casualty insurance proceeds to reconstruction of the Facility following any material casualty to the Facility that occurs more than eighteen (18) months prior to the Scheduled Termination Date.

## Article 17 - Indemnity

17.1 Indemnification: General. Each Party (the “Indemnifying Party”) shall indemnify, defend and hold the other Party (the “Indemnified Party”) harmless from and against all claims, demands, lawsuits (including citizen suits), losses, liabilities, fines, penalties, and expenses (including attorneys’ fees) (generally, “Losses”), to the extent caused by

- a default under this PPA by the Indemnifying Party;
- a violation or alleged violation of Applicable Laws by the Indemnifying Party; and
- the negligence, intentional acts and other misconduct of the directors, officers, employees, or agents of the Indemnifying Party.

17.2 Indemnification: Environmental. Seller shall indemnify, defend and hold Company harmless from and against all Losses arising out of any claim by any Governmental Authority or other third party alleging Environmental Contamination at the Site and/or illegal disposal of Hazardous Materials off-Site, regardless of merit and regardless of Seller’s responsibility therefor.

### 17.3 Limitations.

(A) The foregoing indemnification obligations shall apply notwithstanding any contributory misconduct of the Indemnified Party, but the Indemnifying Party’s liability to indemnify the Indemnified Party shall be reduced in proportion to the percentage by which the Indemnified Party’s misconduct caused the damages.

(B) Neither Party shall be indemnified for Losses resulting from the sole negligence or willful misconduct of the directors, officers, employees, or agents of such Party.

(C) These indemnity provisions shall not be construed to relieve any insurer of its obligation to pay claims consistent with the provisions of a valid insurance policy. Nothing in this Article 17 shall enlarge or relieve Seller or Company of any liability to the other for any breach of this PPA.

### 17.4 Procedures.

(A) Promptly after receipt by a Party of any claim or notice of the commencement of any action, administrative, or legal proceeding, or investigation as to which the indemnity provided for in this Article 17 may apply, the Indemnified Party shall provide notice thereof to the Indemnifying Party; *provided* that a delay in providing such notice shall limit the obligations of the Indemnifying Party only to the extent that such delay actually prejudices the ability of the Indemnifying Party to contest the claim or defend the proceeding.

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(B) The Indemnifying Party shall assume the defense thereof with counsel designated by such Party and satisfactory to the Indemnified Party, *provided, however*, if the defendants in any such action include both the Indemnified Party and the Indemnifying Party, and the Indemnified Party shall reasonably conclude that there may be legal defenses available to it which are different from or additional to, or inconsistent with, those available to the Indemnifying Party, the Indemnified Party shall have the right to select and be represented by separate counsel, at the Indemnifying Party's expense.

(C) If an Indemnifying Party fails to assume the defense of a claim meriting indemnification, the Indemnified Party may contest, settle, or pay such claim at the expense of the Indemnifying Party, *provided, however, that* settlement or full payment of any such claim may be made only following consent of the Indemnifying Party or, absent such consent, written opinion of the Indemnified Party's counsel that such claim is meritorious or otherwise warrants settlement.

17.5 Amounts Owed. In the event that a Party is obligated for indemnification under this Article 17, the amount owing to the Indemnified Party will be the amount of the Indemnified Party's actual loss net of any insurance proceeds received by the Indemnified Party following a Commercially Reasonable effort by the Indemnified Party to obtain such insurance proceeds.

**Article 18 - Lender Provisions**

18.1 Accommodation of Facility Lender.

(A) Company shall provide such consents to collateral assignment, certifications, representations, estoppels, information or other documents, as may be reasonably requested by Seller in connection with the financing of the Facility consistent with the terms set forth in Exhibit K – Lender Consent Provisions (generally, a "Lender Consent"), *provided, however*, that in providing a Lender Consent, Company shall have no obligation to

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1. modify the terms of this PPA;
2. provide any consent or enter into any agreement that has a Material Adverse Effect on any of Company's rights, benefits, risks, or obligations under this PPA;
3. transfer or release any property or property interests of Company;
4. release or subordinate (or cause the release or subordination) of any lien on any property of Company for the benefit of Seller or the Facility Lender; or
5. permit any lien to be placed on property of Company.

(B) Seller shall reimburse, or shall cause the Facility Lender to reimburse, Company for the direct expenses (including the fees and expenses of counsel) incurred by Company in the preparation, negotiation, execution and/or delivery of each Lender Consent and any documents requested by Seller or the Facility Lender pursuant to this Section 18.1.

**18.2 Notices.**

(A) Seller shall provide Company with a notice identifying the Facility Lender and providing appropriate contact information for the Facility Lender. Following receipt of such notice, Company shall provide to the Facility Lender a copy of each notice of alleged default delivered to Seller under Section 12.1 or Section 12.2, and Company will accept a cure thereof performed by the Facility Lender, so long as the cure is accomplished within the applicable cure period set forth in this PPA or the relevant Lender Consent.

(B) Within 10 Days following Seller's receipt of each notice of default or Facility Lender's intent to exercise any remedies under the Financing Documents, Seller shall deliver a copy of such notice to Company.

**Article 19 - Assignment**

**19.1 Assignment by Seller.**

(A) Seller shall not sell, exchange or otherwise transfer the Facility or any material portion thereof to any third party, nor shall Seller undergo any Change of Control (whether voluntary or by operation of law), absent the prior written consent of Company, which shall not be unreasonably withheld or delayed. Company shall have no obligation to provide any consent under this Section unless

1. Seller has complied with Sections 19.3 and 19.4, if and as applicable;

2. Seller has provided to Company such information concerning the transferee's direct and indirect ownership as Company reasonably requests;

3. the transferee has substantial experience in the operation of power generation facilities akin to the Facility, either directly, through its affiliates or through an operator acceptable to Company;

4. the transferee (together with its parents and affiliates) enjoys an Investment Grade Credit Rating or other creditworthiness satisfactory to Company;

5. Seller has provided to Company at least 30 days' prior notice of the transaction; and

6. Seller pays or reimburses Company for the direct expenses (including the fees and expenses of counsel) incurred by Company in connection with the transaction.

(B) Any Change of Control or sale, transfer, or assignment of any interest in the Facility effected without fulfilling the requirements of this PPA shall be null, void and a breach of this PPA.

(C) Seller shall assign this PPA to any successor owner of the Facility, and shall cause such successor to assume all obligations of Seller (accrued and prospective) hereunder via a writing reasonably satisfactory to Company. Seller also may assign this PPA for collateral purposes to any Facility Lender, and may subcontract some or all of its duties under this PPA, upon notice to but without the consent of Company

(D) Except as permitted in this Section 19.1, Seller may not assign this PPA or any portion hereof. No assignment shall relieve Seller of its obligations under this PPA, nor impair any security posted by Seller unless such security is replaced in accordance with Article 11. Before this PPA is assigned by Seller, the assignee must first obtain such approvals as may be required by all applicable Governmental Authorities.

#### **19.2 Assignment by Company.**

(A) Company may assign this PPA to any Affiliate, or to any successor that provides retail electric service in all or substantially all of Company's service territory and is subject to rate and quality service regulation under the jurisdiction of the PUC. Any other assignment of this PPA by Company shall require the prior written consent of Seller, not to be unreasonably withheld or delayed.

(B) If an assignee of Company enjoys a Credit Rating equal to or better than Investment Grade or Company's Credit Rating as of the date of assignment (whichever is higher), Seller shall release Company from its obligations hereunder if so

requested by Company. Except for the foregoing, no assignment shall relieve Company of its obligations under this PPA.

(C) Any assignee of Company shall assume all obligations of Company (accrued and prospective) hereunder via a writing reasonably satisfactory to Seller. Before this PPA is assigned by Company, the assignee must first obtain such approvals as may be required by all applicable Governmental Authorities.

### 19.3 ROFO.

(A) At any time after the Commercial Operation Date,

- (1) if Seller proposes to sell the Facility to an unaffiliated third party, Seller shall first offer to sell the Facility to Company via notice to Company,
- (2) if Seller's parent proposes to sell a majority of the equity interests in Seller to an unaffiliated third party, Seller shall cause its parent first to offer to sell such equity interests to Company via notice to Company, and
- (3) if Seller's parent owns no assets other than its equity interests in Seller and the parent of Seller's parent proposes to sell a majority of the equity interests in Seller's parent to an unaffiliated third party, Seller shall cause its parent's parent first to offer to sell such equity interests to Company via notice to Company

(in each case, a "ROFO Notice") Any ROFO Notice shall describe the proposed transaction, including the minimum price, status of title to the Site, liabilities to be assumed and other terms which Seller or its relevant parent (as applicable) is willing to accept to proceed with the contemplated transaction. The contents of a ROFO Notice shall be deemed Confidential Information for purposes of Section 20.18 below.

(B) Following issuance of a ROFO Notice, Seller shall allow Company 60 Days to investigate the proposed transaction and conduct due diligence. Due diligence shall include such physical inspections, surveys and operating tests of the Facility and the Site, such reviews of Seller's contracts, books and records, and interviews of such personnel, as Company may reasonably request. All information obtained by Company from such investigations shall be deemed Confidential Information subject to Section 20.18 below. Within such 60-Day period, Company may elect to purchase the Facility or the relevant equity interests (as applicable) on substantially the same terms as set forth in the ROFO Notice. If Company fails to notify Seller of Company's election within such 60-Day period, Company shall be deemed to have rejected the transaction.

(C) If Company elects to purchase the Facility or the specified equity interests (as applicable), the Parties shall negotiate and execute a definitive contract for the transaction (a "PSA"). The PSA shall include the price and other terms set forth in

the ROFO Notice and such other terms as are set forth in Exhibit P – PSA Provisions. In the event that the Parties cannot agree on the final form of PSA, (i) the issue shall be submitted to “baseball” arbitration in Denver, Colorado before one arbitrator appointed by the Arbitration Service, i.e. each Party shall submit to the arbitrator a form of proposed PSA, and the arbitrator shall be required to select one of the two forms to be used as the PSA in the transaction, without compromise, as the arbitral award, (ii) the period for closing of the transaction shall be extended for the period required to complete arbitration, and (iii) the Party whose form PSA is rejected shall pay the fees and costs of the Arbitration Service.

(D) If Company rejects the transaction described in a ROFO Notice, Seller shall have the right to sell the Facility (or Seller’s relevant parent shall have the right to sell the specified equity interests, as applicable) on terms not more favorable to Seller or its parent vs. the terms set forth in the ROFO Notice, at any time within the twelve-month period following issuance of the ROFO Notice. If Seller or its relevant parent fails to close a transaction on such terms within such 12-month period, any sale of the Facility or equity interests in Seller shall again be subject to this Section 19.3.

(E) This Section 19.3 shall be specifically enforceable by Company, without bond and without the need to prove irreparable harm.

(F) Seller shall cooperate in all respects reasonably necessary for Company to exercise its ROFO rights, and shall operate the Facility in the ordinary course of business following the date of issuance of a ROFO Notice.

#### 19.4 PFT.

(A) Seller shall give Company at least 90 Days’ prior notice (a “PFT Notice”) of any Pending Facility Transaction that does not otherwise trigger Company’s ROFO rights under Section 19.3, in order to provide Company with an opportunity to discuss and negotiate with Seller the possible sale of the Facility to Company. Any PFT Notice shall include a fair summary of Seller’s plans with respect to the Facility in connection with the proposed Pending Facility Transaction, to the extent then known by Seller. The contents of a PFT Notice shall be deemed Confidential Information for purposes of Section 20.18 below.

(B) Seller shall have no obligation to sell nor shall Company have any obligation to purchase the Facility, following any PFT Notice. Issuance of a PFT Notice shall not relieve Seller of its obligation to offer a ROFO to Company if and when applicable pursuant to Section 19.3. In the event that the transaction giving rise to the PFT Notice has not been completed within twelve months following a PFT Notice, Seller shall be required to resubmit a PFT Notice for such transaction.

(C) Any breach of this Section 19.4 shall entitle Company to liquidated damages from Seller in the amount of [insert \$5 x number of kW of Nameplate Capacity].



(D) For purposes hereof, a "Pending Facility Transaction" or "PFT" means:

1. any Change of Control of Seller;
2. the issuance by Seller or any of its Affiliates of a request for proposals or the response by Seller or any of its Affiliates to a request for proposal or similar process (e.g., auction) for the purchase or sale to any unaffiliated third party of any equity interests in Seller or the Facility, or any group(s) of assets or equity interests that includes the Facility;
3. the commencement by Seller or any of its Affiliates of substantive negotiations with any unaffiliated third party with respect to the sale of any equity interests in Seller or the Facility, or any group(s) of assets or equity interests that includes the Facility; or
4. the execution by Seller or any of its Affiliates of any letter of intent, memorandum of understanding or similar document, whether or not legally binding, which contemplates the sale or lease to an unaffiliated third party of any equity interests in Seller or the Facility or any group(s) of assets or equity interests that includes the Facility;

*provided, however,* that a PFT does not include (i) any financing or refinancing of the Facility Debt, (ii) any transaction among Affiliates of Seller, and/or (iii) any transaction for which Seller offers ROFO rights to Company under Section 19.3.

## **Article 20 - Miscellaneous**

### **20.1 Notices.**

(A) Notices required by this PPA shall be in writing and addressed to the other Party at the addresses noted in Exhibit D - Notices, as either Party updates such addresses from time to time by notice to the other Party. Notices shall be deemed effective when receipt is acknowledged in writing by the counterparty (or absent such acknowledgement, when delivered via third-party messenger or via FedEx or other reputable overnight courier service). Any notice shall be deemed to have been received by the close of the Business Day on which it was delivered. Real-time or routine communications concerning Facility operations shall be exempt from this Section 20.1(A).

(B) The Parties recognize the need for accurate communications between them. Each Party consents to the recording of telephone conversations between their employees and representatives, related to the performance and administration of this PPA.

### **20.2 Taxes.**

(A) Company shall purchase all Renewable Energy on a wholesale basis, for resale to Company's wholesale and retail customers. Company shall obtain

and provide Seller with any certificates required by any Governmental Authority or otherwise reasonably requested by Seller to evidence that the deliveries of Renewable Energy hereunder are sales for resale.

(B) As between the Parties, Company shall be solely responsible for the payment of (1) any sales, use or equivalent taxes imposed by Governmental Authorities, whether now in existence or hereafter enacted, on the purchase of Renewable Energy hereunder at the Point of Delivery, and (2) any taxes imposed by Governmental Authorities, whether now in existence or hereafter enacted, on the transmission of Renewable Energy beyond the Point of Delivery.

(C) Subject to Section 20.2(B), Seller shall be solely responsible for any and all present and future taxes and other impositions of Governmental Authorities relating to the construction, ownership or leasing, operation or maintenance of the Facility and the Site (including *ad valorem* taxes on the Facility and the Site), and any taxes imposed prior to the Point of Delivery with respect to the products and services to be sold and delivered to Company hereunder, whether calculated based upon cost, value, labor, capital, production, savings, green attributes or other parameters. Seller's prices under Article 8 are inclusive of such taxes and impositions during the Term, and Seller assumes the risk of changes in such taxes after the date hereof.

(D) The Parties shall cooperate to minimize tax exposure, *provided, however*, that neither Party shall be obligated to incur any financial burden to reduce taxes for which the other Party is responsible hereunder.

20.3 Applicable Laws. Each Party shall comply with all Applicable Laws (including the Transmission Authority Tariff), except for any non-compliance that (individually or in the aggregate) could not reasonably be expected to have a Material Adverse Effect on the other Party or on such Party's ability to perform this PPA.

(A) As applicable, each Party shall give all required notices, shall procure and maintain all Permits necessary for performance of this PPA, and shall pay its respective charges and fees in connection therewith.

(B) Each Party shall promptly disclose to the other Party, any violation of any Applicable Laws arising out of the Facility and/or performance of this PPA.

(C) Upon permanent cessation of generation from the Facility, Seller shall decommission and remove the Facility and remediate the Site as, if and when required by Applicable Laws.

(D) Seller acknowledges that as a government contractor Company is subject to Applicable Laws regarding equal employment opportunity and affirmative action, including 41 C.F.R. §60-1.4(a)(1-7). Such Applicable Laws may also be applicable to Seller as a subcontractor to Company. All such Applicable Laws shall be deemed to be incorporated herein as required by Applicable Law.

(E) Each Party assumes the risk of changes in Applicable Laws following the date hereof, that affect such Party's costs of ownership and operation of its assets, and its performance of this PPA, except as otherwise specifically set forth herein.

20.4 Fines and Penalties. Seller shall pay when due all fees, fines, penalties and costs incurred by Company, Seller and/or their agents, employees or contractors arising from noncompliance by Seller, its employees, or subcontractors with any provision of this PPA, or any contractual obligation, Permit or requirements of Applicable Law, except for such fines, penalties and costs that are being actively contested in good faith and with due diligence by Seller and for which adequate financial reserves have been set aside to pay such fines, penalties or costs in the event of an adverse determination

20.5 Rate Changes.

(A) The terms and conditions and the rates for service specified in this PPA shall remain in effect for the Term hereof. Neither Party shall seek (nor support any third party seeking) any prospective or retroactive change to the rates or terms of service under this PPA pursuant to Section 205, 206 or 306 of the Federal Power Act.

(B) The standard of review for changes to this PPA whether proposed by a Party, a non-party, or FERC acting *sua sponte* shall be the "public interest" standard of review set forth in *United Gas Pipe Line v. Mobile Gas Service Corp.*, 350 U.S. 332 (1956) and *Federal Power Commission v. Sierra Pacific Power Co.*, 350 U.S. 348 (1956) (aka the "Mobile-Sierra doctrine"), as interpreted in *Morgan Stanley Capital Group, Inc. v. Public Util. Dist. No. 1*, 128 S. Ct. 2733 (2008).

20.6 Certifications. Each Party shall deliver or cause to be delivered to the other Party certificates of its officers, accountants, engineers or agents as to matters as may be reasonably requested, and shall make available personnel and records relating to the Facility to the extent that the requesting Party requires the same in order to fulfill any regulatory reporting requirements, or to assist the requesting Party in litigation, including administrative proceedings before the [PUC] [MN PUC and/or ND PSC].

20.7 Disclaimer of Third Party Beneficiaries. In executing this PPA, Company does not and does not intend to extend its credit or financial support for the benefit of any Facility Lender or any other third party transacting with Seller. Nothing in this PPA shall be construed to create any duty to, or standard of care with reference to, or any liability to, any person not a party to this PPA.

20.8 Relationship of the Parties.

(A) This PPA shall not be interpreted to create an association, joint venture, or partnership between the Parties, nor to impose any partnership obligation or liability upon either Party. Except as specifically provided for in this PPA to the contrary, neither Party shall have any right, power, or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as an agent or representative of, the other Party.

(B) Seller shall be solely liable for the payment of all wages, taxes, and other costs related to the employment of persons to perform such services, including all federal, state, and local income, social security, payroll, and employment taxes and statutorily mandated workers' compensation coverage. None of the persons employed by Seller shall be considered employees of Company for any purpose; nor shall Seller represent to any person that he or she is or shall become a Company employee.

20.9 Survival of Obligations. Cancellation, expiration, or earlier termination of this PPA shall not relieve the Parties of obligations, including warranties, remedies, or indemnities, that by their nature should survive such cancellation, expiration, or termination, which obligations shall survive for the period of the applicable statute(s) of limitation.

20.10 Severability. In the event any of the terms, covenants, or conditions of this PPA, its Exhibits, or the application of any such terms, covenants, or conditions, shall be held invalid, illegal, or unenforceable by any court or administrative body having jurisdiction, all other terms, covenants, and conditions of the PPA and their application not adversely affected thereby shall remain in force and effect; *provided, however, that* Company and Seller shall negotiate in good faith to attempt to implement an equitable adjustment in the provisions of this PPA with a view toward effecting the purposes of this PPA by replacing the provision that is held invalid, illegal, or unenforceable with a valid provision the economic effect of which comes as close as possible to that of the provision that has been found to be invalid, illegal or unenforceable.

20.11 Complete Agreement; Amendments. The terms and provisions contained in this PPA constitute the entire agreement between Company and Seller with respect to the Facility and shall supersede all previous communications, representations, or agreements, either verbal or written, between Company and Seller with respect to the sale of Renewable Energy from the Facility. Any amendment of this PPA, or any waiver of any provision hereof, shall be evidenced by a writing signed by the Party/ies to be bound thereby.

20.12 Waiver. The failure of either Party to enforce or insist upon compliance with or strict performance of any of the terms or conditions of this PPA, or to take advantage of any of its rights hereunder, shall not constitute a waiver or relinquishment of any such terms, conditions, or rights, but the same shall be and remain at all times in full force and effect.

20.13 Binding Effect. This PPA is binding upon and shall inure to the benefit of the Parties hereto and their respective successors, legal representatives, and assigns.

20.14 Headings. Captions and headings used in this PPA are for ease of reference only and do not constitute a part of this PPA.

20.15 Counterparts. This PPA may be executed in counterparts, and each executed counterpart shall have the same force and effect as an original instrument.

20.16 Press Release. Upon the request of either Party, the Parties shall develop a mutually agreed joint press release to be issued describing the location, size and nature of the Facility, the term of this PPA, and other relevant factual information about the relationship.

20.17 Exhibits. Either Party may change the information in Exhibit D - Notices at any time by notice without the approval of the other Party. All other Exhibits may be changed to the extent allowed by specific provisions of this PPA or with the mutual consent of both Parties.

20.18 Confidentiality.

(A) For purposes hereof, "Confidential Information" means

1. information specifically designated as Confidential Information in this PPA; and

2. written information delivered by one Party to the other from time to time during the Term, which information is labeled prominently as "Confidential," "Proprietary" or the like and specifically references this PPA.

*provided, however,* that "Confidential Information" shall not include information that

(x) is publicly available as of the date hereof, or becomes publicly available during the Term through no fault of the recipient Party;

(y) can be documented was independently developed by the recipient Party; and/or

(z) is disclosed to the recipient Party from an ultimate source other than the protected Party, without breach of this PPA by the recipient Party.

(B) The recipient Party shall (i) maintain the confidentiality of all Confidential Information of the protected Party, using the same degree of care used by the recipient Party to protect its own Confidential Information (and in any event not less than a reasonable degree of care), and (ii) shall use Confidential Information only in connection with its performance of this PPA. Confidential Information may be disclosed by the recipient Party to its agents, employees, directors, officers, consultants, auditors, lenders and equity investors, subject to their acceptance of the obligations of confidentiality imposed hereby and for whose violations of this Section 20.18 the recipient Party shall be responsible.

(C) In the event that Confidential Information is disclosed to the PUC, its staff, interveners or consumer counsel in any regulatory or administrative proceedings before the PUC, the disclosing Party shall submit such Confidential information in accordance with applicable PUC confidentiality rules and procedures. In the event that Confidential Information must otherwise be disclosed by Applicable Law (e.g. pursuant to subpoena or civil discovery), the Party required to make disclosure shall notify the

protected Party sufficiently in advance to allow the protected Party a reasonable opportunity to obtain a protective order or seek other remedies, prior to disclosure by the recipient Party.

*[remainder of this page intentionally left blank]*

IN WITNESS WHEREOF, the Parties have executed this PPA as of the date first set forth above.

*Seller:*

\_\_\_\_\_ **[LLC]**

By: \_\_\_\_\_  
[name and title]

*Company:*

**Public Service Company of Colorado**

By: \_\_\_\_\_  
[ ] as Vice President of Xcel  
Energy Services, Inc., its authorized agent

## EXHIBIT A

### DEFINITIONS

The following terms shall have the meanings set forth herein:

“Actual Damages” has the meaning set forth in Section 12.4(C).

“Affiliate” of any designated Person means any person or entity that directly or indirectly controls, is under the control of, or is under common control with, the designated Person by the power to direct or cause the direction of the management of the policies of designated Person, whether through ownership interest, by contract or otherwise.

“AGC” or “Automatic Generation Control” means the equipment and capability of an electric generation facility automatically to adjust the generation quantity within the applicable Balancing Authority with the purpose of interchange balancing and specifically, the Facility’s capability of accepting an AGC Set-Point electronically, and the automatic adjustment and regulation of the Facility’s energy production via the SCADA System.

“AGC Protocols” means the protocols for AGC included in Exhibit I - AGC Protocols; Data Collection; Technical Specifications, as such protocols may be modified from time to time in accordance with Section 10.7.

“AGC Remote/Local” means a handshake electronic signal sent from the Facility to the EMCC AGC system, and from the EMCC AGC system to the Facility, indicating the Facility is receiving AGC Set-Point locally (from the Facility) or remotely (EMCC AGC system) and is following that AGC Set-Point.

“AGC Set-Point” means the Company-generated analog or digital signal sent by the SCADA System to the Facility, representing the quantity of Renewable Energy to be generated by the Facility. The AGC Set-Point is calculated by the EMCC AGC system and communicated electronically to the Facility via the SCADA System.

“Applicable Law” means all laws, statutes, treaties, codes, ordinances, regulations, certificates, orders, licenses and permits of any Governmental Authority that are applicable to a Party, the business of a Party or the Facility, now in effect or hereafter enacted, including amendments to or interpretations of any of the foregoing by a Governmental Authority having jurisdiction, and all applicable judicial, administrative, arbitration and regulatory decrees, judgments, injunctions, writs, orders, awards and/or like actions.

“Arbitration Service” means Judicial Arbitration and Mediation Services, Inc. (aka JAMS).

“Availability Factor” shall have the meaning set forth in Exhibit M.

“Back-Up Metering” shall have the meaning set forth in Section 5.2(B).



“Balancing Authority” means the system of electrical generation, distribution and transmission facilities within which generation is regulated in order to maintain interchange schedules with other such systems.

“Business Day” means any Day that is not a Saturday, a Sunday, or a NERC recognized holiday.

“Change of Control” means the occurrence of any one of the following events with respect to Seller or any direct or indirect owner of a majority of the ownership interests in Seller: (a) a transfer of a majority of the ownership interests in Seller or such owner; (b) any consolidation or merger of Seller or such owner in which Seller or such owner, as the case may be, is not the continuing or surviving entity; or (c) a sale or conveyance of any direct or indirect ownership interest in Seller following which [REDACTED] (“Ultimate Parent”) is no longer the direct or indirect owner of at least 50% of the ownership interests of Seller, *provided, however*, that a Change of Control shall not be deemed to have occurred as a result of

- (i) transactions exclusively among Affiliates of Seller,
- (ii) any exercise by the Facility Lender of its rights and remedies under the Financing Documents,
- (iii) a change of control of Ultimate Parent, or
- (iv) any change of economic and/or voting rights triggered in Seller’s organizational documents arising from a tax-equity financing of the Facility.

“COD Conditions” means all of the requirements that must be satisfied by Seller as a prerequisite to achieving Commercial Operation. The COD Conditions are set forth in Section 4.5.

“Commercial Operation” means the period beginning on the Commercial Operation Date and continuing through the balance of the Term of this PPA.

“Commercial Operation Date” or “COD” shall have the meaning set forth in Section 4.5.

“Commercial Operation Year” shall have the meaning set forth in Section 4.5(E).

“Commercially Reasonable” or “Commercially Reasonable Efforts” means, with respect to any action to be taken or attempted by a Party under this PPA, the level of effort in light of the facts known to such Party at the time a decision is made that: (a) can reasonably be expected to accomplish the desired action at a reasonable cost; (b) is consistent with Good Utility Practices; and (c) takes into consideration the amount of advance notice required to take such action, the duration and type of action, and the competitive environment in which such action occurs.

“Committed Energy” from the Facility for each Commercial Operation Year is set forth on Exhibit J hereto. The amount of Committed Energy shall be deemed Confidential Information for purposes of Section 20.18.

“Compensable Curtailment” and “Compensable Curtailment Energy” shall have the meanings set forth in Section 8.3(B).

“Confidential Information” shall have the meaning set forth in Section 20.18(A).

“Construction Contracts” shall have the meaning set forth in Section 4.1.

“Construction Milestones” means the dates set forth in Exhibit B – Construction Milestones.

“Credit Rating” of any Person means the lowest rating assigned to such Person’s long-term debt or deposit obligations (unenhanced by third-party support) by Standard & Poors and Moody’s. If such Person has no outstanding long-term debt or deposit obligations, or if no rating is assigned to such obligations, “Credit Rating” shall mean the lowest general corporate credit rating or long-term issuer rating assigned to such Person by Standard & Poors or Moody’s.

“Damage Cap” shall have the meaning set forth in Section 12.4.

“Day” means a calendar day.

“Dispute” shall have the meaning set forth in Article 13.

“Electric Metering Devices” means revenue quality meters, metering equipment and data processing equipment used to measure, record and transmit data with respect to the output of Renewable Energy from the Facility, including metering current transformers and metering voltage transformers.

“Eligible Energy Resource” means any generation resource eligible to be certified to generate, claim, own or use Renewable Energy Credits and green tags pursuant to the protocols and procedures developed and approved by applicable Government Authorities for the REC Registration Program.

“Energy Markets Control Center” or “EMCC” means Company’s merchant representatives responsible for dispatch of generating units, including the Facility.

“Energy Payment Rate” shall have the meaning set forth in Exhibit J.

“Energy Resource Interconnection Service” means the type of interconnection service which allows Seller to connect the Facility to the transmission or distribution system, as applicable, as an “Energy Resource” as defined by the Transmission Tariff, and be eligible to deliver the Facility’s output using the existing firm or non-firm capacity on the transmission system on an as-available basis. *if needed*

“Environmental Contamination” shall have the meaning set forth in Section 4.2.

“ERO” means the Electric Reliability Organization certified by FERC pursuant to Section 215 of the Federal Power Act or any successor organization. The certified ERO as of the date of this PPA is the Western Electricity Coordinating Council (WECC) and Peak Reliability.

“Event of Default” shall have the meaning set forth in Article 12.

“Excess Energy” shall have the meaning set forth in Section 8.2.

“Facility” means Seller’s electric generating facilities, associated balance of plant, parts, fixtures and equipment, and all equipment necessary to interconnect to the Transmission Authority’s System, all as further described in Exhibit C - Facility Description, including Seller’s rights to the Site and all of the following: buildings, turbines, generators, step-up transformers, output breakers, facilities necessary to connect to the Interconnection Point, protective and associated equipment, improvements, and other tangible and intangible assets, contract rights, Permits, easements, rights of way, surface use agreements and other interests or rights in real estate, owned or used for construction, operation, maintenance, generation and delivery of the capacity and energy subject to this PPA.

“Facility Debt” means the obligations of Seller or its Affiliates to any lender or tax equity investor pursuant to the Financing Documents, including principal of, premium and interest on indebtedness, fees, expenses or penalties, amounts due upon acceleration, prepayment or restructuring, swap or interest rate hedging breakage costs and any fees or interest due with respect to any of the foregoing.

“Facility Lender” means, collectively, any lenders or tax equity investors providing Facility Debt, including any successors or assigns thereof.

“Federal Power Act” means the provisions of 16 U.S.C. §791(A) *et seq.* and amendments or supplements thereto.

“FERC” means the Federal Energy Regulatory Commission or any successor agency.

“Financing Documents” means the loan and credit agreements, notes, bonds, indentures, security agreements, lease financing agreements, mortgages, deeds of trust, interest rate exchanges, swap agreements and other documents relating to the development, bridge, construction or permanent debt financing and/or tax equity financing for the Facility, including any credit enhancement, credit support, working capital financing, or refinancing documents, and any and all amendments, modifications, or supplements to the foregoing that may be entered into from time to time at the discretion of Seller in connection with development, construction, ownership, leasing, operation or maintenance of the Facility.

**PSCo Model Renewable Energy Only Purchase Agreement**

“Forced Outage” means any condition at the Facility that requires the immediate and unplanned removal of the Facility, or at least ten percent thereof, from service, another outage state, or a reserve shutdown state, resulting from immediate mechanical/electrical/hydraulic control system trips and operator-initiated trips in response to abnormal Facility conditions or alarms.

“Good Utility Practices” means the practices, methods, standards and acts engaged in or approved by a significant portion of the applicable segment of the electric power generation industry pertaining to facilities of the type, similar size and location to the Facility that, at a particular time, in the exercise of Commercially Reasonable judgment, in light of the facts that are known (or reasonably should have been known) at the time a decision was made, would have been expected to accomplish the desired result in a manner consistent with Applicable Law, Permits, codes, standards, equipment manufacturer’s recommendations, reliability, safety, environmental protection, economy, and expedition. Good Utility Practices is not limited to the optimum practice, method, standard or act to the exclusion of all others, but rather to those practices, methods, standards and acts generally acceptable or approved by a significant portion of the applicable segment of the electric power generation industry in the relevant region, during the relevant period.

“Governmental Authority” means any federal, state, local or municipal governmental body; any governmental, quasi-governmental, regulatory or administrative agency, commission, body or other authority exercising or entitled to exercise any administrative, executive, judicial, legislative, policy, regulatory or taxing authority or power; and/or any court or governmental tribunal. By way of example only, “Governmental Authorities” include NERC, the ERO, the Market Operator (if any), an applicable PUC, the Transmission Authority and FERC, and successor organizations.

“Interconnection Agreement” means the separate contract for interconnection of the Facility to the Transmission Authority’s System, as such agreement may be amended from time to time. For purposes of this PPA, the Interconnection Agreement shall be interpreted to include any third party facility construction agreement or other agreement required by the Transmission Authority to interconnect the Facility in accordance with the Transmission Tariff. For the avoidance of doubt, “Interconnection Agreement” excludes any temporary or provisional interconnection agreement or any agreement where the Transmission Provider may limit the operational output of the Facility.

“Interconnection Facilities” means those facilities designated in the Interconnection Agreement for the direct purpose of interconnecting the Facility at the Interconnection Point, along with any easements, rights of way, surface use agreements and other interests or rights in real estate reasonably necessary for the construction, operation and maintenance of such facilities, whether owned by Seller, the Transmission Authority or another entity. This equipment is conceptually depicted in Exhibit C - Facility Description to this PPA.

“Interconnection Point” means the physical point within the operational authority of the Transmission Authority as specified in the Interconnection Agreement as project [REDACTED], at which electrical interconnection is made between the Facility and the Transmission Authority’s System in accordance with the Transmission Tariff and the Interconnection Agreement.

“Investment Grade” means a Credit Rating of both (a) Baa3 or higher by Moody’s, and (b) BBB- or higher by Standard & Poors.

“kW” means kilowatt, and “kWh” means kilowatt hour.

“Lender Consent” shall have the meaning set forth in Section 18.1.

“Maintenance Schedule” has the meaning set forth in Section 10.2.

“Market Operator” means the entity that instructs market participants and/or generators to regulate generation assets (including the Facility) within any energy market in which Company participates, based on price-based offer curves for the purpose of matching generation output to system load demand while maintaining bulk electric system reliability. If such entity is the Transmission Authority, then “Market Operator” shall mean such entity acting in its capacity as such.

“Material Adverse Effect” means any effect (or effects taken together) that is materially adverse to the present or future business, operations, assets, liabilities, properties, results in operations or condition (financial or otherwise), prospects, or property of a Party, its business, or this PPA.

“MW” means megawatt or one thousand kW, and “MWh” means megawatt hours.

“Nameplate Capacity” of the Facility means the sum of the designed maximum outputs of each generator comprising the Facility, as designated by the turbine manufacturer.

“NERC” means the North American Electric Reliability Council or any successor organization.

“Non-Compensable Curtailment” shall have the meaning set forth in Section 8.3(B).

“Operating Committee” means one representative each from Company and Seller, pursuant to Section 10.7.

“Operating Procedures” means those procedures developed by the Operating Committee pursuant to Section 10.7, if any.

“Operating Records” means all agreements associated with the Facility, operating logs, blueprints for construction, operating manuals, all warranties on

equipment, and all documents, whether in printed or electronic format, that Seller uses or maintains for the operation of the Facility.

“Party” and “Parties” shall have the meanings set forth in the introductory paragraph.

“Pending Facility Transaction” or “PFT” shall have the meaning set forth in Section 19.4.

“Permit” shall have the meaning set forth in Section 4.3.

“PFT Notice” shall have the meaning set forth in Section 19.4.

“PI System” means the “plant information” system for the Facility, as described and implemented in Exhibit I - AGC Protocols; Data Collection; Technical Specifications.

“Point of Delivery” means the physical point within the operational authority of Transmission Authority at which Seller makes available and delivers to Company the Renewable Energy being provided by Seller to Company under this PPA. The Point of Delivery is specified in Exhibit C - Facility Description to this PPA.

“Potential Energy” means the quantity of the energy that Seller is capable of delivering at the Point of Delivery. Potential Energy shall be calculated as the aggregate energy available for delivery at the Point of Delivery using the best-available data obtained through Commercially Reasonable methods; and shall be dependent upon and transmission line losses, and any other adjustment necessary to accurately reflect the Facility’s capability to produce and deliver energy to the Point of Delivery.

“PTCs” means Production Tax Credits applicable to electricity produced from certain renewable resources pursuant to 26 U.S.C. §45, or such substantially equivalent tax credit that provides Seller with a tax credit based on energy production from the Facility.

“PUC” means the Colorado Public Utilities Commission or any successor agency.

“PUC Approval” shall have the meaning set forth in Section 6.1(D).

“REC Registration Program” means the applicable Colorado, regional, or federal program established to register Eligible Energy Resources such as the Facility, and create and certify RECs arising from energy generated from such Resources, including any rights associated with any renewable energy information or tracking system that exists or may be established by Applicable Law with regard to monitoring, registering, tracking, certifying, or trading such credits. For purposes of this PPA, the REC Registration program shall mean the Western Renewable Energy Generation Information System (aka WREGIS).

“Renewable Energy” means all electric energy generated by the Facility and delivered to Company at the Point of Delivery during the Term, including all Test Energy and any Excess Energy purchased by Company. “Renewable Energy” shall be deemed to include all RECs associated with such electric energy.

“Renewable Energy Credits” or “RECs” means the right to all non-energy and environmental attributes (including economic, carbon and pollutant-related tags and credits, benefits, avoided or reduced emissions reductions, offsets, emission rate reductions, tags and allowances, howsoever titled) attributable to the capacity available and/or energy generated by the Facility, including environmental air quality credits, tags and allowances created by Applicable Law by virtue of the Facility’s environmentally favorable or renewable characteristics or attributes. “RECs” includes but is not necessarily limited to rights eligible for registration, trading and/or use under the REC Registration Program. In Colorado, “REC” shall include renewable energy credits as defined and used in Colorado’s Renewable Energy Standard, 4 CCR 723-3650 *et seq.*

For the avoidance of doubt, “RECs” exclude (i) PTCs, ITCs and other local, state or federal tax credits providing a tax benefit to Seller based on ownership of the Facility or energy production therefrom, including the [production tax credit] [investment tax credit] that may be available to Seller with respect to the Facility under IRC [§45] [§48], and (ii) depreciation and other tax benefits arising from ownership or operation of the Facility unrelated to its status as a generator of renewable or environmentally clean energy.

“Replacement Power Costs” for any period mean the costs incurred by Company to replace the products and services which Seller was required to provide under this PPA (but failed to so provide) during such period, less the sum of any payments from Company to Seller under this PPA that were eliminated with respect to such period as a result of such failure. Replacement Power Costs shall be determined on an hourly basis and shall equal the sum of the following for each hour where the following calculation achieves a positive number:

Hourly Replacement Power Costs = (A + B + C + D) – E, where

“A” = the product of (x) the number of MW of lost capacity, derived by subtracting the number of MW of capacity of the Facility that qualifies for capacity credit actually made available to Company from the amount of qualifying capacity associated with the entire Facility, and (y) the applicable market price for capacity made available to Company’s system, for such hour;

“B” = the price paid by Company for the MWh of energy purchased by Company to replace the Contract Energy that was not delivered under this PPA during such hour;

**PSCo Model Renewable Energy Only Purchase Agreement**

“C” = the product of (x) the number of MWh of energy purchased by Company with respect to such hour, to replace the Committed Energy that was not delivered under this PPA, and (y) the actual cost of registered RECs for that number of MWh, for such hour;

“D” = the actual cost of transmission, ancillary services, fuel and fuel transportation, other incremental costs, and any related penalties that could not be avoided or mitigated, and transaction charges to deliver reasonably available energy to Company in amounts equal to the number of MWh for which Replacement Power Costs are owed; and

“E” = the sum of all payments avoided by Company as a result of Seller’s breach, for such hour, including avoided payments under Article 8.

“ROFO” and “ROFO Notice” shall have the meanings set forth in Section 19.3.

“SCADA” means supervisory control and data acquisition.

“Scheduled Termination Date” shall have the meaning set forth in Article 2.

“Security Fund” shall have the meaning set forth in Section 11.1.

“Site” means the parcel of real property on which the Facility will be located, including any easements, rights of way, surface use agreements and other interests or rights in real estate necessary for the construction, operation and maintenance of the Facility. The Site is more specifically described in Exhibit C - Facility Description to this PPA.

“Solar Units” means the photovoltaic arrays, mirrors, lenses, tracking devices and other equipment necessary for the Facility to collect sunlight at the Site and convert it into electricity or thermal energy. The manufacturer and model number of the Solar Units is identified on Exhibit C – Facility Description. *solar only*

“Step-In Rights” shall have the meaning set forth in Section 12.5.

“Target COD” shall have the meaning set forth in Section 4.5(A).

“Term” means the period of time during which this PPA remains in full force and effect, as further defined in Article 2.

“Test Energy” shall have the meaning set forth in Section 4.6.

“Transmission Authority” means collectively those entities owning and/or operating the interconnected transmission system applicable to Seller and the Facility pursuant to a Transmission Tariff, including (i) Public Service Company of Colorado operating under and in accordance with its Transmission Tariff, and (ii) all entity(s) responsible under the Interconnection Agreement for providing the transmission lines,



any Interconnection Facilities and other equipment and facilities with which the Facility interconnects at the Interconnection Point and transmission system.

“Transmission Authority’s System” means the contiguously interconnected electric transmission and sub-transmission facilities, over which the Transmission Authority has rights (by ownership or contract) to provide bulk transmission of capacity and energy from the Interconnection Point.

“Transmission Tariff” means the applicable Open Access Transmission Tariff of the Transmission Authority, as amended from time to time.

\* \* \* \* \*

**EXHIBIT B**  
**CONSTRUCTION MILESTONES**

<b>Construction Milestone</b>	<b>Outcome</b>
<i>[Date]</i>	Seller and all required counterparties shall have executed such Construction Contracts as are needed to construct the Facility.
<i>[Date]</i>	Seller and the Transmission Authority shall have executed the Interconnection Agreement.
<i>[Date]</i>	Seller shall have achieved closing on financing for the Facility or provided Company with proof of financial capability to construct the Facility.
<i>[Date]</i>	Seller shall have laid the foundation for all Facility buildings, generating facilities and step-up transformation facilities.
<i>[Date]</i>	The generators and step-up transformer shall have been delivered and installed at the Site.
<i>[Date]</i>	Seller's Interconnection Facilities shall have been constructed, and such facilities are capable of being energized.
<i>[Date]</i>	Start-up testing of the Facility commences.
<i>[Date]</i>	Seller shall make all applications and/or filings required by Applicable Law for REC accreditation and for the assignment of such RECs to Company.

## EXHIBIT C

### FACILITY DESCRIPTION AND SITE MAPS

***[This Exhibit shall include a description of the Facility and all material components thereof, including map, aerial pictures, one-line diagram, Point of Delivery and (if different) the Interconnection Point.]***

The Facility shall be located on the Site and shall be identified as Seller's [REDACTED] Generation Facility. Maps and one-line diagrams of the Facility and associated equipment are included as part of this Exhibit.

The address of the Facility is [REDACTED].

The Facility must include the following specific components:

- \* have the panel space and 125VDC battery supplied voltage necessary to accommodate the metering, telemetering and communications equipment required by the PPA;
- \* communication circuits from the Facility to the EMCC for the purpose of telemetering, supervisory control/data acquisition, and voice communications as required by Company;
- \* equipment and software necessary to receive, accept and react to an AGC signal from the Company's SCADA System and to comply with the AGC Protocols as further specified on Exhibit I - AGC Protocols; Data Collection; Technical Specifications;
- \* capability of sending real time data and OPC interface to Company's PI System;

**[Additional Bid Specific requirements to be added]**

**EXHIBIT D**  
**NOTICES AND CONTACT INFORMATION**

<u><b>Company</b></u>	<u><b>Seller</b></u>
<p><b>Notices:</b></p> <p>_____ Renewable Purchased Power Manager Xcel Energy Services Inc. 1800 Larimer Street, Suite _____ Denver, CO 80202</p> <p><i>with a cc to:</i></p> <p>_____ Purchased Power Analyst Xcel Energy Services Inc. 1800 Larimer Street, Suite 1000 Denver, CO 80202</p>	<p><b>Notices:</b></p> <p>_____ _____ _____</p> <p><i>with a cc to:</i></p> <p>_____ _____ _____</p>
<p><b>Operating Committee Representative:</b></p> <p>_____ Renewable Purchased Power Manager Xcel Energy Services Inc. 1800 Larimer Street, Suite 1000 Denver, CO 80202</p> <p><b>Alternate:</b></p> <p>_____ Purchased Power Analyst Xcel Energy Services Inc. 1800 Larimer Street, Suite 1000 Denver, CO 80202</p>	<p><b>Operating Committee Representative:</b></p> <p>_____ _____ _____</p> <p><b>Alternate:</b></p> <p>_____ _____ _____</p>
<p><b>Real-Time Contact Information</b></p> <p><u>EMCC (24 hour coverage):</u> Phone: 303-571-6280 E-mail: _____@xcelenergy.com</p> <p><u>Transmission Ops:</u> Phone: 303-571-6490 E-mail: _____@xcelenergy.com</p>	<p><b>Real-Time Contact Information</b></p> <p><u>[Operations Command Center]</u> (24 hour coverage): Phone: _____ E-mail: _____</p>

**PSCo Model [Wind] [Solar] Energy Purchase Agreement**

**EXHIBIT E**  
**INSURANCE COVERAGE**

<u>Type of Insurance</u>	<u>Minimum Limits of Coverage</u>
Commercial General Liability (CGL) and commercial umbrella	\$11,000,000 combined single limit each occurrence and the aggregate, where applicable. If CGL insurance contains a general aggregate limit, it shall apply separately to the Facility.

CGL insurance shall be written on ISO occurrence form CG 00 01 01 96 (or a substitute form providing equivalent coverage) and shall cover liability arising from premises, operations, independent contractors, products/completed operations, contracts, property damage, personal injury and advertising injury, and liability assumed under an insured contract (including the tort liability of another assumed in a business contract), all with limits as specified above. CGL insurance shall include ISO endorsement CG 24 17 (or an equivalent endorsement) which modifies the definition of "Insured contract" to eliminate the exclusion of easement or license agreements in connection with construction or demolition operations on or within 50 feet of a railroad. There shall be no endorsement or modification of the CGL insurance limiting the scope of coverage for liability arising from explosion, collapse, or underground property damage.

Company shall be included as an insured under the CGL policy, using ISO additional insured endorsement CG 20 10 (or a substitute providing equivalent coverage), and under the commercial umbrella insurance. The commercial umbrella insurance shall provide coverage over the top of the CGL insurance, the Business Automobile Liability insurance, and the Employers Liability insurance. The CGL and commercial umbrella insurance to be obtained by or on behalf of Seller shall be endorsed as follows:

Such insurance as afforded by this policy for the benefit of Company shall be primary as respects any claims, losses, damages, expenses, or liabilities arising out of this PPA, and insured hereunder, and any insurance carried by Company shall be excess of and noncontributing with insurance afforded by this policy.

Business Automobile Liability	\$2,000,000 combined single limit (each accident), including all Owned, Non-Owned, Hired and Leased Autos.
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Business Automobile Liability insurance shall be written on ISO form CA 00 01, CA 00 05, CA 00 12, CA 00 20, or a substitute form providing equivalent liability coverage. If necessary, the policy shall be endorsed to provide contractual liability coverage equivalent to that provided in the 1990 and later editions of CA 00 01.

Workers Compensation	Statutory Requirements. Seller may comply with these requirements through the use of a qualified self-insurance plan.
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[Exhibit E - continued]

<u>Type of Insurance</u>	<u>Minimum Limits of Coverage</u>
Employers Liability	\$2,000,000 each accident for bodily injury by accident, or \$2,000,000 each employee for bodily injury by disease.
Builder's Risk	Replacement value of the Facility.  Builder's Risk insurance, or an installation floater, shall include coverage for earthquake and flood, collapse, faulty workmanship, materials and design, testing of machinery or equipment, freezing or changes in temperature, debris removal, and partial occupancy.
Environmental Impairment Liability	\$5,000,000 each occurrence.
All-Risk Property insurance covering physical loss or damage to the Facility	Full replacement value of the Facility. A deductible may be carried which deductible shall be the absolute responsibility of Seller.  All-Risk Property insurance shall include: (i) coverage for fire, flood, wind and storm, tornado and earthquake with respect to facilities similar in construction, location and occupancy to the Facility, with sublimits of no less than \$10,000,000 each for flood and earthquake; and (ii) Boiler and Machinery insurance covering all objects customarily subject to such insurance, including boilers and turbines, in an amount equal to their full replacement value.
Business Interruption insurance	Amount required covering Seller's continuing or increased expenses, resulting from full interruption, for a period of 12 calendar months.  Business Interruption insurance shall cover loss of revenues or the increased expense to resume operations attributable to the Facility by reason of total or partial suspension or delay of, or interruption in, the operation of the Facility as a result of an insured peril covered under Property insurance as set forth above, to the extent available on Commercially Reasonable terms as determined by Company, subject to a Commercially Reasonable deductible that shall be the responsibility of Seller. Notwithstanding any other provision of this PPA, Seller shall not be required to have Business Interruption insurance until the Commercial Operation Date.

**EXHIBIT F**  
**SELLER'S NEEDED PERMITS**

Bid Specific

**EXHIBIT G**  
**FORM OF LETTER OF CREDIT**

[LETTERHEAD OF ISSUING BANK]

Irrevocable Standby Letter of Credit No.: \_\_\_\_\_

Date of Issuance: \_\_\_\_\_

Initial Expiration Date: [Must be at least one year after date of issuance]

Beneficiary: **Public Service Company of Colorado**

Applicant: \_\_\_\_\_

As the Issuing Bank ("Issuer"), we, [Name of Issuing Bank], hereby establish this irrevocable Standby Letter of Credit No. \_\_\_\_\_ (this "Letter of Credit") in favor of the above-named beneficiary ("Beneficiary") for the account of the above-named applicant ("Applicant") in the amount of US\$\_\_\_\_\_ (\_\_\_\_\_ Million U.S. Dollars).

Beneficiary may draw all or any portion of this Letter of Credit at any time and from time to time, and Issuer will make funds immediately available to Beneficiary upon presentation of Beneficiary's draft(s) at sight in substantially the form attached hereto as Exhibit "A" ("Sight Draft"), drawn on Issuer and accompanied by this Letter of Credit. All Sight Drafts must be signed on behalf of Beneficiary, and the signator must indicate his or her title or other official capacity. No other documents will be required to be presented. Issuer will effect payment under this Letter of Credit within twenty-four (24) hours after presentment of any Sight Draft. Payment shall be made in U.S. Dollars with Issuer's own funds in immediately available funds.

Issuer will honor any Sight Draft presented in substantial compliance with the terms of this Letter of Credit at the Issuer's letterhead office, the office located at \_\_\_\_\_ or any other full service office of the Issuer on or before the above-stated expiration date, as such expiration date may be extended hereunder. Partial and multiple draws and presentations are permitted on any number of occasions. Following any partial draw, Issuer will endorse this Letter of Credit and return the original to Beneficiary.

This Letter of Credit is issued pursuant to the provisions of that certain Renewable Energy Only Purchase Agreement between Beneficiary and [Applicant] dated as of \_\_\_\_\_, 20\_\_ (as the same may have been or may be amended from time to time, the "PPA"). Notwithstanding any reference in this Letter of Credit to the PPA or any other documents, instruments or agreements, or references in the PPA or any other documents, instruments or agreements to this Letter of Credit, this Letter of Credit contains the entire agreement between Beneficiary and Issuer relating to the obligations of Issuer hereunder.



This Letter of Credit will be automatically extended each year without amendment for a period of one (1) year from the expiration date hereof, as extended, unless at least thirty (30) days prior to the expiration date, Issuer notifies Beneficiary by registered or certified mail that it elects not to extend this Letter of Credit for such additional period. Notice of non-extension will be given by Issuer to Beneficiary at Beneficiary's address set forth herein or at such other address as Beneficiary may designate to Issuer in writing at Issuer's letterhead address.

This Letter of Credit is freely transferable by Beneficiary in whole or in part, and the number of transfers is unlimited. Issuer shall effect any transfers immediately upon presentation to Issuer of this Letter of Credit and a completed written transfer request substantially in the form attached hereto as Exhibit "B." Such transfer will be effected at no cost to Beneficiary. Any transfer fees assessed by Issuer will be payable solely by Applicant, and the payment of any transfer fees will not be a condition to the validity or effectiveness of the transfer of this Letter of Credit.

Issuer waives any rights it may have, at law or otherwise, to subrogate to any claims which Beneficiary may have against Applicant or Applicant may have against Beneficiary.

This Letter of Credit is subject to the uniform customs and practice for documentary credits (2007 Revision), International Chamber of Commerce publication No. 600 (the "UCP"), except to the extent that the terms hereof are inconsistent with the provisions of the UCP, including but not limited to Articles 14(b) and 36 of the UCP, in which case the terms of this Letter of Credit shall govern. With respect to Article 14(b) of the UCP, Issuer shall have a reasonable amount of time, not to exceed three (3) banking days following the date of Issuer's receipt of documents from Beneficiary (to the extent required herein), to examine the documents and determine whether to take up or refuse the documents and to inform Beneficiary accordingly.

In the event of an act of God, riot, civil commotion, insurrection, war or any other cause beyond Issuer's control that interrupts Issuer's business and causes the place for presentation of this Letter of Credit to be closed for business on the last day for presentation, the expiry date of this Letter of Credit will be automatically extended without amendment to a date thirty (30) calendar days after the place for presentation reopens for business.

ISSUER:

By: \_\_\_\_\_  
Authorized Signature

**EXHIBIT "A"**  
TO LETTER OF CREDIT

**SIGHT DRAFT**

Draft Number \_\_\_\_\_  
\$ \_\_\_\_\_

At sight, pay to the order of Public Service Company of Colorado, the amount of USD \$ \_\_\_\_\_ ( \_\_\_\_\_ and 00/100ths U.S. Dollars).

Value received and charged to the account of: [Name of Issuer and address].  
Drawn under [Name of Issuer to be inserted] Standby Letter of Credit No.  
\_\_\_\_\_.

Dated: \_\_\_\_\_

Public Service Company of Colorado

By: \_\_\_\_\_  
[name and title]

Account: [Applicant to be inserted]

**EXHIBIT "B"**  
TO LETTER OF CREDIT

**FORM OF TRANSFER REQUEST**

Irrevocable Standby Letter of Credit No. \_\_\_\_\_

Current Beneficiary:

Public Service Company of Colorado  
1800 Larimer Street  
Denver, CO 80202

Applicant:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

To: [Name of Issuer] ("Issuer")

The undersigned, as the current "Beneficiary" of the above-referenced Letter of Credit, hereby requests that you reissue the Letter of Credit in favor of the transferee named below [insert transferee name and address below]:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

From and after the date this transfer request is delivered to Issuer, the transferee shall be the "Beneficiary" under the Letter of Credit for all purposes and shall be entitled to exercise and enjoy all of the rights, privileges and benefits thereof.

Dated: \_\_\_\_\_

Public Service Company of Colorado

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

[Notary Acknowledgement]

To be signed by a person purporting to be an authorized representative of Beneficiary and indicating his or her title or other official capacity, and acknowledged by a notary public.

**EXHIBIT H**  
**FORM OF GUARANTY**

**GUARANTY**

This Guaranty is executed and delivered as of this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ by \_\_\_\_\_, a \_\_\_\_\_ [corporation] ("Guarantor"), in favor of **Public Service Company of Colorado** ("Company"), in connection with the performance by \_\_\_\_\_, a \_\_\_\_\_ [limited liability company] ("Seller") of a Renewable Energy Only Purchase Agreement dated \_\_\_\_\_, 20\_\_\_\_ between Seller and Company (the "PPA").

- RECITALS -

A. Seller owns and operates a renewable energy electric generation facility having total nameplate capacity of approximately \_\_\_\_\_ MW located in \_\_\_\_\_ County, [Colorado] (the "Facility").

B. Seller and Company have entered into the PPA for the purchase and sale of capacity and electrical energy from the Facility on the terms and conditions set forth therein.

C. Seller is controlled by Guarantor. Guarantor expects to derive substantial benefits from the performance of the PPA by Seller and Company. To induce Company to enter into and continue the PPA and to consummate the purchase and sale of electrical energy contemplated by the PPA, Guarantor has agreed to guarantee the obligations of Seller as provided in this Guaranty.

NOW, THEREFORE, in consideration of the foregoing, Guarantor agrees as follows:

- AGREEMENT -

1. Guaranty. Subject to the provisions of this Guaranty, Guarantor hereby absolutely, irrevocably, unconditionally, and fully guarantees to Company the due, prompt, and complete observance, performance, and discharge of each and every payment obligation of Seller under the PPA, whether incurred before or after the date of delivery of this Guaranty (the "Obligations"). This is a guaranty of payment, not of collection, and as such, Company shall not be required to institute, pursue, or exhaust any remedies against Seller before instituting suit, obtaining judgment, and executing thereon against Guarantor under this Guaranty. This Guaranty shall survive termination of the PPA to the extent necessary to enforce and complete the rights, duties and obligations of Company and Seller thereunder.

2. Maximum Liability. Notwithstanding anything herein to the contrary, Guarantor's maximum liability under this Guaranty shall be limited to \_\_\_\_\_ dollars (US\$\_\_\_\_\_) plus costs of collection under Section 10 below.

**PSCo Model Renewable Energy Only Purchase Agreement**

3. Rights of Company. Guarantor hereby grants to Company, in Company's discretion and without the need to notify or obtain any consent from Guarantor, and without termination, impairment, or any other effect upon Guarantor's duties hereunder, the power and authority from time to time:

(a) to renew, compromise, extend, accelerate, or otherwise change, substitute, supersede, or terminate the terms of performance of any of the Obligations, in each case in accordance with the PPA;

(b) to grant any indulgences, forbearances, and waivers, on one or more occasions, for any length of time, with respect to Seller's performance of any of the Obligations; and

(c) to accept collateral, further guaranties, and/or other security for the Obligations, and, if so accepted, then to impair, exhaust, exchange, enforce, waive, or release any such security.

4. Performance. If any of the Obligations are not performed according to the tenor thereof, and any applicable notice and cure period provided by the PPA has expired ("Default"), Guarantor shall immediately upon receipt of written demand by Company (a) perform or cause Seller to perform the Obligation in Default, and (b) pay, reimburse, and indemnify Company against any liabilities, damages, and related costs (including attorneys' fees) incurred by Company as a result thereof, all in such manner and at such times as Company may reasonably direct.

5. Satisfaction. Satisfaction by Guarantor of any duty hereunder incident to a particular Default or the occurrence of any other Default shall not discharge Guarantor except with respect to the Default satisfied, it being the intent of Guarantor that this Guaranty be continuing until such time as all of the Obligations have irrevocably been discharged in full, at which time this Guaranty shall automatically terminate. If at any time the performance of any Obligation by Seller or Guarantor is rescinded or voided under the federal Bankruptcy Code or otherwise, then Guarantor's duties hereunder shall continue and be deemed to have been automatically reinstated, restored, and continued with respect to that Obligation, as though the performance of that Obligation had never occurred, regardless or whether this Guaranty otherwise had terminated or would have been terminated following or as a result of that performance.

6. Notice of Acceptance. Guarantor waives and acknowledges notice of acceptance of this Guaranty by Company.

7. Waivers by Guarantor. Guarantor hereby waives and agrees not to assert or take advantage of:

(a) all set-offs, counterclaims, and, subject to Section 4 above, all presentments, demands for performance, notices of non-performance, protests, and notices of every kind that may be required by Applicable Laws;

(b) any right to require Company to proceed against Seller or any other person, or to require Company first to exhaust any remedies against Seller or any other person, before proceeding against Guarantor hereunder;

(c) any defense based upon an election of remedies by Company;

(d) any duty of Company to protect or not impair any security for the Obligations;

(e) the benefit of any laws limiting the liability of a surety;

(f) any duty of Company to disclose to Guarantor any facts concerning Seller, the PPA or the Facility, or any other circumstances, that would or allegedly would increase the risk to Guarantor under this Guaranty, whether now known or hereafter learned by Company, it being understood that Guarantor is capable of and assumes the responsibility for being and remaining informed as to all such facts and circumstances; and

(g) until all Obligations in Default have been fully paid and/or performed, any rights of subrogation, contribution, reimbursement, indemnification, or other rights of payment or recovery for any payment or performance by it hereunder. For the avoidance of doubt, if any amount is paid to Guarantor in violation of this provision, such amount shall be held by Guarantor for the benefit of, and promptly paid to, Company.

8. Cumulative Remedies. The rights and remedies of Company hereunder shall be cumulative and not alternative to any other rights, powers, and remedies that Company may have at law, in equity, or under the PPA. The obligations of Guarantor hereunder are independent of those of Seller and shall survive unaffected by the bankruptcy of Seller. Company need not join Seller in any action against Guarantor to preserve its rights set forth herein.

9. Representations and Warranties. Guarantor represents and warrants to Company as follows:

(a) Guarantor is a corporation, duly organized, validly existing, and in good standing under the laws of the state of its incorporation. Seller is a direct or indirect wholly-owned subsidiary of Guarantor. Guarantor has all necessary corporate power and authority to execute and deliver this Guaranty and to perform its obligations hereunder.

(b) The execution, delivery and performance of this Guaranty has been duly and validly authorized by all corporate proceedings of Guarantor and is not in violation of any law, judgment of court or government agency. This Guaranty has been duly and validly executed and delivered by Guarantor and constitutes a legal, valid and binding obligation of Guarantor, enforceable against Guarantor in accordance with its terms.

10. Collection Costs. Guarantor shall pay to Company, upon demand, and in addition to the maximum liability set forth in Section 3 hereof, all reasonable attorneys' fees and other expenses which Company may expend or incur in enforcing the Obligations against Seller and/or enforcing this Guaranty against Guarantor, whether or not suit is filed, including, without limitation, all attorneys' fees, and other expenses incurred by Company in connection with any insolvency, bankruptcy, reorganization, arrangement, or other similar proceedings involving Seller that in any way affect the exercise by Company of its rights and remedies hereunder.

11. Severability. Should any one or more provisions of this Guaranty be determined to be illegal or unenforceable, all other provisions nevertheless shall be effective.

12. Waiver or Amendment. No provision of this Guaranty or right of Company hereunder can be waived, nor can Guarantor be released from Guarantor's duties hereunder, except by a writing duly executed by Company. This Guaranty may not be modified, amended, revised, revoked, terminated, changed, or varied in any way whatsoever except by the express terms of a writing duly executed by Company.

13. Successors and Assigns. This Guaranty shall inure to the benefit of and bind the successors and assigns of Company and Guarantor.

14. Governing Law. This Guaranty shall be governed by and construed in accordance with the law of the State of *[insert home state of Company]* without regard to the principles of conflicts of law thereof. Venue for any dispute hereunder shall be as set forth in Section 13.5 of the PPA.

15. Notices. All notices, requests, claims, demands, and other communications hereunder shall be in writing and shall be given (and shall be deemed to have been duly given upon receipt) by delivery in the manner contemplated by the PPA, addressed as follows:

(a) if to Company: as provided in the PPA

(b) if to Guarantor: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Attn:

with a copy to: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Attn:

or to such other address (es) as the person to whom notice is given may have previously furnished to the others in writing in the manner set forth above.

IN WITNESS WHEREOF, Guarantor has caused this Guaranty to be duly executed and delivered to Company as of the day and year first above written.

**[Name of Guarantor]**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

STATE OF \_\_\_\_\_ )  
COUNTY OF \_\_\_\_\_ ) ss.

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, by \_\_\_\_\_, as \_\_\_\_\_ of \_\_\_\_\_.

Witness my hand and official seal.

My commission expires: \_\_\_\_\_.

( S E A L )

\_\_\_\_\_  
Notary Public



## EXHIBIT I

### AGC PROTOCOLS; DATA COLLECTION; TECHNICAL SPECIFICATIONS

#### AGC

##### 1. AGC Communications between Company and Seller

Company will receive and send AGC Set-Point and related data over an analog or digital line. The data points covered under this PPA, as described below, may overlap data requirements for the Transmission Authority or Company's applicable forecasting group.

##### 2. AGC Data Points to be sent from Seller to Company via SCADA

The following data points will be transmitted via SCADA from Seller to Company and represent Facility level data:

<u>Description</u>	<u>Units</u>
AGC Set-Point (echo)	MW
Power demand	MW
Actual power	MW
Facility Potential	MW
Actual reactive power	Mvars
Average Voltage	kV
Number of generators online	Integer
AGC Status	Remote/Local

##### 3. Response times and limitations of Facility in regards to AGC

The following protocols outline the expectations for responding to the AGC Set-Point. Except in the case of the Frequency of Changes, these protocols will be generally bound by the manufacturers' specifications for the equipment that Seller has chosen for the Facility.

a. Allowable Variances in Excess of AGC Set-Point. Once the Facility has reached the AGC Set-Point, there may be variances in excess of such set-point up to 2% on average as measured during a 10-minute period. This is due to changing wind conditions vs. the manufacturer's specifications for responding to those new conditions.

b. Frequency of Changes. Company may send a new AGC Set-Point to the Facility as frequently as the Wind Turbine manufacturer specifications allow.

c. Range of AGC Set-Point. The range of set point values can be between 0% and 100% of Park Potential.

#### **4. Backup Communications**

In the event of an AGC failure, Company and Seller shall communicate via telephone in order to correct the failure.

*For solar:*

#### **DATA COLLECTION**

At least two months prior to the Commercial Operation Date, Seller shall deliver to Company a report showing (i) manufacturer, model and year of all panels, inverters and meteorological instrumentation, and (ii) the latitude and longitude of the center of the solar panels for every inverter and every meteorological tower. Beginning upon COD, Seller shall transmit and provide to Company the real-time data set forth below, refreshed as frequently as allowed by the SCADA System, not to exceed sixty (60) second intervals:

- A. Two (2) data points from each inverter:
  - 1. Inverter generation (kW)
  - 2. Inverter availability
- B. Five (5) data points from each meteorological tower:
  - 1. Direct normal solar insolation (solar intensity)
  - 2. Temperature
  - 3. Barometric pressure
  - 4. Wind speed (meters per second)
  - 5. Wind direction (degrees relative to true north)

Seller shall provide a map and key for each inverter sufficient to allow Company to correlate the data received through Company's data historian system to each individual inverter.

\* \* \* \* \*

*For wind:*

#### **DATA COLLECTION**

##### **1. Data**

At least two months prior to the Commercial Operation Date, Seller will deliver to Company a report showing (i) manufacturer, model, and year of all Wind Turbines and meteorological instrumentation and (ii) the latitude, longitude and hub height at every Wind Turbine and meteorological tower.

Beginning upon COD, Seller shall transmit and provide to Company the real-time data set forth below, refreshed in approximately four-ten (4-10) second intervals with regard to its generation of Renewable Energy at the Facility:

a. Five data points from each Wind Turbine:

1. Turbine generation (kW)
2. Wind Speed (meters per second - mps)
3. Turbine Availability
4. Wind Direction (in degrees relative to true north)
5. Temperature (Celsius)

b. Five data points from each Meteorological Tower:

1. Wind Speed\*\* (mps)
2. Wind Direction\*\* (degrees relative to true north)
3. Temperature (Celsius)
4. Pressure (mb)
5. Air Density (kg/m<sup>3</sup>)

\*\* = at all metered heights.

c. In addition to the other requirements for data collection, Seller shall install, maintain and operate at least one meteorological tower that is installed at hub height and is placed upstream of the prevailing wind path. The data stream from this meteorological tower to the Company's PI System must be reliable during periods of transmission-related curtailments and must include battery back-up at the meteorological tower and a local source of electricity to power the PI System and interconnectivity between the Facility and Company during transmission outages.

d. Seller shall provide a map and key for each Wind Turbine sufficient to allow Company to correlate the data received through the PI System to each individual Wind Turbine.

## **2. Forecasting Requirements**

a. Not later than 5:00 am on each Day, Seller shall post an availability and production forecast for the Facility through 11:00 pm on the following Day. The forecast shall be submitted through an availability forecast system specified by Company to Seller. Prior to the Commercial Operation Date, Company shall provide Seller with information necessary for Seller to access the chosen availability forecast system.

b. If any events or circumstances reduce the forecasted availability of the Facility by 5 MW or more, such reduction shall be (1) communicated to the real-time operator via telephone with (2) immediate update to the availability forecast in the availability forecast system. For example:

i. A disturbance at a 100.5 MW (67 x 1.5 MW wind turbines) wind plant causes 26 wind turbines (39 MW) to become unavailable. Only two turbines were planned to be down for maintenance (3 MW). The expected reduction in the

available capacity is 39 MW; exceeding the 5 MW requirement. A phone call to real-time operations with immediate update of the availability forecast is required. At the time of the outage, the estimated expected duration was thought to be six hours. Three hours into the outage, it became known that the 26 turbines would be available in an hour. A phone call notifying real-time of the change in availability is required with a coincident update in the availability forecast system.

ii. A disturbance at a 10 MW (8 x 1.25 MW turbines) wind plant forces 4 turbines (5 MW) off-line. Because the disturbance equals 5 MW, a phone call to real-time operations with immediate update of the availability forecast is required. If the disturbance had only affected 3 turbines (3.75MW), then no immediate action would be necessary.

iii. A 20 MW (20 x 1 MW turbines) wind plant is off-line for transmission maintenance. The maintenance work is completed 2 hours ahead of the projected completion. Because the change is greater than 10 MW, prior to coming on-line, a phone call is required coincident with an update to the availability forecast system to indicate the new availability.

## **SURFACE WEATHER SYSTEM TECHNICAL SPECIFICATIONS** *for wind only*

The Surface Weather System shall satisfy the following technical specifications, all at Seller's cost:

### Vaisala Hydromet System AWS301 (Quantity: 1)

- Data Collection and Processing System (DCP)
- AWS base unit w/ QML201C logger and BOX652 enclosure for DCP with Installation Frame and Radiation Shield
- Basic 24VDC main power supply
- Extra 24VDC main power supply
- Interface for 2x12V/26Ah Internal Batteries
- BAR0-1QML press. sensor Class A calibration
- PWD22 heated 3.85m cable + mounting
- QMD202 display and keypad inside enclosure
- Standard AWS310 configuration for data collection unit with non-metric (US) units
- Wall/H Frame installation kit
- Rubber enclosure flanges Option
- TERMBOX-1212 option
- MCC301 Observation Software (Standard)
- RS-232 Maintenance Cable for DCP
- Removable CF Card 2 GB for DCP with Industrial Temperature Range (2 pcs)

- RS-485 (2-w) Interface with DCP with Connector, Wiring and Surge Protector Using COM 1
- DSI486 Dual RS-485 Module for DCP (2 x RS-485 (2-w) + 1 x SDI-12) DSI486 Dual RS-485 Module for DCP (2 x RS-485 (2-w) + 1 x SDI-12)
- Sensor Interface for DCP with Connector and Wiring to one (1) HMP155 Air Temperature and Relative Humidity Sensor, Heated RH, via RS-485 (2-w) using mod 2 DSI486 port 2
- Sensor Interface for DCP Surge Protection, Connectors and Wiring to one (1) WMT702 Ultrasonic Wind Sensor (Heated) via RS-485 (2-w). ADC40V60 req. using mod 1 DSI486 port 2
- Sensor Interface for DCP Surge Protection, Connectors and Wiring to one (1) WMT702 Ultrasonic Wind Sensor (Heated) via RS-485 (2-w). ADC40V60 req. using mod 2 DSI486 port 2

Backup Batteries (Quantity: 1)

- Battery 12V 26Ah

LCD Display & Keyboard Unit (Quantity: 1)

- Display/Keyboard for MAWS Enclosure Door

Hub Height Level Sensors/ 1 RHAT & 2 WIND - Air Temp, RH and Dew Point

- 1 x HMP155 Humidity and Temperature Probe, Heated RH (separate T and RH via RS485)
- 2 x WMT702 transd.+arms heat 10m cable + mast mount
- 1 x Radiation Shield for Humidity and Temperature Probe with Mounting Kit (installed on pole mast 60-100 mm)
- Cable, Extension M112 8N Female to Male, 3M (8-pin F-M connectors)
- Cable to connect sensor to WSP150, cut to length, plus connection from WSP150 to Termination Box
- Surge Protector — For Data and Power Wiring
- 2 x WMT702 transducers+ arms heated 10m cable + mast mount
  - Stainless Steel Enclosure
  - Heated transducers and arms
  - RS-485/RS-422/RS-232
  - Metric Setup
  - No Power Supply or Cable
  - No Mounting Adaptor
  - Basic Configuration Work
  - Manual
- Mounting Adaptor 30 mm
- RS-485 and Power Cable for MAWS/WMT702, 10M Cable to connect sensor to WSP150, cut to length, plus connection from WSP150 to Termination Box
- Surge Protector — For Data and Power Wiring

- 8' Retractable Boom w/Sensor Mount (Quantity: 2)
- 12 pair data cable, 22 gauge, open leads, Hub Height
- Termination Box with Mounting Kit (Hub Height), mounted at Hub Height Level
- 5 Conductor Power Cables, 16 gauge, open leads, Hub Height

OPTIONAL Ice Condition Monitoring : PWD22 heated 3.85m cable + mounting

Extended Warranty

- Extended Warranty for up to four (4) years

Additionally, the installation of the Vaisala Surface Weather System shall require the following services: Configuration Work, Site Survey, Instrument Installation Day on Site-Vaisala, and Project Engineering/Management Work.

\* \* \* \* \*

## EXHIBIT J

### ENERGY PAYMENT RATE; COMMITTED ENERGY

*This entire Exhibit shall be deemed Confidential Information subject to Section 20.18.*

Commercial Operation Year	Energy Payment Rate (\$/MWh)	Committed Energy (MWh)	Commercial Operation Year	Energy Payment Rate (\$/MWh)	Committed Energy (MWh)
1	\$ _____	_____		\$ _____	_____
2	\$ _____	_____		\$ _____	_____
3	\$ _____	_____		\$ _____	_____
4	\$ _____	_____		\$ _____	_____
5	\$ _____	_____		\$ _____	_____
6	\$ _____	_____		\$ _____	_____
7	\$ _____	_____		\$ _____	_____
8	\$ _____	_____		\$ _____	_____
9	\$ _____	_____		\$ _____	_____
10	\$ _____	_____		\$ _____	_____
	\$ _____	_____		\$ _____	_____

## EXHIBIT K

### LENDER CONSENT PROVISIONS

In the event Seller collaterally assigns its rights hereunder to a Facility Lender as security, any related Lender Consent will contain provisions substantially as follows:

1. Seller and Company will neither modify nor terminate the PPA in any material respect, without the prior written consent of the Facility Lender.
2. The Facility Lender shall have the right, but no obligation, to do any act required to be performed by Seller under the PPA, and any such act performed by the Facility Lender shall be as effective to prevent or cure a default as if done by Seller itself.
3. If Company becomes entitled to terminate the PPA due to an Event of Default by Seller, Company shall not terminate the PPA unless it has first given notice of such Event of Default to the Facility Lender and has given the Facility Lender the same cure period afforded to Seller under Article 12 of the PPA, plus an additional 30 Days beyond Seller's cure period to cure such Event of Default; *provided, however*, that if the Facility Lender requires possession of the Facility in order to cure the Event of Default, and if the Facility Lender diligently seeks possession, the Facility Lender's additional 30-Day cure period shall not begin until foreclosure is completed, a receiver is appointed, any bankruptcy stay is removed, or possession is otherwise obtained by or on behalf of the Facility Lender.
4. The Facility Lender shall provide to Company a copy of any notices of default and/or intent to exercise remedies delivered to Seller under the Financing Documents.
5. Upon any foreclosure, deed-in-lieu or other exercise of the rights and remedies of the Facility Lender that results in a successor owner or operator of the Facility, the Facility Lender shall require and cause the successor (i) to assume all of Seller's prospective obligations under the PPA, (ii) to cure any then-existing defaults by Seller that are capable of cure by performance or the payment of money damages, (iii) to have substantial experience in the operation of power generation facilities akin to the Facility, either directly, through its affiliates or through an operator acceptable to Company, and (iv) to enjoy (together with its parents and affiliates) an Investment Grade Credit Rating or other creditworthiness satisfactory to Company. Except for the foregoing, the Facility Lender shall not be obligated to perform or be liable for any obligation of Seller under the PPA.
6. Upon any rejection or other termination of the PPA in connection with any bankruptcy or insolvency of Seller, the Facility Lender (or its successor) and Company shall enter into a new power purchase agreement on the same terms and conditions as the PPA and for the period that would have been remaining under the PPA but for such termination.

\* \* \* \* \*



## **EXHIBIT L**

### **PSA PROVISIONS**

Any PSA executed to implement exercise of Company's ROFO rights will include provisions substantially as follows:

1. The PSA shall close on such Business Day as may be specified by Company, not more than 180 Days following execution of the PSA (or such longer period as may be required for the PUC to act thereon).

2. Seller shall operate the Facility, and both Parties shall perform the PPA, in the ordinary course of business pending closing of the PSA.

3. Seller shall convey the Facility to Company via special warranty deed, free and clear of all mortgages, deeds of trust, UCC-1s, and other liens materially adverse to Company's ownership and operation thereof.

4. All revenues and expenses of the Facility shall be prorated as of the date of closing.

5. Seller shall provide customary comprehensive representations, warranties and indemnities to Company regarding its legal right to execute and perform the PSA, and regarding title, physical condition, vendors, employees, operations, finances, contracts, maintenance and other relevant matters pertaining to the Facility, unqualified by its knowledge but subject to such factual exceptions as Seller may disclose. Absent fraud, Seller's liability for breach of such reps and warranties shall not exceed 100% of the purchase price. Seller's post-closing obligations shall be secured by a suitable combination of hold-back escrow, letter of credit and/or guaranty from a creditworthy affiliate.

6. Company shall provide customary representations and warranties to Seller regarding its capacity and legal right to execute and perform the PSA, unqualified by its knowledge.

7. Company shall assume all material contracts of Seller related to the Facility that are reviewed and approved by Company (such approval not to be unreasonably withheld) during the due diligence period.

8. Company's obligation to close shall be conditioned upon (i) approval by the PUC, (ii) counterparty consent under all material contracts requiring such consent, (iii) receipt by Company of all Permits needed to own and operate the Facility, and (iv) no material casualty or condemnation of the Facility prior to closing.

9. Company shall have the right of specific performance, without the need to post bond or prove irreparable harm from Seller's failure to close. Venue for any dispute under the PSA shall be the [Colorado] District Court for the County in which the Facility is located.

10. Such other terms as may then be standard in the market.

\* \* \* \* \*

**EXHIBIT M**

*[Wind only]*

**AVAILABILITY GUARANTY CALCULATION**

*[insert definitions and calculations of “Availability” and “Availability Factor” from the Guaranty section of Seller’s Turbine Supply Agmt or O&M Agmt – Seller to provide – example may be included]*

## EXHIBIT M

*[Solar only]*

### METHODOLOGY FOR ADJUSTING COMMITTED SOLAR ENERGY

In determining whether a default by Seller has occurred under Section 12.1(A)(10):

A. Periods when the Facility is incapacitated in whole or in part due to Force Majeure shall be excluded from the calculation.

For example, if the Facility is 50% unavailable during the entire month of March 2025 due to Force Majeure, (i) the Committed Energy required from Seller for the relevant Commercial Operation Year shall be reduced by 50% *[insert March % from Exhibit N]*, and (ii) the output of the Facility for the month of March shall be excluded in determining the quantity of Renewable Energy delivered by Seller during the relevant Commercial Operation Year.

B. Periods of Non-Compensable Curtailment shall be excluded from the calculation.

For example, if the Facility is off-line for 8 days in October 2027 due to a maintenance outage on the transmission system beyond the Point of Delivery, the Committed Energy required from Seller for the relevant Commercial Operation Year shall be reduced by 8% *[insert 8/31 x October % from Exhibit N]*.

C. Energy generation foregone due to Compensable Curtailments shall be deemed to have been delivered to Company.

D. The Committed Solar Energy for the relevant Commercial Operation Year shall be multiplied by the ratio of the actual global horizontal irradiance for such Commercial Operation Year to the annual expected global horizontal irradiance for the Facility. Seller represents and warrants that the annual expected global horizontal irradiance for the Facility is 1800 kWh/m<sup>2</sup>/yr (+/- 1%). ***ntd: Seller should provide proof to Xcel as part of bid process***

For example, if during the sixth Commercial Operation Year, the Facility actually generates 1500 MWh of Renewable Energy but the actual solar irradiance for such Commercial Operation Year was 1500 kWh/m<sup>2</sup>, the Committed Energy for such Commercial Operation Year (assuming no other adjustments under paragraphs A-C above) shall be reduced from 1800 MWh to 1500 MWh for purposes of determining a default by Seller under Section 12.1(A)(10).

The actual solar irradiance for a Commercial Operation Year shall be determined by the pyranometer readings at the Site (or from *[insert alternate – e.g. “NSRDB site at \_\_\_\_\_” or “GeoModel Solar GIS DataBase published by \_\_\_\_\_, for \_\_\_\_\_”]*, for any periods when the pyranometer at the Site is inoperable). Seller shall provide to Company upon request all pertinent GeoModel SolarGIS data and on-site pyranometer data for any Commercial Operation Year.

\* \* \* \* \*

**PSCo Model Renewable Energy Only Purchase Agreement**

**EXHIBIT N**

*[solar only]*

**EXPECTED MONTHLY GENERATION PROFILE**

Calendar Month	Percent of Annual Generation
January	__ %
February	__ %
March	__ %
April	__ %
May	__ %
June	__ %
July	__ %
August	__ %
September	__ %
October	__ %
November	__ %
December	__ %
Total	100 %

### **3.3 SEMI-DISPATCHABLE RENEWABLE CAPACITY RESOURCES RFP**

#### **Attachment 3.3-1 Semi-Dispatchable Renewable Capacity Resources RFP**

Public Service's 2016 ERP Semi-Dispatchable Renewable Capacity Resources RFP.

#### **Attachment 3.3-2 Semi-Dispatchable Renewable Capacity Resources RFP Forms**

The Forms that are referenced in Appendix A of the 2016 ERP Semi-Dispatchable Renewable Capacity Resources RFP.

#### **Attachment 3.3-3 Model Semi-Dispatchable Renewable Capacity Purchase Agreement**

The Model Semi-Dispatchable Renewable Capacity Purchase Agreement referenced in Appendix D of the 2016 ERP Semi-Dispatchable Renewable Capacity Resources RFP.

# **PUBLIC SERVICE COMPANY OF COLORADO**

## **2017 Solicitation**

### **Semi-Dispatchable Renewable Capacity Resources Request for Proposals**



date

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Form F6	Facility Performance
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Form F8	Section 123 Qualifications
Form G	Natural Gas and Backup Fuel Supply
Form H	Emission Rates
Form I	Interconnection Information Forms



### **Notice of Disclaimer**

The information contained in this Request for Proposals ("RFP") for energy and capacity resources has been prepared solely to assist bidders in deciding whether or not to submit a proposal. Public Service Company of Colorado ("Public Service" or "Company") does not represent this information to be comprehensive or to contain all of the information that a respondent may need to consider in order to submit a proposal. None of the Company, its affiliates, or their respective employees, directors, officers, customers, agents and consultants makes, or will be deemed to have made, any current or future representation, promise or warranty, express or implied, as to the accuracy, reliability or completeness of the information contained herein, or in any document or information made available to a respondent, whether or not the aforementioned parties knew or should have known of any errors or omissions, or were responsible for their inclusion in, or omission from, this RFP.

The Company reserves the right to modify, supplement or withdraw this RFP at any time, whether due to changes in law or otherwise, and including by issuing one or more addenda to this RFP during this solicitation, which addenda shall become a part of this RFP. No part of this RFP and no part of any subsequent correspondence by the Company, its affiliates, or their respective employees, directors, officers, customers, agents or consultants shall be taken as providing legal, financial or other advice or as establishing a contract or contractual obligation. Contractual obligations on the part of the Company will arise only if and when definitive agreements have been approved and executed by the appropriate parties having the authority to approve and enter into such agreements. The Company reserves the right to request from a respondent (a.k.a., bidder) information that is not explicitly detailed in this document, obtain clarification from bidders concerning proposals, conduct contract development discussions with selected respondents, conduct discussions with members of the evaluation team and other support resources as described in this RFP and in compliance with all FERC Code of Conduct rules and provide data to and conduct discussions with the Independent Evaluator ("IE") as necessary for the IE to satisfy the IE's role as defined by the Colorado Public Utilities Commission ("CPUC" or "Commission") in Decision No. C13-0094.

The Company will, in its sole discretion and without limitation, evaluate proposals and proceed in the manner the Company deems appropriate, which may include deviation from the Company's expected evaluation process, the waiver of any requirements and the request for additional information. The Company reserves the right to reject any, all or portions of any proposal received for failure to meet any criteria set forth in this RFP or otherwise and to accept proposals other than the lowest cost proposal. The Company also may decline to enter into any agreement with any bidder, terminate negotiations with any bidder or abandon the RFP process in its entirety at any time, for any reason and without notice thereof. Respondents that submit proposals agree to do so without legal recourse against the Company, its affiliates, or their respective employees, directors, officers, customers, agents or consultants for rejection of their proposals or for failure to execute an agreement for any reason. The Company and its affiliates shall not be liable to any respondent or other party in law or equity for any reason whatsoever for any acts or omissions arising out of or in connection with this RFP. Except as otherwise provided in the rules and orders of the Public Utilities Commission of the state of Colorado, by submitting its proposal, each respondent waives any right to challenge any valuation by the Company of its proposal. By submitting its proposal, each respondent waives any right to challenge any determination of the Company to select or reject its proposal. Each respondent, in submitting its proposal, irrevocably agrees and acknowledges that it is making its proposal subject to and in agreement with the terms of this RFP.

Each respondent shall be liable for all of its costs incurred to prepare, submit, respond or negotiate its proposal and any resulting agreement and for any other activity related thereto, and the Company shall not be responsible for any of the respondent's costs.

## ***Public Service Company of Colorado 2017 Semi-Dispatchable Renewable Capacity Resources RFP***

### **Section 1. Introduction**

Public Service Company of Colorado ("Public Service" or the "Company"), an operating company subsidiary of Xcel Energy Inc., is issuing this Request for Proposals ("RFP") as a component of Public Service's 2016 Electric Resource Plan. This RFP is one of four RFPs to be issued. These four requests for proposals are:

- 2017 Dispatchable Resources RFP
- 2017 Renewable Resources RFP
- 2017 Semi-Dispatchable Renewable Capacity Resources RFP (this RFP)
- 2017 Company Ownership RFP

Segmenting the Solicitation into these categories is driven by the differing proposal development and contracting requirements for different generation technologies and by the different ownership models. As a result, each RFP contains a model contract(s) or term sheet(s) that has/have been tailored to address certain issues associated with each technology or ownership structure.

Examples of the types of projects which would be applicable to each RFP are shown in Table 1 below. This list is intended to provide guidance as respondents develop their proposals; more detailed information may be found in the specific RFP documents. Respondents who are uncertain as to which RFP would apply to their project should contact the RFP Project Manager (Section 1.4) for clarification.

**Table 1. Example Resource Types for the Various RFPs**

<b>RFP Document</b>	<b>Resource Types</b>
2017 Dispatchable Resources RFP	<ul style="list-style-type: none"><li>• Simple cycle gas turbines</li><li>• Combined cycle gas turbines</li><li>• Stand-alone storage projects</li></ul>
2017 Semi-Dispatchable Renewable Capacity Resources RFP	<ul style="list-style-type: none"><li>• Solar thermal with thermal storage or fuel back-up</li><li>• Any other intermittent resource with storage or fuel backup</li></ul>
2017 Renewable Resources RFP	<ul style="list-style-type: none"><li>• Wind</li><li>• Solar without storage or fuel backup</li><li>• Hydroelectric</li><li>• Geothermal</li><li>• Biomass</li><li>• Recycled Energy</li></ul>
2017 Company Ownership RFP	<ul style="list-style-type: none"><li>• New or existing simple cycle gas turbines</li><li>• New or existing wind or solar</li></ul>

## **1.1 Regulatory Context**

The CPUC's Resource Planning Rules ("RP Rules") establish a process that jurisdictional electric utilities must follow to determine the need for additional electric resources and to procure needed resources. Public Service filed its 2016 Electric Resource Plan ("ERP") on xxxx in accordance with the RP Rules ("Phase I"). In its 2016 ERP, Public Service identified a need for future generation resources and presented the Commission with multiple portfolios of generic resources that could be used to meet that need. As part of its 2016 ERP, the Company proposed to solicit proposals through a competitive solicitation ("Phase II"). The CPUC heard arguments by multiple parties concerning Public Service's resource need and acquisition plans. The CPUC approved the issuance of this Solicitation as part of Public Service's 2016 ERP in Decision No. Cxx-xxxx.

The RP Rules and Decision No. C13-0094 require that an Independent Evaluator ("IE") conduct a review of Public Service's evaluation of proposals received in response to the Solicitation. The Company will work cooperatively with the IE and shall provide the IE immediate and continuing access to all documents and data reviewed, used, or produced by the utility in this Solicitation and evaluation.

Additionally, the RP Rules require that Public Service: 1) make a communication to bidders concerning bid disclosure and bid model representation dispute resolution; 2) provide the Commission's order or orders specifying the form of nondisclosure agreement; and 3) require of bidders that they provide bidder contact and employment metric information.

### **Commission Required Communications**

#### ***Bid Information Disclosure***

Public Service notifies bidders that, upon completion of the competitive acquisition process begun with this RFP,<sup>1</sup> Public Service will post on its website the following information from all bids and utility proposals: bidder name; bid price and utility cost; generation technology type; size of project; contract duration or expected useful life of facility for utility proposals; and whether the proposed purchased power agreement includes an option for the utility to purchase the bid facility during or at the end of the contract term.

In addition Public Service notifies bidders that, pursuant to RP Rule 3614(b), a reasonable number of attorneys and a reasonable number of subject matter experts representing a party to the Company's 2016 ERP docket can, upon the execution of the appropriate non-disclosure agreement, request access to all Phase II information regarded by the Company as highly-confidential. The Company has claimed that bid information of any sort should be treated as highly-confidential, thus any bid information provided to the Company is subject to release to such individuals regardless of a bidder's claim of confidentiality.

#### ***Model Representation and Dispute Resolution***

Public Service will, within 45 days of bid receipt, provide notice in writing by electronic mail to the bidder whether its bid is advanced to computer-based modeling to evaluate the cost or the ranking of the bid resource, and, if not advanced, the reasons why Public Service will not further evaluate the bid using computer-based modeling. With its notice Public Service will also

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<sup>1</sup> Completion of the resource acquisition process is defined as the execution of all PPAs and/or completion of asset purchase negotiations and certificate of public convenience and necessity approvals, if any, for the solicited resources.

provide bidders the modeling inputs and assumptions that reasonably relate to their bid resource or to the transmission of electricity from their proposed facility to Public Service; these inputs and assumptions may include, among other things, costs related to transmission interconnection, gas supply, and resource integration. Public Service will request that the bidder execute a highly confidential nondisclosure agreement prior to receiving the information. The form of the agreement is included as Appendix F.

For those bids advanced to computer-based modeling, within seven calendar days after receiving the modeling inputs and assumptions the bidder will notify Public Service in writing by electronic mail the specific details of any potential dispute regarding its bid's modeling inputs and assumptions. The bidder must attempt to resolve any dispute with Public Service. If the bidder and Public Service cannot resolve the dispute within three calendar days, Public Service will immediately notify the Commission with a filing in the 2016 ERP docket. If the bidder is not already a party to the 2016 ERP, the bidder will file a notice of intervention as of right pursuant to paragraph 1401(b) of the Commission's Rules of Practice and Procedure, within one business day of Public Service filing the notice of dispute to the Commission, for the limited purpose of resolving the disputed modeling inputs and assumptions.

An Administrative Law Judge ("ALJ") will expeditiously schedule a technical conference at which Public Service and the bidder shall present their dispute for resolution. The ALJ will enter an interim order determining whether corrections to the bid's modeling inputs and assumptions are necessary. If the ALJ determines that corrections to the bid's modeling inputs and assumptions are necessary, Public Service will, within three business days of the issuance of the ALJ's interim decision, provide the corrected information to both the bidder and the Independent Evaluator. In its 120-Day Bid Evaluation Report, Public Service will confirm, by performing additional modeling as necessary, that the bid resource is fairly and accurately represented.

#### Required Bidder Information

Public Service requires that each bidder in its Form C provide the contact name of the owner or developer designated to receive notice of whether the bid is advanced to computer-based modeling.

Public Service requires that bidders provide employment metric information for the bid to be eligible for this RFP. See the requirements for the Employment Metrics Narrative Topic.

## **1.2 Resource Needs Assessment**

This RFP is part of a Solicitation process whose purpose is to acquire sufficient resources to meet the Company's forecasted electric demand (plus reserves) over a resource acquisition period ("RAP") through 2023. Through this Solicitation, the Company seeks to fill an approximate xxx MW capacity need<sup>2</sup> over the RAP to meet summer peak load plus a 16.3% planning reserve.<sup>3</sup> Table 2 illustrates the general timing of this capacity need by year.

<sup>2</sup> Certain generation resources such as wind and solar will count towards this need at a level less than the nameplate rating of the facility. As a result the final resource mix selected through the Solicitation could include significantly more than xxx MW from a nameplate rating standpoint. Unless otherwise stated, all references to kW, MW, and MWh in this document refer to AC ratings.

<sup>3</sup> The ultimate resource need and/or components of that need may differ as a result of adjustments to reflect any subsequent forecast updates or other events that would impact the identified resource need during the RAP, including decisions of the CPUC.

**Table 2. Estimated Resource Capacity Need by Year**

Year	2017	2018	2019	2020	2021	2022	2023
Resource Need							

In any year, the Company may acquire more or fewer resources than is shown in Table 2 and the final level of resource need by year may change from that shown due to changed circumstances. While Table 2 shows an estimated capacity need for years beginning 20xx, the Company will review bids for resources that become commercially operational prior to this period.

### **1.3 Resources Sought through this RFP**

Through this Semi-Dispatchable Renewable Capacity Resources RFP, the Company seeks proposals from facilities that utilize intermittent eligible energy resources and employ an integral, supplemental technology that serves to lessen the intermittency effects of the energy source. The supplemental technology may allow energy production to be shifted to hours of greater value to the Company and/or may provide generation capacity to the system during peak load periods at a level significantly closer to the nameplate rating of the facility. Examples of eligible technologies include solar with storage or solar thermal with fuel backup/hybridization.

The amount of generation that the Company may acquire from this RFP depends, among other things, on the quality of bids received in response to the Solicitation, on economic comparison to other RFP responses and Company Ownership proposals, on updates to the Company's forecasts, on regional transmission availability, and on changes to regulatory or legal requirements.

### **1.4 RFP Project Manager and RFP Website**

The primary point of contact for communications between the Company and potential bidders is the RFP Project Manager. This individual may be contacted at xxxx; all communications between potential bidders and the Company must be conducted through this email account. See Section 4.7 for more information.

The Public Service 2017 Solicitation webpage can be found at [xxxx](#).

### **1.5 Section 123 Resources**

Colorado Revised Statutes ("C.R.S.") 40-2-123(1)(a) states as follows:

"The commission shall give the fullest possible consideration to the cost-effective implementation of new clean energy and energy-efficient technologies in its consideration of generation acquisitions for electric utilities, bearing in mind the beneficial contributions such technologies make to Colorado's energy security, economic prosperity, insulation from fuel price increases, and environmental protection . . . ."

These "new clean energy and energy-efficient technologies" are referred to as "Section 123 resources."

The Commission clarified in Decision No. C13-0094 (“Decision”) that a Section 123 resource must be both *new* and *clean* pursuant to the statute. In its Decision the Commission further defined the terms “new” and “clean”:

A new project shall either: (1) incorporate one or more technologies, representing a substantial portion of its overall installed cost, that have not been regularly commercially demonstrated,<sup>4</sup> up to the point in time that the resource is formally bid, or if not bid, acquired; or (2) be a project used to demonstrate the feasibility of a technology not before implemented in its proposed configuration.

A clean project must demonstrate that it would likely cause a decrease in greenhouse gas emissions (e.g., carbon dioxide) or significantly reduce other pollutants. A clean project may also result in reduced water usage.

Respondents to this RFP who believe their proposal meets the definition of a Section 123 resource should indicate in the Beneficial Contributions/Section 123 Resources Bid Narrative Topic why the respondent believes the resource qualifies as a Section 123 resource. Public Service will identify in its 30-Day Report to the Commission a listing of all bids that claim Section 123 status along with its opposition to any claimed Section 123 status and provide the Commission, under seal, a copy of the disputed bids. The Commission will determine whether the disputed bids qualify for further evaluation as a Section 123 resource.

## **Section 2. Eligible Project Information**

### **2.1 Eligible Project Structures**

Semi-Dispatchable RFP proposals will be for purchase of capacity and energy by the Company under a power purchase agreement (“PPA”) which is subject to the accounting considerations and the index pricing considerations discussed in later sections of this RFP. A Model PPA<sup>5</sup> is provided in Appendix D.

Respondents interested in selling an existing asset or developing proposals that involve Company ownership of generating facilities are directed to the 2017 Company Ownership RFP for relevant information regarding opportunities to bid the Company asset purchases as part of the 2017 Solicitation.

### **2.2 Eligible Generation Resources**

For a project to be eligible under this RFP, it must 1) have a nameplate electric rating greater than 100 kW, 2) utilize an intermittent energy resource and employ an integral, supplemental technology that serves to lessen the intermittency effects of the energy resource and 3) meet all

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<sup>4</sup> The Commission’s Decision indicated its review of a Section 123 resource would consider the commercial demonstration both within the State of Colorado and elsewhere.

<sup>5</sup> The Model PPA is a sample agreement containing terms and conditions acceptable to the Company. The Company understands that respondents may desire to modify and supplement the Model PPA when submitting their proposals, and anticipates negotiating with selected respondents in an effort to develop documents acceptable to both parties.

or a portion of the Company's resource needs during the RAP. The Company will not accept bids from coal-fired generation.

A PPA proposal may be for a new, a to-be-built resource, or an existing resource.

Although projects do not need to meet the Commission rule definition of an Eligible Energy Resource (as that term is defined in rule 3652) in order to meet this RFP's eligible generation resource requirement, bidders are advised of the restrictions on the size of certain generation resources in the Commission's Renewable Energy Standard rules. Specifically, in order to be an Eligible Energy Resource: 1) hydro resources in existence on January 1, 2005 must have a nameplate rating of 30 MW or less and hydro resources not in existence on January 1, 2005 must have a nameplate rating of 10 MW or less, and 2) recycled energy resources must be 15 MW or less. The Company reserves the right to weigh the potential benefits of acquiring Renewable Energy Credits ("RECs") and generation from a project deemed to be an Eligible Energy Resource in its Non-Price Factor Analysis; see Section 5.1.

### **2.3 Pricing**

Form D1 provides the pricing template for PPA proposals. All pricing must be in terms of current year dollars, also referred to as escalated or nominal dollars. For example, a \$50 per megawatt-hour ("MWh") energy price proposal for 2018 means that in 2018 energy from the facility will be purchased at a rate of \$50/MWh.

Form D1 requests pricing with assumptions that: 1) the project will qualify for federal tax incentives applicable to the proposed technology and to the proposed in-service date and, 2) that existing federal tax incentives will be applicable to the project even if those incentives are due to expire or decline by the time of the proposed in-service date. Respondents should describe the federal tax incentive assumptions made in their Energy Payment Rates in the Project Description Narrative Topic and in the Notes section on Form D1.

Under the terms of any transaction (including any PPA), all power, RECs, and environmental benefits generated from a proposed project will be conveyed to the Company.

Table 3 provides an indication of when the Company most values generation during the months of June through August. The Model PPA does not contemplate a higher price for generation delivered during the higher valued hours; however, respondents are encouraged to design their facilities so as to provide a reliable source of generation during the peak hours indicated in Table 3 and to avoid generation during the lowest valued hours.

Projects that propose integrated fuel backup/hybridization may elect to recover the incremental capital costs of the hybridization equipment through either the Form D1 base energy payment rates or, alternatively, through a monthly demand payment rate that should be provided on Form D3. In addition, any variable O&M and/or start charges that will be charged to the Company for dispatch of the fuel hybridization component should also be shown on Form D3.

Proposal pricing must include initial cost estimates for any new or upgraded interconnection facilities required for the electrical interconnection of the proposed project to the Public Service transmission system, and must include the cost of any dedicated radial transmission line(s) from the generation facility to the proposed point of interconnection. See Form D2.



The Company will pay any costs required to upgrade or reinforce the Public Service electric transmission system beyond the Point of Delivery, as a consequence of adding a respondent's project to the Public Service system. Respondents, however, will be responsible for procuring transmission service and any associated third-party transmission costs needed to deliver power from the project to the Point of Delivery on the Public Service transmission system. All pricing in respondents' proposals should reflect those costs (to the extent applicable) at the time of submittal.

**Table 3. Summer Time of Day Value Factors**

Hour Ending, Mountain Prevailing Time	Summer
	June, July, August
1	0.50
2	0.50
3	0.50
4	0.50
5	0.50
6	0.50
7	0.50
8	1.00
9	1.00
10	1.00
11	1.00
12	1.25
13	1.25
14	1.25
15	1.75
16	1.75
17	1.75
18	1.75
19	1.25
20	1.25
21	1.25
22	1.00
23	1.00
24	0.75

The Company's preference is for fixed price proposals. However, respondents may take an appropriate exception on the applicable Form(s) and provide a second, alternative pricing schedule using a fixed price for the first contract year ("Base Year") that would be adjusted after the Base Year according to one or more known, published and widely recognized indices that are closely related to costs of operation in the proposed technology's industry. A respondent that wishes to propose such alternate pricing must submit one pricing form in nominal dollars for the entire term of the PPA and another pricing form tied to one or more designated indices meeting the requirements of the preceding sentence. The Company retains the right to select either of the respondent's pricing schemes. Respondents may not submit proposals with variable Base Year pricing.

## **2.4 Regulatory Approvals**

At the completion of the evaluation process, pursuant to RP Rule 3613(a), the Company will file a report with the Commission that describes the cost-effective resource plans that conform to the Commission's Phase I decision. Upon Commission approval of Phase II of the Company's 2016 ERP, Company actions consistent with that approval are presumed prudent under RP Rule 3617(d). However, the Company reserves the right to: 1) inform the Commission that the Company could not reach agreement with the proponent of a selected resource; 2) request Commission approval of any agreements it enters into with successful respondents that vary in any material respect from the Model PPA; and 3) to terminate any agreement if the Company fails to receive Commission approval of submitted agreements.

## **2.5 Contract Lengths**

Contract term lengths may be between one (1) and twenty-five (25) years. The Company's objectives with respect to term lengths are to avoid the concurrent expiration of multiple contracts, and to avoid or minimize the adverse financial impact of imputed debt, capital or finance lease, and variable interest entity-related obligations. See Section 2.7 for further information regarding such obligations.

## **2.6 RoFO / Purchase Option**

The Model PPA includes a Right of First Offer ("ROFO") that, subject to specific conditions, may be exercised by the Company. In addition, while not required under the Model PPA, respondents, at their option, may offer the Company an end-of-term or other purchase option that specifies that the Company can purchase the facility (or the stock of the facility owner) for its appraised fair market value at a specified time or times during, or at the end of, the PPA term.

## **2.7 Contract Accounting**

All contracts proposed to be entered into as a result of this RFP will be assessed by the Company for appropriate accounting and/or tax treatment. Respondents shall be required to supply promptly to the Company any and all information that the Company requires in order to make such assessments.

The Company has specific concerns regarding proposals received in response to this RFP that could result in either (i) a contract that must be accounted for by the Company as a capital lease or an operating lease pursuant to Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") 840 or as a finance lease or an operating lease under FASB ASC 842, or (ii) consolidation of the seller or assets owned by the seller onto the Company's balance sheet pursuant to the variable interest entity requirements of FASB ASC 810. The following shall therefore apply to any proposal submitted pursuant to this RFP:

- The Company is unwilling to be subject to any accounting or tax treatment that results from a PPA's capital lease, finance lease or consolidated variable interest entity classification. As a result, respondents shall state in their proposal(s) (i) that the respondent has considered applicable accounting standards in regard to capital leases,

finance leases and variable interest entities, (ii) summarize any changes that the respondent proposes to the Model PPA in order to attempt to address these issues, and (iii) to the respondent's knowledge and belief, the respondent's proposal should not result in such treatment as of the date of the proposal.

- As applicable, the Company will not execute a PPA without confirmation from the Company's external auditors that the PPA will not be classified as a capital lease, finance lease or a consolidated variable interest entity.

By submitting a proposal, each respondent agrees to make available to the Company at any point in the bid evaluation process any financial data associated with the respondent and its proposed project so the Company may independently verify the respondent's information in the above matters. Financial data may include, but shall not be limited to, data supporting the economic life (both initial and remaining) of the facility, the fair market value of the facility, and any and all other costs (including debt specific to the asset being proposed) associated with the respondent's proposal. The Company may also use financial data contained in the respondent's financial statements (e.g. income statements, balance sheets, etc.) as may be necessary.

### **Section 3. Delivery and Interconnection Information**

#### **3.1 General information**

Bids that propose to interconnect to the Company's transmission system and that do not have an existing Large Generator Interconnection Agreement ("LGIA"), Small Generator Interconnection Agreement ("SGIA"), or an existing interconnection queue position will be studied by Public Service to estimate electric interconnection and delivery requirements and costs. These procedures, and associated respondent responsibilities, are detailed in Appendix C.<sup>6</sup>

Bids that propose to interconnect to the Company's distribution system will be studied pursuant to CPUC rules 3667 or 3900 depending upon facility size.<sup>7</sup>

If the Company has received a certificate of public convenience and necessity ("CPCN") to construct a transmission upgrade the cost of the upgrade will not be included in the evaluation of proposals that use those upgrades; provided, however, that sufficient transmission transfer capability exists on the transmission project specified in the CPCN after accounting for other generation projects.<sup>8</sup>

Existing generation resources from which the Company currently purchases capacity and energy will not be burdened with any incremental electrical transmission interconnection or network delivery costs provided that the Company currently has sufficient transmission capacity

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<sup>6</sup> Note that the Company will apply the appropriate study procedure (i.e. LGIP or SGIP) during any formal interconnection study process.

<sup>7</sup> The Company's "Safety, Interference and Interconnection Guidelines for Cogenerators, Small Power Producers and Customer-Owned Generation" is available at:  
<http://www.xcelenergy.com/staticfiles/xcel/Regulatory/Transmission/CO-DG-Tech-Manual.pdf>

<sup>8</sup> As the Company is no longer pursuing the SLV-Walsenburg-Comanche transmission project, the Company will not entertain bids that require the construction of that transmission facility.

to deliver the entire generation to its load. For existing generation resources with inadequate transmission service, a projection of the purchase of sufficient transmission rights will be added to the bid for evaluation purposes.

### **3.2 Electric Transmission Injection Capability**

Public Service performs transmission studies for Large Generator Interconnect Agreement ("LGIA") requests. The LGIA requests are made to determine the feasibility, cost, time to construct, and injection capability for the transmission system interconnection of an electric generating resource. The Company posts the results of these studies on its OASIS website.<sup>9</sup> The Company performs other transmission studies for purposes of transmission planning that determine like information.

The transmission system is interrelated and generation injection at one point on the system likely changes the injection capability at other points; e.g., incremental generation injections at Pawnee would decrease the generation injection capability at Missile Site and vice versa. The generation injection capability values provided below in Table 3 are approximations based on the stand-alone transmission studies performed for LGIA requests. The generation injection capability values can change when Public Service performs additional specific resource and resource portfolio transmission studies whether for resource evaluation or an LGIA request.

Table 3. Transmission System Injection Capabilities

**(this Table to be updated prior to RFP release to reflect then-current information)**

Location	LGIA Study	Injection Capability (MW)	Time to Construct

## **Section 4. Proposal Content Requirements and Submission Procedure**

### **4.1 Schedule Estimate**

An indicative schedule for this RFP process is provided below.<sup>10</sup> A graphical timeline is provided in Appendix E.

Table 4. Solicitation Schedule

Activity	Date
Pre-Bid Conference	T-68
Notice of Intent to Respond Due	T-14

<sup>9</sup> Information regarding posted studies may be found on a public site:  
[http://www.rmao.com/wtpp/psco\\_studies.html](http://www.rmao.com/wtpp/psco_studies.html).

<sup>10</sup> The Company reserves the right to adjust this schedule appropriately, including (but not limited to) for changes to the regulatory calendar.

Proposals Due	T
120-Day Report to Commission	T+120
Commission Phase II Decision	T+210

## **4.2 Minimum Requirements for Proposals**

This section describes the minimum requirements that all proposals must satisfy to be eligible for consideration in this Solicitation. Unless the Company in its sole discretion elects otherwise, proposals that do not comply with these requirements will be deemed ineligible and will not be considered further. The Company reserves the right to reject any bid and all bids.

- Proposals must include all applicable content requirements described in Section 4.3, including clear and complete written descriptions of all information requested, and completed forms.
- Proposals must clearly specify all pricing terms in accordance with Section 2.3.
- Proposals must clearly demonstrate compliance with all power delivery requirements listed in Appendix C, CPUC 3667, or CPUC 3900 as applicable.
- Proposals must demonstrate an acceptable level of development and technology risk, as determined by the Company's evaluation team.
- For non-Section 123 proposals, the respondent's project development team must demonstrate that it has successfully completed the development, construction and commissioning of at least one utility-scale and utility-grade project with technology similar to the proposed project.
- For Section 123 proposals, the respondent's project development team must demonstrate that it has successfully completed the development, construction and commissioning of at least one utility-scale and utility-grade project.
- Respondents must demonstrate to the satisfaction of the Company that they can meet the security requirements contained in the Model PPA.
- Proposals must clearly demonstrate any financing requirements and an indicative financing structure (construction and permanent) for any proposed resources that will be delivered under the proposals. Respondents should include a description of how current financial markets are likely to impact the respondent's ability to access the debt and tax equity markets.
- Each respondent must present clear and sufficient proof that it has or can secure an adequate and confirmed supply of generation equipment sufficient (at a minimum) to meet the required proposal.
- Respondents must provide the required bid fee (described in Section 4.8 below) for each proposal submitted.

#### **4.3 Proposal Content Requirements**

This section outlines the content and format requirements for all proposals submitted in response to this RFP. Unless the Company in its sole discretion elects otherwise, proposals that do not include the information requested in this section will be ineligible for further evaluation, unless the information requested is not applicable or relevant to a given proposal. The Company reserves the right to conduct any further due diligence it considers necessary to fully understand and evaluate proposals.

##### **Proposal Format**

The first section of each proposal must contain an Executive Summary that provides an overview of the proposed generating resource characteristics, including any unique aspects or benefits. The second section of the proposal must include a completed set of applicable forms included in Appendix A. These forms will contain essential information about each proposal. A separate set of forms and related information must be submitted with each proposal. The third section of the proposal must include additional information presented in narrative form under specific topic headings.

A complete proposal will include the following components:

1. Executive Summary
2. Complete set of applicable forms
3. Form attachments (as necessary to elaborate on form information)
4. Narrative Topics Discussion
5. Requested maps and electronic data

The proposal forms and topic headings are listed below.

##### **Proposal Forms**

Form A	Notice of Intent to Respond
Form B	Bid Certification Form
Form C	Bid Cover Sheet
Form D1	Pricing
Form D2	Electrical Interconnection Cost Estimates
Form D3	Fuel Tolling
Form E	Construction Milestones
Form F1	Technical Description_PV
Form F2	Technical Description_Solar Thermal
Form F3	Technical Description_Wind
Form F4	Technical Description_Other
Form F5	Production Profile
Form F6	Facility Performance
Form F7	Heat Rates
Form F8	Section 123 Qualifications
Form G	Natural Gas and Backup Fuel Supply
Form H	Emission Rates
Form I	Interconnection Information Forms

The individual forms in Appendix A include additional instructions for completion.

## **Narrative Topics**

In addition to completed forms, each proposal must also include a thorough written discussion of each of the following topics. Narrative topics should be organized under the following headings:

- Development Experience
- Financial Information
- Project Description and Development Schedule
- Equipment Description
- Energy Production Profile
- Real Property Acquisition Description and Plan
- Permitting Plan
- Transmission Plan
- Community/State Reaction Assessment
- Operations and Maintenance Plan
- Exceptions to Model PPA
- Beneficial Contributions/Section 123 Resources
- Employment Metrics

***Development Experience.*** All proposals must describe the respondent's qualifications and experience in developing, constructing, commissioning and operating generation facilities similar to the proposed facility, including the experience, qualifications and safety record of key personnel who will manage development and an overview of utility scale and utility grade projects the respondent has developed during the last 5 years. If an EPC team is in place, the proposal should identify the members of the team; if such a group is not in place, the proposal must set forth the respondent's plan for assembling such team (including process and timing).

***Financial Information.*** All proposals must provide detailed financial information about the proposed project. This information shall include two years of audited financial statements or the equivalent for respondents and other responsible parties (including any entities that would provide parent guaranties of the respondents' obligations), whether the project will be financed as a recourse or non-recourse project, the percentages of debt and equity financing, and the expected cost of debt. In addition, respondents shall provide a detailed plan for financing the proposed project during construction and operation including the financing commitments that the respondent has obtained. Proposals shall also explain in detail the plan for meeting the security requirements outlined in the Model PPA and must set forth the credit rating (if any) of any entities that would provide parent guaranties of the respondents' obligations. Proposals must include an organization chart showing the entities that own the respondent's organization and a description of the respondents' organization structure (including primary and secondary businesses). Financial information may be provided primarily in electronic format so long as at least one (1) hard copy of the financial information is provided with each proposal.

***Project Description and Development Schedule.*** All proposals for the construction of new generation facilities must set out a description of the proposed project, including a description

and plans for the proposed site and rights of way, utilities services, equipment configuration, transmission and interconnection construction and procurement, supply of spare parts, opportunities for future expansion of the project, required permits, the nameplate capacity of the resource in MW, the respondent's key consultants (if known) for meteorological studies and permitting studies, and the respondent's construction contractors and prime subcontractors (if known). Such proposals must provide a detailed Gantt chart of project development activities developed using Microsoft Project or similar software (note that .pdf file-type is preferred for submittal) that includes (at a minimum) entering major equipment and construction subcontracts, target completion dates for financing, engineering, permitting, equipment procurement, construction, startup and commissioning, and guaranteed dates for substantial completion. Proposals must describe the overall development strategy that will ensure that the project can be developed in time to meet the proposed commercial operation date. Respondents proposing Section 123 resource generation projects should describe the risks associated with deploying such new technology specifically as those risks impact the proposed commercial operation date and the first years of operation.

It is the Company's expectation that it will have first rights to all proposed projects submitted into the RFP for the period during the proposal review and approval process. Respondents must also provide any and all information which would restrict the respondent from providing the Company with exclusive rights to negotiate a PPA for the proposed project. Such restrictions could include, but are not limited to, prior active submission or participation in other RFPs, exclusivity rights granted to other parties, rights of first offer or refusal, purchase options, and active auctions for the project as applicable.

For biomass-fueled projects, bidders should provide as much detail as possible regarding the target fuel source including details on any potential contracts that fix fuel volume, quality, and/or pricing over the term of the proposed PPA on a delivered and/or non-delivered basis.

**Equipment Description.** At a minimum, proposals should indicate for all major equipment 1) the name of the manufacturer and other vendors, 2) models, 3) key metrics and characteristics of the equipment, 4) performance history of the equipment, 5) contracting status, and 6) planned delivery dates.

**Energy Production Profile.** Proposals must include a description of any on-site meteorological data gathered by, or in the possession of, the respondent and the periods over which those data were collected (start and end dates and data collection frequency). However, Respondents should not provide on-site meteorological data in their initial bid submissions. Upon request, respondents must be prepared to provide the Company with the underlying meteorological data with the understanding that the Company may engage an external consultant for an independent verification and evaluation of the generation resource. The data provided must be sufficient for these purposes.

To the extent a proposal includes an energy storage technology respondents should describe, in detail, the storage dispatch logic inherent in the hourly results provided. As the Company proposes a tolling structure for those projects that propose fuel backup/hybridization, respondents should not include any fossil fuel generation estimates on Form F5.

**Real Property Acquisition Description and Plan.** Proposals must provide a description of the status of real property acquisition and land use permitting for the project that is sufficient for the Company to assess the completeness and sufficiency of the respondent's real property rights, including but not limited to:



- The status of current site ownership or control. Indicate if control is through:
  - Ownership of a leasehold interest in, or a right to develop a site for the purpose of constructing the proposed generating facility,
  - An option to purchase or acquire a leasehold site for such purpose, or
  - An exclusivity or other business relationship between bidder and the entity having the right to sell, lease, or grant bidder the right to possess or occupy a site for such purpose.
- The plan for acquiring any and all currently uncontrolled necessary real property rights to the project,
- Acreage of real property required for the project and a schedule for the completion of the real property acquisition process,
- A description of any subdivision or zoning modifications and all city, county, or state land use permits that will be required, such as conditional use, special use or other similar permits and approvals, which will be required for any phase of development, construction, or operations of the project, and
- A description of existing and planned land use in all directions surrounding the proposed site.

Proposals must include a USGS-based map showing the location of the proposed site.

**Permitting Plan.** Proposals must describe all air quality permits that will be required for the project. State whether any air permits have been secured, and if not, whether applications have been filed. Report on the status of any pending applications and any feedback from permitting agencies. Describe the expected time frame to obtain the necessary air permits after application submittal to the State.

Describe all other federal, state and local permits and approvals that will be required for the project, including but not limited to:

- Federal environmental assessments under the National Environmental Policy Act ("EA/EIS"),
- Water supply,
- Wastewater discharge permits,
- Hazardous waste permits, and
- No-hazard permits/determinations from the Federal Aviation Administration.

Describe the current status of obtaining these permits and any feedback from permitting agencies.

Describe the water supply strategy for the project, including a description of water requirements, water supply source(s), discharge plans, new water pipeline requirements, and any work completed to date on the water supply plan.

Explain any expected restrictions on operations due to air and/or water permits.

If the proposed site does not currently have the appropriate zoning designation, provide any rezoning requirements, plans to obtain the rezoning, and any known issues as to rezoning.

For projects proposing to utilize an eligible energy resource<sup>11</sup>, proposals must also provide written documentation evidencing that consultation has occurred with appropriate governmental agencies (for example, the Colorado Division of Wildlife or the U.S. Fish and Wildlife Service) responsible for reviewing potential project development impacts to state and federally listed wildlife species, as well as species and habitats of concern.

**Transmission Plan.** Provide a detailed description of the Point of Delivery to the Public Service electric system, including the location and voltage level of such point. All proposals should include a description of the respondent's plan to transmit power from the Project to the proposed Point of Delivery on the Public Service transmission system as described in Appendix C. The information should include a description and expected route of any radial transmission line dedicated principally to the Project if known, including a summary of the status of obtaining requisite easements and alternatives.

If any new FERC-regulated transmission or any upgrades to non-Public Service transmission will be required to deliver power from the Project to the proposed point of delivery ("New Transmission"), the proposal also should include a complete description of the required New Transmission including:

- The owner and developer of the New Transmission,
- The complete expected route for the New Transmission,
- The voltage and capacity of the New Transmission,
- The status of planning, permitting, financing and construction of the New Transmission, to the extent known to the respondent,
- The location of the interconnection of the Project into the New Transmission, and
- Whether the respondent's Project, if successful, would be sufficient for the New Transmission to be built without the participation of other power projects, and if not, what other projects would need to be built and in what time frame to allow the New Transmission to be built in time for the respondent to meet its scheduled in-service date.

For proposals that will require third-party transmission service(s) to deliver, on a firm transmission service basis, the capacity and energy to the Point of Delivery specified above, provide a detailed description of the interconnection, electric losses, transmission and ancillary service arrangements, by provider, that will be required, including:

- the identity of all third party providers,
- the location and voltage level of the interconnection point to the interconnection service provider's facilities,
- any interconnection facilities that bidder owns or intends to construct and own,
- the specific services provided by each provider, and
- the line losses, point(s) of receipt and point(s) of delivery associated with each third party transmission service.

Provide documentation that the third party services discussed in the paragraph above will be available to bidder during the proposed contract term. This should include:

- any associated transmission studies that directly examined delivery of the proposed energy to the point of delivery,

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<sup>11</sup> Eligible energy resources are defined in the Commission's rules, section 3652, "Definitions".

- detailed information on any and all new transmission facilities and/or upgrades to existing facilities that will be required to deliver the proposed energy to the point of delivery, and
- a detailed discussion of the schedule for siting, permitting, and construction of such new facilities and/or upgrades.

Attach a USGS-based map that shows the location of the interconnection point with the third-party and the generation facility.

**Community/State Reaction Assessment.** Each respondent must present a current assessment of, and a plan for continuing to monitor, local community and state reaction to the project, and a plan to work with the local community on project issues. Such plan might include the following elements:

- A list of the references used to assess the community reaction, and the methodology used to draw conclusions,
- A list of key local contacts interviewed and their opinions,
- An assessment of the local community reaction at the time of the proposal,
- An action plan for working with the local community/state to successfully complete the project and
- A description of the respondent's proposed conflict resolution methodology.

**Operations and Maintenance Plan.** Respondents shall summarize their operations and maintenance plans and labor arrangements for the generation facilities associated with their proposals.

**Exceptions to Model PPA.** In support of the Company's efforts to complete project evaluation, and contract negotiations in a timely manner, respondents shall review and provide exceptions and/or comments to the Model PPA. To the extent that the validity of a respondent's proposal and/or the respondent's ability to execute a PPA is contingent upon material changes to the language in the Model PPA, respondents should specifically identify the terms in the Model PPA they propose to change and should summarize their proposed changes to such terms. To the extent that a respondent wishes to propose changes to the Model PPA that, if accepted by the Company, would reduce the respondent's proposed pricing the proposal should specifically identify such changes and the associated price reduction. To the extent practicable, respondents should develop exhibits, schedules, attachments and other supplemental documents required by the Model PPA.

Exceptions taken to model PPA terms must be clearly expressed such that the Company can reasonably understand the bidder's concerns. Statements containing language such as "To be discussed" do not provide the Company sufficient information to understand the bidder's concerns. Bidder's providing such comments will be required to more fully explain their concerns so that the Company can adequately conduct its due diligence activities.

**Beneficial Contributions/Section 123 Resources.** Respondents should indicate whether or not they believe their project meets the requirements of a Section 123 resource. Bidders claiming Section 123 status must complete Form F8. Regardless of claimed Section 123 status, **all bidders must provide information concerning the beneficial contributions of their proposed technology** including benefits associated with Colorado's 1) energy security, 2)

economic prosperity, 3) environmental protection, and 4) insulation from fuel price increases.

This information is needed from **all bidders** in order to allow the Commission to consider whether certain benefits are common across proposals and whether certain benefits tie specifically to the implementation of a particular new and clean energy technology.

**Employment Metrics.** Respondents shall include descriptions of each best value employment metric described below as it relates to the bid project.

- The availability of training programs, including training through apprenticeship programs registered with the United States Department of Labor, Office of Apprenticeship and Training,
- The employment of Colorado workers as compared to importation of out-of-state workers,
- Long-term career opportunities, and
- Industry-standard wages, health care, and pension benefits.

#### **4.4 Pre-Bid Conference**

Time:            xxxx  
Date:            xxxx  
Location:       1800 Larimer St.  
                    Denver, Colorado 80202

Public Service will webcast the meeting and will provide means for remote, electronic participation by potential RFP respondents. Public Service will post information concerning webcast access and remote participation on the RFP website once confirmed. Interested parties are encouraged to provide written questions to the Company's RFP Project Manager by email prior to the pre-bid meeting. A summary of the bid conference proceedings, including submitted questions and answers, and answers to any question remaining unanswered at the end of the meeting will be prepared by the Company and posted on the RFP website.

#### **4.5 Notice of Intent to Respond**

Respondents who intend to submit a proposal are encouraged to submit a non-binding Notice of Intent to Respond (NOIR), Form A in Appendix A. Submit the completed NOIR by email no later than 4:00 P.M. Mountain Time on xxxx to the RFP Project Manager. There is no fee required to submit an NOIR.

#### **4.6 Proposal Submission Deadline**

All proposals, including Company self-build proposals will be accepted until 4:00 P.M. Mountain Time on the date indicated in Section 4.1. All proposals must be transmitted by express, certified or registered mail, or hand delivered to the following address:

PSCo 2017 Solicitation  
Attn: RFP Project Manager  
Xcel Energy Services Inc.  
1800 Larimer St, Ste 1400

Denver, Colorado 80202

Proposals received later than the due date and time indicated will be rejected and returned unopened, unless the Company determines, at its sole discretion, to consider such proposals. With the exception of the financial information (of which only one (1) hard copy is required), four (4) bound hard copies of the proposal must be included in the submittal. In addition, respondents must submit three (3) electronic copies (CD, DVD, or flashdrive) with completed forms in a Microsoft Office format.

Proposals must be submitted in a sealed package with the following information shown on the package:

**Response to PSCo 2017 Semi-Dispatchable Resources RFP  
Confidential Sealed Bid Proposal**

The respondent's company name and address must be clearly indicated on the package containing the proposal.

#### **4.7 Information Policy**

To obtain additional information about this RFP, potential respondents as well as all other parties may only submit inquiries to the RFP Project Manager via email at xxxx. Potential respondents as well as all other parties should not attempt to acquire information through any other means including telephone calls to the Company. The Company will maintain a log of all inquiries and coordinate the preparation of written responses. Once a response is prepared, the Company will forward the response to the inquiring party and, at the Company's sole discretion if the response is germane to all other respondents, all other respondents that have provided the Company an email address. Parties without email addresses will not receive these responses directly. Questions and responses, when germane, will be periodically posted to the RFP Web Site in a FAQ. The Company has established this information policy to ensure that all respondents have the same timely access and knowledge about the bidding and evaluation process.

#### **4.8 Bid Evaluation Fees**

All respondents are required to pay to the Company a bid evaluation fee with each proposal submitted; bid fees are determined by the nameplate capacity of the bid according to Table 5 below. Public Service may deem proposals that do not satisfy the requirements for a single proposal as multiple proposals, each of which would require a separate bid evaluation fee. For example, a proposal that triggers electric interconnection studies for multiple points or levels of interconnection would be deemed separate proposals for each such point or level. In addition, proposals offering multiple commercial operation dates for the same project or facility will be viewed as multiple proposals. If the Company deems a respondent's proposal to be multiple proposals, the Company will notify the respondent and allow it to elect to pay the incremental bid fee or to revise its proposal to comply with the Company's requirements for a single proposal.

Notwithstanding the above, respondents who submit proposals in this 2017 Semi-Dispatchable Renewable Capacity Resources RFP for projects greater than 2 MW may also submit a

proposal for the same generation facility in the 2017 Company Ownership RFP with no incremental bid fees.

Checks should be made out to "Public Service Company of Colorado" and must be included with the proposal. Bid evaluation fees are non-refundable.

Table 5. Bid Fees

MW >	MW <=	Bid Fee
0.1	1	\$375
1	2	\$750
2	5	\$1,500
5	10	\$3,000
10		\$10,000

#### **4.9 Clarification of Proposals**

While evaluating proposals, the Company may request clarification or additional information about any item in the proposal. Such requests will be sent via email to respondents identified on Form C by the RFP Project Manager, typically, and respondents are required to provide a written or electronic response back to the RFP Project Manager within five (5) business days, or the Company may deem the respondent to be non-responsive and either suspend or terminate evaluation of the proposal. Respondents are encouraged to provide an alternate point of contact to ensure a timely response to clarification questions.

#### **4.10 Confidentiality**

Respondents are allowed to identify any information in their proposals that respondents claim should be considered to be confidential or proprietary. Nonetheless, the Company reserves the right to release all proposals to its affiliates and to its and such affiliates' agents, advisors, consultants, and the IE for purposes of proposal evaluation. The Company will, to the extent required by law, advise each agent, advisor or consultant that receives such claimed confidential information of its obligations to protect such information. In addition, all information, regardless of its confidential or proprietary nature, will be subject to review by the Commission and other governmental authorities and courts with jurisdiction, and may be subject to legal discovery. It is not the Company's intent to enter into any separate confidentiality, non-disclosure, or similar agreements as a condition to receiving a respondent's proposal.

Notwithstanding the above paragraph and as indicated in Section 1.1, a reasonable number of attorneys and a reasonable number of subject matter experts representing a party to the Company's 2016 ERP docket can, upon the execution of the appropriate non-disclosure agreement, request and receive access to all bid information provided to the Company in response to this RFP regardless of a bidder's claim of confidentiality or propriety. In addition, upon completion of the competitive acquisition process Public Service will post on its website and thereby make publically available the following information from all bids and utility proposals: bidder name; bid price and utility cost; generation technology type; size of facility; contract duration or expected useful life of facility for utility proposals; and whether the proposed purchased power agreement includes an option for the utility to purchase the bid facility during or at the end of the contract term.

#### **4.11 Addenda to RFP**

Any additional responses required from respondents as a result of an Addendum to this RFP shall become part of each proposal. Respondents must list all submitted Addenda at the bottom of the Bid Certification Form (Form B).

### **Section 5. Evaluation and Criteria**

The objective of the Company's Solicitation evaluation is to identify portfolios of proposals that meet the resource needs identified in the solicitation in a reliable and cost-effective manner, while achieving the resource goals of the Commission-approved ERP.

As described below, the evaluation process will include an assessment of both economic and non-economic criteria.

#### **5.1 Evaluation Process**

An evaluation team, made up of various groups within Xcel Energy Services and the Company will evaluate proposals; however, the Company reserves the right to retain the services of outside experts to assist in the evaluation of proposals. The RFP Project Manager may contact respondents directly at any point during the evaluation process for the purposes of clarifying proposals. The Company will also cooperate with, and provide access to, information provided by respondents to, the Independent Evaluator as required by RP Rule 3612. All bidders as well as all parties in the resource plan proceeding other than the utility are restricted from initiating contact with the IE.

Proposals will be evaluated using a multi-step process as follows:

##### **Step 1 – Bid Eligibility Screening**

Each proposal will be reviewed to ensure it meets the minimum requirements outlined in Section 4.2. The Company will notify each proposal respondent within 15 days of bid receipt as to the Company's bid eligibility evaluation.

##### **Step 2 – Interconnection Assessment and Initial Economic Evaluation**

While not entirely concurrent, the activities described in Steps 2.A., 2.B. and 2.C. below will overlap to some extent.

##### **A. Electric Interconnection Cost Estimates**

The Company will determine or verify electric interconnection cost estimates provided by bidders. If substantial differences occur, the Company will provide its cost estimates to the applicable bidders so that they can update their bid pricing, as they deem appropriate. Such bidders must submit final bid pricing back to the Company within 5 calendar days of the date the interconnection cost estimates are provided.

## **B. Transmission and Distribution Upgrade Schedule Assessment**

Some or all of the proposals will also be evaluated to assess the general siting, permitting, and construction time requirements associated with Public Service transmission and/or distribution network upgrades, including network upgrades for interconnection, that may be needed for each proposal to:

- Interconnect the proposed generation with the Public Service transmission or distribution system,
- Deliver the entire proposed capacity and energy to the Company's customers, and/or,
- Deliver the entire proposed capacity and energy from a third party transmission system to the Public Service electric system.

The impact of these analyses on a respondent's proposed schedule will be a factor in the evaluation of its proposal.

## **C. Initial Economic Screening**

The primary purpose of the initial economic screening is to rank each bid by technology so that the most promising bids can be forwarded to the subject matter experts for their review as quickly as possible and to identify those bids likely to be moved forward for computer modeling of bid portfolios. The initial economic screening consists of calculating an "all-in" levelized cost of energy ("LEC"). Calculations are shown on the "LEC" tab of the bid forms (Appendix A).

In addition to the costs provided in the bid, the Company will estimate incremental costs or benefits, as necessary, such as:

- Electrical interconnection costs and network upgrades not included in Form D1 pricing. These incremental capital costs are converted to a variable rate by assuming a levelized fixed charge rate of 0.12 and an annual capacity factor based on the type of generator proposed.
- Projects that propose to interconnect to the Public Service distribution system will be credited with an avoided line loss assumption in their LEC calculations.
- For bids proposing wind generation, the Company will estimate resource integration costs as determined in the Company's most recent wind integration cost study.
- For bids proposing solar generation (PV or solar thermal), the Company will estimate resource integration costs as determined in the Company's most recent solar integration cost study.
- For bids proposing non-dispatchable renewable generation or recycled energy generation resources that exhibit high levels of off-peak generation (e.g., geothermal, hydro, non-dispatchable biomass, etc.), the Company will estimate resource integration costs as determined by the Company's most recent coal cycling study.
- No renewable energy credit ("REC") value benefits will be credited to the LEC calculations for any renewable generation projects.

Where practicable, the Company will adjust its calculations of integration and curtailment costs to include the potential beneficial impacts of any integral, supplemental technology included in the project that might tend to reduce these costs.



Regardless of their LEC calculations all eligible bids from existing generators, all Company self-build projects, and any bid claiming Section 123 status that is unopposed by the Company or, if opposed by the Company but later qualified as Section 123 by the Commission, will be advanced to computer modeling of bid portfolios.

### **Step 3 – Non-Price Factor Analysis**

The Company will assess the non-price characteristics of the proposals. Non-price factors that will be assessed include, as applicable and without limitation, the following:

- Financial strength of the respondent
- Financing plan, including ability to utilize tax advantages
- Development, construction and operation experience
- Generator technology, availability, and warranties
- Environmental permitting and compliance
- Land use permitting and zoning
- Other permitting
- Real property acquisition/site control progress and plan
- Project operational characteristics
- Scale of the project and whether or not it meets the Commission definition of an Eligible Energy Resource
- Community support for the project
- Transmission access plan feasibility and arrangements
- Transmission upgrade schedule assessment
- Construction and equipment supply plans and arrangements
- Project execution planning
- Accredibility of capacity to meet reliability needs
- Accounting assessment

### **Step 4 – Bidder Notification**

Contingent upon the existence of sufficient bids passing through bid eligibility and due diligence screening, the Company shall pass forward to the computer modeling of bid portfolios a sufficient quantity of bids across the various resource types such that resource plans can be created that conform to the Commission's Phase I decision.

Pursuant to rule 3613(a), within 45 days after bids are received the Company will email each bidder and indicate whether its bid has or has not been advanced to computer-based modeling of bid portfolios and provide each bidder the modeling inputs and assumptions that reasonably relate to that potential resource or to the transmission of electricity from that facility to the

Company.<sup>12</sup> For those bids not advanced to computer modeling, the Company will provide the reason(s) why the project will not be evaluated further.

### **Step 5 – Computer-Based Modeling of Bid Portfolios**

The costs and operational characteristics of any Company self-build proposal and each remaining bid equal to or greater than 10 MW will be input into the Company's Strategist™ planning model.<sup>13</sup> The Strategist™ model will be used to construct portfolios of bids that meet the capacity and energy projections of the Public Service system, as well as the various objectives of the resource plan and Commission decisions. The Strategist™ model simulates operation of proposals together with the Company's existing resources (and to an extent, the regional power market), while keeping track of all associated fixed and variable costs of the Company's entire system.

Strategist™ will be utilized to develop portfolios that minimize the net present value of revenue requirements through 2054. The model will also be used to develop alternative resource portfolios that represent the costs and benefits from increasing amounts of renewable technologies and/or Section 123 resources. Portfolios will be developed in accordance with the scenario analysis directives of the Commission.

To the extent initial results indicate that all bids of a specific generation resource type (e.g., all wind bids) passed to computer modeling appear in the least-cost portfolio(s), additional bids utilizing that generation resource type will be included in subsequent model runs. This iterative process will be followed until no incremental bids employing that generation resource type are selected in the least-cost portfolio. Bidders whose projects are passed forward to computer modeling of bid portfolios after the 45 day report will be notified of their project's advancement pursuant to rule 3613(a).

The general planning assumptions that will be used in the development of resource portfolios are included in Appendix B to this RFP. Planning assumptions specific to certain renewable resource types follow.

Wind generation – A wind generation bid will be assigned an hourly generation shape of the typical week for each month based on the proposed site's Wind Zone. Each wind bid in each Wind Zone will be assigned the same typical week shape; however, the typical week shape for each bid will be modified by the bidder-specified monthly peak and total generation to arrive at the bidder's estimated annual capacity factor.

The Company will assign bids to a specific Wind Zone based on the following information:<sup>14</sup>

- Wind Zone 1
  - All of Larimer, Weld, Morgan, Logan, Sedgwick, and Phillips counties,

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<sup>12</sup> See Section 5.1 Step 5 for an exception to the notification policy for bids that are included in modeling after 45 days of bid receipt. See Section 5.1 Step 6 for an exception to the notification policy for bids smaller than 10 MW.

<sup>13</sup> Depending upon the pool of proposed projects received, the Company may adjust the specific MW cutoff for various technologies instead of the 10 MW indicated here. Such an adjustment would be done in consultation with the Independent Evaluator.

<sup>14</sup> These geographic definitions of Wind Zones are for the sole purpose of assigning proposed wind sites to a proxy wind generation shape to facilitate their evaluation as part of this RFP.

- Portions of Washington and Yuma counties north of 40.0° latitude; except projects in GDA #4,<sup>15</sup>
- In Wyoming, all of Platte, Goshen, and Laramie counties and southern and eastern portions of Albany County.
- Wind Zone 2
  - All of Adams, Arapahoe, Elbert, Lincoln, Kit Carson, and Cheyenne counties,
  - Portions of Washington and Yuma counties south of 40.0° latitude, including projects in GDA #4,
  - Portions of Kiowa county north of 38.5° latitude,
  - Portions of El Paso county east of -104.8° longitude.
- Wind Zone 3
  - All of Bent, Prowers, and Baca counties,
  - Portions of Kiowa county south of 38.5° latitude,
  - Portions of Crowley, Otero, and Las Animas counties east of -103.6° longitude.
- Wind Zone 5
  - All of Pueblo county,
  - Portions of Crowley, Otero, and Las Animas counties west of -103.6° longitude,
  - Portions of Custer and Huerfano counties on the eastern side of the Sangre De Cristo mountains.

The Company will employ the best meteorological data available to develop typical week wind shapes for projects that propose a site that does not match any of the Wind Zones listed above.

Solar generation – A solar generation bid (without storage) will be assigned an hourly generation shape of the typical week for each month based on the proposed site's Solar Zone and its ability to track. Each fixed system and each tracking system solar bid in each Solar Zone will be assigned the same typical week shape; however, the typical week shape for each bid will be modified by the bidder-specified monthly peak and total generation to arrive at the bidder's estimated annual capacity factor.

The Company will assign bids to a specific Solar Zone based on the following information:<sup>16</sup>

- Northern Front Range
  - Defined as the geographic area north of the southern Denver metro area (e.g., Denver, Boulder, and Greeley).
- Southern Front Range
  - Defined as a broad geographic area around Pueblo.
- Western Slope
  - Defined as a broad geographic area around Grand Junction.
- San Luis Valley

### **Step 6 – Evaluation of Bids Between 100 kW and 10 MW**

As indicated in Step 5, bids must have nameplate capacity ratings equal to 10 MW or greater to be included in the computer-based portfolio modeling step. In general, bids between 100 kW and 10 MW ("Small Bids") will be evaluated after the computer-based portfolio modeling step.

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<sup>15</sup> As defined by the SB07-91 Task Force on Renewable Resource Generation Development Areas.

<sup>16</sup> These geographic definitions of Solar Zones are roughly based on the original TMY2 sites in the National Solar Radiation Database of Alamosa, Boulder, Grand Junction, and Pueblo.

At the conclusion of Step 5, the Company will review the least-cost portfolio from the base case run (that is, not from a sensitivity case) and determine each generation type selected in the portfolio. For each generation type selected, the Company will determine the all-in levelized energy cost of the most expensive bid. These all-in levelized energy costs will set the price against which Small Bids with similar generation technologies will be compared. The Company will include in all portfolios presented to the Commission each Small Bid with an all-in levelized energy cost less than the most expensive bid with similar technology selected in the least-cost portfolio.

A final check will be made to ensure that the inclusion of all cost-effective Small Bids does not provide excess capacity credit to the least-cost portfolio through the RAP to such an extent that it could replace another source(s) of capacity selected through the Strategist modeling. If it does, two additional sets of ad hoc Strategist runs will be conducted to determine which is most cost-effective: 1) include all cost-effective Small Bids in the final portfolio, or 2) include all cost-effective Small Bids and exclude the other generator(s) that could potentially be displaced. The final portfolio would be the least-cost of these two runs assuming that both runs meet all reliability metrics.

To the extent the least-cost portfolio does not include a certain generation type (e.g. solar) but bids for that generation type were passed through to computer-based modeling and lower priced Small Bids exist, an ad hoc Strategist run including these Small Bids would be conducted to see if the revenue requirements of the least-cost portfolio increases or decreases. If the revenue requirements decrease with the addition of the Small Bids, they would be included in the final portfolios.

For certain generation types (e.g. hydro or gas-fired micro-turbines), the Company would not typically expect to receive bids in excess of 10 MW. For such situations, the lowest all-in LEC proposals (up to a maximum of three per technology) would be advanced to computer modeling and portfolio development along with those bids  $\geq 10$  MW in Step 5 above. To the extent the Strategist model selected all three of the lowest all-in LEC proposals and other proposals for the same technology were also received, then ad hoc Strategist runs would be conducted to determine the cost-effectiveness of these other proposals.

Bidders whose Small Bid projects are passed forward to computer modeling of bid portfolios after the 45 day report will be notified of their project's advancement pursuant to rule 3613(a).

### **Step 7 – Phase II Report to Commission**

Pursuant to rule 3613(d), the Company will file a 120-day report to the Commission describing the cost-effective resource plans that conform to the Commission's Phase I decision.

### **5.2 Independent Evaluator Report**

Within thirty (30) days following the Company's 120-day report filing the IE will report to the Commission its analysis of whether the Company conducted a fair bid solicitation and bid evaluation process, with any deficiencies specifically reported.

### **5.3 Phase II Commission Evaluation**

Within 90 days of the Company's filing of its 120-day report, the Commission will issue a written decision approving, conditioning, modifying, or rejecting the Company's preferred cost-effective plan. The Company is required to complete this RFP process within 18 months after the receipt of bids unless the Company can show good cause for a requested deadline extension.

## Appendix A

### *Proposal Forms and Instructions*

As discussed in Section 4, the completed forms, attachments and narrative topic discussions, will comprise a complete proposal, except that Form I need not be completed by a bidder who has already entered into a formal interconnection process for their project.. The contents of each form and any special instructions for completing the forms are described below. These forms can be downloaded from the RFP web site in a format appropriate for respondent input.

If additional space is needed to elaborate on information requested on any form, please attach additional sheets with the heading "Form [ ] – Additional Information."

If certain information is requested that does not apply to the proposal, the respondent must indicate that the information is not applicable. If appropriate, the respondent should explain why the information is not applicable.

In addition to submitting four (4)<sup>17</sup> hard copies of the proposal, respondents must also include three (3) electronic copies (CD, DVD or flashdrive) with all completed Forms in executable format, i.e. not PDF. The Company will provide the IE with one electronic copy of the proposal and, at their request, one hard copy.

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<sup>17</sup> Respondents are required to submit only one (1) hard copy of their financial data with each proposal.

## Appendix B

### *General Planning Assumptions*

The following planning assumptions will underlie the evaluation of proposals received in response to the Company's Solicitation. Note that the following is not a complete listing of all assumptions that will be applied in the evaluation process. Further note that the assumptions noted below represent "base case" assumptions. Sensitivity analyses will be performed in which certain of these assumptions are altered in accordance with Commission directives. To the extent any of these general planning assumptions are updated after release of this 2017 RFP, the updated values will be provided to the Commission and made available to all potential respondents and parties.

**(this Appendix to be updated prior to the RFP release to reflect then-current information and the Commission's Phase I Decision)**

## Appendix C

### Transmission Costs

#### 1. Power Delivery Requirements

Proposals must specify delivery of capacity and energy to the Public Service system at a point of delivery within or at the boundary of the Public Service Control Area and at a Public Service-owned transmission facility.

#### 2. Proposals Requiring Third-Party Transmission Service

For proposals that will require third-party transmission service(s) for the delivery of capacity and energy to the bid-specified point of delivery on the Public Service system, respondents are responsible for any interconnection, electric losses, transmission and ancillary service arrangements required to deliver the proposed capacity and energy to the bid-specified point of delivery on a firm basis. Such proposals must identify all third-party interconnections, electric losses, transmission and ancillary service providers, components and costs, provide a complete description of those service arrangements and provide documentation that such service(s) will be available to a RFP respondent or the Company during the full term of service proposed. The cost of all such third party services, for which a RFP respondent intends to seek compensation from the Company, must be included in the bid prices provided on the applicable forms. Respondents should recognize that wheeling and other costs associated with such services may adversely affect the cost-effectiveness of their proposals.

#### 3. Interconnection Costs

Proposals that will require a new or upgraded electrical interconnection to the Public Service transmission system should include in their proposal pricing any costs for the generator interconnection facilities. To clarify, these are the facilities between the generation project and the point of interconnection to the Public Service transmission system (these types of facilities are commonly referred to as “Generator Interconnection Facilities” and “PSCo-Owned, Customer Funded Interconnection Facilities” in the LGIP and SGIP). Because these facilities are not considered a part of the transmission system, they are part of the cost of the generation project and must therefore be incorporated in the proposal pricing. The following table includes an estimated cost at each voltage level that should be considered if the PSCo (or other Transmission Provider)-Owned, Customer-Funded interconnection cost has not been otherwise estimated for the project, e.g., in an interconnection study report from the Transmission Provider.

Voltage	PSCo-Owned, Customer-Funded Interconnection Facilities Estimated Cost
69 kV	\$660,000
115 kV	\$750,000
230 kV	\$1,200,000
345 kV	\$1,800,000



If the bidder has an active LGIP request, the bidder should provide the LGIP or SGIP identifier(s) associated with its project in its proposal. Bidders are urged not to submit a generation interconnection request or transmission service request pursuant to the Xcel Energy Open Access Transmission Tariff ("OATT") to receive these interconnection cost estimates.

As discussed in Section 5.1 of this RFP, proposal-specific cost estimates of Generator Interconnection Facilities provided by bidders in Form D2 will be verified or determined by the Company and, if required, Company estimates will be provided back to bidders so that they can update their bid pricing as needed. Such bidders must submit final bid pricing back to the Company within 5 calendar days of the date the interconnection cost estimates are provided. These estimates and other transmission and interconnection-related information will be posted, as required, on the Company's OASIS<sup>18</sup> in a manner that preserves individual bidder confidentiality. Information posted on the Company's OASIS will not identify bidder Company name but rather will identify location of proposed interconnection, generation capacity and type proposed, and a summary of the study results.

#### **4. Application of the Xcel Energy OATT**

The Company anticipates that all transmission usage rights associated with bids selected through this RFP will be "network" use rights held by the Company. Under FERC Order No. 888<sup>19</sup> where the Company will hold the transmission service rights, the Company must provide non-discriminatory access to its transmission system, and must designate network resources in the same manner as a similarly situated OATT customer. In addition, under FERC Order No. 2003 (August 2003), Order No. 2003-A (March 2004), Order No. 2003-B (January 2005),<sup>20</sup> all new requests for interconnection of a large generator (larger than 20 MW) to the Public Service transmission system, including interconnection requests associated with this RFP, must be administered in a non-discriminatory manner in compliance with the LGIP contained in the Xcel Energy OATT. Likewise, under FERC Order No. 2006 (May 2005), Order No. 2006-A (November 2005), and Order No. 2006-B (July 2006),<sup>21</sup> all new requests for interconnection of a small generator (less than 20 MW) to the Public Service

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<sup>18</sup> Information regarding posted studies may be found on the public site [http://www.rmao.com/wtp/psco\\_studies.html](http://www.rmao.com/wtp/psco_studies.html). This website does not require registration to view, while the Company's OASIS site located at <http://www.westtrans.net> does require registration.

<sup>19</sup> Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities and Transmitting Utilities, Order No. 888, F.E.R.C. Stats. & Regs. 31,036, (1996) ("Order No. 888"), order on reh'g, Order No. 888-A, F.E.R.C. Stats. & Regs. 31,048 (1997), order on reh'g, Order No. 888-B, 81 F.E.R.C. ¶ 61,248 (1997) ("Order No. 888-B"), order on reh'g, Order No. 888-C, 82 F.E.R.C. ¶ 61,046 (1998), *aff'd New York, et al. v. FERC*, 122 S.Ct. 1012 (2002).

<sup>20</sup> *Standardization of Generator Interconnection Agreements and Procedures*, Order No. 2003, 68 Fed. Reg. 49,845 (Aug. 19, 2003); FERC Stats. & Regs. ¶ 31,146 (2003); *reh'g granted*, Order No. 2003-A, 106 FERC ¶ 61,220 (March 5, 2004), 69 Fed. Reg. 15932 (March 26, 2004); Order No. 2003-B, 109 FERC ¶ 61,287, 70 Fed. Reg. 264 (January 4, 2005).

<sup>21</sup> *Standardization of Small Generator Interconnection Agreements and Procedures*, Order No. 2006, 70 FR 34100 (Jun. 13, 2005), FERC Stats. & Regs. ¶ 31,180 (2005), (Order No. 2006), order on reh'g, Order No. 2006-A, 70 FR 71760 (Nov. 30, 2005), FERC Stats. & Regs. ¶ 31,196 (2005).

transmission system, including interconnection requests associated with this RFP, must be administered in a non-discriminatory manner in compliance with the SGIP contained in the Xcel Energy OATT.

## **5. LGIP and SGIP Interconnection Studies**

Given the short period of time available to evaluate bids, the Company's evaluation team and the Company's Transmission Access group and Transmission Function will employ an abbreviated process for estimating the transmission Network Upgrades, associated costs and construction timeframes necessary to deliver power from proposed facilities to customer loads. In general, this abbreviated process will consist of four stages:

*Stage 1* – The Transmission Access group will rely on existing LGIP or SGIP studies posted on the Public Service OASIS to determine/verify bid-specific interconnection and delivery facilities and costs.

*Stage 2* – The evaluation team will develop a number of portfolios of bids that will meet the Company's needs and the various Commission directives. The Transmission Access group will provide estimates of the network facilities and upgrades required for each portfolio and provide that information to the Transmission Function.

*Stage 3* – The Transmission Function will review the Transmission Access group's estimates of network facilities and upgrades and modify as deemed appropriate. The resulting cost information will be used to determine the bid's levelized energy cost in initial economic screening and will be in the computer-based modeling in the event the bid is advanced to computer-based modeling.

*Stage 4* – Depending on the number of bids received and their location, the Company may decide to also utilize the "Resource Solicitation Cluster" provisions contained in the Xcel Energy OATT for providing more refined estimates of network facilities and upgrades necessary to deliver power from portfolios of bids to customer loads. If this process is utilized, the Transmission Access Group will submit portfolios into the LGIP or SGIP for consideration. A given portfolio submitted into the LGIP or SGIP will occupy a single queue position (based on the date of the portfolio Interconnection Request) for the required Interconnection studies. This Stage will likely not be completed prior to the end of the 120 day evaluation period.

Each bid passed to the Transmission Function for study in the Resource Solicitation Cluster that requires a new or expanded transmission interconnection must provide an Interconnection Request deposit of \$50,000 (or such other amount as is required under the LGIP or SGIP provisions of the Xcel Energy OATT)<sup>22</sup> which will be forwarded to the Transmission Function to pay the cost of Feasibility and/or System Impact studies that will be performed for each portfolio.

---

22 The bidder must demonstrate "site control," which the OATT defines as "documentation reasonably demonstrating: (1) ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the Generating Facility; (2) an option to purchase or acquire a leasehold site for such purpose; or (3) an exclusivity or other business relationship between Interconnection Customer and the entity having the right to sell, lease or grant Interconnection Customer the right to possess or occupy a site for such purpose."

Once the Transmission Function has completed the Feasibility and/or System Impact studies, the study results will be posted on the Company's OASIS in a manner that preserves individual bidder confidentiality. Respondents ultimately selected through this process must work directly with the Transmission Function from this point to complete the LGIP or SGIP process and execute an LGIA or SGIA.

Respondents that fail to provide the required LGIP study deposits at any time will be removed from the interconnection queue and will be removed from further consideration in the evaluation process. As required by the OATT, the Transmission Function will refund to bidders all LGIP and SGIP study fees not expended or will bill bidders for any study costs exceeding the deposited amount. The Transmission Access group will act as each bidder's Authorized Representative only through the System Impact Study phase.

**6. Network Designation and Funding of Transmission System Upgrades For Interconnection**

- Network Resource Designation:

As indicated above, the Company anticipates that it will declare each proposal selected through this RFP as a Network Resource of the Company, and that the Company will bear the cost of any network transmission service on the Public Service system (whether or not procured under the OATT) for a proposal that is selected and achieves commercial operation. Each selected proposal not requiring a new transmission interconnection (e.g., either a generator already connected to the Public Service transmission system or each off-system generator not connected to the Public Service transmission system) and each portfolio of bids requiring new or expanded generation interconnections will be evaluated as proposed designated Network Resources pursuant to Article III of the OATT.

- Funding of Network Upgrades for Interconnection:

For purposes of achieving an interconnection, the Company's LGIP provides for the option of funding the network upgrades or requiring the interconnection customer (i.e., the respondent) to fund such upgrades and receive revenue credits based on future transmission services used by the interconnection customer or through some other refunding mechanism.

The Company will make a determination about which, if any, interconnection costs are to be financed by respondents after it completes the LGIP studies that are conducted in connection with this RFP. If the Company determines that certain infrastructure costs are to be funded by respondents, any financing arrangements will be negotiated as part of the LGIA or SGIA.

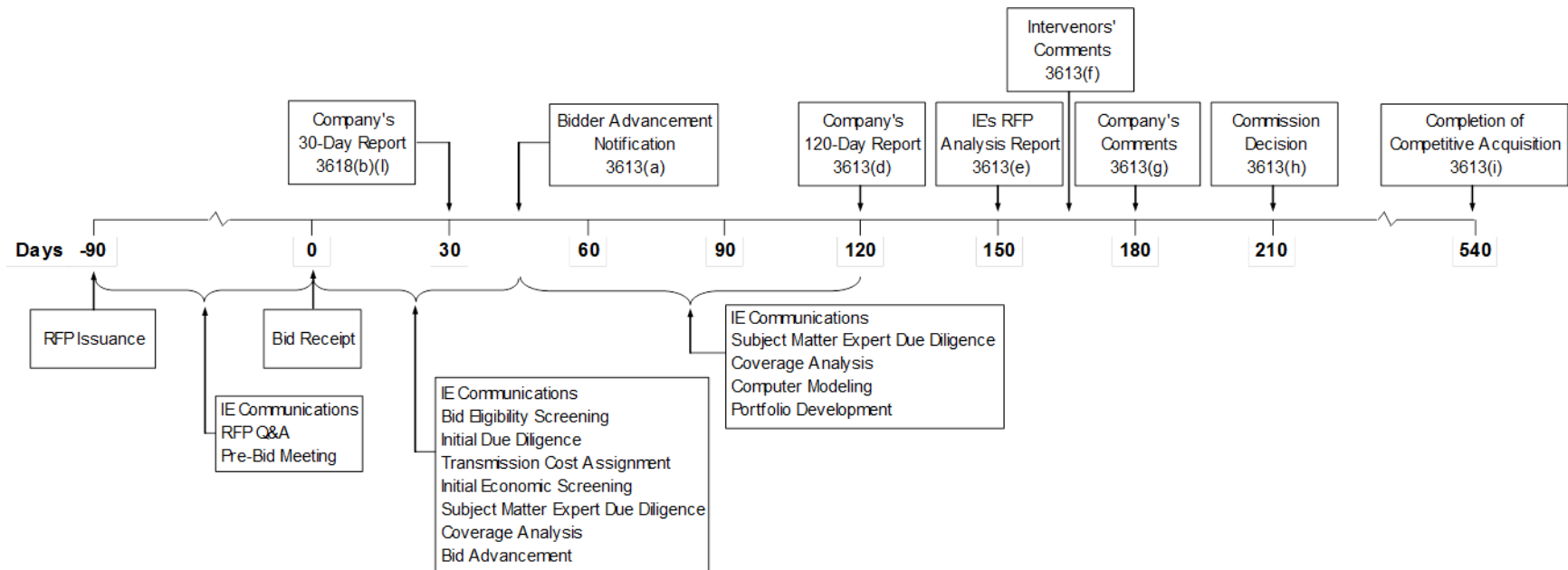
## **Appendix D**

### **Model Semi-Dispatchable Renewable Power Purchase Agreement**

**See file titled PSCo2017\_PPA\_SemiDispatchable.doc**

## Appendix E

### Solicitation Timeline



## **Appendix F**

### **Commission Confidentiality Order**

#### **BIDDER HIGHLY CONFIDENTIAL NONDISCLOSURE AGREEMENT**

I, \_\_\_\_\_, state that I am employed by a bidder in Public Service Company of Colorado's 2017 Solicitation.

For purposes of this highly confidential nondisclosure agreement "Potential Resource" means the new or existing resource of the bidder by which I am employed.

For purposes of this highly confidential nondisclosure agreement "Highly Confidential Information" means highly confidential modeling inputs and assumptions that reasonably relate to the Potential Resource or to the transmission of electricity from that Potential Resource to Public Service.

I understand that I may obtain Highly Confidential Information for the sole purpose of assisting the bidder to identify modeling errors or omissions concerning its Potential Resource so that the modeling errors or omissions may be corrected before the competitive acquisition process is completed.

I hereby state that I have read the protective provisions relating to confidential information contained in 4 Code of Colorado Regulations 723-1-1100 through 1104. With respect to all Highly Confidential Information that may be provided to me, I agree to be bound by the terms of the protective provisions contained in 4 Code of Colorado Regulations 723-1-1100.

I hereby state that I will properly implement and maintain extraordinary confidentiality provisions for the Highly Confidential Information I receive.

I hereby state that the Highly Confidential Information I receive shall not be used or disclosed for any purpose other than assisting the bidder to identify modeling errors or omissions concerning its Potential Resource so that the modeling errors or omissions may be corrected before the 2017 Solicitation competitive acquisition process is completed.

I hereby state that I will not disclose or disseminate any Highly Confidential Information I receive to any third party other than to those who are specifically authorized to review such Highly Confidential Information and who have signed a highly confidential nondisclosure agreement. At the conclusion of the 2017 Solicitation competitive acquisition process, I agree to return all Highly Confidential Information to Public Service Company of Colorado.

---

Name

---

Title

---

Employer or Firm

---

Business Address

---

Bidder Represented

---

Date

---

Signature

**Form A – Notice of Intent to Respond (NOIR)**

**Public Service Company of Colorado 2017 Solicitation**

**Notice of Intent to Respond**

Company Name		
Address		
City	State	ZIP
Company Representative Name		
Signature		
Email	Phone Number	FAX Number
Project Name	Resource (PV, wind, biomass, etc.)	
Nameplate Capacity (MW)	Annual Capacity Factor (% Nameplate)	Expected Annual MWh (at Point of Delivery)
Project Location (City, County, State)	Proposed Commercial Operation Date	PPA – Contract Term (years)
Project Proposed as a Section 123 Resource		
Notes (as appropriate)		

Submit the NOIR by email to xxxx@xcelenergy.com by xxxx.



## Form B - Bid Certification

The bidder hereby certifies that all of the statements and representations made in this proposal are true to the best of the bidder's knowledge and belief, and agrees to be bound by the representations, terms, and conditions contained in the RFP including restrictions on the bidder's claims of confidentiality. The bidder accepts the Model PPA included in the RFP, except as specifically noted in writing. The bidder certifies that (i) the bidder has considered applicable accounting standards in regard to capital lease and variable interest entities, and (ii) to the bidder's knowledge and belief, the bidder's proposal should not result in capital lease or VIE treatment to Public Service. The bidder acknowledges that the officer whose signature appears below is able to contractually commit the bidder for its proposal.

Submitted by:

(exact legal name of firm)

Bidder:

(if different than above)

Signature of an  
officer of bidder:

Name of officer:

Title:

Date Signed:

**Form C - Bid Cover Sheet**

<b>1) Project / Facility Name:</b>		
<b>2) Project Location (city, county, state):</b>		
<b>(latitude, longitude):</b>		
	°N	°W
	(decimal format; accurate to three (3) decimal places)	
<b>3) Bidder Contact:</b>		
(The individual whose name appears as the Bidder Contact will be the person designated by the bid respondent to receive notice pursuant to Commission rule 3613(a) as it pertains to the Company's 45-day report to bidders.		
Name:		
Company:		
Address:		
Phone / Fax:		
email:		
<b>4) Alternate Contact:</b>		
<input type="checkbox"/> Name:		
<input type="checkbox"/> Company:		
<input type="checkbox"/> Address:		
<input type="checkbox"/> Phone / Fax:		
<input type="checkbox"/> email:		
<b>5) Technology Type:</b>	<b>Facility Nameplate Capacity *</b>	
<b>Solar</b>		
Photovoltaic		kW
Solar Thermal		kW
<b>Wind</b>		kW
<b>Other (describe)</b>		
<input type="checkbox"/>		kW
<b>6) Capacity Firming Technology:</b>	<input type="checkbox"/>	
Thermal Storage		
Other Storage (describe):		
Fuel Backup/Hybridization		
Other (describe):		
<b>7) Percent of Facility Nameplate Capacity (AC) Guaranteed during Summer Super Peak Period:</b>		
<b>8) First Year Generation:</b>	0 MWh	<b>Capacity Factor:</b> 0%
<b>9) Proposed Commercial Operation Date:</b>		
<b>10) Proposed PPA Term (years):</b>		
<b>11) Point of Delivery Description:</b>		
Point of Delivery is on the PSCo Distribution System		
<b>12) Proposed Facility Status:</b>	Qualifying Facility	Exempt Wholesale Generator
	Community-Based Project	
<b>13) Estimated Useful Life of Facility at Commercial Operation Date (years):</b>		

\* Unless noted otherwise, kW, kWh, MW, MWh refer to AC power and energy.

### Form D1 - Pricing and Quantity

Provide Committed Energy levels for each year of the proposed PPA Term, including expected degradation impacts, if any. Provide Energy Payment Rates based on: 1) existing federal tax incentives applicable to the proposed generation type and proposed in-service date, and 2) an assumption that existing federal tax incentives applicable to the proposed generation type are extended to include the proposed in-service date, if applicable. State the federal tax assumptions included in the Energy Payment Rates below in the Project Description Narrative Topic and in the Notes section on this form. See Section 2.3 of the Semi-Dispatchable RFP for more information.

If bidders propose alternate pricing that is tied to a clearly and closely related index, a second Form D1 with alternate pricing must also be submitted with the proposal. Forms with such alternate pricing must describe the index used in the Project Description Narrative Topic and in the Notes section on this form. All dollar amounts should be expressed in nominal dollars.

Committed Energy levels should be estimated at the Point of Delivery to the Public Service system and should be net of any 3rd-party transmission wheeling losses. Indicate wheeling losses on Form D2 and document assumed wheeling losses in the Transmission Plan Narrative Topic.

Commercial Operating Year	Committed Energy (MWh)	Energy Payment Rate (Existing Fed Tax Incentive) (\$/MWh)	Energy Payment Rate (Extended Fed Tax Incentive) (\$/MWh)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			

Notes to Pricing:

## Form D2 - Electric Interconnection Cost Estimates

### 1) Electric Interconnection Costs Included in Form D1 Pricing

LGIP Identifier (or source of estimate if no LGIP)	
Generator Interconnection Facilities (including Radial Lines)	\$ -
PSCo-Owned, Generator-Funded Interconnection Facilities	\$ -

### 2) 3rd-Party Transmission Costs Included in Form D1 Pricing

3rd-Party Transmission Provider	
Wheeling and Ancillary Charges:	
OATT Schedule 1 (\$/kW-mo)	\$ -
OATT Schedule 2 (\$/kW-mo)	\$ -
OATT Schedule 7 (\$/kW-mo)	\$ -

### 3) Electric Interconnection Costs Not Included in Form D1 Pricing (List, if known; else, Public Service will estimate and complete)

LGIP Identifier (or source of estimate if no LGIP)	
PSCo-Owned, PSCo-Funded Interconnection Facilities	
Network Upgrades for Delivery	

### 4) Wheeling Losses

If the facility is not located at the Point of Delivery, provide an estimate of the wheeling losses between the facility and the Point of Delivery.	0.0%
---	------

### Form D3 - Fuel Tolling

For projects that propose fuel backup/hybridization, provide the monthly Demand Payment Rate necessary to cover the incremental capital costs of the gas hybridization equipment and the non-fuel, Variable O&M Payment Rate and Start Charges necessary to cover the incremental costs of electricity generation with the backup fuel. Alternatively, respondents may choose to cover the incremental capital costs of fuel backup/hybridization through the Base Energy Payment Rates shown on Form D1.

All dollar amounts should be expressed in nominal dollars.

Commercial Operating Year	Demand Payment Rate (\$/kW-mo)	Variable O&M Payment Rate (\$/MWh)	Start Charges (\$/turbine start)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			

Notes to Fuel Tolling:

**Form E - Construction Milestones**

Insert the proposed date for each milestone shown here as would be found on the detailed Development Schedule provided with the proposal. Milestones should be based on the requirements to achieve the proposed commercial operation date. See the Model PPA for defined terms.

Construction Milestone Date	Construction Milestones
	Bidder shall establish the Security Fund in accordance with Section 11.1 of the Model PPA.
	If applicable, Bidder shall provide PSCo with a copy of the executed Facility EPC, or other general contractor, agreements.
	Bidder shall provide PSCo with copies of executed purchase orders/contracts for the delivery and installation of major Facility equipment.
	Bidder shall provide PSCo with copies, as applicable, of executed Facility operating agreements, electric transmission and/or interconnection agreements, and natural gas transportation and/or interconnection agreements.
	Bidder shall provide PSCo with documentation that all governmental permits have been obtained or will be obtained by the time needed to meet all Construction Milestones.
	Bidder shall have achieved closing on financing for the Facility or provided PSCo with proof of financial capability to construct the Facility.
	Bidder shall provide to PSCo evidence of insurance complying with the requirements of Article 16 of the Model SEPA.
	Bidder shall have laid the foundation for all Facility buildings, generating facilities and step-up transformation facilities.
	The major equipment shall have been delivered to, and installed at, the Site.
	The step-up transformer shall have been delivered to, and installed at, the Site.
	Bidder shall have the natural gas line and all other necessary fuel supply interconnection facilities in place. Bidder shall have constructed Bidder's interconnection facilities and such facilities are capable of being energized.
	Start-up testing of the Facility commences.
	Commercial Operation Date is achieved. (Commercial Operation Milestone)

**Form F1 - Technical Description - Photovoltaic**

**Module Level Information**

Manufacturer:	
Model #:	
Cell Material:	
Total # of Modules:	

**Array Level Information**

# Modules per String:	
Strings <input type="checkbox"/> Parallel:	
Total Active Surface Area (m <sup>2</sup> ):	

**Inverter Information**

Manufacturer:	
Model #:	
Total # Inverters:	

Confirm that the facility meets the Exhibit H  
Operating Standards as shown in the Model PPA

Yes

No

**Mounting/Orientation**

Fixed		azimuth (deg)		elevation (deg)
1-axis tracking		azimuth (deg)		elevation (deg)
2-axis tracking				

**Storage Information**

Storage Material:	
Storage Capacity (hours of Nameplate Capacity):	
Reduction of Nameplate Capacity from generation on 100% stored energy (MWe):	

**Facility Level Information**

Annual Plant Availability (%)	
Ground Coverage Ratio:	
Estimated Land Area (acres):	
Consumptive Water Use (gallon/MWh):	

\* Standard Test Conditions (25 °C, 1 kW/m<sup>2</sup>, AM 1.5)

Notes to PV Technical Description:

--

**Form F2 - Technical Description - Solar Thermal**

**Reflector Information**

Manufacturer / Model #:	
Reflector Material:	
Total Field Aperture Area (m <sup>2</sup> ):	

**Receiver Information**

Manufacturer / Model #:	
Heat Transfer Fluid:	
Field Thermal Output (MW th):	*
Solar Multiple:	*
Estimated Annual Solar Collection Efficiency:	

**Freeze Protection Information**

Estimated Annual Gas Burn (MMBtu/yr):	
Estimated Peak Winter Electrical Load (MWh/yr):	

**Power Block Information**

Working Fluid:	
Turbine Manufacturer / Model #:	
Nameplate Capacity (MWe):	*
Cooling: wet, dry, or hybrid	
If wet cooled, estimated reduction in annual delivered energy production from dry cooling (MWh/yr):	
If wet cooled, estimated reduction in summer peak generation capability from dry cooling (MW):	

**Storage Information**

Storage Material:	
Storage Capacity (hours of Nameplate Capacity):	
Reduction of Nameplate Capacity from generation on 100% stored energy (MWe):	

**Fuel Backup/Hybridization Information**

Boiler/Burner Manufacturer / Model #:	
Fuel Type:	
Electrical Generation at Maximum Capacity (net, backup fuel only) (MWe)	

**Facility Level Information**

Solar to Net Electricity Efficiency:	*
Consumptive Water Use (gallon/MWh):	
Annual Plant Availability (%):	
Estimated Annual Maintenance (hours):	
Estimated Land Area (acres):	

Confirm that facility meets the Exhibit H Operating Standards as shown in the Model PPA:

Yes No

\* Standard Test Conditions (25 °C, 1 kW/m<sup>2</sup>, AM 1.5)

Notes to Solar Thermal Technical Description:

--



**Form F3 - Technical Description - Wind**

**Turbine Level Information**

Manufacturer:	
Model #:	
Nameplate per Turbine (MW):	
Rotor Diameter (meters):	
Tower Height (meters):	
Lower Operating Temperature, standard package (° C):	
Lower Operating Temperature, cold weather package (° C):	
Indicative Form D1 Energy Payment Rate Increase for Cold Weather Package, if not already included (\$/MWh)	

**Storage Information**

Storage Material:	
Storage Capacity (hours of Nameplate Capacity):	
Reduction of Nameplate Capacity from generation on 100% stored energy (MWe):	

**Facility Level Information**

Number of Turbines:	
Annual Plant Availability (%):	
Estimated Land Area (acres):	

Confirm that facility meets the Exhibit H Operating Standards as shown in the Model PPA:

Yes      No

Notes to Wind Technical Description:

--

**Form F4 - Technical Description - Other**

For bids proposing projects utilizing a primary energy source other than solar or wind (e.g., biomass, geothermal, hydro, recycled energy), complete Form F4. Ensure that other relevant, quantitative information is included in the Project Description Bid Narrative Topic.

Consumptive Water Use (gallon/MWh):

**Storage Information**

☐ ☐

Storage Material:

Storage Capacity (hours of Nameplate Capacity):

Reduction of Nameplate Capacity from generation on 100%  
stored energy (MWe):

Confirm that facility meets the Exhibit H Operating Standards as shown in the Model PPA:

Yes

No

Notes to Other Technical Description:

**Form F5 - Energy Production Profile - Annual and Monthly**

Assuming the facility had been in commercial operation during 2009, 2010, and 2011, estimate annual energy production for each of these years utilizing whatever historical meteorological data are available for the site or a nearby site with similar meteorological characteristics. Explain fully in the Energy Production Profile Narrative Topic the meteorological data used for the annual estimates. Indicate the average expected hourly generation from the proposed project by month and time of day. Provide the month's total expected average generation, not just the generation from a single day. To the extent the sum of the values in the grid are different from the first year Committed Energy value on Form D1, explain fully the cause of the difference in the Energy Production Profile Narrative Topic. Estimated energy production should be gross of any expected plant degradation over time. Time is hour ending, Mountain Standard Time; i.e., do not adjust for daylight savings time.

If applicable, average expected monthly generation will form the basis for Exhibit M of the model PPA.

Calendar Year	Estimated Annual Energy Production (MWh)
2009	
2010	
2011	

**Maximum expected hourly generation (MWh)**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
max												

**Average (P50) expected hourly generation (MWh)**

HE (MST)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
sum	-	-	-	-	-	-	-	-	-	-	-	-
% of total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
total	-											

Notes to Energy Production Profile:

## Form F6 - Facility Performance

### 1) Outages:

Annual Expected Forced Outage Rate  
(%):

Expected Average Annual  
Maintenance Requirements  
(days/year):

### 2) Manual Control:

Lowest stable operating point on  
manual control  
(% of full load):

Highest stable operating point on  
manual control  
(% of full load):

Normal Up Ramp Rate on  
manual control (MW/min):

Normal Down Ramp Rate on  
manual control (MW/min):

Emergency Up Ramp Rate on  
manual control (MW/min):

Emergency Down Ramp Rate on  
manual control (MW/min):

### 3) Automatic Generation Control (leave blank if no AGC capability):

Lowest stable operating point on  
AGC (% of full load):

Highest stable operating point on  
AGC (% of full load):

Maximum Up Ramp Rate on  
AGC (MW/min):

Maximum Down Ramp Rate on  
AGC (MW/min):

### 4) Start Times (time to start unit, sync to grid, and reach minimum load):

Off-line for 6 hours (minutes):

Off-line for 8 hours (minutes):

Off-line for 12 hours (minutes):

Off-line for 3 days (minutes):

Maximum load achievable in  
10 minutes (% of full load):

Maximum load achievable in  
15 minutes (% of full load):

Maximum load achievable in  
30 minutes (% of full load):

### 5) Minimum Up Time (min. time between generator breaker close and re-open) (minutes):

### 6) Minimum Down Time (min. time generator must be off-line before restarting) (minutes):

### 8) Consumptive Water Use (gallons/MWh at 100% annual average base capacity)

Notes to Facility Performance:

**Form F7 - Heat Rates**

For proposals involving tolling or other fuel-indexed arrangements, enter the average summer and winter heat rates at the unit loading levels indicated. Heat rates must be stated at the higher heating value (HHV), ambient air pressure of 14.7 psi at sea level adjusted to site elevation, and 95° F and 30% RH for summer conditions and 6° F and 68% RH for winter conditions.

Unit Loading	Summer		Winter	
	Capacity (MW)	Heat Rate (Btu/kWh)	Capacity (MW)	Heat Rate (Btu/kWh)
Lowest stable operating point				
Lowest stable operating point on AGC				
25% of base capacity				
50% of base capacity				
75% of base capacity				
100% of base capacity				
100% of base capacity, plus 100% of supplemental capacity				

Notes to Heat Rates:

## Form F6 - Section 123 Qualifications

In Decision C13-0094, the Colorado Public Utilities Commission set out its criteria for a proposed project to qualify as a Section 123 resource. For those bids claiming Section 123 status, to meet the Commission's definitions of "New" indicate in Question 1 under Method 1 and/or Method 2 below the attributes of the proposed project for which Section 123 status is claimed. To meet the Commission's definition of "Clean" complete Question 2.

### 1) Qualification as New:

#### Method 1

List the proposed technology or technologies that have not been regularly commercially demonstrated, within Colorado or elsewhere, for which Section 123 status is claimed:

What percent of the overall installed cost is represented by this technology or technologies?

#### Method 2

List the proposed technology that has not before been implemented in the proposed configuration:

### 2) Qualification as Clean:

List the attributes of the proposed project that demonstrate that it would likely cause 1) a decrease in greenhouse gas emissions or significantly reduce other pollutants and/or 2) result in reduced water usage:

**Form G - Natural Gas and Backup Fuel Supply**

**1) Natural Gas Supply**

Identify whether the proposal is for a tolling arrangement or an electric energy sale arrangement. For tolling bids, identify the pipeline to which the bidder plans to interconnect. For energy sale (non-tolling) bids in which bidder plans to acquire and manage the fuel supply, describe supply plan and identify all contracts that support the supply of firm gas transportation and firm supply to the proposed plant.

--

**2) Natural Gas Interconnection**

Describe the gas interconnection facilities that have been included in the Form D1 bid price, including the size, length and location of the lateral interconnection and fuel delivery point. State the capital cost estimates included in the Form D1 pricing and the change in that pricing for a \$100,000 change in the capital cost estimate. Attach a USGS-based map showing the gas pipeline delivery point, the location of any lateral lines, compressors and meters.

--

Gas interconnection capital costs included in Form D1 pricing:


Impact on Form D1 prices for a \$100,000 change in capital cost estimate (\$/kW-mo, levelized):

**3) Natural Gas Pressure**

Minimum pressure required at gas interconnection point:

	(psig)
--	--------

Maximum pressure required at gas interconnection point:

	(psig)
--	--------

<input type="checkbox"/>
<input type="checkbox"/>

Minimum pressure required at plant burner tip:

	(psig)
--	--------

☐ Gas delivery pressure **guaranteed** by the interconnecting pipeline at the fuel delivery point:

	(psig)
--	--------

**4) Natural Gas Quantities**

Indicate the maximum daily and hourly gas consumption at the proposed plant.

Maximum Daily Consumption for Electrical Generation (MMBtu/day)

Summer	Winter

Maximum Hourly Consumption for Electrical Generation (MMBtu/hour)

Describe any ancillary equipment which may utilize fuel when the facility is off-line and describe who is responsible for the ancillary gas usage costs. Indicate the maximum ancillary volumes below.

--

Maximum Daily Consumption for Ancillaries (MMBtu/day)

Summer	Winter

Maximum Hourly Consumption for Ancillaries (MMBtu/hour)

**5) Natural Gas Quality**

Indicate if any of the following pipelines have **unacceptable** gas quality. If yes, indicate in Notes why.

Colorado Interstate Gas  
Wyoming Interstate Gas  
Public Service Company of Colorado

**6) Secondary Fuel Supply**

If secondary, on-site fuel storage is proposed, describe the fuel type, including quality specifications, quantity, and maximum number of full-load run hours on secondary fuel.

--

Proposed secondary fuel, on-site storage volume (gallon)


Estimated, Net Capability run hours on secondary fuel (hours)

Notes to Gas Supply:

--

## Form H - Emission Rates

Provide emission rate information for the proposed generator(s), including fuel requirements for base and supplemental capacity and/or freeze protection. Planned Energy applies to natural gas fired generation only; see the Model PPA for a complete description.

Planned Energy (MWh)

Emission Rates on <b>Primary Fuel</b> :		
	Full Load on Base Capacity (lbs/MMBtu)	Full Load on Base and Supplemental Capacity (lbs/MMBtu)
Oxides of Sulfur:		
Oxides of Nitrogen:		
Carbon Dioxide:		
Carbon Monoxide:		
Volatile Organic Compounds:		
Particulate Matter - PM10:		
Particulate Matter - PM2.5:		
Lead:		
Mercury:		
Maximum NO <sub>x</sub> emission rate (in parts per million):		
Maximum CO emission rate (in parts per million):		
Maximum permitted/permittable annual capacity factor (% of Net Capability):		

Emission Rates on <b>Secondary Fuel</b> (if applicable):		
	Full Load on Base Capacity (lbs/MMBtu)	Full Load on Base and Supplemental Capacity (lbs/MMBtu)
Oxides of Sulfur:		
Oxides of Nitrogen:		
Carbon Dioxide:		
Carbon Monoxide:		
Volatile Organic Compounds:		
Particulate Matter - PM10:		
Particulate Matter - PM2.5:		
Lead:		
Mercury:		
Maximum NO <sub>x</sub> emission rate (in parts per million):		
Maximum CO emission rate (in parts per million):		
Maximum permitted/permittable annual capacity factor (% of Net Capability):		

Notes to Emission Rates:



## **Public Service Company of Colorado 2017 Solicitation**

### **Additional Appendix A Forms**

<b>Form</b>	<b>Title</b>
<a href="#"><u>I1</u></a>	Small Generator – Distribution Interconnection
<a href="#"><u>I2</u></a>	Small Generator – Transmission Interconnection
<a href="#"><u>I3</u></a>	Large Generator – Transmission Interconnection

## **Form I1**

Small Generator Interconnection Information – Distribution Interconnection

## SMALL GENERATOR INTERCONNECTION INFORMATION

This Form should be completed by those bidders proposing to interconnect to the Company's distribution system. This is not a formal request to interconnect.

<b>OWNER/APPLICANT INFORMATION</b>			
Company:			
Representative:	Phone Number:	FAX Number:	
Title:	Email Address:		
Mailing Address:			
<b>PROPOSED LOCATION OF GENERATING PLANT AND PROPOSED INTERCONNECTION</b>			
Address:			
<b>PROJECT DESIGN / ENGINEERING</b>			
Company:			
Representative:	Phone:	FAX Number:	
Mailing Address:	Email Address:		
<b>ELECTRICAL CONTRACTOR</b>			
Company:			
Representative:	Phone:	FAX Number:	
Mailing Address	Email Address:		
<b>ESTIMATED LOAD INFORMATION</b>			
The following information will be used to help properly design the Xcel-Customer interconnection. This information is not intended as a commitment or contract for billing purposes.			
Minimum anticipated load (generation not operating):		kVA:	Time:
Maximum anticipated load (generation not operating):		kVA:	Time:

### **Existing Electric Service:**

Capacity: \_\_\_\_\_ Amperes      Voltage: \_\_\_\_\_ Volts  
 Service Character:    ☐ Single Phase      ☐ Three Phase

**Estimated In-Service Date:** \_\_\_\_\_

**Site Control Documentation:** Documentation of site control must be submitted with the interconnection request as required by Code of Colorado Regulations, CCR 4 723-3, Rule 3667.

Site Control: ☐ Ownership of Site    ☐ Option to Purchase Site    ☐ Other – Specify \_\_\_\_\_

## SMALL GENERATOR INTERCONNECTION INFORMATION

### Energy Producing Equipment/Inverter Summary:

Manufacturer: \_\_\_\_\_  
 Model No.: \_\_\_\_\_ Version No.: \_\_\_\_\_  
☐ Synchronous ☐ Induction ☐ Inverter ☐ Other \_\_\_\_\_  
 Rating: \_\_\_\_\_ kW Rating: \_\_\_\_\_ kVA  
 Generator Connection: ☐ Delta ☐ Wye Ungrounded ☐ Wye Grounded  
 Generator Voltage: \_\_\_\_\_ Volts  
 System Type Tested (Total System): ☐ Yes ☐ No; attach product literature  
 Equipment Type Tested: ☐ Yes (i.e. Inverter, Protection System) ☐ No; attach product literature  
 (Type Tested per IEEE 1547.1 or IEEE 929; i.e., Pre-certified)

(Complete all applicable items, Copy this page as required for additional generators)			
<b>SYNCHRONOUS GENERATOR DATA</b>			
Unit Designation:		Total number of units with listed specifications on site:	
Manufacturer:			
Type:		Date of manufacture:	
Serial Number (each):			
Phases: 1 or 3	Speed:	RPM:	Frequency: Hz
Rated Output (each unit) Kilowatt:		kW Kilovolt-Ampere: kVA	
Rated Power Factor: %	Rated Voltage: V	Rated Current: A	
Field Voltage: V	Field Current: A	Motoring Power: kW	
Synchronous Reactance ( $X_d$ ):	% on	kVA base	
Transient Reactance ( $X'_d$ ):	% on	kVA base	
Subtransient Reactance ( $X''_d$ ):	% on	kVA base	
Negative Sequence Reactance ( $X_s$ ):	% on	kVA base	
Zero Sequence Reactance ( $X_o$ ):	% on	kVA base	
Neutral Grounding Resistor (if applicable):	Yes No	Resistance:	Ohms
$I^2 t$ or K (heating time constant):			
Exciter data:			
Governor data:			
Additional Information:			
<b>INDUCTION GENERATOR DATA</b>			
Rotor Resistance ( $R_r$ ):	Ohms	Stator Resistance ( $R_s$ ):	Ohms
Rotor Reactance ( $X_r$ ):	Ohms	Stator Reactance ( $X_s$ ):	Ohms
Magnetizing Reactance ( $X_m$ ):	Ohms	Short Circuit Reactance ( $X_d''$ ):	Ohms
Design Letter:	Frame Size:		
Exciting Current:	Temp Rise (deg C°):		
Rated Output:	kW		
Reactive Power Required:	kVAr (no Load)		kVAr (full load)
For a wound-rotor machine, describe external equipment to be connected (resistor, rheostat, power converter, etc.) to rotor circuit, and circuit configuration. Describe ability, if any, to adjust generator reactive power output.			

## SMALL GENERATOR INTERCONNECTION INFORMATION

<b>PRIME MOVER</b> (Complete all applicable items)				
Unit Designation:		Type:		
Manufacturer:				
Serial Number:		Date of Manufacture:		
H.P. Rated:	H.P. Max:	Inertia Constant:		lb.-ft. <sup>2</sup>
Energy Source (hydro, steam, wind, etc.):				
Additional Information:				
<b>Type of Interconnected operation</b>				
Long term Parallel operation:		Yes	No	
Closed momentary transition:		Yes	No	Transition Closed Time: seconds
Other (describe):				
<b>TRANSFORMER</b> (If applicable)				
Manufacturer:		kVA:		
Date of Manufacture:		Serial Number:		
High Voltage:	V	Connection: <input type="checkbox"/> delta <input type="checkbox"/> wye	Neutral solidly grounded? Yes No	
Low Voltage:	V	Connection: <input type="checkbox"/> delta <input type="checkbox"/> wye	Neutral solidly grounded? Yes No	
Transformer Impedance (Z):		% on	kVA base	
Transformer Resistance (R):		% on	kVA base	
Transformer Reactance (X):		% on	kVA base	
Neutral Grounding Resistor (if applicable)		Yes	No	Resistance: Ohms
Additional Information:				
<b>INVERTER DATA</b> (If applicable)				
UL Pre-certified per UL 1741 and IEEE 929?		Yes	No	Certification Number:
Manufacturer:		Model:		
Rated Power Factor (%):	Rated Voltage (Volts):	V	Rated Current (Amperes):	A
Inverter Type (ferroresonant, step, pulse-width modulation, etc.):				
Type of Commutation: <input type="checkbox"/> forced <input type="checkbox"/> line		Minimum Short Circuit Ratio required:		
Minimum voltage for successful commutation:				
Current Harmonic Distortion:		Maximum Individual Harmonic (%):		
		Maximum Total Harmonic Distortion (%):		
Voltage Harmonic Distortion:		Maximum Individual Harmonic (%):		
		Maximum Total Harmonic Distortion (%):		
Describe capability, if any, to adjust reactive output to provide voltage regulation:				
Additional Information:				
<b>NOTE:</b> Attach all available calculations, test reports, and oscillographic prints showing inverter output voltage and current waveforms.				

## SMALL GENERATOR INTERCONNECTION INFORMATION

<b>POWER CIRCUIT BREAKER</b> (if applicable)		
Manufacturer:		Model:
Rated Voltage: kV		Rated Ampacity (Amperes): A
Interrupting Rating: A		BIL Rating: kV
Interrupting Medium (vacuum, oil, gas, etc.):		Insulating Medium (vacuum, oil, gas, etc.):
Control Voltage (Closing): (Volts) <input type="checkbox"/> AC <input type="checkbox"/> DC		
Control Voltage (Tripping): (Volts) <input type="checkbox"/> AC <input type="checkbox"/> DC <input type="checkbox"/> Battery <input type="checkbox"/> Charged Capacitor		
Close Energy: <input type="checkbox"/> Spring <input type="checkbox"/> Motor <input type="checkbox"/> Hydraulic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Other		
Trip Energy: <input type="checkbox"/> Spring <input type="checkbox"/> Motor <input type="checkbox"/> Hydraulic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Other		
Bushing Current Transformers (Max. ratio):		Relay Accuracy Class:
Multi Ratio? <input type="checkbox"/> No <input type="checkbox"/> Yes: (Available taps):		
Construction Schedule:	Start date:	Completion date:
<b>MISCELLANEOUS</b> (Use this area and any additional sheets for applicable notes and comments)		

**ADDITIONAL REQUIREMENTS:** In addition to the items listed on this form, please attach:

- 1) Detailed One Line Diagram: ☐ Yes
- 2) Installation Test Plan: ☐ Yes
- 3) Site plan: ☐ Yes
- 4) Major equipment (generators, transformers, inverters, circuit breakers, protective relays, isolation disconnect, etc.) specifications: ☐ Yes
- 5) Relaying detail: ☐ Yes Date: \_\_\_\_\_
- 6) Metering telemetry: ☐ Yes Date: \_\_\_\_\_
- 7) Test reports attached: ☐ Yes Date: \_\_\_\_\_
- 8) Other applicable drawings or documents necessary for the proper design of the interconnection:  
Describe \_\_\_\_\_

## **Form I2**

Small Generator Interconnection Information – Transmission Interconnection

## SMALL GENERATOR INTERCONNECTION INFORMATION

This Form should be completed by those bidders proposing to interconnect to the Company's transmission system. This is not a formal request to interconnect.

### Transmission Provider:

Designated Contact Person: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

Fax: \_\_\_\_\_

E-Mail Address: \_\_\_\_\_

### Interconnection Customer Information

Legal Name of the Interconnection Customer (or, if an individual, individual's name)

Name: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_



Facility Location (if different from above): \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ Telephone (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Alternative Contact Information (if different from the Interconnection Customer)

Contact Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Telephone (Day): \_\_\_\_\_ Telephone (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Application is for:    \_\_\_\_\_ New Small Generating Facility  
                              \_\_\_\_\_ Capacity addition to Existing Small Generating Facility

If capacity addition to existing facility, please describe: \_\_\_\_\_

\_\_\_\_\_

Will the Small Generating Facility be used for any of the following?

Net Metering? Yes \_\_\_ No \_\_\_

To Supply Power to the Interconnection Customer? Yes \_\_\_ No \_\_\_

To Supply Power to Others? Yes \_\_\_ No \_\_\_

For installations at locations with existing electric service to which the proposed Small Generating Facility will interconnect, provide:

\_\_\_\_\_  
(Local Electric Service Provider\*)

\_\_\_\_\_  
(Existing Account Number\*)

[\*To be provided by the Interconnection Customer if the local electric service provider is different from the Transmission Provider]

Contact Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Telephone (Day): \_\_\_\_\_ Telephone (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Requested Point of Interconnection: \_\_\_\_\_

Interconnection Customer's Requested In-Service Date: \_\_\_\_\_

**Small Generating Facility Information**

Data apply only to the Small Generating Facility, not the Interconnection Facilities.

Energy Source: \_\_\_ Solar \_\_\_ Wind \_\_\_ Hydro \_\_\_ Hydro Type (e.g. Run-of-River): \_\_\_\_\_  
Diesel \_\_\_ Natural Gas \_\_\_ Fuel Oil \_\_\_ Other (state type) \_\_\_\_\_

Prime Mover: \_\_\_ Fuel Cell \_\_\_ Recip Engine \_\_\_ Gas Turb \_\_\_ Steam Turb  
\_\_\_ Microturbine \_\_\_ PV \_\_\_ Other

Type of Generator: \_\_\_ Synchronous \_\_\_ Induction \_\_\_ Inverter

Generator Nameplate Rating: \_\_\_\_\_ kW (Typical) Generator Nameplate kVAR: \_\_\_\_\_

Interconnection Customer or Customer-Site Load: \_\_\_\_\_ kW (if none, so state)

Typical Reactive Load (if known): \_\_\_\_\_

Maximum Physical Export Capability Requested: \_\_\_\_\_ kW

List components of the Small Generating Facility equipment package that are currently certified:

Equipment Type	Certifying Entity
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____

Is the prime mover compatible with the certified protective relay package? \_\_\_ Yes \_\_\_ No

Generator (or solar collector)

Manufacturer, Model Name & Number: \_\_\_\_\_

Version Number: \_\_\_\_\_

Nameplate Output Power Rating in kW: (Summer) \_\_\_\_\_ (Winter) \_\_\_\_\_

Nameplate Output Power Rating in kVA: (Summer) \_\_\_\_\_ (Winter) \_\_\_\_\_

Individual Generator Power Factor

Rated Power Factor: Leading: \_\_\_\_\_ Lagging: \_\_\_\_\_

Total Number of Generators in wind farm to be interconnected pursuant to this  
Interconnection Request: \_\_\_\_\_ Elevation: \_\_\_\_\_ \_\_\_ Single phase \_\_\_ Three phase

Inverter Manufacturer, Model Name & Number (if used): \_\_\_\_\_

List of adjustable set points for the protective equipment or software: \_\_\_\_\_

Note: A completed Power Systems Load Flow data sheet must be supplied with the Interconnection Request.

Small Generating Facility Characteristic Data (for inverter-based machines)

Max design fault contribution current: \_\_\_\_\_ Instantaneous \_\_\_ or RMS? \_\_\_

Harmonics Characteristics: \_\_\_\_\_

Start-up requirements: \_\_\_\_\_

Small Generating Facility Characteristic Data (for rotating machines)

RPM Frequency: \_\_\_\_\_

(\*) Neutral Grounding Resistor (If Applicable): \_\_\_\_\_

Synchronous Generators:

Direct Axis Synchronous Reactance,  $X_d$ : \_\_\_\_\_ P.U.

Direct Axis Transient Reactance,  $X'_d$ : \_\_\_\_\_ P.U.

Direct Axis Subtransient Reactance,  $X''_d$ : \_\_\_\_\_ P.U.

Negative Sequence Reactance,  $X_2$ : \_\_\_\_\_ P.U.

Zero Sequence Reactance,  $X_0$ : \_\_\_\_\_ P.U.

KVA Base: \_\_\_\_\_

Field Volts: \_\_\_\_\_

Field Amperes: \_\_\_\_\_

Induction Generators:

Motoring Power (kW): \_\_\_\_\_

$I_2^2t$  or K (Heating Time Constant): \_\_\_\_\_

Rotor Resistance,  $R_r$ : \_\_\_\_\_

Stator Resistance,  $R_s$ : \_\_\_\_\_

Stator Reactance,  $X_s$ : \_\_\_\_\_

Rotor Reactance,  $X_r$ : \_\_\_\_\_

Magnetizing Reactance,  $X_m$ : \_\_\_\_\_

Short Circuit Reactance,  $X_d''$ : \_\_\_\_\_  
Exciting Current: \_\_\_\_\_  
Temperature Rise: \_\_\_\_\_  
Frame Size: \_\_\_\_\_  
Design Letter: \_\_\_\_\_  
Reactive Power Required In Vars (No Load): \_\_\_\_\_  
Reactive Power Required In Vars (Full Load): \_\_\_\_\_  
Total Rotating Inertia, H: \_\_\_\_\_ Per Unit on kVA Base

Note: Please contact the Transmission Provider prior to submitting the Interconnection Request to determine if the specified information above is required.

Excitation and Governor System Data for Synchronous Generators Only

Provide appropriate IEEE model block diagram of excitation system, governor system and power system stabilizer (PSS) in accordance with the regional reliability council criteria. A PSS may be determined to be required by applicable studies. A copy of the manufacturer's block diagram may not be substituted.

**Interconnection Facilities Information**

Will a transformer be used between the generator and the point of common coupling? \_\_\_\_ Yes \_\_\_\_ No

Will the transformer be provided by the Interconnection Customer? \_\_\_\_ Yes \_\_\_\_ No

Transformer Data (If Applicable, for Interconnection Customer-Owned Transformer):

Is the transformer: \_\_\_\_ single phase \_\_\_\_ three phase? Size: \_\_\_\_\_ kVA  
Transformer Impedance: \_\_\_\_\_ % on \_\_\_\_\_ kVA Base

If Three Phase:

Transformer Primary: \_\_\_\_\_ Volts \_\_\_\_\_ Delta \_\_\_\_\_ Wye \_\_\_\_\_ Wye Grounded  
Transformer Secondary: \_\_\_\_\_ Volts \_\_\_\_\_ Delta \_\_\_\_\_ Wye \_\_\_\_\_ Wye Grounded  
Transformer Tertiary: \_\_\_\_\_ Volts \_\_\_\_\_ Delta \_\_\_\_\_ Wye \_\_\_\_\_ Wye Grounded

Transformer Fuse Data (If Applicable, for Interconnection Customer-Owned Fuse):

(Attach copy of fuse manufacturer's Minimum Melt and Total Clearing Time-Current Curves)

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Size: \_\_\_\_\_ Speed: \_\_\_\_\_

Interconnecting Circuit Breaker (if applicable):

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_  
Load Rating (Amps): \_\_\_\_\_ Interrupting Rating (Amps): \_\_\_\_\_ Trip Speed (Cycles): \_\_\_\_\_

Interconnection Protective Relays (If Applicable):

If Microprocessor-Controlled:

List of Functions and Adjustable Setpoints for the protective equipment or software:

Setpoint Function	Minimum	Maximum
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____
6. _____	_____	_____

If Discrete Components:

(Enclose Copy of any Proposed Time-Overcurrent Coordination Curves)

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_  
Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_  
Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_  
Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_  
Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_

Current Transformer Data (If Applicable):

(Enclose Copy of Manufacturer's Excitation and Ratio Correction Curves)

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_ Proposed Ratio Connection: \_\_\_\_

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_ Proposed Ratio Connection: \_\_\_\_

Potential Transformer Data (If Applicable):

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_ Proposed Ratio Connection: \_\_\_\_

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_ Proposed Ratio Connection: \_\_\_\_

**General Information**

Enclose copy of site electrical one-line diagram showing the configuration of all Small Generating Facility equipment, current and potential circuits, and protection and control schemes. This one-line diagram must be signed and stamped by a licensed Professional Engineer if the Small Generating Facility is larger than 50 kW. Is One-Line Diagram Enclosed? \_\_\_\_Yes \_\_\_\_No

Enclose copy of any site documentation that indicates the precise physical location of the proposed Small Generating Facility (e.g., USGS topographic map or other diagram or documentation).

Proposed location of protective interface equipment on property (include address if different from the Interconnection Customer's address) \_\_\_\_\_

Enclose copy of any site documentation that describes and details the operation of the protection and control schemes. Is Available Documentation Enclosed? \_\_\_\_Yes \_\_\_\_No

Enclose copies of schematic drawings for all protection and control circuits, relay current circuits, relay potential circuits, and alarm/monitoring circuits (if applicable).

Are Schematic Drawings Enclosed? \_\_\_\_Yes \_\_\_\_No

## **Form I3**

Large Generator Interconnection Information – Transmission Interconnection

**APPENDIX 1 to LGIP  
INTERCONNECTION REQUEST FOR A  
LARGE GENERATING FACILITY**

**This Form should be completed by those bidders proposing to interconnect to the Company's transmission system. This is not a formal request to interconnect.**

1. The undersigned Interconnection Customer submits this request to interconnect its Large Generating Facility with Transmission Provider's Transmission System pursuant to a Tariff.
2. This Interconnection Request is for (check one):  
☐ A proposed new Large Generating Facility.  
☐ An increase in the generating capacity or a Material Modification of an existing Generating Facility.  
☐ A Generating Facility proposed for inclusion in a resource solicitation process.
3. The type of interconnection service requested (check one):  
☐ Energy Resource Interconnection Service  
☐ Network Resource Interconnection Service
4. ☐ Check here only if Interconnection Customer requesting Network Resource Interconnection Service also seeks to have its Generating Facility studied for Energy Resource Interconnection Service
5. Interconnection Customer provides the following information:
  - a. Address or location of the proposed new Large Generating Facility site (to the extent known) or, in the case of an existing Generating Facility, the name and specific location of the existing Generating Facility;
  - b. Maximum summer at degrees C and winter at degrees C megawatt electrical output of the proposed new Large Generating Facility or the amount of megawatt increase in the generating capacity of an existing Generating Facility;
  - c. General description of the equipment configuration;
  - d. Commercial Operation Date (Day, Month, and Year);
  - e. Name, address, telephone number, and e-mail address of Interconnection Customer's contact person;
  - f. Approximate location of the proposed Point of Interconnection (optional);



- g. Interconnection Customer Data (set forth in Attachment A)
- 6. Applicable deposit amount as specified in the LGIP.
- 7. Evidence of Site Control as specified in the LGIP (check one)
  - ☐ Is attached to this Interconnection Request
  - ☐ Will be provided at a later date in accordance with this LGIP

8. This Interconnection Request shall be submitted to the representative indicated below:

[To be completed by Transmission Provider]

9. Representative of Interconnection Customer to contact:

[To be completed by Interconnection Customer]

10. This Interconnection Request is submitted by:

Name of Interconnection Customer: \_\_\_\_\_

By (signature): \_\_\_\_\_

Name (type or print): \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Attachment A to Appendix 1  
Interconnection Request**

**LARGE GENERATING FACILITY DATA**

**UNIT RATINGS**

kVA \_\_\_\_\_ °F \_\_\_\_\_ Voltage \_\_\_\_\_  
 Power Factor \_\_\_\_\_  
 Speed (RPM) \_\_\_\_\_ Connection (e.g. Wye) \_\_\_\_\_  
 Short Circuit Ratio \_\_\_\_\_ Frequency, Hertz \_\_\_\_\_  
 Stator Amperes at Rated kVA \_\_\_\_\_ Field Volts \_\_\_\_\_  
 Max Turbine MW \_\_\_\_\_ °F \_\_\_\_\_

**COMBINED TURBINE-GENERATOR-EXCITER INERTIA DATA**

Inertia Constant, H = \_\_\_\_\_ kW sec/kVA  
 Moment-of-Inertia,  $WR^2$  = \_\_\_\_\_ lb. ft.<sup>2</sup>

**REACTANCE DATA (PER UNIT-RATED KVA)**

	DIRECT AXIS	QUADRATURE AXIS
Synchronous – saturated	$X_{dv}$ _____	$X_{qv}$ _____
Synchronous – unsaturated	$X_{di}$ _____	$X_{qi}$ _____
Transient – saturated	$X'_{dv}$ _____	$X'_{qv}$ _____
Transient – unsaturated	$X'_{di}$ _____	$X'_{qi}$ _____
Subtransient – saturated	$X''_{dv}$ _____	$X''_{qv}$ _____
Subtransient – unsaturated	$X''_{di}$ _____	$X''_{qi}$ _____
Negative Sequence – saturated	$X_{2v}$ _____	
Negative Sequence – unsaturated	$X_{2i}$ _____	
Zero Sequence – saturated	$X_{0v}$ _____	
Zero Sequence – unsaturated	$X_{0i}$ _____	
Leakage Reactance	$X_{lm}$ _____	
	_____ (Saturated)	
	_____ (Unsaturated)	

**FIELD TIME CONSTANT DATA (SEC)**

Open Circuit	$T'_{do}$ _____	$T'_{qo}$ _____
Three-Phase Short Circuit Transient	$T'_{d3}$ _____	$T'_q$ _____
Line to Line Short Circuit Transient	$T'_{d2}$ _____	
Line to Neutral Short Circuit Transient	$T'_{d1}$ _____	
Short Circuit Subtransient	$T''_d$ _____	$T''_q$ _____
Open Circuit Subtransient	$T''_{do}$ _____	$T''_{qo}$ _____

### ARMATURE TIME CONSTANT DATA (SEC)

Three Phase Short Circuit	$T_{a3}$
Line to Line Short Circuit	$T_{a2}$
Line to Neutral Short Circuit	$T_{a1}$

NOTE: If requested information is not applicable, indicate by marking "N/A."

### MW CAPABILITY AND PLANT CONFIGURATION LARGE GENERATING FACILITY DATA

#### ARMATURE WINDING RESISTANCE DATA (PER UNIT)

Positive	$R_1$
Negative	$R_2$
Zero	$R_0$

Rotor Short Time Thermal Capacity  $I_2^2 t =$  \_\_\_\_\_  
 Field Current at Rated kVA, Armature Voltage and PF = \_amps  
 Field Current at Rated kVA and Armature Voltage, 0 PF = \_amps  
 Three Phase Armature Winding Capacitance = \_microfarad  
 Field Winding Resistance = ohms °C  
 Armature Winding Resistance (Per Phase) = \_ohms °C

### CURVES

Provide Saturation, Vee, Reactive Capability, Capacity Temperature Correction curves.  
 Designate normal and emergency Hydrogen Pressure operating range for multiple curves.

### GENERATOR STEP-UP TRANSFORMER DATA RATINGS

Capacity	Self-cooled/ Maximum Nameplate
____kVA	

Voltage Ratio(Generator Side/System side/Tertiary)  
 \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_ kV

Winding Connections (Low V/High V/Tertiary V (Delta or Wye))  
 \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

Fixed Taps Available \_\_\_\_\_

Present Tap Setting \_\_\_\_\_

### IMPEDANCE

Positive  $Z_1$  (on self-cooled kVA rating) \_\_\_\_\_ % \_\_\_\_\_ X/R  
Zero  $Z_0$  (on self-cooled kVA rating) \_\_\_\_\_ % \_\_\_\_\_ X/R

### EXCITATION SYSTEM DATA

Identify appropriate IEEE model block diagram of excitation system and power system stabilizer (PSS) for computer representation in power system stability simulations and the corresponding excitation system and PSS constants for use in the model.

### GOVERNOR SYSTEM DATA

Identify appropriate IEEE model block diagram of governor system for computer representation in power system stability simulations and the corresponding governor system constants for use in the model.

### WIND GENERATORS

Number of generators to be interconnected pursuant to this Interconnection Request:

\_\_\_\_\_

Elevation: \_\_\_\_\_ Single Phase \_\_\_\_\_ Three Phase

Inverter manufacturer, model name, number, and version:

\_\_\_\_\_

List of adjustable setpoints for the protective equipment or software:

\_\_\_\_\_

Note: A completed General Electric Company Power Systems Load Flow (PSLF) data sheet or other compatible formats, such as IEEE and PTI power flow models, must be supplied with the Interconnection Request. If other data sheets are more appropriate to the proposed device, then they shall be provided and discussed at Scoping Meeting.

# **SEMI-DISPATCHABLE RENEWABLE POWER PURCHASE AGREEMENT**

**BETWEEN**

**PUBLIC SERVICE COMPANY OF COLORADO  
("COMPANY")**

**AND**

**[REDACTED]**  
**("SELLER")**



**- [date] -**

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Power Purchase Agreement,  
between  
**PUBLIC SERVICE COMPANY OF COLORADO**  
AND  
[REDACTED]

*Note to Bidders:* Note to Bidders: This Model Power Purchase Agreement contemplates a solar thermal facility with supplemental natural gas generation to firm up the capacity. Bidders may propose other configurations structures. Certain provisions in this Model may not be applicable to bidder's particular bid or technology and/or other provisions may need to be added. Bidders proposing technologies other than solar thermal should propose necessary Model PPA changes. See the RFP for instructions related to the Model PPA.

*Bidders proposing technologies other than solar thermal should also make necessary changes.*

This Power Purchase Agreement (this "PPA") is made this [REDACTED] day of [REDACTED], 20[REDACTED], by and between (i) **Public Service Company of Colorado**, a Colorado corporation with a principal place of business at 1800 Larimer Street, Suite 1000, Denver, Colorado 80202 ("Company"), and (ii) [REDACTED], an LLC with a principal place of business at [REDACTED] ("Seller"). Company and Seller are hereinafter referred to individually as a "Party" and collectively as the "Parties".

WHEREAS Seller desires to develop, design, construct, interconnect, own, operate and maintain a solar thermal electric generating plant that incorporates a natural gas-fired combustion system designed to supplement the collection of solar thermal energy, with an expected total net generating capability of approximately \_\_\_\_\_ MW, and which is further defined below as the "Facility"; and

WHEREAS the inclusion of supplemental firming capability as part of Seller's Facility is intended to provide a more reliable capacity resource to the Company than a similar project without such capacity firming technology would provide utilizing the same solar resource; and

WHEREAS Seller desires to sell and deliver and Company desires to accept and receive certain products and services generated and delivered from the Facility to the Point of Delivery at the prices and on the terms and conditions set forth in this PPA.

NOW THEREFORE, in consideration of the mutual covenants herein contained, the sufficiency and adequacy of which are hereby acknowledged, the Parties agree to the following:

## Article 1 - Rules of Interpretation

### 1.1 Interpretation.

(A) Capitalized terms listed in this PPA shall have the meanings set forth in Exhibit A - Definitions or as otherwise defined in this PPA, whether in the singular or the plural or in the present or past tense. Words not otherwise defined in this PPA shall (i) have meanings as commonly used in the English language, (ii) be given their generally accepted meaning consistent with Good Utility Practice, and (iii) be given their well known and generally accepted technical or trade meanings.

(B) The following rules of interpretation shall apply: (1) The masculine shall include the feminine and neuter; (2) references to "Articles," "Sections," or "Exhibits" shall be to articles, sections, or exhibits of this PPA except as the context may otherwise require; (3) all Exhibits are incorporated into this PPA; *provided, however, that* in the event of a conflict with the terms of this PPA, the PPA shall control; and (4) use of the words "include" or "including" or similar words shall be interpreted as "include without limitation" or "including, without limitation."

(C) This PPA was negotiated and prepared by both Parties with the advice and participation of counsel. None of the provisions hereof shall be construed against one Party on the ground that such Party is the author of this PPA or any part hereof.

### 1.2 Interpretation with Other Agreements.

(A) This PPA does not provide authorization for Seller to interconnect the Facility or inject power into the Transmission Authority's System. Seller shall contract for interconnection services in accordance with the applicable Transmission Tariff. Seller acknowledges that the Interconnection Agreement is/will be a separate contract and that (i) this PPA is not binding on the Transmission Authority, (ii) this PPA does not create any rights between Seller and the Transmission Authority, and (iii) the Interconnection Agreement does not modify the Parties' rights and obligations under this PPA. The applicable Transmission Authority shall be deemed to be a separate and unaffiliated contracting party for purposes of this PPA, regardless whether such Transmission Authority is Company or an Affiliate of Company.

(B) This PPA does not provide for the supply of retail power for purposes of operating the Facility, including start-up, shut-down, HVAC or any other purpose ("House Power"). Seller shall contract with the utility providing House Power to the Site (the "Local Provider") for the supply of House Power. Seller acknowledges that (i) Seller must obtain House Power independently, (ii) this PPA is not binding on the Local Provider, (iii) this PPA does not create any rights between Seller and the Local Provider, and (iv) Seller's contract for House Power does not affect the Parties' rights and obligations under this PPA. For purposes of this PPA, the Local Provider shall be deemed to be a separate and unaffiliated contracting party regardless whether the Local Provider is Company or an Affiliate of Company; *provided that*, if (and only if) the Local

Provider is Company or an Affiliate of Company, Seller may obtain House Power by self-generating and netting such self-generation from the Contract Energy provided to Company unless prohibited by Applicable Law

1.3 Good Faith and Fair Dealing. The Parties shall act reasonably and in accordance with the principles of good faith and fair dealing in the performance of this PPA. Unless expressly provided otherwise in this PPA, (a) when this PPA specifically references the consent, approval, or similar action by a Party, such consent or approval shall not be unreasonably withheld, conditioned or delayed, and (b) wherever this PPA specifically gives a Party a right to determine, require, specify or take similar action with respect to a matter, such determination, requirement, specification or similar action shall be Commercially Reasonable.

## **Article 2 - Term and Termination**

This PPA shall become effective as of the date of its execution, and shall remain in full force and effect until the 11:59 pm on the last Day of the calendar month during which occurs the [ ]<sup>th</sup> anniversary of the Commercial Operation Date (the "Scheduled Termination Date"), subject to early termination as provided in this PPA. Applicable provisions of this PPA shall continue in effect after termination to the extent necessary to (i) provide for final billings, payments and adjustments, (ii) enforce or complete the duties, obligations or responsibilities of the Parties (including under Section 12.1(B)-(D), Section 12.2(C), Section 12.3(B)-(C), Article 13 and Article 17 below), and (iii) address any remedies or indemnifications arising prior to termination.

## **Article 3 - Facility Description**

3.1 Description. Seller shall construct, interconnect, own, operate, and maintain the Facility, as further described in Exhibit C - Facility Description. A scaled map that identifies the Site, the location of the Facility, the Interconnection Point and Interconnection Facilities, the Point of Delivery, the Fuel Delivery Point, and other important facilities, is included in Exhibit C - Facility Description.

### **3.2 General Design of the Facility**

(A) Seller shall design, construct, operate and maintain the Facility according to Good Utility Practices and the Interconnection Agreement.

(B) The Facility shall include all equipment specified in Exhibit C - Facility Description and otherwise necessary to fulfill Seller's obligations under this PPA, including all equipment necessary (i) to meet the requirements of Exhibit I - Operating Standards, and (ii) to interconnect successfully with the Transmission Authority's System for the delivery of Contract Energy to the Point of Delivery.

(C) The total nameplate capacity of the Facility shall be [ ] MW.

(D) The Combustion Units Net Capability shall be [ ] MW.

(E) The Solar Units nameplate capacity shall be [ ] MW AC.

(F) The Facility shall be capable of starting the Facility's Combustion Units, synchronizing such Combustion Units to the Transmission Authority's System and having all such Combustion Units generating at their Minimum Loading levels, as specified in Exhibit C - Facility Description, within ten (10) minutes of receiving the Combustion Unit start dispatch request from Company' EMCC [*applicable to quick start facilities*]; and

(G) The Facility shall have suitable solar radiation and other meteorological meters of the types necessary to fully characterize the solar resource and ambient conditions to support calculations under this PPA including the estimation of the quantity of Solar Energy subject to Section 8.1.

#### **Article 4 - Implementation**

##### **4.1 Project Development.**

(A) Seller shall enter into and perform at its expense all contracts required for (i) the engineering, procurement, construction, acquisition, manufacture, delivery, installation and operation of the Facility, and (ii) the generation and delivery of Contract Energy from the Facility to the Point of Delivery (generally, the "Construction Contracts") with qualified and experienced contractors. Upon written request by Company, Seller shall provide copies of any or all Construction Contracts to Company. All Construction Contracts obtained by Company shall be deemed Confidential Information subject to Section 20.19 below.

(B) In its efforts to achieve COD, Seller shall use Commercially Reasonable Efforts to achieve the milestones set forth in Exhibit B – Construction Milestones, and shall notify Company promptly following achievement of each such milestone.

(C) Prior to the Commercial Operation Date, Seller shall (i) submit monthly progress reports to Company in a form agreed by the Parties advising Company of the current status of each Construction Milestone, any significant developments or delays along with an action plan for making up delays, and Seller's best estimate of the Commercial Operation Date; (ii) provide copies of reports submitted to the Facility Lender relating to status, progress and development of the project, and (iii) invite Company to participate in monthly meetings to discuss the progress reports, answer questions, and assess the schedule. Seller shall make all relevant counterparties under the Construction Contracts available to Company, upon request, in order to keep Company fully informed on the status of development. Each report delivered to Company under this paragraph (C) shall be deemed Confidential Information subject to Section 20.19

(D) Upon request, Company shall have the right to monitor the construction, start-up, testing, and operation of the Facility at the Site to verify

compliance with this PPA, *provided, however, that* Company shall comply with all of Seller's applicable safety and health rules and requirements.

(E) Neither Company's review of Construction Contracts and Seller's reports, nor its discussions with Seller and its contractors, nor its monitoring of development and construction the Facility, shall be construed as endorsement by Company of the design, engineering, construction or testing thereof nor as any express or implied warranty as to the performance, safety, durability, or reliability of the Facility.

#### 4.2 Environmental Matters.

(A) No later than 60 Days following PUC Approval, Seller shall complete and provide to Company a comprehensive independent "Phase I" environmental investigation of the Site or its equivalent (including associated raw data, if requested by Company). Seller shall notify Company promptly (i) if and to what extent any Environmental Contamination on the Site will preclude or interfere with Seller's ability to perform its obligations under this PPA, and (ii) Seller's plan for remediation thereof that would allow Seller to perform this PPA as and when due. The Phase I report delivered to Company under this paragraph shall be deemed Confidential Information for purposes of Section 20.19.

(B) Throughout the Term, Seller promptly shall

1. disclose to Company and remediate any Environmental Contamination identified at the Site;
2. provide to Company copies of any further environmental assessments or investigations of the Site (including associated raw data, if requested by Company); and
3. disclose to Company the existence of any enforcement, legal, or regulatory action or proceeding relating to any alleged presence of Environmental Contamination and/or the alleged violation of any Applicable Law related to the protection of endangered, migratory or other protected species.

(C) For purposes hereof:

1. "Environmental Contamination" means the introduction or presence of Hazardous Materials at such levels, quantities or location, or of such form or character, that (i) requires remediation under Applicable Law, (ii) present a material risk that the Site will not be available or usable for the purposes contemplated by this PPA, and/or (iii) will preclude or interfere with Seller's ability to perform its obligations under this PPA as and when due.
2. "Hazardous Materials" means any substance, material, gas, or particulate matter that is regulated by any Governmental Authority as an environmental pollutant or dangerous to public health, public welfare, or the natural environment (including protection of non-human forms of life, land, water, groundwater, and air), including any material or substance that is (i) defined as "toxic," "polluting," "hazardous



waste,” “hazardous material,” “hazardous substance,” “extremely hazardous waste,” “solid waste” or “restricted hazardous waste” under any provision of local, state, or federal law; (ii) petroleum, including any fraction, derivative or additive; (iii) asbestos; (iv) polychlorinated biphenyls; (v) radioactive material; (vi) designated as a “hazardous substance” pursuant to the Clean Water Act, 33 U.S.C. §1251 *et seq.* (33 U.S.C. §1251); (vii) defined as a “hazardous waste” pursuant to the Resource Conservation and Recovery Act, 42 U.S.C. §6901 *et seq.* (42 U.S.C. §6901); (viii) defined as a “hazardous substance” pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §9601 *et seq.* (42 U.S.C. §9601); (ix) defined as a “chemical substance” under the Toxic Substances Control Act, 15 U.S.C. §2601 *et seq.* (15 U.S.C. §2601); or (x) defined as a pesticide under the Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. §136 *et seq.* (7 U.S.C. §136).

#### 4.3 Permits.

(A) Seller shall obtain and pay for all Permits necessary or advisable under Good Utility Practice for the construction, ownership, operation and maintenance of the Facility and the generation and delivery of the Contract Capacity and Contract Energy from the Facility to Company. Seller shall keep Company informed as to the status of its permitting efforts and shall provide Company the opportunity to review and comment on major applications for draft and final Permits. Seller shall promptly inform Company of (i) any Permits which Seller is unable to obtain, that are delayed, limited, suspended, terminated or otherwise constrained, along with a statement of whether and to what extent this circumstance may limit or preclude Seller’s ability to perform under this PPA, and (ii) Seller’s plan to overcome such issue(s) to allow Seller to perform this PPA as and when due. Company shall have the right to inspect and obtain copies of all Permits held by Seller.

(B) Seller represents and warrants to Company that, except for those Permits identified in Exhibit F - Needed Permits (each of which Seller anticipates will be obtained by Seller in the ordinary course of business not later than the applicable date set forth in Exhibit F – Needed Permits), all Permits and other actions required or recommended by applicable Governmental Authorities to authorize Seller’s execution, delivery and performance of this PPA have been duly obtained and are in full force and effect.

(C) Throughout the Term, Seller promptly shall disclose to Company the existence of any enforcement, legal, or regulatory action or proceeding relating to the alleged violation of any Permit held by Seller, which proceeding (if successful) could materially interfere with Seller’s performance of this PPA.

(D) For purposes hereof, “Permits” means all applicable construction, land use, air quality, emissions control, environmental, protected species, and other permits, licenses and approvals from any Governmental Authority for construction, ownership, operation and maintenance of the Facility and the generation and delivery of Contract Energy therefrom.

4.4 Governmental Inspections. Seller shall notify Company (i) sufficiently in advance of any known upcoming significant inspections by any Governmental Authority relating to the Facility to allow Company the opportunity to attend, and (ii) promptly after any unscheduled or impromptu inspection with a description of the nature and outcome of such inspection.

4.5 Commercial Operation.

(A) Seller shall cause COD to occur no later than [REDACTED], 20[REDACTED] (the "Target COD"). Company shall not be obligated to accept and establish a Commercial Operation Date earlier than [REDACTED], 20[REDACTED] (*insert date that is 92 days prior to Target COD*).

(B) Seller shall notify Company of the date on which Seller believes the Facility has achieved Commercial Operation (a "COD Notice"). A COD Notice shall include all necessary supporting documentation of the satisfaction or occurrence of all COD Conditions. Company shall have 10 Business Days to review a COD Notice and raise any Commercially Reasonable objection to Seller's satisfaction of any of the COD Conditions, *provided, however*, that Seller's COD Notice shall be deemed accepted by Company as of the date of delivery if Company fails to object within such time period. Seller may notify Company of completion of one or more COD Conditions on an individual and incremental basis prior to COD, *provided, however*, that Company shall in all cases have up to 10 Business Days to review and object to each such notice.

(C) For purposes hereof:

1. the "Commercial Operation Date" or "COD" means 12:01 am on the Day following the date on which Company receives Seller's COD Notice, without valid objection thereto by Company; and

2. the "COD Conditions" are:

a. an officer of Seller, authorized to bind Seller and who is familiar with the Facility, has provided written confirmation that (1) all necessary and material Permits have been obtained and are in full force and effect, (2) Seller is in compliance with this PPA in all material respects, and (3) the Facility is available to commence normal operations in accordance with Seller's operating agreements, Construction Contracts, and applicable manufacturers' warranties

b. Seller has made all necessary arrangements to obtain and pay the Local Provider for House Power;

c. Seller and the Transmission Authority have signed the Interconnection Agreement, and Seller has received no notice of breach thereof from the Transmission Authority;

d. the Facility is interconnected to the Transmission Authority's System, and has been fully tested, achieved initial synchronization, and has been successfully operated at a generation level acceptable to the Transmission

Authority, without experiencing any abnormal or unsafe operating conditions on any interconnected system;

e. the Facility meets all criteria for Energy Resource Interconnection Service, under the Interconnection Agreement and the Transmission Tarif

f. the Facility is configured and available for operation in a manner to permit accreditation of the Facility as a Capacity Resource, in an amount substantially equal to its Net Capability;

g. Seller has made all arrangements necessary to deliver Contract Energy from the Facility to the Point of Delivery during the Term;

h. Seller has obtained and provided to Company a certification from an independent registered professional engineer stating that the Facility has been completed in all material respects, except for items that do not have a Material Adverse Effect on the ability of the Facility to operate in compliance with this PPA.

i. Seller has demonstrated (1) the reliability of the Facility's communications systems and communication interface with Company's EMCC and the Facility is capable of receiving and reacting to signals from Company's SCADA System, and (2) all AGC equipment is installed and operational in accordance with the parameters set forth in Exhibit C - Facility Description and Exhibit I - Operating Standards

j. the Facility has achieved Successful Starts and operated within the parameters required by Exhibit I - Operating Standards; and

k. all fuel supply, fuel storage, and fuel delivery arrangements necessary to operate the Facility in compliance with this PPA have been completed, tested and are in effect.

(D) In the event that there is a COD Delay with respect to one, but not all, of the Solar Units and at least a sufficient amount of Combustion Units at the Facility to firm up the applicable amount of Solar Capability, Company in its sole discretion may issue a "Partial Completion Declaration" stating that Commercial Operation Date has been achieved with respect to such Solar and/or Combustion Units.

1. From and after the date of a Partial Completion Declaration, all of the rights and duties of the Parties under this PPA shall apply in respect of such Solar and/or Combustion Units included in the Partial Completion Declaration, including payments for capacity and energy under Article 8, which shall be prorated based on the capacity of the Solar Unit(s) and Combustion Unit(s) included in the Partial Completion Declaration, the dispatch accreditation and maintenance requirements of this PPA

2. Liquidated Delay Damages, if any, shall be prorated for any Solar Units and/or Combustion Unit(s) not included in the Partial Completion Declaration.

3. In the event that the Solar Unit(s) and/or Combustion Unit(s) not included in the Partial Completion Declaration fail to achieve the COD Conditions by the cure period set forth in Section 12.2 and/or in any Lender Consent, Company shall have the right and option, by notice to Seller, either (i) to declare an Event of Default and terminate this PPA entirely, as permitted and with the consequences set forth in Section 12.2, or (ii) to terminate this PPA only as to the Solar Unit(s) and/or Combustion Unit(s) that failed to achieve the COD Conditions, and collect prorated Termination Liquidated Damages accordingly, in which case the balance of this PPA shall survive as to the Solar Unit(s) and/or Combustion Unit(s) included in the Partial Completion Declaration.

(E) For purposes hereof, the first "Commercial Operation Year" shall mean the period starting at 12:01 a.m. on the Commercial Operation Date and ending at 11:59 pm on the last Day of the calendar month in which the first anniversary of COD occurs, and each successive "Commercial Operation Year" shall mean the 12-month period following the prior Commercial Operation Year.

#### 4.6 Pre-COD Testing.

(A) Seller shall provide Company and Transmission Authority with the information necessary to have the Facility registered with the Transmission Authority for inclusion in any generation modeling maintained by the Transmission Authority, sufficiently in advance to allow the Facility to be registered in such model at least four months prior to generating any Pre-COD Test Energy. Company shall cooperate reasonably to assist in the registration of the Facility to allow generation of Pre-COD Test Energy.

(B) Seller shall coordinate the production and delivery of Pre-COD Test Energy with Company, upon such Commercially Reasonable prior Notice as Company and the Transmission Authority may reasonably request. In particular, (i) upon request, Company shall procure and arrange delivery of natural gas fuel needed for pre-COD testing of the Facility, and (ii) Seller shall reimburse Company for all associated commodity, imbalance, demand charges, transportation and other ancillary costs incurred by Company in connection therewith.

(C) Seller shall invoice and Company shall purchase all Pre-COD Test Energy (whether generated from natural gas fuel or fuel oil *if applicable*) from Seller at the Test Energy Rate. For purposes hereof, "Pre-COD Test Energy" means energy generated by the Facility prior to COD, required to satisfy the COD Conditions.

(D) Seller shall not sell any capacity, energy or any other products or services from the Facility to any third party without the express prior written consent of Company.

## **Article 5 - Delivery**

### **5.1 Arrangements.**

(A) Seller shall be responsible for arranging, maintaining and paying the costs associated with the interconnection of the Facility to the Transmission Authority's System. Seller shall comply with the Transmission Authority's requirements for interconnection and shall comply with all requirements set forth in the applicable Transmission Tariff. Seller's interconnection application shall request that the Transmission Authority study the Facility for both Energy Resource Interconnection Service and Network Resource Interconnection Service under the Transmission Tariff. The resulting Interconnection Agreement must include Energy Resource Interconnection Service at a minimum. Seller shall cooperate reasonably in any request by Company to assist in Company's efforts to have the Facility approved as a Network Resource or equivalent classification pursuant to the applicable Transmission Tariff.

(B) Seller hereby authorizes Company to contact, discuss and obtain information concerning the Facility and the Interconnection Facilities directly with/from the Transmission Authority. Promptly upon request by Company, Seller shall confirm such authorization in writing to the Transmission Authority and any applicable transmission owners, in such form as may be requested by Company or the Transmission Authority.

(C) To the extent required, Company shall arrange and be responsible for scheduling and transmission services at and beyond the Point of Delivery. To the extent applicable, Company shall be the market participant for the Facility, as defined by the Transmission Authority.

(D) Seller shall be responsible for all interconnection, electric losses, transmission and ancillary service arrangements and costs required to deliver, on a firm transmission service basis, the Contract Energy from the Facility to the Point of Delivery.

(E) Company shall be responsible for all electric losses, transmission and ancillary service arrangements and costs required to transmit and deliver Contract Energy beyond the Point of Delivery.

### **5.2 Market Changes.**

(A) If at any time during the Term, the Transmission Authority changes or the facilities at the Point of Delivery cease to be subject to the Transmission Tariff, the Parties shall cooperate in good faith to facilitate the delivery of Contract Energy from the Point of Delivery to Company's load, at the least possible cost to the Parties, consistent with this PPA to the extent possible.

(B) If at any time during the Term, the Transmission Authority, the ERO or any other Governmental Authority with jurisdiction imposes an organized market or Company elects to join a regional transmission organization or participate in an

organized market which changes the manner in which the Facility is scheduled and dispatched, the Parties shall cooperate in good faith to change their protocols for operation of the Facility accordingly, at the least possible cost to the Parties, consistent with this PPA to the extent possible

(C) In the event that improvements to the Facility or other expenditures by Seller are necessary to comply with this Section 5.2, which expenditures must be capitalized by Seller under generally accepted accounting principles consistently applied, Company shall reimburse Seller one percent (1%) of such expenditures per month, beginning with the first month following substantial completion of such improvements and ending upon the earlier to occur of (i) the 100<sup>th</sup> month following the start of such reimbursements, and (ii) the end of the Term of this PPA.

### 5.3 Electric Metering Devices.

(A) Electric Metering Devices shall be installed in order to separately meter Solar Energy and Natural Gas Generated Energy generated by the Facility. All Electric Metering Devices used to measure energy shall be owned, installed, and maintained in accordance with the Interconnection Agreement at no cost to Company.

1. Meter readings will be adjusted to reflect losses from the Electric Metering Devices to the Point of Delivery in accordance with applicable manufacturers' parameters or as otherwise agreed by the Parties.

2. Seller shall arrange any necessary authorization to provide Company access to all Electric Metering Devices for purposes of administering this PPA and shall provide Company the opportunity to be present at any time when such Electric Metering Devices are to be inspected, tested or adjusted.

(B) Either Party may elect to install and maintain, at its own expense, backup metering devices ("Back-Up Metering"), *provided, however*, that the specifications, installation and testing of any such Back-Up Metering shall be consistent with the requirements for the Electric Metering Devices. Upon written request from the other Party, the installing Party shall test the Back-Up Metering. The actual cost of any such test shall be borne by the Party requesting the test, unless, upon such test, Back-Up Metering is inaccurate by more than one percent, in which case the cost of the retest shall be borne by the installing Party. If requested in writing, the installing Party shall provide copies of any inspection or testing reports to the requesting Party.

(C) If an Electric Metering Device or Back-Up Metering, fails to register, or if the measurement is inaccurate by more than one percent, an adjustment shall be made correcting all measurements as follows:

1. If the Electric Metering Device is found to be defective or inaccurate, the Parties shall use Back-up Metering, if installed, to determine the amount of such inaccuracy, *provided, however*, Back-Up Metering has been tested and maintained and adjusted for losses on the same basis as the Electric Metering Device. If Back-Up Metering is not installed, or Back-Up Metering is also found to be inaccurate

by more than one percent, the Parties shall use the best available information for the period of inaccuracy, adjusted for losses to the Point of Delivery, in accordance with applicable manufacturers' parameters or as otherwise agreed by the Parties

2. If the Parties cannot agree on the actual period during which the inaccurate measurements were made, the period shall be the shorter of (i) the last one-half of the period from the last previous test of the Electric Metering Device to the test that found the Electric Metering Device to be defective or inaccurate, or (ii) 180 Days immediately preceding the test that found the Electric Metering Device to be defective or inaccurate

3. To the extent that an adjustment period covers a period of deliveries for which payment has already been made by Company, Company shall use the corrected measurements as determined in accordance with this Article 5 to re-compute the amount due for the period of the inaccuracy and shall subtract the previous payments made by Company for this period from such re-computed amount. The net difference shall be reflected as an adjustment on the next regular invoice in accordance with Article 9.

#### 5.4 Natural Gas Fuel.

(A) Seller shall be solely responsible for all natural gas interconnection, transportation, delivery and metering arrangements, and all associated costs, required to receive natural gas fuel to operate the Combustion Unit(s). Seller shall, at its sole expense, construct, operate and maintain the pipelines, compressors, meters, heaters, filter/separation equipment, electronics, and other necessary equipment, of sufficient capacity and industrial specifications to receive, regulate, meter and transport natural gas fuel from the Fuel Delivery Point to the Combustion Unit(s), to allow for full operation of the Combustion Unit(s) on natural gas fuel over the Term. If requested by Company, Seller shall install (at Company's cost) check metering, in connection with the natural gas custody transfer metering, on Seller's downstream natural gas facilities.

(B) Company may elect at its sole option to interconnect the Facility with one or more additional natural gas delivery systems at or near the Fuel Delivery Point identified in Exhibit C - Facility Description and to designate such additional interconnection(s) as an additional Fuel Delivery Point, *provided, however, that* (i) Company shall be responsible for installing and paying for all pipelines, valves, electronics, metering and other facilities, permits, contracts and construction costs required to establish such additional interconnection, up to Seller's fuel interconnection facilities; (ii) such additional interconnection will not interfere with the operation of the Facility, other than during the time necessary to physically connect the additional interconnecting facilities; and (iii) such additional interconnection will deliver Acceptable Natural Gas Fuel to the new Fuel Delivery Point. Seller shall grant Company or its designee an easement and access to the vicinity of the Fuel Delivery Point for the purpose of constructing and maintaining any such additional natural gas interconnection(s).

(C) Company shall procure and pay for all natural gas fuel for the generation of Natural Gas Generated Energy, from and after COD. Seller shall accept delivery of all natural gas fuel delivered to any Fuel Delivery Point for the purpose of generating the Natural Gas Generated Energy, *provided, however*, that Seller shall not be obligated to accept gas fuel that is not Acceptable Natural Gas Fuel if such nonconformance could reasonably be expected to have a Material Adverse Effect on the Facility ("Non-Conforming Gas"). Company shall have no liability to Seller for the delivery of Non-Conforming Gas to the Facility by any Upstream Pipeline, *provided* that Company shall provide reasonable assistance to Seller in making any consequent claim against the delivering Upstream Pipeline if Seller pays or reimburses Company for any associated legal fees and other out-of-pocket costs incurred by Company.

(D) Company may elect at its sole option whether to obtain and utilize firm gas transportation service or non-firm gas transportation service for the delivery of natural gas fuel to the Fuel Delivery Point.

(E) Title to all natural gas fuel shall be retained by Company at and from the Fuel Delivery Point and/or storage tank(s), as applicable, to the burner tips of the Combustion Units. As between the Parties, however, Seller shall be deemed to be in exclusive control and possession of all natural gas fuel from and after the Fuel Delivery Point until such fuel has been consumed in the Facility, so Seller shall bear the risk of loss of any fuel beyond the Fuel Delivery Point prior to its consumption in the Facility, and shall be responsible for any costs, damages, fines or penalties associated with leaks, spills, remediation, or other liabilities associated with such fuel. Seller shall promptly report and resolve any natural gas leaks or spills beyond the Fuel Delivery Point, at its sole expense, in accordance with Applicable Laws.

(F) If the Facility includes any natural gas-fired equipment that is not used for the direct conversion of natural gas fuel to electric energy (such as natural gas-fired auxiliary boiler(s), in-line heater(s) used to heat the natural gas fuel, or building heating equipment), Seller shall separately meter and supply, at Seller's expense, the natural gas fuel consumed by such equipment.

(G) Unless otherwise agreed by the Parties, Seller shall be the operator of the Fuel Delivery Point(s). Seller shall be responsible for all volume confirmations, allocations and balancing functions with the Upstream Pipeline, as well as gas regulation and maintenance and testing arrangements for all natural gas metering at such Fuel Delivery Point(s). Seller shall also be responsible for all natural gas physical flow activities, such as flow control, valve operation, and contacting the delivering pipeline to initiate gas flow to the Fuel Delivery Point.

(H) All natural gas custody transfer metering at the Fuel Delivery Point(s) shall be installed, maintained and tested in accordance with accepted natural gas industry standards and shall comply with the Upstream Pipeline's tariff requirements. Seller shall test the natural gas meter prior to COD and at least every two years thereafter (or at such more frequent intervals as may be required by the Upstream Pipeline), and shall provide written meter test results to Company within 30 days



following completion. Company shall have the right to require additional tests at Company's expense. Seller shall provide Company with at least 10 Business Days advance notice of each test and a representative of Company shall be permitted to witness such tests, *provided, however*, such Company representative shall not unreasonably interfere with or disrupt the activities of Seller and shall comply with all of Seller's safety standards. Seller shall provide copies of all test data and testing reports to Company. Disputes regarding the allocation of natural gas volumes and associated billings with the Upstream Pipeline, including meter reading adjustments for prior periods, shall be resolved in accordance with the Upstream Pipeline's tariff.

#### 5.5 Fuel Oil.

(A) Seller shall install Fuel Oil Storage Facilities as part of the Facility, consistent with Exhibit T - Fuel Oil. Seller shall maintain and calibrate the fuel oil meter(s) from time to time in accordance with Good Utility Practices.

(B) Seller shall fill the fuel oil storage tank(s) at the Facility with Acceptable Fuel Oil prior to the Commercial Operation Date, in time to conduct required pre-COD testing, in such volumes as may be directed by Company and at a cost approved by Company in writing. After COD, Seller shall invoice and Company shall reimburse Seller for the costs incurred by Seller for the actual fuel oil delivered for such initial fill of the fuel oil storage tank(s), less the cost of fuel oil consumed by the Facility prior to the Commercial Operation Date.

(C) Following the initial fill of the fuel oil storage tank(s), Company shall arrange and pay for all subsequent fills of such tank(s), as and when desired by Company. Company shall afford Seller the opportunity to test Company's chosen fuel oil prior to its delivery into the fuel oil storage tank(s), and to reject any fuel oil that does not constitute Acceptable Fuel Oil.

(D) Seller shall be solely responsible for (i) maintenance of the fuel oil in the Fuel Oil Storage Facilities, and (ii) the removal and replacement of any degraded and unusable fuel oil, at its expense. Either Party, at its own expense, may conduct fuel oil tests to determine the extent of degradation, if any. Included in Exhibit T – Fuel Oil is the Fuel Oil Maintenance Plan for the Facility.

(E) Company shall, in its sole discretion, determine when and if the Combustion Unit(s) shall be dispatched using fuel oil as the combustion fuel to generate Natural Gas Generated Energy, subject to the Fuel Oil Maintenance Plan and the emissions limitations in Seller's Permits.

(F) Seller Title to fuel oil shall be retained by Company at and from the storage tank(s) to the burner tips of the Combustion Units. As between the Parties, however, Seller shall be deemed to be in exclusive control and possession of all fuel oil from and after delivery in into the fuel oil storage tank(s) until such fuel has been consumed in the Facility, so Seller shall bear the risk of loss of fuel oil following its delivery into the oil storage tank(s) and shall be responsible for any costs, damages,

finances or penalties associated with leaks, spills, remediation, or other liabilities associated with such fuel oil. Seller shall promptly report and resolve any fuel oil leaks or spills at its sole expense in accordance with Applicable Laws.

(G) At the end of the Term, (i) Seller shall pay to Company the then-current market value of the fuel oil in storage at the Facility, and (ii) such fuel oil shall be and become the property of Seller.

## **Article 6 - Conditions Precedent**

### **6.1 PUC Approval.**

(A) No later than 45 Days after the date of this PPA, Company may apply to the PUC for PUC Approval. If Company fails to apply for PUC Approval within 45 Days following the date of this PPA, Company shall be deemed to have waived its right to obtain PUC Approval and to terminate this PPA under this Section 6.1, and this PPA shall remain in full force and effect thereafter.

(B) If Company applies for PUC Approval, Company shall use Commercially Reasonable Efforts to obtain PUC Approval as soon as reasonably practicable, and Seller shall cooperate with such effort

(C) If Company applies for PUC Approval, Company shall have the right to terminate this PPA, without any further financial or other obligation to Seller as a result of such termination, by notice to Seller:

1. at any time within 30 Days following issuance of a written order by the PUC rejecting PUC Approval, or granting PUC Approval with conditions unacceptable to Company in its sole discretion;

2. at any time between the 180<sup>th</sup> and 215<sup>th</sup> Day following Company's application for PUC Approval, if prior to the date of such termination the PUC has not issued a written order granting or rejecting PUC Approval

3. at any time within 30 Days following timely request for reconsideration (in whole or in any material part) by any third party with standing, of a written PUC order granting PUC Approval; and/or

4. at any time within 30 Days following timely appeal by any third party with standing, of a written PUC order granting PUC Approval.

If Company is eligible but fails to terminate this PPA by the applicable date, Company shall be deemed to have waived its right to terminate this PPA under this Section 6.1(C), and this PPA shall remain in full force and effect thereafter.

(D) For purposes of this PPA, "PUC Approval" means a written order of the PUC making an affirmative determination that all costs incurred under this PPA are recoverable from Company's retail customers pursuant to Applicable Law, subject only

to the requirement that the PUC retains ongoing prudency review of Company's performance and administration of this PPA.

6.2 Other Company CPs. *[if any].*

6.3 Seller CPs. *[if any - bid specific].*

## **Article 7 - Sale and Purchase**

7.1 General Obligation.

(A) Beginning on the Commercial Operation Date, Seller shall generate from the Facility, deliver to the Point of Delivery, and sell to Company, and Company shall receive and purchase at the Point of Delivery, the Contract Capacity, Contract Energy and other products and services required by this PPA. Seller shall not curtail or interrupt deliveries of Contract Energy to Company for economic reasons of any type. For purposes of this PPA:

1. The "Gas Capability" shall be all of the committed and uncommitted net generating capacity available at any time from the Combustion Units at the Point of Delivery, not to exceed the Combustion Units Net Capability.

2. The "Natural Gas Generated Energy" shall be the metered, net energy output generated by the Gas Capability as delivered and adjusted for losses to the Point of Delivery; less (i) any energy that has not been dispatched by Company; and (ii) any Test Energy that has been uneconomically dispatched by Company at Seller's request.

3. The "Solar Energy" shall be the net electric energy generated from the Facility using "Solar Electric Generation Technologies" as that term is defined in 4 CCR 723-3-3652(w), including any and all associated RECs and delivered to the Point of Delivery as measured by the Electric Metering Devices installed pursuant to Section 5.3. Solar Energy shall be of a power quality of 60 cycle, three-phase alternating current that is compliant with the Interconnection Agreement. Solar Energy shall be net of energy self-generated and concurrently consumed by the Facility, and net of losses prior to the Point of Delivery.

4. The "Contract Capacity" shall mean all of the committed and uncommitted net generating capacity actually available at any time from the Facility at the Point of Delivery, following COD, not to exceed the Net Capability.

5. The "Contract Capacity on Natural Gas" shall mean all of the committed and uncommitted net generating capacity actually available at any time from the Combustion Units at the Point of Delivery, following COD, not to exceed the Combustion Units Net Capability.

6. The "Contract Energy" shall mean the total Solar Energy and Natural Gas Generated Energy generated by the Contract Capacity as dispatched by

Company from time to time, delivered and adjusted for losses to the Point of Delivery, excluding any Post-COD Test Energy that is uneconomically dispatched by Company at Seller's request pursuant to Section 10.4(C).

(B) Title and risk of loss of the products and services transacted by this PPA shall transfer from Seller to Company at the Point of Delivery.

#### 7.2 Dispatch.

(A) Company's EMCC shall have the right to determine the (i) AGC control of the Facility, Combustion Unit starts, shutdowns, ramping, and loading levels associated with the Gas Capability and Natural Gas Generated Energy, all in accordance with Good Utility Practices, (iii) whether, when, the extent and the duration of any curtailments of the Gas Capability, (iv) whether, when and the extent to which thermal energy from the Solar Units is used for immediate generation of Solar Energy or diverted to any available thermal storage, and (v) the blend of Solar Energy, use of any available thermal storage, and any Natural Gas Generated Energy dispatched by Company (generally, "Company Control"). Seller shall abide by all Company Control directives, subject only to Good Utility Practices. The Operating Procedures shall set forth the procedures and criteria that will govern day-to-day implementation of Company Controls. Company shall not dispatch any portion of the Gas Capability at below Minimum Loading. For any Facility trip, Seller shall restart the Facility in coordination with the EMCC in accordance with Good Utility Practices.

(B) If Seller initiates a Combustion Unit start in response to a request by the Company, but fails to satisfy the requirements for a Successful Start as a result of: (i) the cancellation of the Combustion Unit start by Company within the applicable time period, for a Successful Start (ii) a request from Company, within one hour from Combustion Unit start, to shut down the Combustion Unit, or (iii) a Company or Company system performance failure, then the initiated turbine start shall nevertheless qualify as a Successful Start. Seller shall not be credited a Successful Start following a turbine trip where Company directs the Seller to restart the Combustion Unit after it has tripped out of service even if the restart would otherwise meet the qualifications for a Successful Start.

#### 7.3 Permit Limitaitons.

(A) Neither Party shall take any action that would result in or materially contribute to a restriction under any Permit that would preclude or limit the generation or delivery of Contract Energy to Company.

(B) Seller covenants that Seller holds or prior to COD will obtain the necessary authority under Applicable Law to generate and deliver Contract Energy in amounts at least equal to the Planned Permitted Energy. Seller accepts the risk that its Permits or other Applicable Law will preclude or limit its legal authority to generate and deliver all of the Planned Permitted Energy.

(C) If and to the extent that Seller's Permits or Applicable Law precludes or limits generation and delivery below the Planned Permitted Energy, the "Permit Deficiency" for such year shall mean the deficiency (expressed in MWh) between the Planned Permitted Energy and the maximum amount of Contract Energy that was generated and delivered to Company (or could have been generated and delivered, under Seller's Permits) for such year

(D) Upon request by Company from time to time, whether pre- or post-COD, Seller shall provide to Company such detailed data regarding emissions from the Facility, in one or more operating configurations, as Company may reasonably request.

(E) For purposes of this PPA, "Planned Permitted Energy" means [REDACTED] MWh per calendar year of Contract Energy authorized or expected to be authorized to be generated in accordance with Seller's Permits.

7.4 Green Benefits. The Parties acknowledge that existing and future Applicable Laws create significant value in the ownership, use and allocation of Green Benefits. To the full extent allowed by Applicable Law, Seller hereby assigns to Company (and Company shall own and be entitled to claim) all Green Benefits to the extent existing or created during the Term associated with the Facility and the Contract Energy purchased by Company hereunder, at no additional charge to Company under this PPA.

(A) Seller hereby irrevocably assigns to Company all rights, title and authority for Company to register the Facility as an Eligible Energy Resource and own, hold and manage the Green Benefits associated with the Facility in Company's own name and to Company's account, including any rights associated with any renewable energy information or tracking system that exists or may be established (including participation in any applicable REC Registration Program) with regard to monitoring, registering, tracking, certifying, and/or trading such Green Benefits. Seller hereby authorizes Company to act as its agent for the purposes of registering the Facility as an Eligible Energy Resource, and tracking, certifying, registering and reporting such Green Benefits. Seller grants to Company full authority to hold, use, sell and/or trade such Green Benefits for its own account in all applicable renewable energy information or tracking systems. Upon the request of Company, at no cost to Company, (i) Seller shall deliver or cause to be delivered to Company appropriate attestations/certifications of Green Benefits, and (ii) Seller shall cooperate with Company's tracking, registration, reporting and certification of Green Benefits.

(B) Prior to the Commercial Operation Date, Seller shall make all applications and/or filings required by Applicable Law for accreditation of Green Benefits and for the assignment of such Green Benefits to Company.

(C) For purposes hereof, "Green Benefits" means existing and future environmental credits, benefits or attributes, emissions reductions and avoidances (including emission rate credits), offsets, allowances and green tags, attributable to the Facility during the Term and/or Contract Energy sold to Company under this PPA,

recognized by Applicable Law, including any rights to compensation therefor. Green Benefits include and are not limited to:

1. Renewable Energy Credits;
2. Avoided emissions of pollutants to the air, soils or waters, such as sulfur oxides (SO<sub>x</sub>), nitrogen oxides (NO<sub>x</sub>) and carbon monoxide (CO);
3. Avoided emissions of greenhouse gases (such as carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF<sub>6</sub>)) that have been or may in the future be determined by the United Nations Intergovernmental Panel on Climate Change or by Applicable Law to contribute to the threat of climate change; and
4. Reporting rights for avoided emissions, such as Green Tag Reporting Rights.

#### 7.5 Ancillary Services.

(A) Company shall be entitled and Seller shall make available to Company all Ancillary Services associated with the Facility, at no additional charge to Company. Seller shall use Commercially Reasonable Efforts to maximize the Ancillary Services available from the Facility.

(B) Any compensation Seller receives under the Interconnection Agreement or otherwise from third parties for Ancillary Services shall be provided to Company at no additional cost to Company under this PPA. To implement the foregoing, Seller shall credit Company, as a reduction to Seller's monthly invoice or other mutually-agreed mechanism, for any compensation that Seller receives from third parties for Ancillary Services; *provided, that*, if a Governmental Authority or Transmission Authority implements new or revised requirements for generators to create, modify, or supply Ancillary Services, requiring Seller to install additional equipment after the date hereof to meet such requirements, then Seller shall be allowed to reduce the amount to be credited to Company for Ancillary Services by an amount sufficient to recover the cost of such additional equipment. Any cost not so recovered by Seller in any billing period shall be carried forward as a reduction of the amount of the credit in subsequent billing periods.

(C) For purposes hereof, "Ancillary Services" means ancillary services addressed under the Transmission Tariff from time to time (if any), which are associated, directly or indirectly, with the capacity of the Facility or the generation and/or transmission of Solar Energy from the Facility from time to time, including any rights to compensation therefor. By way of example only, "Ancillary Services" may include capacity or reliability attributes, resource adequacy characteristics, locational benefit attributes, and/or VaR generation.

## Article 8 - Payment Calculations

### 8.1 Solar Energy Payment Rate.

(A) From and after the Commercial Operation Date, for all Solar Energy and associated RECs generated and delivered by Seller to Company at the Point of Delivery in any Commercial Operation Year not in excess of 115% of the Committed Solar Energy for such Commercial Operation Year, Company shall pay Seller the applicable Solar Energy Payment Rate shown in Exhibit M – Committed Solar Energy and Solar Energy Payment Rate. For the avoidance of doubt, the Solar Energy Payment Rate shall apply only to energy generated and delivered from the Facility's Solar Units, and shall exclude any Natural Gas Generated Energy. In the event that the Solar Energy in any Commercial Operation Year (including any Compensable Curtailment Energy) exceeds 115% of the Committed Solar Energy ("Excess Solar Energy"), Company shall have the option to either (i) pay Seller the Solar Energy Payment Rate for all such Excess Solar Energy and RECs associated therewith, or (ii) elect not to accept any Excess Solar Energy

### 8.2 Excess Solar Energy

(A) Seller shall notify Company upon Seller's delivery of Solar Energy hereunder that exceeds 110% of the Committed Energy for a Commercial Operation Year. Company shall elect within 10 Business Days of Seller's Notice to either accept or decline the Excess Solar Energy after the date of Company's election and through the balance of such Commercial Operation Year

(B) If Company elects not to accept Excess Solar Energy, Seller shall have the right to sell such Excess Solar Energy (including associated RECs) to one or more third parties until the end of the applicable Commercial Operation Year, after which the Parties' obligations shall resume pursuant to this PPA, *provided, however, that* Seller shall be solely responsible for arranging transmission service and delivery arrangements to such third party at no cost to Company under this PPA.

### 8.3 Solar Energy Curtailment

(A) Company may require Seller, by telephonic communication or through use of the AGC Set Point, to curtail the delivery of Solar Energy to Company from the Facility, for any reason and in Company's sole discretion. Seller shall promptly comply with each such notification.

(B) For purposes hereof:

1. "Compensable Curtailment" means a curtailment of generation or delivery of Solar Energy following COD arising out of the following (and only the following):

- i. a curtailment of the Solar Units by Company under Section 8.3(A) ;

ii. disconnection of the Solar Units from the Transmission Authority's System pursuant to the Interconnection Agreement (due to an Emergency, event of Force Majeure or other problem beyond the Point of Delivery), provided that the disconnection is not caused by actions of Seller or problems with the Solar Units;

iii. Company's scheduling and other market participation activities, including any energy offer made by Company with respect to the Solar Units; and

iv. an election by Company to utilize non-firm transmission service to transmit Solar Energy from the Point of Delivery to its load, and such non-firm transmission service is restricted or reduced by the applicable transmission service provider, except as provided in paragraph 2(iii) below.

2. "Non-Compensable Curtailment" means any curtailment of the output of the Solar Units other than a Compensable Curtailment. By way of example only, Non-Compensable Curtailments include curtailments of generation or delivery of Solar Energy arising out of:

- (i) the restriction or reduction of firm transmission service by the applicable transmission service provider;
- (ii) the restriction or reduction of non-firm transmission service by the applicable transmission service provider to the extent such restriction or reduction would also have been imposed even if firm transmission service had been in place;
- (iii) maintenance outages, whether planned or unplanned, of any part of the transmission system or any testing of the transmission system;
- (iv) the lack of available transmission from the Solar Units to the Point of Delivery;
- (v) Seller's failure to maintain in full force and effect any Permit to own, operate and/or maintain the Solar Units;
- (vi) a civil, regulatory or criminal proceeding for the protection of endangered, migratory or other protected species; and,
- (vii) Seller's failure to abide by the AGC protocols, or a failure of the Facility to respond to AGC instructions from the EMCC.

3. "Compensable Curtailment Energy" for any period of Compensable Curtailment means the MWh represented by the Potential Energy less



the Solar Energy actually generated (if any), during such period. For purposes of determining Compensable Curtailment Energy, the amount of Potential Energy at any given time shall be calculated using the best-available data and methods to determine an accurate representation of the amount of curtailed Solar Energy:

a. To the extent available, the Parties shall use Seller's real time Park Potential communicated to Company through the SCADA System as the proxy for Potential Energy, except to the extent that Park Potential is demonstrated not to accurately reflect the Potential Energy (plus or minus 2% average error for non-curtailment periods where generation exceeds 50% of nameplate capacity during one month).

4. During those periods of time when the Park Potential is unavailable or does not accurately represent Potential Energy, the Parties shall use the best available data obtained through Commercially Reasonable methods to determine the Potential Energy.

(C) No payment shall be due to Seller from Company for Solar Energy curtailed as a consequence of any Non-Compensable Curtailment, or for Compensable Curtailment Energy prior to COD.

(D) For all Compensable Curtailments following COD, Company shall pay to Seller (i) all amounts that Seller would have received from Company under this PPA had the resulting Compensable Curtailment Energy actually had been delivered.

8.4 Payment for Gas Capability. Commencing on the Commercial Operation Date, Company shall pay Seller a Monthly Gas Capability Payment for Gas Capability based on the following formula:

Monthly Gas Capability Payment = CUNC × CAF × CP, where:

CUNC = Combustion Units Net Capability

CAF = Capacity Availability Factor, Twelve Month Rolling Average

= (AE + SME) / PE, where:

AE = Available Energy, stated in Megawatt-hours (MWh), is the amount of energy associated with the Gas Capability that is available from the Facility for dispatch and receipt by Company, regardless of whether Company dispatches Natural Gas Generated Energy using Acceptable Natural Gas Fuel or Acceptable Fuel Oil and regardless of whether Company dispatches Natural Gas Generated Energy for receipt at that level, in the monthly billing period and the previous eleven (11) monthly billing periods, taking into account all planned and unplanned deratings of the Facility. Gas Capability that is unavailable for dispatch and receipt by Company will be considered

to be available for the purposes of determining Available Energy when, and only when:

- (i) the Facility is disconnected from the Transmission Authority's System pursuant to the LGIA and the disconnection is not caused by actions of Seller or problems with the Facility;
- (ii) the Gas Capability is unavailable due to Company's failure or inability to supply Acceptable Natural Gas Fuel to the Fuel Delivery Point or Acceptable Fuel Oil to the Fuel Oil Supply Facilities when Company has dispatched Supplemental Natural Gas Generated Energy;
- (iii) the Gas Capability and associated Natural Gas Generated Energy cannot be delivered by Seller or received by Company due to an Emergency, or an event of Force Majeure, affecting the Transmission Authority's System;
- (iv) the Gas Capability and associated Natural Gas Generated energy cannot be received by Company at the Point of Delivery due to transmission constraints affecting the Transmission Authority's System;
- (v) the unavailability of the Gas Capability is caused by, or results from, Company's failure to perform its obligations under this PPA; or
- (vi) the Facility cannot operate because it has exhausted the limits of the operating restrictions imposed by any governmental permit(s) (or any subsequent amendments thereto) applicable to or affecting the Facility, provided, that if such permit restriction(s) result in the restriction of the amount of Natural Gas Generated Energy that is available for dispatch and receipt by Company to an amount which is less than the Planned Permitted Energy set forth in Section 7.3, then the Gas Capability shall be considered unavailable to the extent that Seller cannot deliver Natural Gas Generated Energy to Company in an amount equal to the Planned Permitted Energy set forth in Section 7.3.

Without limiting the foregoing, the Gas Capability will be considered to be unavailable for the purposes of determining Available Energy when, and to the extent that, Seller is unable to provide or deliver such Gas Capability and the associated energy due to an event of Force Majeure, not on Transmission Authority's System, affecting Seller or the Facility. Available Energy shall be calculated as the sum, for all hours in the billing period, of the amount of energy associated with the Gas Capability available during each individual hour.

SME = Scheduled Maintenance Energy, stated in MWh, is the amount of energy associated with the Gas Capability that is not available from the Facility for dispatch and receipt by Company, in the monthly billing period and the previous eleven (11) monthly billing periods, due to Scheduled Outages/Deratings that meet the requirements for Scheduled Maintenance Energy specified in Exhibit P – Maintenance Requirements. Scheduled Maintenance Energy shall be calculated as the sum, for all hours in the billing period, of the amount of energy associated with the Gas Capability that is unavailable during each individual hour due to a Scheduled Outage/Derating that meets the specified requirements for Scheduled Maintenance Energy.

PE = Period Energy, stated in MWh, shall be calculated, for the monthly billing period and the previous eleven (11) monthly billing periods, as the product of the Gas Capability and the total number of hours in the billing period and the previous eleven (11) monthly billing periods.

Notwithstanding the above, for each of the first eleven (11) monthly billing periods after the Commercial Operation Date, CAF shall be determined with data from the monthly billing period in question only, rather than including data from the previous monthly billing periods.

CP = Gas Capability Price, stated in \$/kW-month, as set forth, by Commercial Operation period, in the following table:

Gas Capability Commercial Operation Period	Gas Capability Price

#### 8.5 Payment for Combustion Unit Starts.

(A) Commencing on the Commercial Operation Date, Company shall pay Seller a monthly Combustion Unit Start Payment per the following formula:

Combustion Unit Start Payment = \$\_\_\_\_\_ × number of Successful Starts [in excess of \_\_\_\_\_ Successful Starts] [on natural gas or fuel oil *if applicable*] during the month *[bid-specific]*

(B) If a Combustion Unit start is initiated but fails to satisfy the criteria for a Successful Start as a result of: (i) the cancellation of the start by Company within the applicable time period, for a Successful Start, (ii) a request from Company, within one hour following the start, to shut down the Combustion Unit, or (iii) an Emergency or

event of Force Majeure beyond the Point of Delivery on the Transmission Authority's System, then the initiated Combustion Unit shall nevertheless qualify as a Successful Start.

(C) Seller shall not be credited a Successful Start following a Combustion Unit trip where Company directs the Seller to restart the Combustion Unit after it has tripped out of service even if the restart would otherwise meet the qualifications for a Successful Start.

(D) For the avoidance of doubt, if the Facility had three Combustion Units, a Successful Start of all three Combustion Units at the Facility will result in a Combustion Unit Start Payment of \$\_\_\_\_ × [3] = \$\_\_\_\_. *[delete this ¶D for single-Unit facilities; edit as needed for multi-Unit facilities.]*

8.6 Payment for Natural Gas Generated Energy Tolling. Commencing on the Commercial Operation Date, Company shall pay Seller a Monthly Tolling Payment for the Natural Gas Generated Energy that is dispatched by Company and delivered by Seller to Company during the billing month. If the Heat Rate Adjustment ("HRA") results in a negative Tolling Payment for any billing month, the negative balance shall be offset against the payments determined pursuant to other sections within this Article 8. The monthly Tolling Payment shall be determined by the following formula:

Monthly Tolling Payment = (E x TP) – HRA, where:

E = Natural Gas Generated Energy, stated in MWh, which is dispatched by Company and delivered by Seller to Company during the billing month;

TP = Tolling Price, which shall be \_\_\_\_\_ \$/MWh; and

HRA = Heat Rate Adjustment, determined as a dollar amount pursuant to Section 8.7.

#### 8.7 Heat Rate Adjustment to Payments.

(A) If the Actual Net Heat Rate for the Facility is greater than 102% of the Predicted Net Heat Rate, the Heat Rate Adjustment, for the billing month following the heat rate test until the billing month following the next heat rate test, shall be used to reduce payments to Seller as specified in Section 8.6 and shall be determined by the following formula:

Heat Rate Adjustment = Fuel Delivered × Price of Fuel × (1 – (P/A)), where:

"Fuel Delivered" is the amount of natural gas energy or fuel oil energy provided by Company and consumed by the Facility to produce the Natural Gas Generated Energy dispatched by Company and delivered by Seller to Company in the billing month, stated in MMBtu;

"Price of Fuel" is the average Combustion Unit cost of the Fuel Delivered, stated in \$/MMBtu, calculated as the total cost of the Fuel Delivered divided by the Fuel Delivered. The total cost of the Fuel Delivered shall include Company's actual commodity cost of the Fuel Delivered; any transportation, handling, natural gas storage and ancillary natural gas service costs incurred by Company associated with the Fuel Delivered; and all natural gas demand charges incurred by Company associated with the Fuel Delivered;

"P" is the Predicted Net Heat Rate at the time of the most recent heat rate test; and

"A" is the Actual Net Heat Rate for the Facility as determined from the most recent heat rate test.

(B) If the Actual Net Heat Rate for the Facility is less than 98% of the Predicted Net Heat Rate, the Heat Rate Adjustment, for the billing month following the heat rate test until the billing month following the next heat rate test, shall be used to increase payments to Seller as specified in Section 8.6 and shall be determined by the following formula:

Heat Rate Adjustment = Fuel Delivered x Price of Fuel x (1 – [(P x 0.98)/A]) x 0.50,  
where:

"Fuel Delivered" is the amount of natural gas energy or fuel oil energy provided by Company and consumed by the Facility to produce the Natural Gas Generated Energy dispatched by Company and delivered by Seller to Company in the billing month, stated in MMBtu;

"Price of Fuel" the average Combustion Unit cost of the Fuel Delivered, stated in \$/MMBtu, calculated as the total cost of the Fuel Delivered divided by the Fuel Delivered. The total cost of the Fuel Delivered shall include Company's actual commodity cost of the Fuel Delivered; any transportation, handling, natural gas storage and ancillary natural gas service costs incurred by Company associated with the Fuel Delivered; and all natural gas demand charges incurred by Company associated with the Fuel Delivered;

"P" is the Predicted Net Heat Rate at the time of the most recent heat rate test; and

"A" is the Actual Net Heat Rate for the Facility as determined from the most recent heat rate test.

(C) If the Actual Net Heat Rate for the Facility is equal to or less than 102% of the Predicted Net Heat Rate, and is equal to or greater than 98% of the Predicted Net Heat Rate, the Heat Rate Adjustment, for the billing month following the heat rate test until the billing month following the next heat rate test, shall be deemed to be zero dollars for the payment calculations specified in Section 8.6

(D) Heat Rate Testing. Seller shall conduct periodic heat rate testing at Company's request and at Seller's sole expense pursuant to Exhibit K - Heat Rate Testing. Upon the completion of any heat rate test in accordance with this Section 8.7, Seller may, at its option and expense, retest the Facility, *provided, however, that* Seller reimburse Company for all incremental costs incurred by Company associated with Company's activities in monitoring such retests.

#### 8.8 Payment for ESC Availability.

(A) In connection with each ESC Event during the Term, an adjustment in the payment due to Seller from Company shall be made for the billing period during which the ESC Event occurs (an "ESC Adjustment"), based upon the availability of the Facility [on natural gas fuel and/or fuel oil *if applicable*] during the ESC Event as set forth in Exhibit Q - ESC Event Adjustment. The ESC Adjustment, if any, shall be in addition to (not in lieu of) any adjustment to the Monthly Gas Capability Payment based upon the Available Energy from the Facility during that billing period under Section 8.4, any adjustment for inaccurate Reported Availability: Gas under Section 10.9 [and any adjustment for Reported Availability: Fuel Oil under Section 10.10 *if applicable*]. An ESC Adjustment may be positive or negative, as provided in Exhibit Q - ESC Event Adjustment.

(B) The Parties shall take such steps as may be necessary from time to time to allow each of Seller and Company to receive prior notice of ESC Events and anticipated ESC Events.

(C) For purposes hereof, an "ESC Event" means any period of time during the Term as to which EMCC, NERC, the ERO or the Transmission Authority formally declares an elevated concern regarding system capacity, reliability or Operating Reserves with respect to the Transmission Authority's System or any directly interconnected transmission system. As of the Effective Date, ESC Events include elevated system conditions coded yellow, orange and red; *provided, however*, that for purposes hereof, system conditions that do not involve a shortage or anticipated shortage of generation or transmission capacity (e.g. geomagnetic events) shall not be deemed ESC Events.

(D) In the event that, from time to time during the Term, the criteria and/or coding of ESC Events are changed by EMCC, the Transmission Authority or any applicable transmission-owning utility with authority, the Parties shall amend this PPA to substitute for Exhibit Q - ESC Event Adjustment appropriate covenants reflecting such changed criteria and/or coding, in order to provide payments substantially equivalent to those contemplated by this Section 8.8

#### 8.9 Deficient Summer Peak Capability.

(A) Each Commercial Operation year during the Term, as soon as practicable following the end of each Summer Peak Season, Company shall compute

the Actual Summer Peak Dependable Capability (ASPDC) of the Facility for that year, in the following manner:

1. The Company shall determine the 50 hours during which the Company's load was highest during the Summer Peak Season ("Super-Peak Hours").

2. For each Super-Peak Hour, the Company shall determine the actual output of energy (the combination of Solar Energy and any dispatched Natural Gas Generated Energy) from the Facility during such Super-Peak Hour ( $CE_x$ ), provided that  $CE_x$  may not exceed the Net Capability of the Facility for any hour.

3. The Company shall then compute the sum of the total output of Natural Gas Generated Energy from the Facility during all 50 Super-Peak Hours subject to the following adjustments ("Adjusted Actual Summer Peak Output")

(1) the calculation shall assume that all available Gas Capability (as verified by the summer capacity test contemplated by Exhibit N) was in use or available for use during each Super-Peak Hour (even if not actually in use), unless determined to be unavailable during such Super-Peak Hour under other provisions of this PPA and subject to the restriction that the sum of Natural Gas Generated Energy and all available Gas Capability during any hour may not exceed the Net Capability of the Facility

(2) Hours when part or all of the Gas Capability is unavailable due to Force Majeure affecting the Facility, shall be excluded from the calculation; and

(3) Seller shall receive credit for all Natural Gas Generated Energy curtailed by Company, for which Seller is entitled to payment under Section 7.6, but not otherwise.

4. The ASPDC for the Facility for the year (expressed in MW) shall equal the Adjusted Actual Summer Peak Output divided by 50.

(B) If the Actual Summer Peak Dependable Capability of the Facility, as measured annually under this Section, is less than ninety-seven percent (97%) of the Committed Summer Peak Dependable Capability, Seller shall pay to Company as liquidated damages therefor (a "Dependability Charge") an amount equal to

$$([0.97 \times \text{CSPDC}] - \text{ASPDC}) \times \text{RCC}$$

Where:

CSPDC = Committed Summer Peak Dependable Capability

RCC = Replacement Capacity Cost (\$/MW-yr) is an estimate of the market cost of capacity and is calculated as:

= (CTCR \* LFCR) ÷ SDAF, where,

CUCR = Combustion Unit Capital Requirement (expressed in dollars/MW) and is the overnight capital cost for a natural gas advanced combustion turbines listed in the most recent addition of the US Energy Information Administration's updated capital cost estimates for utility scale electricity generating plants (which as of 5/25/2016 is \$676,000/MW),

SDAF = Summer Design Adjustment Factor = 0.80 is the derate on the proxy combustion turbine's nameplate capacity for Colorado summer design and altitude conditions, and

LFCR = Levelized Fixed Charge Rate = 0.12.

(C) Any Dependability Charge shall be deducted against the next three (3) payments otherwise due to Seller under this Article 8 in equal one-third increments, without interest (or 100% against the next payment coming due hereunder, if the Term of this PPA would otherwise end sooner).

8.10 Payment for Combustion Units Dispatchability. Commencing on the Commercial Operation Date, Company shall pay Seller a monthly Combustion Units Dispatchability Payment (prorated to reflect the actual number of Days of Commercial Operation in the first billing month) based on the following formula:

Combustion Units Dispatchability Payment = CUNC × DAF × \$0.25 per kW-month,

Where:

CUNC = Combustion Units Net Capability

DAF (Dispatch Availability Factor) = RRAF × (Hours on-control ÷ Hours on-line),  
where:

RRAF = Ramp Rate Availability Factor per the following table, calculated and subject to verification testing by Company as set forth in Exhibit I - Operating Standards:

**Tested Contract Capacity on Natural Gas Ramp Rate Performance**  
**RRAF**



(based upon the most recent ramp rate testing, per Exhibit I)

- Actual Ramp Rate  $\geq$  100% of the Expected Ramp Rate 1.0
- Actual Ramp Rate  $\geq$  75% but  $<$  100% of the Expected Ramp Rate 0.75
- Actual Ramp Rate  $\geq$  50% but  $<$  75% of the Expected Ramp Rate 0.50
- Actual Ramp Rate  $<$  50% of the Expected Ramp Rate - 0 -

*[Depending on the number, type of Generating Units, a bid may amend the foregoing table to reflect expected ramp rate performance for different Facility configurations (e.g. one Unit dispatched, two Units dispatched, etc.) and/or to reflect different expected increasing vs. decreasing ramp rates]*

For the avoidance of doubt RRAF is always determined on a monthly basis, never on a rolling-average basis.

Hours on-control = the total number of hours during a referenced period when the Generating Unit(s) are receiving and responding to dispatch pulses transmitted from Company's EMCC in compliance with Exhibit I – Operating Standards. Any hour for which Company requests that the Contract Capacity on Natural Gas be dispatched without AGC by Company will be counted as an Hour on-control, so that the ratio of (Hours on-control/Hours on-line) will be 1.0 for such hour.

Hours = the total number of hours during a referenced period when the Combustions Unit(s) are synchronized to Transmission Authority's System and available to generate Natural Gas Generated Energy.

For each of the first 11 monthly billing periods after the Commercial Operation Date, Hours on-control and Hours on-line shall be determined on a month-by-month basis, using data from the monthly billing period in question only. For all subsequent monthly billing periods, Hours on-control and Hours on-line shall be determined on a 12-month rolling-average basis, using data from the monthly billing period in question and the previous 11 monthly billing periods.

## **Article 9 - Billing and Payment**

### **9.1 Billing.**

(A) The billing period under this PPA shall be the calendar month

(B) As soon as practicable and in any event by the later of (i) 20 Days after the end of the month, or (ii) 10 Days after receipt by Company of the monthly report required from Seller under Section 10.6(B), Company shall provide to Seller a statement containing Company's calculation of the amount due to Seller for such month, including the applicable billing parameters based upon Company's reading of the Electric Metering Devices consistent with Section 5.3. Within 15 Business Days

following receipt of Company's billing statement, Seller shall submit an invoice to Company in a form and by a method to be determined by the Parties, showing the amount due Seller for the relevant month, specifying the products and services provided, all billing parameters, rates and factors, and any other data relevant to the calculation of payments due to Seller.

(C) Such invoice shall include an explanation of any items in dispute, as well as all supporting documentation upon which Seller relies.

9.2 All billing data based on metered deliveries to Company shall be based on meter readings in accordance with Section 5.3.

9.3 Payment. All payments shall be remitted via check or electronic funds transfer, as designated by the owed Party, on or before the 15<sup>th</sup> Business Day following receipt of the invoice. Remittances received by mail will be considered to have been paid when due if the postmark indicates the payment was mailed on or before the 15<sup>th</sup> Business Day following receipt of the billing invoice.

(A) If a payment is late, a late payment charge shall be applied to the unpaid balance for the number of days payment was late and shall be added to the next billing statement. Late payment charges shall include interest calculated using the prime rate of interest as published on the date of the invoice in *The Wall Street Journal* (or, if unavailable, an equivalent publication on or about that date).

(B) Company at any time may offset against amounts owed to Seller, any liquidated amounts, accrued damages and other payments, and undisputed billing errors and adjustments, which are owed by Seller pursuant to this PPA.

(C) Seller and Company may net their obligations to each other under this PPA, and payment of the net amount shall discharge all mutual undisputed obligations between the Parties.

9.4 Billing Disputes. Either Party may dispute invoiced amounts pursuant to Article 13, but shall pay to the other Party at least the portion of invoiced amounts that is not disputed, on or before the invoice due date. When the billing dispute is resolved, the owing Party shall pay the amount owed within five (5) Business Days of the date of such resolution, with late payment interest charges calculated on the amount owed in accordance with Section 9.3(A).

## **Article 10 - Operations and Maintenance**

10.1 Operation and Administration. Seller shall staff, control, and operate the Facility consistent with Good Utility Practices and the Exhibit I - Operating Standards and the PPA. Personnel shall be available at all times via telephone or other electronic means with (i) the capability of remotely starting, operating and stopping the Facility within 10 minutes, and (ii) the ability to be present at the Site within 30 minutes.

If the Facility is a combined-cycle configuration, personnel capable of starting, operating, and stopping the Facility shall be physically present at the Facility 24-hours per Day during Commercial Operation.

10.2 Facility Maintenance. Seller shall maintain the Facility in accordance with Good Utility Practices. Scheduled Outages/Deratings shall comply with the requirements of Exhibit P – Maintenance Requirements. Absent the prior written consent of Company, Seller shall schedule no Outages/Deratings during the months of January, February, June, July, August, September and December.

10.3 Forced Outages.

(A) When Forced Outages occur, Seller shall notify EMCC of the existence, nature, start time, and expected duration of the Forced Outage as soon as practicable, but in no event later than 30 minutes after the Forced Outage occurs. Thereafter Seller shall immediately inform EMCC of any changes in the expected duration of the Forced Outage except to the extent relieved of this obligation by EMCC with respect thereto.

(B) In addition to the foregoing notification, for any Forced Outage, shutdown or derating of the Facility, Seller shall conduct a root cause analysis, promptly provide the root cause analysis to the Company and take corrective action to prevent reoccurrences as soon as practicable thereafter, at Seller's sole expense. Such corrective action includes weather protective modifications to the Facility, additional operating or maintenance procedures and other appropriate preventative measures in accordance with Good Utility Practices. Seller shall diligently complete such analysis and corrective actions as soon as possible and provide to Company a written report containing such analysis and a summary of the corrective action taken or to be taken as soon as diligently possible.

10.4 Post-COD Testing.

(A) Following the Commercial Operation Date, Seller shall conduct capacity testing of the Facility as and when contemplated by Exhibit O - Capacity Test Requirements for Generators, heat rate testing of the Facility as and when contemplated by Exhibit K - Heat Rate Testing, and such other testing of the Facility as may be required by this PPA, Applicable Law (including any accreditation testing mandated by the ERO) and any testing required by Good Utility Practices. Seller shall fulfill all reporting requirements arising from such testing.

(B) Seller and Company shall cooperate and use Commercially Reasonable Efforts to conduct all post-COD testing of the Facility during periods when Company is otherwise dispatching the Facility hereunder. All energy generated in connection therewith shall be treated and purchased by Company as Contract Energy hereunder.

(C) In the event that the Facility is tested post-COD when Company is not otherwise dispatching the Facility, (i) Seller shall invoice and Company shall

purchase all Post-COD Test Energy from Seller at the Test Energy Rate, (ii) the Facility shall be deemed unavailable for purposes of Section 8.4, if and to the extent that such testing restricts Company's ability to dispatch the Facility during such testing, and (iii) Seller shall reimburse Company for all fuel commodity costs and any associated fuel imbalance, transportation and other ancillary costs incurred by Company in connection therewith.

(D) For purposes hereof, "Post-COD Test Energy" means energy generated by the Facility following COD, reasonably required to satisfy the post-COD testing of the Facility required by this PPA, not purchased by Company as Contract Energy under Section 10.4(B) above.

10.5 Forecasting. Seller shall provide such forecasts of available capacity as the ERO or Transmission Authority may require from time to time. Seller concurrently shall provide to Company a copy of each such forecast.

10.6 Books and Records.

(A) Seller shall maintain an accurate and up-to-date hourly operating log for the Facility, in electronic format, that identifies real-time operating information for each Generating Unit, including levels of capacity availability; energy production; changes in operating status; Forced Outages; Scheduled Outages/Deratings; information required by Governmental Authorities in the prescribed format; and other information reasonably requested by Company.

(B) Seller shall deliver to Company information on Facility performance during each calendar month within five Business Days after the end of the month.

(C) For each Combustion Unit, and using definitions provided by (or consistent with) the NERC Generation Availability Data System (GADS) Manual, or any successor document, the data reported shall include planned and unplanned derated hours [with separate calculations for gas and fuel oil *if applicable*], average derated kW from Net Capability during the derated hours, scheduled maintenance hours, average derated kW during scheduled maintenance hours, the number of successful and unsuccessful Combustion Unit starts, hours on-control, hours on-line, and the monthly operating log of the Facility.

(D) Seller and Company shall each keep complete and accurate records and all other data required by each of them for the purposes of proper administration of this PPA, including metering, billing and payment records, and such records as may be required by Governmental Authorities

(E) Originals or copies of all Operating Records shall be maintained at the Facility or such other Colorado location as may be specified by Seller from time to time. Company may examine and make copies of such Operating Records from time to time upon request, during normal business hour

10.7 Access to Facility. Representatives of Company shall have access to the Facility from time to time, on Commercially Reasonable prior notice, to read meters, perform inspections and take such other actions as may be appropriate to facilitate Company's performance of this PPA. While at the Facility, such representatives shall observe Seller's standard safety precautions and shall conduct themselves in a manner that will not interfere with operation of the Facility.

10.8 Operating Committee and Operating Procedures.

(A) Company and Seller shall each appoint one representative and one alternate representative to act as the Operating Committee in matters relating to the Parties' performance obligations under this PPA and to develop operating arrangements for the generation, delivery and receipt of Contract Capacity and Contract Energy from the Facility. The Parties' initial representatives on the Operating Committee are set forth in Exhibit D – Notices and Contact Information.

(B) The Operating Committee may develop mutually agreeable written Operating Procedures consistent with the requirements of this PPA, to address matters such as day-to-day communications; key personnel; operations-center interface; metering, telemetering, telecommunications, and data acquisition procedures; operations and maintenance scheduling and reporting; reports; operations log; testing procedures; and such other matters as may be mutually agreed upon by the Parties.

(C) The Operating Committee shall review the requirements for AGC and Data Collection from time to time after the date hereof and may agree on modifications thereto to the extent necessary or convenient for operation of the Facility in accordance with this PPA.

(D) The Operating Committee shall have authority to act in all technical and day-to-day operational matters relating to performance of this PPA and to attempt to resolve potential disputes, *provided, however*, that except as explicitly provided herein, the Operating Committee shall have no authority to amend or waive any provision of this PPA.

10.9 Availability Reporting: Gas.

(A) Seller shall provide accurate and timely updates to Company's EMCC on the current availability of the Contract Capacity On Natural Gas ("Reported Availability: Gas"), adjusted for ambient conditions, via such electronic means as may reasonably specified by Company. The amount of Contract Capacity On Natural Gas available for any individual hour shall be integrated over the hour, on a prorated basis, to reflect any updates in Seller's Reported Availability: Gas made effective during such hour.

(B) Company may verify Seller's then-current Reported Availability: Gas at any time, without prior notice to Seller, by dispatching the Facility to the level of Reported Availability: Gas (a "Availability Verification Test"). A "Gas Deficiency" shall be deemed to exist if (i) the tested availability on natural gas is less than 97% of the

Reported Availability: Gas, or (ii) such tested availability is more than five (5) MW below the Reported Availability: Gas. Company shall notify Seller as soon as possible by telephone and thereafter in writing whenever Company identifies a Gas Deficiency that has or may have economic consequences under Section 10.9(C) below.

(C) For purposes of Section 8.4, (i) in the event of a Gas Deficiency, the Contract Capacity shall be derated by the amount of the Gas Deficiency, for the then-current hour and all subsequent hours, until Seller posts a revised Reported Availability: Gas, and (ii) the occurrence of more than one Gas Deficiency in any billing month shall result in derating the Contract Capacity for that entire month (retroactive to the beginning of such month) to the lowest capacity level achieved in the Availability Verification Test(s) conducted during such month.

10.10 Availability on Fuel Oil. *[if no fuel oil capability, delete §10.10]*

(A) Seller shall provide accurate and timely updates to Company's EMCC on the current availability of the Contract Capacity for dispatch on fuel oil ("Reported Availability: Fuel Oil"), via such electronic or other means and at such intervals as may reasonably be required by Company from time to time.

(B) If and for so long as the Facility is not fully available for dispatch on fuel oil, but Acceptable Natural Gas Fuel is available at the Fuel Point of Delivery for dispatch of the full Contract Capacity on natural gas, then for purposes of Section 8.4, the Contract Capacity shall be derated by two percent (2%) for the duration of the fuel oil outage.

(C) If and for so long as (1) the Facility is not fully available for dispatch on fuel oil, and (2) despite Commercially Reasonable Efforts by Company, Acceptable Natural Gas Fuel is unavailable at the Fuel Point of Delivery for full dispatch of the Facility on natural gas, *then* for purposes of Section 8.4, the Contract Capacity shall be derated to the level of actual availability on fuel oil for the duration of the fuel oil outage.

(D) If ever (1) Company dispatches the Facility on fuel oil to the then-current level of Reported Availability: Fuel Oil, and (2) the actual availability of the Facility on fuel oil is less than 97% of the most recent Reported Availability: Fuel Oil, *then* for purposes of Section 8.4, the Contract Capacity shall be derated to zero (0) for the entire Day of the dispatch.

10.11 Real Time Data.

(A) Seller shall communicate all data necessary for Company to integrate the Facility into Company's EMCC in real time through the Facility's SCADA System in accordance with the AGC protocols. Seller shall maintain the Facility's SCADA System so that it is capable of interfacing with and reacting to Company's AGC Set-Point and responding to signals from the Company's EMCC in accordance with the AGC protocols.

1. Seller shall use Commercially Reasonable Efforts to adjust the real time Potential Energy when Company communicates to Seller a measured difference of plus or minus two percent between the metered Solar Energy, during a time where there was no AGC Set-Point, and Potential Energy.

2. In the event that Company reasonably concludes that (i) Seller is not (i) providing the data required by this Section 10.11, (ii) interfacing with and reacting to Company's AGC Set-Point as required by this PPA, and/or (iii) providing Potential Energy data within the required margin of error, then upon Notice from Company, Seller shall, at Seller's expense, take those actions necessary to fully comply with this paragraph. Upon Seller's request, Company shall cooperate with Seller in taking any such actions.

(B) From and after the Commercial Operation Date, Seller shall provide Company, at Seller's expense, real time unit performance and meteorological data for all Solar Units and meteorological towers at the Facility in accordance with Exhibit I- Operating Standards for the Term of this PPA. Seller shall undertake to maintain Seller-owned data collection systems which are compatible with Company's PI. Seller shall ensure that real time communications capabilities are available and maintained for the transmission to Company's PI. Seller shall ensure that all meteorological equipment at a minimum meets the specifications set forth in Exhibit I - Operating Standards. Company shall be entitled to disclose data gathered through the Company's PI to third parties.

## **Article 11 - Security for Performance**

### **11.1 Security Fund.**

(A) During the Term of this PPA, Seller shall fund and maintain security in favor of Company, at Seller's expense, to secure Seller's obligations to Company under this PPA (the "Security Fund"), in accordance with this Article 11.

(B) Seller shall establish and fund the initial Security Fund in the amount of *[insert \$150/kW multiplied by the number of kW of Net Capability]*, no later than 30 Days following the date on which Company obtains or waives (or is deemed to have waived) PUC Approval under Section 6.1. Within 5 Business Days following COD, the amount of the Security Fund shall be reduced to *[insert \$100/kW multiplied by the number of kW of Net Capability]*.

(C) Company may draw from the Security Fund such amounts as are necessary to recover amounts owing to Company pursuant to this PPA, including any Liquidated Delay Damages, Actual Damages, liquidated damages for failure to achieve COD, and any amounts for which Company is entitled to indemnification under this PPA. Company may, in its sole discretion, draw all or any part of such amounts from any form of security to the extent available pursuant to this Article 11 and in any sequence Company may select. Company's failure or delay to draw any amount from the Security Fund in any instance shall not prejudice Company's rights to subsequently recover such amount from the Security Fund or in any other manner.

(D) Company shall notify Seller within 5 Business Days following any draw on the Security Fund by Company, including the amount thereof and the basis therefor.

#### 11.2 Replenishment.

(A) Within 15 Days following each draw by Company on the Security Fund in respect of damages described in Section 12.4(B), Seller shall replenish the Security Fund by an amount equal to such draw

(B) Within 15 Days following any other draw by Company on the Security Fund, Seller shall replenish the Security Fund by the amount of such draw, provided that the aggregate amount of replenishments under this Section 11.2(B) shall not exceed the Damage Cap.

#### 11.3 Form.

(A) The Security Fund may be in the form of an irrevocable standby letter of credit substantially in the form of Exhibit G-1 - Form of Letter of Credit (a "Letter of Credit") from a financial institution acceptable to Company ("Issuer").

1. The Issuer of the Letter of Credit shall have and maintain a Credit Rating equivalent to A- (or better) by Standard & Poors and A3 (or better) from Moodys. If such Credit Rating is A- or A3, the Issuer must not be on credit watch by any rating agency.

2. The Letter of Credit must be for a minimum term of 360 Days. Seller shall give Company at least 30 Days advance notice prior to any expiration or earlier termination of the Letter of Credit. Seller shall cause the renewal or extension of the Letter of Credit for additional consecutive terms of 360 Days or more (or, if shorter, the remainder of the Term) more than 30 Days prior to each expiration date of the security. If the Letter of Credit is not renewed or extended at least 30 Days prior to its expiration date or otherwise is terminated early, Company shall have the right to draw immediately upon the Letter of Credit and to place the amounts so drawn, at Seller's cost and with Seller's funds, in an Escrow Account in accordance with paragraph (B) below, until and unless Seller provides a substitute form of security meeting the requirements of this Section 11.3.

(B) The Security Fund may be in the form of U.S. currency deposited into an escrow account with a state- or federally-chartered commercial bank with an office in the State of Colorado, with net assets of at least \$1 billion (the "Escrow Account").

1. The Escrow Account shall be governed by an escrow and account control agreement in form mutually satisfactory to Seller, Company and the escrow agent, provided that (a) Company shall hold a first and exclusive perfected security interest in the funds in the Escrow Account, (b) Company shall be permitted unilaterally to draw down any amount therein, regardless of any protest by Seller or any



other party liable thereon (*provided* that nothing in the Escrow Agreement shall preclude any protest against Company by Seller, following any draw, that such draw did not comply with this PPA), and (c) Seller shall pay all fees and expenses of the escrow agent

2. Funds held in the Escrow Account may be invested as Seller may direct in any of the following:

- a money-market fund sponsored by the escrow agent;
- U.S. treasury obligations with a maturity of 90 Days or less;
- commercial paper rated “A” or better, with a maturity of 90 days or less; and
- other liquid investment-grade investments with maturities of three months or less, approved by Company in advance (such approval not to be unreasonably withheld or delayed).

3. All investment income on the Escrow Account shall be taxable to, and accrue for the benefit of, Seller. After the Commercial Operation Date, periodic sweeps by Seller for recovery of interest earned by the escrowed funds shall be allowed, and if at any time the balance in the Escrow Account exceeds the required amount of security, the escrow agent may remit the excess to Seller.

(C) Following COD, the Security Fund may consist of a guaranty substantially in the form of Exhibit H – Form of Guaranty, from a parent or other guarantor (“Guarantor”) with a minimum of net worth of at least \$250,000,000 and an Investment Grade Credit Rating (and if such Credit Rating is exactly equivalent to BBB-[S&P] / Baa3 [Moody’s], the Guarantor must not be on credit watch by any rating agency). If the Credit Rating of the Guarantor is downgraded below Investment Grade, put on credit watch, or an event occurs that (in the reasonable determination of Company) portends a Material Adverse Effect in the creditworthiness of the Guarantor, then Company may require Seller to convert the guaranty to a Security Fund instrument meeting the criteria set forth in either paragraph (A) or paragraph (B) above no later than 10 Days after notice from Company.

(D) Company shall negotiate in good faith any needed escrow and account control agreement and, upon request by Seller, immaterial changes to Exhibit G-1 – Form of Letter of Credit and/or Exhibit H – Form of Guaranty, provided that Seller shall pay or reimburse Company for the direct expenses (including the fees and expenses of counsel) incurred by Company in connection therewith.

(E) Seller may change the form of the Security Fund at any time and from time to time upon Commercially Reasonable prior notice to Company, *provided, however*, that the Security Fund must at all times satisfy the requirements of this Article

11.4 Replacement. In the event that the Security Fund ever fails to comply with the requirements of this Article 11 or Company determines in a commercially reasonable manner that an event has occurred or circumstances have developed that threaten to cause the Security Fund to fail to comply with the requirements of this Article 11 (e.g. a Guarantor is placed on negative credit watch by a rating agency), Seller shall be required to replace the Security Fund with security in compliance with this Article 11 within 5 Days following notice thereof from Compan

11.5 Survival. The Security Fund shall survive termination of this PPA to be available to pay any amounts owed to Company arising prior to or upon termination. Promptly following (i) the end of the Term and the completion of all of Seller's obligations under this PPA, or (ii) termination of this PPA for any reason prior to the Scheduled Termination Date, Company shall determine the amount, if any, owed by Seller for any obligations or damages arising out of this PPA. Company may draw such amount and shall release the balance of the Security Fund (including any accumulated interest, if applicable) to Seller.

11.6 Expenses. Seller shall reimburse Company for its direct expenses (including the fees and expenses of counsel) incurred by Company in connection with the preparation, negotiation, execution and/or release (including making a draw of funds) of the Security Fund under this Article 11.

## **Article 12 - Default and Remedies**

### **12.1 Default by Seller: General**

(A) Any of the following events shall constitute a default by Seller under this PPA. If no cure period is provided below, such default shall be deemed an Event of Default by Seller immediately upon its occurrence. If a cure period is provided below, such default shall mature into an Event of Default if not cured within the indicated cure period, subject to Section 13.3 below

1. Seller's application for, or consent (by admission of material allegations of a petition or otherwise) to, the appointment of a receiver, trustee or liquidator for Seller or for all or substantially all of its assets, or its authorization of such application or consent; or the commencement of any proceedings seeking such appointment without such authorization, consent or application, which proceedings continue undismissed or unstayed for a period of 60 Days from inception.

*Cure Period:* None.

2. Seller's authorization or filing of a voluntary petition in bankruptcy or application for or consent (by admission of material allegations of a petition or otherwise) to the application of any bankruptcy, reorganization, readjustment of debt, insolvency, dissolution, liquidation or other similar law of any jurisdiction; or the institution of such proceedings against Seller without such authorization, application or consent, which proceedings remain undismissed or unstayed for 60 Days from inception or which result in adjudication of bankruptcy or insolvency within such time.

*Cure Period:* None

3. Seller's assignment of this PPA or the Facility, or any Change of Control, not permitted by Section 19.1.

*Cure Period:* None.

4. Any representation or warranty by Seller in this PPA that has a Material Adverse Effect on Seller's ability to perform this PPA is proven to have been false in any material respect when made.

*Cure Period:* None.

5. Seller's failure to establish and maintain the Security Fund as and in the amounts required under Article 11.

*Cure Period:* Five (5) Business Days after Company provides notice of Seller's failure.

6. Seller's failure to obtain and maintain insurance in scope and amounts required under Article 16.

*Cure Period:* Five (5) Business Days after Company provides notice of Seller's failure.

7. Seller's failure to make any payment to Company as and when required by this PPA, including Liquidated Delay Damages, Actual Damages, and any required indemnification.

*Cure Period:* 10 Business Days after the date Seller receives notice from Company that the amount is overdue.

8. Any representation or warranty by Seller in this PPA that has a Material Adverse Effect on Seller's ability to perform this PPA ceases to remain true in all material respects during the Term, other than due to a change of law.

*Cure Period:* 30 Days after Company provides notice of such breach.

9. A breach by Seller of the Interconnection Agreement, which breach (i) materially interferes with Seller's delivery of Contract Energy to the Point of Delivery, Company's ability to accept Contract Energy at the Point of Delivery, or Company's ability to transmit Contract Energy beyond the Point of Delivery, and/or (ii) otherwise has a Material Adverse Effect on Company.

*Cure Period:* 30 Days from the breach or the cure period allowed by the Interconnection agreement (whichever is longer)

10. Seller's failure, commencing 18 months after the COD, to maintain a CAF, pursuant to Section 8.4, greater than 85% on a twelve-month rolling average basis utilizing data from the previous twelve months; *provided, however, that* to the extent such failure of performance is attributable to Force Majeure, the contribution of such Force Majeure shall be eliminated from the CAF calculation for the purposes of, and only for the purposes of, establishing a default of Seller pursuant to this paragraph

Cure: Seller shall be deemed to have cured this default if the Facility achieves a CAF for the following Commercial Operation Year (again with periods of Force Majeure excluded from the calculation) of 90% or more.

11. Beginning with the second Commercial Operation Year, Seller's failure to deliver to Company at least 85% of the Committed Solar Energy for such Commercial Operation Year. For purposes of establishing a default by Seller under this paragraph, the Committed Solar Energy shall be adjusted as provided in Exhibit S – Methodology for Adjusting Committed Solar Energy.

*Cure Period:* Seller shall be deemed to have cured this default if, in the following Commercial Operation Year, Seller delivers to Company at least 95% of the Committed Energy for such Commercial Operation Year (again as adjusted pursuant to Exhibit S – Methodology for Adjusting Committed Solar Energy).

12. The failure by Seller to perform or observe any other material obligation to Company under this PPA, unexcused by Force Majeure (other than failure to achieve COD, which is addressed in Section 12.2 below).

*Cure Period:* 30 Days after notice thereof shall have been given by Company; *provided*, that if such default is not reasonably capable of cure within such 30-Day period, Seller shall have such additional period of time (not to exceed 90 Days in any event) as is reasonably necessary for cure, so long as Seller initiates cure within such 30-Day period and diligently prosecutes the cure to conclusion thereafter.

(B) Remedies for Default. In connection with any default by Seller under this Section 12.1 (whether or not cured by Seller), Company may

1. Seek Actual Damages in such amounts and on such basis for the default as authorized by this PPA;

2. Offset against any payments due to Seller, any Actual Damages and other amounts due from Seller; and/or

3. Draw any Actual Damages and other amounts due from Seller, from the Security Fund.

(C) Termination for Event of Default. Upon and at any time following an Event of Default by Seller under this Section 12.1, in addition to its rights under Section 12.1(B) above, Company may terminate this PPA immediately upon notice to Seller, without penalty or further obligation to Seller. In connection with any such termination, Company may collect from Seller (subject to the Damage Cap) all Actual Damages arising from such Event of Default through the Scheduled Termination Date.

(D) Specific Performance. In addition to the other remedies specified herein, upon any Event of Default of Seller under this Section 12.1, Company may elect to treat this PPA as being in full force and effect and Company shall have the right to specific performance.

#### 12.2 Default by Seller: Failure to Achieve COD.

(A) COD Delay. Seller shall be in default under this PPA if the Facility fails to achieve COD by the Target COD ("COD Delay"). Seller shall be liable to pay *[insert \$250 per MW of Net Capability]* per Day ("Liquidated Delay Damages") to Company as a liquidated damage and not a penalty, in lieu of Actual Damages, for any COD Delay. Except as provided in Section 12.2(C) below, the payment of Liquidated Delay Damages shall be Company's sole and exclusive remedy for a COD Delay. Liquidated Delay Damages shall begin to accrue on the Day after the Target COD (as it may be extended due to Force Majeure) until the first to occur of COD or termination of this PPA pursuant to Section 12.2(C) below.

(B) Cure. Seller shall have a cure period of 45 days for its failure to achieve Commercial Operation by the Target COD, *provided, however*, that if during such period Seller provides a written opinion from a mutually-agreeable independent engineer that COD can reasonably be achieved within an additional 45 Day period, then the cure period shall be 90 Days after the Target COD to achieve Commercial Operation. The payment of accrued Liquidated Delay Damages shall be a condition to any such cure

(C) Termination. Failure to cure a COD Delay within the applicable cure period set forth in Section 12.2(B) shall be an Event of Default by Seller. Upon such an Event of Default, Company may (i) terminate this PPA immediately upon notice to Seller, without penalty or further obligation to Seller except as to costs and balances incurred prior to the effective date of such termination, and (ii) in connection therewith, in addition to accrued Liquidated Delay Damages but in lieu of Actual Damages for the balance of the Term, collect from Seller liquidated damages therefor in the amount of *[insert \$100/kW × Net Capability]* ("Termination LDs").

#### 12.3 Default by Company.

(A) Events. Any of the following events shall constitute a default by Company under this PPA. If no cure period is provided below, such default shall be deemed an Event of Default by Company immediately upon its occurrence. If a cure period is provided below, such default shall mature into an Event of Default if not cured within the indicated cure period, subject to Section 13.3 below

1. Company's application for, or consent (by admission of material allegations of a petition or otherwise) to, the appointment of a receiver, trustee or liquidator for Company or for all or substantially all of its assets, or its authorization of such application or consent, or the commencement of any proceedings seeking such

appointment without such authorization, consent or application, which proceedings continue undismissed or unstayed for a period of 60 Days from inception

*Cure Period:* None

2. Company's authorization or filing of a voluntary petition in bankruptcy or application for or consent (by admission of material allegations of a petition or otherwise) to the application of any bankruptcy, reorganization, readjustment of debt, insolvency, dissolution, liquidation or other similar law of any jurisdiction or the institution of such proceedings against Company without such authorization, application or consent, which proceedings remain undismissed or unstayed for 60 Days from inception or which result in adjudication of bankruptcy or insolvency within such time.

*Cure Period:* None.

3. Company's assignment of this PPA, not permitted by Section 19.2.

*Cure Period:* None.

4. Any representation or warranty by Company in this PPA that has a Material Adverse Effect on Company's ability to perform this PPA is proven to have been false in any material respect when made.

*Cure Period:* None.

5. Company's failure to make any payment to Company as and when required by this PPA, including invoiced amounts, Actual Damages and any required indemnification.

*Cure Period:* 10 Business Days after the date Company receives notice from Seller that the amount is overdue.

6. Any representation or warranty by Company in this PPA that has a Material Adverse Effect on Company's ability to perform this PPA ceases to remain true during the Term, other than due to a change of law

*Cure Period:* 30 Days after Seller provides notice of such breach.

7. The failure by Company to perform or observe any other material obligation to Seller under this PPA, unexcused by Force Majeure.

*Cure Period:* 30 Days after notice thereof shall have been given by Seller; *provided*, that if such default is not reasonably capable of cure within such 30-Day period, Company shall have such additional period of time (not to exceed 120 Days in any event) as is reasonably necessary for cure, so long as Company initiates cure within such 30-Day period and diligently prosecutes the cure to conclusion thereafter.

(B) Remedies for Default. In connection with any default by Company (whether or not cured by Company), Seller may

1. Seek Actual Damages in such amounts and on such basis for the default as authorized by this PPA; and/or

2. Offset against any payments due to Company, any Actual Damages and other amounts due from Company.

(C) Termination for Event of Default. Upon an Event of Default by Company, in addition to its rights under Section 12.3(B) above, Seller may terminate this PPA immediately upon notice to Company, without penalty or further obligation to Company, and in connection therewith, collect from Company all Actual Damages arising from such Event of Default through the Scheduled Termination Date..

#### 12.4 Limitations on Damages.

(A) Except as otherwise provided in Section 12.4(B), Seller's aggregate financial liability to Company for Actual Damages following COD shall not exceed *[insert \$100/kW × Net Capability]* (the "Damage Cap"). If at any time following COD, Company incurs damages in excess of the Damage Cap that Seller does not pay when billed by Company, Company shall have the right to terminate this PPA upon notice to Seller, without further obligation by either Party except as to costs and balances incurred prior to the effective date of such termination.

(B) Actual Damages payable by Seller arising out of any of the following events shall not be subject to the Damage Cap and shall not be credited against the Damage Cap:

1. damage to Company-owned facilities proximately caused by negligence, breach of this PPA or other misconduct by Seller, its directors, officers, employees and agents

2. Seller's intentional misrepresentation or intentional misconduct in connection with this PPA or the operation of the Facility;

3. the sale or diversion by Seller to a third party of any capacity or energy from the Facility, excluding any sales in mitigation of damages

4. Seller's failure (i) to maintain insurance coverages in the types and amounts required by this PPA or (ii) to apply any insurance proceeds as required by Section 16.5;

5. any claim for indemnification under this PPA;

6. any Environmental Contamination caused by Seller; or

7. damages incurred by Company in connection with any bankruptcy or insolvency proceeding involving Seller, including Company's loss of the benefit of its bargain due to rejection or other termination of this PPA in such proceeding.

(C) The Parties confirm that the express remedies and measures of damages provided in this PPA satisfy the essential purposes hereof. If no remedy or measure of damages is expressly herein provided, the obligor's liability shall be limited to all direct damages proximately caused by such default ("Actual Damages") incurred by the non-defaulting Party, provided that if Seller is the defaulting Party, Actual Damages recoverable by Company hereunder may include Replacement Power Costs. **Neither Party shall be liable to the other Party for consequential, incidental, punitive, exemplary, special, treble, equitable or indirect damages, lost profits or other business interruption damages, regardless of whether the relevant cause of action arises from statute, tort or contract** (except to the extent expressly provided herein); *provided, however*, that if either Party is held liable to a third party for such damages and the Party held liable for such damages is entitled to indemnification from the other Party hereto, the indemnifying Party shall be liable for, and obligated to reimburse the indemnified Party for all such damages.

(D) To the extent damages required to be paid hereunder are liquidated, the Parties acknowledge that actual damages would be substantial but difficult or impossible to determine, that otherwise obtaining an adequate remedy is inconvenient, and that the liquidated damages constitute a reasonable approximation of the harm or loss.

#### 12.5 Step-In Rights.

(A) Upon the occurrence of a default by Seller following COD that could be cured by Company if Company obtains possession of the Facility, Company shall have the right, but not the obligation, to assume control and operate the Facility as agent for Seller (whether voluntary or involuntary) in accordance with Seller's rights, obligations, and interest under this PPA ("Step-In Rights"). Company shall give Seller and the Facility Lender at least 10 Days' notice in advance of exercising Company's Step-In Rights. Exercise of Step-In Rights *per se* shall not be deemed to cure the associated default, and shall not preclude or limit Company's right to exercise its other remedies against Seller under this PPA

(B) Seller irrevocably appoints Company as Seller's attorney-in-fact for the exclusive purpose of executing such documents and taking such other actions as Company may reasonably deem necessary, appropriate or prudent to implement its Step-In Rights.

(C) Company acknowledges that Company may be required and shall relinquish or delay exercise of its Step-In Rights in the event that the Facility Lender elects to appoint a receiver, foreclose and/or otherwise obtain possession of the Facility under the Financing Documents. Seller shall not grant any person, other than the



Facility Lender, a right to possess, assume control of, or operate the Facility in derogation of Company's Step-In Rights.

(D) Seller shall reimburse Company for its expenses and costs (including the fees and expenses of counsel) incurred by Company in connection with exercising its Step-In Rights ("Step-In Costs")

(E) During the period of Company's exercise of its Step-In Rights:

1. Company shall implement its Step-In Rights and operate the Facility in conformance with Good Utility Practice.

2. Company shall perform Seller's obligations in a manner consistent with Seller's duties under this PPA.

3. Seller shall retain legal title to and ownership of the Facility.

4. Seller shall make available at the Facility all documents, contracts, books, manuals, reports, and records required for Company to operate, and maintain the Facility.

5. Seller shall give Company, its employees and contractors, unrestricted access to the Site and the Facility.

6. Seller shall cooperate in the implementation of Company's Step-In Rights.

7. Company shall devote the Contract Energy generated and delivered from the Facility during such period towards satisfaction of Seller's obligations hereunder.

(F) During the period of Company's exercise of its Step-In Rights, Company shall purchase the Contract Capacity and Contract Energy from the Facility as provided herein, *provided* that Company may withhold its Step-In Costs from payments due to Seller hereunder. In the event that net revenues due to Seller are insufficient to cover such Step-In Costs, Company may draw upon the Security Fund to cover such Step-In Costs.

(G) Company may relinquish its Step-In Rights at any time, on at least 15 Days notice to Seller and the Facility Lender. Company shall relinquish its Step-In Rights on the earliest of (i) termination of this PPA, or (ii) Seller's cure of the default that led to exercise of Company's Step-In Rights within the applicable cure period set forth herein.

(H) This Section 12.5 shall be specifically enforceable by Company, without bond and without the need to prove irreparable harm.

(l) Exercise of its Step-In Rights shall not constitute an assumption by Company of any existing or future liability of Seller.

12.6 Bankruptcy. This PPA grants each Party the contractual right to “cause the liquidation, termination or acceleration” of the transactions within the meaning of Sections 556, 560 and 561 of the U.S. Bankruptcy Code, as they may be amended superseded or replaced from time to time. Upon a bankruptcy, a non-defaulting Party shall be entitled to exercise its rights and remedies under this PPA in accordance with the safe harbor provisions of the Bankruptcy Code set forth in, *inter alia*, §362(b)(6), §362(b)(17), §362(b)(27), §362(o), §546(e), §548(d)(2), §556, §560 and §561, as they may be amended, superseded or replaced from time to time.

12.7 Cumulative Remedies. Except as explicitly provided to the contrary in this PPA, each right or remedy of the Parties provided for in this PPA shall be cumulative of and shall be in addition to every other right or remedy provided for in this PPA, and the exercise of one or more of the rights or remedies provided for herein shall not preclude the simultaneous or later exercise by such Party of any other rights or remedies provided for herein.

12.8 Duty to Mitigate. Each Each Party shall use Commercially Reasonable Efforts to mitigate any damages it may incur as a result of a default by the other Party under this PPA.

### **Article 13 - Dispute Resolution**

#### **13.1 Negotiation**

(A) In the event of any dispute arising under or associated with the Parties’ performance of this PPA (a “Dispute”), within 10 Business Days following notice by either Party (a “Dispute Notice”), (i) each Party shall appoint a representative, and (ii) the representatives shall meet, negotiate and attempt in good faith to resolve the Dispute quickly, informally and inexpensively.

(B) In the event the Parties’ representatives cannot resolve the Dispute within 30 Days after the first meeting, either Party may request that consideration and resolution of the Dispute be transferred to senior management. Within 10 Days following such a request, each Party shall submit a written summary of the Dispute describing the issues and claims to a senior officer of each Party designated to address the Dispute. Within 10 Business Days after receipt of each Party’s Dispute summaries, the designated senior managers for both Parties shall negotiate in good faith to resolve the Dispute. If such senior managers are unable to resolve the Dispute thereafter, either Party may seek available legal remedies, subject to Sections 13.3 and 19.3.

13.2 Time Bar. If no Dispute Notice has been issued within 18 months following the occurrence of events or circumstances giving rise to the Dispute (regardless of the actual knowledge of either Party of such events and circumstances), all claims related to such Dispute (including any allegations of billing errors) shall be

deemed waived and the aggrieved Party shall thereafter be barred from proceeding thereon.

13.3 No Termination Pending Dispute Resolution. Notwithstanding Section 12.1 or Section 12.3 to the contrary:

(A) An Event of Default shall not be deemed to have occurred (and hence neither Party may terminate this PPA) for failure by the other Party to pay any amount(s) allegedly due totaling less than \$100,000, if (1) such amount(s) are disputed in good faith, (2) the Party alleged to owe such amount(s) promptly commences and diligently pursues resolution of the Dispute pursuant to Section 13.1, and (3) the owed amount (if any) is paid within 10 Business Days after all dispute resolution mechanisms are completed with respect thereto.

(B) An Event of Default by Seller shall not be deemed to have occurred (and hence Company may not terminate this PPA) for failure by Seller to pay any amount(s) allegedly due totaling \$100,000 or more, if

1. such amount(s) are disputed by Seller in good faith;
2. Seller promptly commences and diligently pursues resolution of the Dispute pursuant to Section 13.1;
3. Seller either holds an Investment Grade Credit Rating, or posts cash collateral to secure its obligations (if any) with respect to the disputed amount(s), in an amount equal to the amount(s) in dispute, under a mutually agreeable third-party escrow and account control agreement, in addition to the Security Fund; and
4. the owed amount (if any) is paid by Seller within 10 Business Days after all dispute resolution mechanisms are completed with respect thereto.

(C) An Event of Default by Company shall not be deemed to have occurred (and hence Seller may not terminate this PPA) for failure by Company to pay any amount(s) allegedly due totaling \$100,000 or more, if

1. such amount(s) are disputed by Company in good faith;
2. Company promptly commences and diligently pursues resolution of the Dispute pursuant to Section 13.1;
3. Company either holds an Investment Grade Credit Rating, or posts cash collateral to secure its obligations (if any) with respect to the disputed amount(s), in an amount equal to the amount(s) in dispute, under a mutually agreeable third-party escrow agreement; and
4. the owed amount (if any) is paid by Company within 10 Business Days after all dispute resolution mechanisms are completed with respect thereto.

13.4 Governing Law. The interpretation and performance of this PPA, and all actions related hereto (whether sounding in contract, tort or otherwise), shall be governed and construed in accordance with the laws of the State of Colorado, exclusive of conflict of laws principles.

13.5 Venue. The Parties submit to the exclusive jurisdiction of the state courts of the State of Colorado for purposes of resolving any Dispute hereunder, except as provided in Section 19.3. Venue for any court proceedings shall lie exclusively in the Colorado District Court for the City and County of Denver or, if jurisdictionally available, the U.S. District Court for the District of Colorado.

13.6 Waiver of Jury Trial. **Seller and Company each hereby knowingly, voluntarily and intentionally waive any rights they may have to a trial by jury** in respect of any litigation based hereon, or arising out of, under, or in connection with, this PPA or any course of conduct, course of dealing, statements (whether oral or written) or actions of Seller and Company related hereto and expressly agree to have any Disputes be adjudicated by a judge of the court having jurisdiction, without a jury, subject only to Section 19.3.

#### **Article 14 - Force Majeure**

14.1 Defintion. For purposes hereof, “Force Majeure” means an event or circumstance that prevents a Party from performing its obligations under this PPA, which event or circumstance (i) was not anticipated as of the date of this PPA, (ii) is not within the control of or the result of the fault or negligence of the Party claiming excuse, and (iii) which by exercise of due diligence and foresight could not reasonably have been avoided; *provided, however*, that Force Majeure shall not include:

- a. inability, or excess cost, to procure any equipment necessary to perform this PPA;
- b. acts or omissions of a third party (including vendors and contractors to Seller), unless such acts or omissions are themselves excused by reason of Force Majeure;
- c. failure timely to apply for, or diligently pursue, the Permits set forth on Exhibit F – Needed Permits;
- d. a restriction in any Permit that precludes or limits the generation or delivery of Contract Energy below the Planned Permitted Energy;
- e. mechanical or equipment breakdown or inability to operate, attributable to circumstances occurring within design criteria and normal operating tolerances of similar equipment;
- f. Environmental Contamination at the Site;
- g. changes in market conditions or changes of law;
- h. changes of law; or

- i. labor strikes, slowdowns, work stoppages, or other labor disruptions.

By way of example only, "Force Majeure" includes any delay or failure by the Transmission Authority to perform its obligations under the Interconnection Agreement.

14.2 Applicability of Force Majeure. A Party shall be relieved of its obligations to perform this PPA and shall not be considered to be in default with respect to any obligation under this PPA if and to the extent such Party is prevented from fulfilling such obligation by Force Majeure, *provided, however*, that: (i) such Party gives prompt notice describing the circumstances and impact of the Force Majeure; (ii) the relief from its obligations sought by such Party is of no greater scope and of no longer duration than is required by the Force Majeure; (iii) such Party proceeds with due diligence to overcome the Force Majeure and resumes performance of its obligations under this PPA as soon as practicable thereafter; and (iv) such Party provides notice upon conclusion of the Force Majeure.

14.3 Limitations on Effect of Force Majeure.

(A) Force Majeure shall only relieve a Party of such obligations as are actually precluded by the Force Majeure.

(B) In no event will the existence of Force Majeure extend this PPA beyond its stated Term.

(C) If Force Majeure affecting Seller continues for a period of 90 consecutive Days or any 150 non-consecutive Days (with respect to Force Majeure occurring prior to COD) or for a period of 180 consecutive Days or any 270 non-consecutive Days (with respect to Force Majeure occurring after COD), Company may, at any time following the end of such period, terminate this PPA upon notice to Seller, without further obligation by either Party except as to costs and balances incurred prior to the effective date of such termination.

## **Article 15 - Representations and Warranties**

15.1 Each Party hereby represents and warrants to the other as follows, which representations and warranties shall be deemed to be repeated, if applicable, by each Party throughout the Term:

(A) Such Party is a valid separate legal entity, duly organized, validly existing and in good standing under Applicable Law. It is qualified to do business in the State in which the Facility is located and each other jurisdiction where the failure to so qualify would have a Material Adverse Effect on the business or financial condition of the other Party. It has all requisite power and authority to conduct its business, to own its properties, and to execute, deliver, and perform its obligations under this PPA.

(B) The Party's execution, delivery, and performance of all of its obligations under this PPA have been duly authorized by all necessary organizational action, and do not and will not:

1. require any consent or approval by any governing corporate or management body, other than that which has been obtained and is in full force and effect (evidence of which shall be delivered to the other Party upon its request);

2. violate any Applicable Law, the violation of which could have a Material Adverse Effect on the representing Party's ability to perform its obligations under this PPA;

3. result in a breach or constitute a default under the representing Party's formation documents, bylaws or equivalent, or under any agreement relating to its management or affairs or any indenture or loan or credit agreement, or any other agreement, lease, or instrument to which it is a party or by which it or its properties or assets may be bound or affected, the breach or default of which could reasonably be expected to have a Material Adverse Effect on the representing Party's ability to perform its obligations under this PPA; or

4. result in, or require the creation or imposition of any mortgage, deed of trust, pledge, lien, security interest, or other charge or encumbrance of any nature (other than as may be contemplated by this PPA) upon or with respect to any of the assets or properties of the representing Party now owned or hereafter acquired, the creation or imposition of which could reasonably be expected to have a Material Adverse Effect on the representing Party's ability to perform its obligations under this PPA.

(C) This PPA is a valid and binding obligation of the representing Party.

(D) The execution and performance of this PPA will not conflict with or constitute a breach or default under any contract or agreement of any kind to which the representing Party is a party or any judgment, order, or Applicable Law, applicable to it or its business.

(E) Within the meaning of the US bankruptcy code, (i) this PPA constitutes a "master netting agreement", (ii) all transactions pursuant to this PPA constitute "forward contracts" or a "swap agreement," (iii) the representing Party is a "forward contract merchant" and "master netting agreement participant", and (iv) all payments made or to be made pursuant to this PPA constitute "settlement payments."

(F) Such Party is (i) an "eligible contract participant" as defined in Section 1a(12) of the Commodity Exchange Act, as amended, 7 U.S.C. § 1a(12), (ii) a "market participant" under applicable exchange and market rules; (iii) a producer, processor, or commercial user of, or a merchant handling, the commodity which is the subject of this PPA, or the products or by products thereof; and (iv) entering into this PPA solely for purposes related to its business as such.

## **Article 16 - Insurance**

16.1 Evidence of Insurance. No later than commencement of construction and thereafter at least five Days prior to each applicable expiration date, Seller shall provide Company with two copies of insurance certificates acceptable to Company evidencing that insurance coverages for the Facility are in force and in compliance with the specifications for insurance coverage set forth in Exhibit E – Insurance Coverage to this PPA. Such certificates shall:

(A) name Company as an additional insured (except worker's compensation);

(B) provide that Company shall receive 30 Days prior Notice of non-renewal, cancellation of, or significant modification to any of the corresponding policies (except that such notice may be 10 Days for non-payment of premiums);

(C) provide a waiver of any rights of subrogation against Company, its Affiliates and their officers, directors, agents, subcontractors, and employees; and

(D) indicate that the Commercial General Liability policy has been endorsed as described above.

16.2 Policy Requirements. All policies shall be written with insurers with an AM Best rating of at least A-VII or a Standard & Poor's rating of at least A. All policies shall be written on an occurrence basis, except as provided in Section 16.4. All policies shall contain an endorsement that Seller's policy shall be primary in all instances regardless of like coverages, if any, carried by Company. Seller may satisfy its insurance requirements using any reasonable combination of primary and secondary coverage.

16.3 No Implied Limitation. Seller's liability under this PPA is not limited to the amount of insurance coverage required herein.

### 16.4 Term and Modification of Insurance.

(A) All insurance required under this PPA shall cover occurrences during the Term and for a period of two years after the Term. In the event that any insurance as required herein is commercially available only on a "claims-made" basis, such insurance shall provide for a retroactive date not later than the date of this PPA and such insurance shall be maintained by Seller for a minimum of six years after the Term.

(B) Company shall have the right, at times deemed appropriate to Company during the Term, to request Seller to modify the insurance minimum limits specified in Exhibit E - Insurance Coverage in order to maintain Commercially Reasonable coverage amounts. Seller shall make all Commercially Reasonable Efforts to comply with any such request.

(C) If any insurance required to be maintained by Seller hereunder ceases to be reasonably available and commercially feasible in the commercial insurance market, Seller shall provide notice to Company, accompanied by a certificate from an independent insurance advisor of recognized national standing, certifying that such insurance is not reasonably available and commercially feasible in the commercial insurance market for electric generating plants of similar type, geographic location and capacity. Upon receipt of such notice, Seller shall use Commercially Reasonable Efforts to obtain other insurance that would provide comparable protection against the risk to be insured.

16.5 Application of Proceeds. Seller Except to the extent otherwise required by the Financing Documents, Seller shall apply any casualty insurance proceeds to reconstruction of the Facility following any material casualty to the Facility that occurs more than eighteen (18) months prior to the Scheduled Termination Date.

### **Article 17 - Indemnity**

17.1 Indemnification: General. Each Party (the "Indemnifying Party") Each Party (the "Indemnifying Party") shall indemnify, defend and hold the other Party (the "Indemnified Party") harmless from and against all claims, demands, lawsuits (including citizen suits), losses, liabilities, fines, penalties, and expenses (including attorneys' fees) (generally, Losses"), to the extent proximately caused by:

(A) A default under this PPA by the Indemnifying Party;

(B) A violation or alleged violation of Applicable Laws by the Indemnifying Party; and,

(C) The negligence, intentional acts and other misconduct of the directors, officers, employees, or agents of the Indemnifying Party.

17.2 Indemnification: Environmental. Seller shall indemnify, defend and hold Company harmless from and against all Losses arising out of any claim by any Governmental Authority or other third party alleging Environmental Contamination at the Site and/or illegal disposal of Hazardous Materials off-Site, regardless of merit and regardless of Seller's responsibility therefor.

#### 17.3 Limitations.

(A) The foregoing indemnification obligations shall apply notwithstanding any contributory misconduct of the Indemnified Party, but the Indemnifying Party's liability to indemnify the Indemnified Party shall be reduced in proportion to the percentage by which the Indemnified Party's misconduct caused the damages

(B) Neither Party shall be indemnified for Losses resulting from the sole negligence or willful misconduct of the directors, officers, employees, or agents of such Party. These indemnity provisions shall not be construed to relieve any insurer of its obligation to pay claims consistent with the provisions of a valid insurance policy.



(C) Nothing in this Section 17.3 shall enlarge or relieve Seller or Company of any liability to the other for any breach of this PPA.

#### 17.4 Procedures.

(A) Promptly after receipt by a Party of any claim or notice of the commencement of any action, administrative, or legal proceeding, or investigation as to which the indemnity provided for in this Article 17 may apply, the Indemnified Party shall provide notice thereof to the Indemnifying Party; *provided* that a delay in providing such notice shall limit the obligations of the Indemnifying Party only to the extent that such delay actually prejudices the ability of the Indemnifying Party to contest the claim or defend the proceeding.

(B) The Indemnifying Party shall assume the defense thereof with counsel designated by such Party and satisfactory to the Indemnified Party, *provided, however*, if the defendants in any such action include both the Indemnified Party and the Indemnifying Party and the Indemnified Party shall reasonably conclude that there may be legal defenses available to it which are different from or additional to, or inconsistent with, those available to the Indemnifying Party, the Indemnified Party shall have the right to select and be represented by separate counsel, at the Indemnifying Party's expense.

(C) If an Indemnifying Party fails to assume the defense of a claim meriting indemnification, the Indemnified Party may contest, settle, or pay such claim, at the expense of the Indemnifying Party, *provided, however, that* settlement or full payment of any such claim may be made only following consent of the Indemnifying Party or, absent such consent, written opinion of the Indemnified Party's counsel that such claim is meritorious or otherwise warrants settlement.

17.5 Amounts Owed. In the event that a Party is obligated for indemnification under this Article 17, the amount owing to the Indemnified Party will be the amount of the Indemnified Party's actual Losses net of any insurance proceeds received by the Indemnified Party following a Commercially Reasonable effort by the Indemnified Party to obtain such insurance proceeds.

### **Article 18 - Lender Provisions**

#### 18.1 Accommodation of Facility Lender.

(A) Company shall provide such consents to collateral assignment, certifications, representations, estoppels, information or other documents, as may be reasonably requested by Seller in connection with the financing of the Facility consistent with the terms set forth in Exhibit J – Lender Consent Provisions (generally, a "Lender Consent"), *provided, however, that* in providing a Lender Consent, Company shall have no obligation to

1. modify the terms of this PPA;

2. or provide any consent or enter into any agreement, that has a Material Adverse Effect on any of Company's rights, benefits, risks, or obligations under this PPA

3. transfer or release any property or property interests of Company;

4. release or subordinate (or cause the release or subordination) of any lien on any property of Company for the benefit of Seller or the Facility Lender; or

5. permit any lien to be placed on property of Company.

(B) Seller shall reimburse, or shall cause the Facility Lender to reimburse, Company for the direct expenses (including the fees and expenses of counsel) incurred by Company in the preparation, negotiation, execution and/or delivery of each Lender Consent and any documents requested by Seller or the Facility Lender, pursuant to this Section 18.1.

#### 18.2 Notices.

(A) Seller shall provide Company with a notice identifying the Facility Lender and providing appropriate contact information for the Facility Lender. Following receipt of such notice, Company shall provide to the Facility Lender a copy of each notice of alleged default delivered to Seller under Section 12.1 or Section 12.2, and Company will accept a cure thereof performed by the Facility Lender, so long as the cure is accomplished within the applicable cure period set forth in this PPA or the relevant Lender Consent.

(B) Within 10 Days following Seller's receipt of each notice of default, or Facility Lender's intent to exercise any remedies under the Financing Documents, Seller shall deliver a copy of such notice to Company.

### **Article 19 - Assignment and Other Transfer Restrictions**

#### 19.1 Assignment by Seller.

(A) Seller shall not sell, exchange or otherwise transfer the Facility or any material portion thereof to any third party, nor shall Seller undergo any Change of Control (whether voluntary or by operation of law), absent the prior written consent of Company, which shall not be unreasonably withheld or delayed. Company shall have no obligation to provide any consent under this Section 19.1 unless

1. Seller has complied with Sections 19.3 and 19.4, if and as applicable;

2. Seller has provided to Company such information concerning the transferee's direct and indirect ownership as Company reasonably requests;

3. the transferee has substantial experience in the operation of power generation facilities like the Facility, either directly, through its affiliates or through an operator acceptable to Company;

4. the transferee (together with its parents and affiliates) enjoys an Investment Grade Credit Rating or other creditworthiness satisfactory to Company;

5. Seller has provided to Company at least 30 days' prior notice of the transaction; and

6. Seller pays or reimburses Company for the direct expenses (including the fees and expenses of counsel) incurred by Company in connection with the transaction.

(B) Any Change of Control or sale, transfer, or assignment of any interest in the Facility effected without fulfilling the requirements of this PPA shall be null, void and a breach of this PPA.

(C) Seller shall assign this PPA to any successor owner of the Facility, and shall cause such successor to assume all obligations of Seller (accrued and prospective) hereunder via a writing reasonably satisfactory to Company. Seller also may assign this PPA for collateral purposes to any Facility Lender, and may subcontract some or all of its duties under this PPA, upon notice to but without the consent of Company.

(D) Except as permitted in this Section 19.1, Seller may not assign this PPA or any portion hereof. No assignment shall relieve Seller of its obligations under this PPA, nor impair any security posted by Seller unless such security is replaced in accordance with Article 11. Before this PPA is assigned by Seller, the assignee must first obtain such approvals as may be required by all applicable Governmental Authorities.

#### 19.2 Assignment by Company.

(A) Company may assign this PPA to any Affiliate, or to any successor that provides retail electric service in all or substantially all of Company's service territory and is subject to rate and quality service regulation under the jurisdiction of the PUC. Any other assignment of this PPA by Company shall require the prior written consent of Seller, not to be unreasonably withheld or delayed.

(B) If an assignee of Company enjoys a Credit Rating equal to or better than Investment Grade or Company's Credit Rating as of the date of assignment (whichever is higher), Seller shall release Company from its obligations hereunder if so

requested by Company. Except for the foregoing, no assignment shall relieve Company of its obligations under this PPA.

(C) Any assignee of Company shall assume all obligations of Company (accrued and prospective) hereunder via a writing reasonably satisfactory to Seller. Before this PPA is assigned by Company, the assignee must first obtain such approvals as may be required by all applicable Governmental Authorities.

### 19.3 ROFO.

(A) At any time after the Commercial Operation Date,

1. if Seller proposes to sell the Facility to an unaffiliated third party, Seller shall first offer to sell the Facility to Company via notice to Company,

2. if Seller's parent proposes to sell a majority of the equity interests in Seller to an unaffiliated third party, Seller shall cause its parent first to offer to sell such equity interests to Company via notice to Company, and

3. if Seller's parent owns no assets other than its equity interests in Seller and the parent of Seller's parent proposes to sell a majority of the equity interests in Seller's parent to an unaffiliated third party,

Seller shall cause its parent's parent first to offer to sell such equity interests to Company via notice to Company (in each case, a "ROFO Notice") Any ROFO Notice shall describe the proposed transaction, including the minimum price, status of title to the Site, liabilities to be assumed and other terms which Seller or its relevant parent (as applicable) is willing to accept to proceed with the contemplated transaction. The contents of a ROFO Notice shall be deemed Confidential Information for purposes of Section 20.19 below.

(B) Following issuance of a ROFO Notice, Seller shall allow Company 60 Days to investigate the proposed transaction and conduct due diligence. Due diligence shall include such physical inspections, surveys and operating tests of the Facility and the Site, such reviews of Seller's contracts, books and records, and interviews of such personnel, as Company may reasonably request. All information obtained by Company from such investigations shall be deemed Confidential Information subject to Section 20.19 below. Within such 60-Day period, Company may elect to purchase the Facility or the relevant equity interests (as applicable) on substantially the same terms as set forth in the ROFO Notice. If Company fails to notify Seller of Company's election within such 60-Day period, Company shall be deemed to have rejected the transaction.

(C) If Company elects to purchase the Facility or the specified equity interests (as applicable), the Parties shall negotiate and execute a definitive contract for the transaction (a "PSA"). The PSA shall include the price and other terms set forth in the ROFO Notice and such other terms as are set forth in Exhibit R – PSA Provisions. In the event that the Parties cannot agree on the final form of PSA, (i) the issue shall be

submitted to “baseball” arbitration in Denver, Colorado before one arbitrator appointed by the Arbitration Service, i.e. each Party shall submit to the arbitrator a form of proposed PSA, and the arbitrator shall be required to select one of the two forms to be used as the PSA in the transaction, without compromise, as the arbitral award, (ii) the period for closing of the transaction shall be extended for the period required to complete arbitration, and (iii) the Party whose form PSA is rejected shall pay the fees and costs of the Arbitration Service.

(D) If Company rejects the transaction described in a ROFO Notice, Seller shall have the right to sell the Facility (or Seller’s relevant parent shall have the right to sell the specified equity interests, as applicable) on terms not more favorable to Seller or its parent vs. the terms set forth in the ROFO Notice, at any time within the twelve-month period following issuance of the ROFO Notice. If Seller or its relevant parent fails to close a transaction on such terms within such 12-month period, any sale of the Facility or equity interests in Seller shall again be subject to this Section 19.3.

(E) This Section 19.3 shall be specifically enforceable by Company, without bond and without the need to prove irreparable harm.

(D) Seller shall cooperate in all respects reasonably necessary for Company to exercise its ROFO rights, and shall operate the Facility in the ordinary course of business following the date of issuance of a ROFO Notice.

#### 19.4 PFT.

(A) Seller shall give Company at least 90 Days’ prior notice (a “PFT Notice”) of any Pending Facility Transaction that does not otherwise trigger Company’s ROFO rights under Section 19.3, in order to provide Company with an opportunity to discuss and negotiate with Seller the possible sale of the Facility to Company. Any PFT Notice shall include a fair summary of Seller’s plans with respect to the Facility in connection with the proposed Pending Facility Transaction, to the extent then known by Seller. The contents of a PFT Notice shall be deemed Confidential Information for purposes of Section 20.19 below.

(B) Seller shall have no obligation to sell nor shall Company have any obligation to purchase the Facility, following any PFT Notice. Issuance of a PFT Notice shall not relieve Seller of its obligation to offer a ROFO to Company if and when applicable pursuant to Section 19.3. In the event that the transaction giving rise to the PFT Notice has not been completed within twelve months following a PFT Notice, Seller shall be required to resubmit a PFT Notice for such transaction.

(C) Any breach of this Section 19.4 shall entitle Company to liquidated damages from Seller in the amount of [*insert \$5 × number of kW of Net Capability*].

(D) For purposes hereof, a “Pending Facility Transaction” or “PFT” means:

1. any Change of Control of Seller;

2. the issuance by Seller or any of its Affiliates of a request for proposals or the response by Seller or any of its Affiliates to a request for proposal or similar process (e.g., auction) for the purchase or sale to any unaffiliated third party of any equity interests in Seller or the Facility, or any group(s) of assets or equity interests that includes the Facility;

3. the commencement by Seller or any of its Affiliates of substantive negotiations with any unaffiliated third party with respect to the sale of any equity interests in Seller or the Facility, or any group(s) of assets or equity interests that includes the Facility; or

4. the execution by Seller or any of its Affiliates of any letter of intent, memorandum of understanding or similar document, whether or not legally binding, which contemplates the sale or lease to an unaffiliated third party of any equity interests in Seller or the Facility or any group(s) of assets or equity interests that includes the Facility;

*provided, however*, that a PFT does not include (i) any financing or refinancing of the Facility Debt, (ii) any transaction among Affiliates of Seller, and/or (iii) any transaction for which Seller offers ROFO rights to Company under Section 19.3.

## **Article 20 - Miscellaneous**

### **20.1 Notices.**

(A) Notices required by this PPA shall be in writing and addressed to the other Party at the addresses noted in Exhibit D – Notices and Contact Information, as either Party updates such addresses from time to time by notice to the other Party. Notices shall be deemed effective when receipt is acknowledged in writing by the counterparty (or absent such acknowledgement, when delivered via third-party messenger or via FedEx or other reputable overnight courier service). Any notice shall be deemed to have been received by the close of the Business Day on which it was delivered. Real-time or routine communications concerning Facility operations shall be exempt from this Section 20.1(A).

(B) The Parties recognize the need for accurate communications between them. Each Party consents to the recording of telephone conversations between their employees and representatives, related to the performance and administration of this PPA.

### **20.2 Taxes.**

(A) Company shall purchase all Contract Energy on a wholesale basis, for resale to Company's wholesale and retail customers. Company shall obtain and provide Seller with any certificates required by any Governmental Authority or otherwise reasonably requested by Seller to evidence that the deliveries of Contract Energy hereunder are sales for resale.

(B) Company shall be solely responsible for sales, use and value-added taxes imposed with respect to the purchase of fuel by Company for consumption by the Facility to produce the Contract Energy dispatched and received by Company hereunder.

(C) As between the Parties, Company shall be solely responsible for the payment of (1) any sales, use or equivalent taxes imposed by Governmental Authorities, whether now in existence or hereafter enacted, on the purchase of Contract Energy hereunder at the Point of Delivery, and (2) any taxes imposed by Governmental Authorities, whether now in existence or hereafter enacted, on the transmission of Contract Energy beyond the Point of Delivery.

(D) Subject to Section 20.2(B) and (C) above and Section 20.4 below, Seller shall be solely responsible for any and all present and future taxes and other impositions of Governmental Authorities relating to the construction, ownership or leasing, operation or maintenance of the Facility and the Site (including *ad valorem* taxes on the Facility and the Site), and any taxes imposed at or prior to the Point of Delivery with respect to the products and services to be sold and delivered to Company hereunder, whether calculated based upon cost, value, labor, capital, production, savings, green attributes or other parameters. Seller's prices under Article 8 are inclusive of such taxes and impositions during the Term, and Seller assumes the risk of changes in such taxes after the date hereof.

(E) The Parties shall cooperate to minimize tax exposure, *provided, however*, that neither Party shall be obligated to incur any financial burden to reduce taxes for which the other Party is responsible hereunder.

### 20.3 Applicable Laws.

(A) Each Party shall comply with all Applicable Laws (including the Transmission Authority Tariff) in connection with its performance of this PPA, at its own expense, except for any non-compliance that (individually or in the aggregate) could not reasonably be expected to have a Material Adverse Effect on the other Party or on such Party's ability to perform this PPA.

(B) As applicable, each Party shall give all required notices, shall procure and maintain all Permits necessary for performance of this PPA, and shall pay its respective charges and fees in connection therewith.

(C) Each Party shall promptly disclose to the other Party, any violation of Applicable Laws arising out of performance of this PPA.

(D) Upon permanent cessation of generation from the Facility, Seller shall decommission and remove the Facility and remediate the Site as, if and when required by Applicable Laws.

(E) Seller acknowledges that as a government contractor Company is subject to Applicable Laws regarding equal employment opportunity and affirmative

action, including 41 C.F.R. §60-1.4(a)(1-7). Such Applicable Laws may also be applicable to Seller as a subcontractor to Company. All such Applicable Laws shall be deemed to be incorporated herein as required by Applicable Law.

#### 20.4 Change of Law.

(A) As between the Parties, Company shall be solely responsible for the payment of any taxes enacted by Governmental Authorities that are imposed based upon the quantity of CO<sub>2</sub> emissions from the Facility resulting from the production of Contract Energy during the Term of this PPA.

(B) If Governmental Authorities enact any enforceable limits or other enforceable compliance obligations restricting CO<sub>2</sub> emissions, such limits or obligations are imposed on and restrict all or substantially all of Company's generation portfolio, and such limits or obligations can be mitigated by the acquisition or application by Company of allowances, credits and/or eligible offsets, then

1. Company shall dispatch the Facility in accordance with such limits and obligations; and

2. Company at its cost shall acquire, apply and manage such allowances, credits and/or offsets as necessary to mitigate or offset CO<sub>2</sub> emissions resulting from the production of Contract Energy during the Term of this PPA; *provided* that nothing in this Section 20.4(B) shall be construed to require Company to make or reimburse Seller for any capital expenditures with respect to the Facility.

(C) Except as specifically set forth in this Section 20.4 and elsewhere in this PPA, each Party assumes the risk of changes in Applicable Laws following the date hereof, that affect such Party's costs of ownership and operation of its assets, and its performance of this PPA

20.5 Fines and Penalties. Seller shall pay when due all fees, fines, penalties and costs incurred by Company, Seller and/or their agents, employees or contractors arising from noncompliance by Seller, its employees, or subcontractors with any provision of this PPA, or any contractual obligation, Permit or requirements of Applicable Law, except for such fines, penalties and costs that are being actively contested in good faith and with due diligence by Seller and for which adequate financial reserves have been set aside to pay such fines, penalties or costs in the event of an adverse determination.

#### 20.6 Rate Changes.

(A) The terms and conditions and the rates for service specified in this PPA shall remain in effect for the Term hereof. Neither Party shall seek (nor support any third party seeking) any prospective or retroactive change to the rates or terms of service under this PPA pursuant to §205, §206 or §306 of the Federal Power Act.



(B) The standard of review for changes to this PPA whether proposed by a Party, a non-party, or FERC acting *sua sponte* shall be the “public interest” standard of review set forth in *United Gas Pipe Line v. Mobile Gas Service Corp.*, 350 U.S. 332 (1956) and *Federal Power Commission v. Sierra Pacific Power Co.*, 350 U.S. 348 (1956) (aka the “Mobile-Sierra doctrine”), as interpreted in *Morgan Stanley Capital Group, Inc. v. Public Util. Dist. No. 1*, 128 S. Ct. 2733 (2008).

20.7 Certifications. Each Party shall deliver or cause to be delivered to the other Party certificates of its officers, accountants, engineers or agents as to matters as may be reasonably requested, and shall make available personnel and records relating to the Facility to the extent that the requesting Party requires the same in order to fulfill any regulatory reporting requirements, or to assist the requesting Party in litigation, including administrative proceedings before the PUC.

20.8 Disclaimer of Third Party Beneficiaries. In executing this PPA, Company does not and does not intend to extend its credit or financial support for the benefit of any Facility Lender or any other third party transacting with Seller. Nothing in this PPA shall be construed to create any duty to, or standard of care with reference to, or any liability to, any person not a party to this PPA.

20.9 Relationship of the Parties.

(A) This PPA shall not be interpreted to create an association, joint venture, or partnership between the Parties, nor to impose any partnership obligation or liability upon either Party. Except as specifically provided for in this PPA to the contrary, neither Party shall have any right, power, or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as an agent or representative of, the other Party.

(B) Seller shall be solely liable for the payment of all wages, taxes, and other costs related to the employment of persons to perform such services, including all federal, state, and local income, social security, payroll, and employment taxes and statutorily mandated workers’ compensation coverage. None of the persons employed by Seller shall be considered employees of Company for any purpose; nor shall Seller represent to any person that he or she is or shall become a Company employee.

20.10 Survival of Obligations. Cancellation, expiration, or earlier termination of this PPA shall not relieve the Parties of obligations, including warranties, remedies, or indemnities, that by their nature should survive such cancellation, expiration, or termination, which obligations shall survive for the period of the applicable statute(s) of limitation.

20.11 Severability. In the event any of the terms, covenants, or conditions of this PPA, its Exhibits, or the application of any such terms, covenants, or conditions, shall be held invalid, illegal, or unenforceable by any court or administrative body having jurisdiction, all other terms, covenants, and conditions of the PPA and their application not adversely affected thereby shall remain in force and effect; *provided,*

*however, that* Company and Seller shall negotiate in good faith to attempt to implement an equitable adjustment in the provisions of this PPA with a view toward effecting the purposes of this PPA by replacing the provision that is held invalid, illegal, or unenforceable with a valid provision the economic effect of which comes as close as possible to that of the provision that has been found to be invalid, illegal or unenforceable.

20.12 Complete Agreement; Amendments. The terms and provisions contained in this PPA constitute the entire agreement between Company and Seller with respect to the Facility and shall supersede all previous communications, representations, or agreements, either verbal or written, between Company and Seller with respect to the purchase and sale of Contract Capacity, Contract Energy and other products and services from the Facility. Any amendment of this PPA, or any waiver of any provision hereof, shall be evidenced by a writing signed by the Party/ies to be bound thereby.

20.13 Waiver. The failure of either Party to enforce or insist upon compliance with or strict performance of any of the terms or conditions of this PPA, or to take advantage of any of its rights hereunder, shall not constitute a waiver or relinquishment of any such terms, conditions, or rights, but the same shall be and remain at all times in full force and effect.

20.14 Binding Effect. This PPA is binding upon and shall inure to the benefit of the Parties hereto and their respective successors, legal representatives, and assigns.

20.15 Headings. Captions and headings used in this PPA are for ease of reference only and do not constitute a part of this PPA.

20.16 Counterparts. This PPA may be executed in counterparts, and each executed counterpart shall have the same force and effect as an original instrument.

20.17 Press Release. Upon the request of either Party, the Parties shall develop a mutually agreed joint press release to be issued describing the location, size and nature of the Facility, the term of this PPA, and other relevant factual information about the relationship.

20.18 Exhibits. Either Party may change the information in Exhibit D- Notices and Contact Information at any time by notice without the approval of the other Party. All other Exhibits may be changed to the extent allowed by specific provisions of this PPA or with the mutual consent of both Parties.

20.19 Confidentiality.

(A) For purposes hereof, "Confidential Information" means

1. information specifically designated as Confidential Information in this PPA; and

2. written information delivered by one Party to the other from time to time during the Term, which information is labeled prominently as “Confidential,” “Proprietary” or the like and specifically references this PPA.

*provided, however,* that “Confidential Information” shall not include information that

- i. is publicly available as of the date hereof, or becomes publicly available during the Term through no fault of the recipient Party;
- ii. can be documented was independently developed by the recipient Party; and/or
- iii. is disclosed to the recipient Party from an ultimate source other than the protected Party, without breach of this PPA by the recipient Party.

(B) The recipient Party shall (i) maintain the confidentiality of all Confidential Information of the protected Party, using the same degree of care used by the recipient Party to protect its own Confidential Information (and in any event not less than a reasonable degree of care), and (ii) shall use Confidential Information only in connection with its performance of this PPA. Confidential Information may be disclosed by the recipient Party to its agents, employees, directors, officers, consultants, auditors, lenders and equity investors, subject to their acceptance of the obligations of confidentiality imposed hereby and for whose violations of this Section 20.19 the recipient Party shall be responsible.

In the event that Confidential Information is disclosed to a PUC, its staff, intervenors or consumer counsel in any regulatory or administrative proceedings before a PUC, the disclosing Party shall submit such Confidential information in accordance with applicable PUC confidentiality rules and procedures. In the event that Confidential Information must otherwise be disclosed by Applicable Law (e.g. pursuant to subpoena or civil discovery), the Party required to make disclosure shall notify the protected Party sufficiently in advance to allow the protected Party a reasonable opportunity to obtain a protective order or seek other remedies, prior to disclosure by the recipient Party.

#### 20.20 Accounting Treatment.

(A) If and when Company reasonably determines that Company must consolidate financial information of Seller into Company’s financial statements under FASB ASC 810 or other accounting standard applicable to Company:

1. the Parties shall use Commercially Reasonable Efforts to amend this PPA and/or the Parties’ protocols for operation of the Facility to avoid such

treatment, at the least possible cost to the Parties, consistent with the intent of this PPA to the extent possible; or

2. if such avoidance is not reasonably feasible, Seller shall provide to Company from time to time upon request such quarterly and annual financial information as may be needed for Company to comply with such standard, in such format and within such time frames as Company may reasonably request.

(B) If and when Company reasonably determines that Company must treat this PPA as a “capital lease” under FASB ASC 840 or other accounting standard applicable to Company, the Parties shall use Commercially Reasonable Efforts to amend this PPA and/or the Parties’ protocols for operation of the Facility to avoid such treatment, at the least possible cost to the Parties, consistent with the intent of this PPA to the extent possible, if so requested by Company.

*[remainder of this page intentionally left blank]*

IN WITNESS WHEREOF, the Parties have executed this PPA as of the date first set forth above.

**Seller:**

By: \_\_\_\_\_

**Company:**

Public Service Company of Colorado

By: \_\_\_\_\_

## EXHIBIT A

### DEFINITIONS

The following terms shall have the meanings set forth herein:

“Acceptable Fuel Oil” means fuel oil meeting the quality specifications set forth in Exhibit T – Fuel Oil to this PPA at the time that such fuel oil is delivered to Seller’s Fuel Oil Supply Facilities. *if applicable*

“Acceptable Natural Gas Fuel” means

(i) natural gas fuel procured from the Upstream Pipeline that complies with the tariff of the Upstream Pipeline (as such tariff may be amended from time to time);

(ii) such other natural gas fuel delivered to a Fuel Delivery Point, the actual gas quality of which meets or exceeds the natural gas quality specifications, requirements and minimum delivery pressures in Exhibit L - Fuel Quality Specifications; or

(iii) natural gas fuel that otherwise complies with the Combustion Unit manufacturer’s natural gas fuel quality specifications, requirements and delivery pressures of the manufacturer of the Facility’s Combustion Units, and that would not otherwise void such manufacturer’s warranties.

“Actual Damages” has the meaning set forth in Section 12.4(C).

“Actual Net Heat Rate” as of any date means the net heat rate for the Facility, stated in Btu/kWh HHV, adjusted to Reference Conditions, determined by the most recent heat rate test conducted in accordance with Exhibit K - Heat Rate Testing.

“Affiliate” of any designated Person means any person or entity that directly or indirectly controls, is under the control of, or is under common control with, the designated Person by the power to direct or cause the direction of the management of the policies of designated Person, whether through ownership interest, by contract or otherwise.

“AGC” or “Automatic Generation Control” means the equipment and capability of an electric generation facility automatically to adjust the generation quantity within the applicable Balancing Authority with the purpose of interchange balancing and specifically, the Facility’s capability of accepting an AGC Set-Point electronically, and the automatic adjustment and regulation of the Facility’s energy production via the SCADA System.

AGC Set-Point means the Company-generated analog or digital signal sent by the SCADA System to the Facility, representing the quantity of Contract Energy to be generated by the Facility. The AGC Set-Point is calculated by the EMCC AGC system and communicated electronically to the Facility via the SCADA System.

“Ancillary Services” shall have the meaning set forth in Section 7.5(C).

"Applicable Law" means all laws, statutes, treaties, codes, ~~ordinances~~, regulations, certificates, orders, licenses and permits of any Governmental Authority that are applicable to a Party, the business of a Party or the Facility, now in effect or hereafter enacted, including amendments to or interpretations of any of the foregoing by a Governmental Authority having jurisdiction, and all applicable judicial, administrative, arbitration and regulatory decrees, judgments, injunctions, writs, orders, awards or like actions.

"Availability Verification Test" shall have the meaning set forth in Section 10.9(B).

"Arbitration Service" means Judicial Arbitration and Mediation Services, Inc. (aka JAMS).

"Back-Up Metering" shall have the meaning set forth in Section 5.3(B).

"Balancing Authority" means the system of electrical generation, distribution and transmission facilities within which generation is regulated in order to maintain interchange schedules with other such systems.

"Btu" means British thermal unit.

"Business Day" means any Day that is not a Saturday, a Sunday, or a NERC recognized holiday.

"CAF" stands for Capacity Availability Factor and shall have the meaning set forth in Section 8.4.

"Capacity Resource" means the amount of net generating capacity associated with the Facility for which capacity credit may be obtained under applicable planning reserve procedures and requirements as designated by Company.

"Change of Control" means the occurrence of any one of the following events with respect to Seller or any direct or indirect owner of a majority of the ownership interests in Seller: (a) a transfer of a majority of the ownership interests in Seller or such owner; (b) any consolidation or merger of Seller or such owner in which Seller or such owner, as the case may be, is not the continuing or surviving entity; or (c) a sale or conveyance of any direct or indirect ownership interest in Seller following which [REDACTED] ("Ultimate Parent") is no longer the direct or indirect owner of at least 50% of the ownership interests of Seller, *provided, however*, that a Change of Control shall not be deemed to have occurred as a result of

- (i) transactions exclusively among Affiliates of Seller,
- (ii) any exercise by the Facility Lender of its rights and remedies under the Financing Documents,
- (iii) a change of control of Ultimate Parent, or

any change of economic and/or voting rights triggered in Seller's organizational documents arising from a tax equity financing of the Facility.

"COD Conditions" means all of the requirements that must be satisfied by Seller as a prerequisite to achieving Commercial Operation. The COD Conditions are set forth in Section 4.5(C).

"COD Notice" shall have the meaning set forth in Section 4.5(B).

"Combustion Unit Start Payment" shall have the meaning set forth in Section 8.5.

"Combustion Unit(s)" means, as the context requires, the turbine-generator(s) at the Facility.

"Combustion Units Net Capability" shall have the meaning set forth in Section 3.2(D).

"Commercial Operation" means the period beginning on the Commercial Operation Date and continuing through the Term of this PPA.

"Commercial Operation Date" or "COD" shall have the meaning set forth in Section 4.5(C)(1).

"Commercial Operation Year" shall have the meaning set forth in Section 4.5(E).

"Commercially Reasonable" or "Commercially Reasonable Efforts" means, with respect to any action to be taken or attempted by a Party under this PPA, the level of effort in light of the facts known to such Party at the time a decision is made that: (a) can reasonably be expected to accomplish the desired action at a reasonable cost; (b) is consistent with Good Utility Practices; and (c) takes into consideration the amount of advance notice required to take such action, the duration and type of action and the competitive environment in which such action occurs.

"Committed Solar Energy" for any period means the megawatt-hours of Solar Energy committed to be delivered to the Company by Seller from the Facility in such period, set forth in Exhibit M - Committed Solar Energy and Solar Energy Rates. For any period that does not coincide with a Commercial Operation Year, Committed Solar Energy shall be calculated as the month-weighted sum of the Committed Solar Energy falling in each of the two Commercial Operation Years using expected monthly generation profile data, set forth in Exhibit M - Committed Solar Energy and Solar Energy Rates.

"Compensable Curtailment Energy" shall have the meaning set forth in Section 8.3(B)(1).

"Confidential Information" shall have the meaning set forth in Section 20.19(A).

"Construction Contracts" shall have the meaning set forth in Section 4.1(A).

"Construction Milestones" means the dates set forth in Exhibit B - Construction Milestones.

"Contract Capacity" shall have the meaning set forth in Section 7.1(A)(4).



"Contract Energy" shall have the meaning set forth in Section 7.1(A)(B).

"Credit Rating" of any Person means the lowest rating assigned to such Person's long-term debt or deposit obligations (unenhanced by third-party support) by Standard & Poors and Moody's. If such Person has no outstanding long-term debt or deposit obligations, or if no rating is assigned to such obligations, "Credit Rating" shall mean the lowest general corporate credit rating or long-term issuer rating assigned to such Person by Standard & Poors or Moody's.

"Damage Cap" shall have the meaning set forth in Section 12.4(A).

"Day" means a calendar day.

"DC" means direct electric current.

"Dispatchability Payment" shall have the meaning set forth in Section 8.10.

"Dispute" shall have the meaning set forth in Article 13.1(A).

"Electric Metering Devices" means revenue quality meters, metering equipment and data processing equipment used to measure separately measure, record and transmit data with respect to the output of Solar Energy and Natural Gas Generated Energy generated by the Facility, including metering current transformers and metering voltage transformers.

"Eligible Energy Resource" means any resource that qualifies as a renewable energy resource eligible to be certified to receive, claim, own or use Renewable Energy Credits pursuant to the protocols and procedures developed and approved by the State Regulatory Agency in the REC Registration Program.

"Emergency" means any event or occurrence after the date of this PPA that results in the declaration of an Emergency Condition under and as defined in the Interconnection Agreement.

"Energy Markets Control Center" or "EMCC" means Company's merchant representatives responsible for dispatch of generating units, including the Facility.

"Energy Resource Interconnection Service" means the type of interconnection service which allows Seller to connect the Facility to the transmission or distribution system, as applicable, as an "Energy Resource" as defined by the Transmission Tariff, and be eligible to deliver the Facility's Contract Energy and Contract Capacity using the existing firm or non-firm capacity on the transmission system on an as-available basis.

"Environmental Contamination" shall have the meaning set forth in Section 4.2(C)(1).

"ERO" means the Electric Reliability Organization certified by FERC pursuant to Section 215 of the Federal Power Act or any successor organization. The certified ERO as of the date of this PPA is the Western Electricity Coordinating Council (WECC) and Peak Reliability.

"ESC Adjustment" shall have the meaning set forth in Section 8.8(A). Page 77 of 123

"ESC Event" shall have the meaning set forth in Section 8.8(C).

"Event of Default" shall have the meaning set forth in Article 12.

"Excess Solar Energy" shall have the meaning set forth in Section 8.1(A).

"Facility" means Seller's electric generating facilities, associated balance of plant, parts and equipment consistent with the warranties for the major equipment components, and all equipment necessary to interconnect to the Transmission Authority's System, all as further described in Exhibit C - Facility Description, including all of the following: Seller's equipment, buildings, turbines, panels, generators, step-up transformers, output breakers, facilities necessary to connect to the Interconnection Point, protective and associated equipment, Seller's Natural Gas Interconnection Facilities, and Seller's Fuel Oil Supply Facilities, natural gas compression, heating and filter/separation equipment and associated piping and control systems, above ground and underground fuel piping systems and storage facilities, and other tangible assets, contract rights, easements, rights of way, surface use agreements and other interests or rights in real estate reasonably necessary for construction, operation, maintenance, generation and delivery of the capacity and energy subject to this PPA.

"Facility Debt" means the obligations of Seller or its Affiliates to any lender or tax equity investor pursuant to the Financing Documents, or any Portfolio Financing, including principal of, premium and interest on indebtedness, fees, expenses or penalties, amounts due upon acceleration, prepayment or restructuring, swap or interest rate hedging breakage costs and any fees or interest due with respect to any of the foregoing.

"Facility Lender" means, collectively, any lenders or tax equity investors providing Facility Debt, including any successors or assigns thereof.

"Federal Power Act" means the provisions of 16 U.S.C. 791(A) et seq. and amendments or supplements thereto.

"FERC" means the Federal Energy Regulatory Commission or any successor agency.

"Financing Documents" means the loan and credit agreements, notes, bonds, indentures, security agreements, lease financing agreements, mortgages, deeds of trust, interest rate exchanges, swap agreements and other documents relating to the development, bridge, construction or permanent debt financing or tax equity financing for the Facility, including any credit enhancement, credit support, working capital financing, or refinancing documents, and any and all amendments, modifications, or supplements to the foregoing that may be entered into from time to time at the discretion of Seller in connection with development, construction, ownership, leasing, operation or maintenance of the Facility.

"Forced Outage" means any condition at the Facility that requires the immediate and unplanned removal of the Facility, or any portion thereof, from service, another outage state, or a reserve shutdown state, resulting from immediate

mechanical/electrical/hydraulic control system trips and operator-initiated trips in response to abnormal Facility conditions or alarms.

"Fuel Delivered" shall have the meaning set forth in Section 8.7.

"Fuel Delivery Point" means the natural gas delivery system point at which Company makes available and delivers to Seller the natural gas fuel consumed by the Facility to produce the Contract Energy dispatched by Company, as described in Exhibit C - Facility Description.

"Fuel Oil Storage Facilities" means Seller's fuel oil storage tanks and related fuel oil pipelines, interconnection equipment, unloading facilities and metering equipment necessary to receive and store Acceptable Fuel Oil at the Facility and deliver such fuel oil for combustion within the Combustion Units as described pursuant to Section 5.5(A), *if applicable*

"Gas Capability" shall have the meaning set forth in Section 7.1(A)(1).

"Good Utility Practices" means the practices, methods, standards and acts engaged in or approved by a significant portion of the applicable segment of the electric power generation industry pertaining to facilities of the type, similar size and location to the Facility that, at a particular time, in the exercise of Commercially Reasonable judgment, in light of the facts that are known (or reasonably should have been known) at the time a decision was made, would have been expected to accomplish the desired result in a manner consistent with Applicable Law, Permits, codes, standards, equipment manufacturer's recommendations, reliability, safety, environmental protection, economy, and expedition. Good Utility Practices is not limited to the optimum practice, method, standard or act to the exclusion of all others, but rather to those practices, methods, standards and acts generally acceptable or approved by a significant portion of the applicable segment of the electric power generation industry in the relevant region, during the relevant period.

"Governmental Authority" means any federal, state, local or municipal governmental body; any governmental, quasi-governmental, regulatory or administrative agency, commission, body or other authority exercising or entitled to exercise any administrative, executive, judicial, legislative, policy, regulatory or taxing authority or power; or any court or governmental tribunal. By way of example only, "Governmental Authorities" include NERC, the ERO, the Market Operator (if any), an applicable PUC, the Transmission Authority, FERC, and successor organizations.

"Green Benefits" shall have the meaning set forth in Section 7.4(C).

"Guarantor" shall have the meaning set forth in Section 11.3(C).

"Hazardous Materials" shall have the meaning set forth in Section 4.2(C)(2).

"Heat Rate Adjustment" shall have the meaning set forth in Section 8.7.

"Higher Heating Value" or "HHV" means the higher heating value stated on Exhibit K - Heat Rate Testing.

"Interconnection Agreement" means the separate contract for interconnection of the Facility to the Transmission Authority's System, as such agreement may be amended from time to time. For purposes of this PPA, the Interconnection Agreement shall be interpreted to include any third party facility construction agreement or other contract required by the Transmission Authority to interconnect the Facility in accordance with the Transmission Tariff. For the avoidance of doubt, "Interconnection Agreement" excludes any temporary or provisional interconnection agreement or any agreement where the Transmission Provider may limit the operational output of the Facility.

"Interconnection Facilities" means those facilities designated in the Interconnection Agreement for the direct purpose of interconnecting the Facility at the Interconnection Point, along with any easements, rights of way, surface use agreements and other interests or rights in real estate reasonably necessary for the construction, operation and maintenance of such facilities, whether owned by Seller, the Transmission Authority or another entity. This equipment is conceptually depicted in Exhibit C - Facility Description to this PPA.

"Interconnection Point" means the physical point within the operational authority of the Transmission Authority as specified in the Interconnection Agreement as project [REDACTED], at which electrical interconnection is made between the Facility and the Transmission Authority's System in accordance with the Transmission Tariff and the Interconnection Agreement.

"Investment Grade" means a Credit Rating of both (a) Baa3 or higher by Moody's, and (b) BBB- or higher by Standard & Poors.

"kW" means kilowatt and "kWh" means kilowatt hour.

"Lender Consent" shall have the meaning set forth in Section 18.1(A).

"Maintenance Schedule" has the meaning set forth in Exhibit P – Maintenance Requirements.

"Material Adverse Effect" means any effect (or effects taken together) that is materially adverse to the present or future business, operations, assets, liabilities, properties, results in operations or condition (financial or otherwise), prospects, or property of a Party, its business, or this PPA.

"Minimum Loading" means the minimum capacity of the Facility that can be scheduled for continuous operation consistent with Good Utility Practices, including equipment manufacturer's warranties and performance standards.

"MW" means megawatt or one thousand kW and "MWh" means megawatt hours.

"Natural Gas Generated Energy" shall have the meaning set forth in Section 7.1(A)(2).

"Natural Gas Interconnection Facilities" means Seller's, or Seller's agent's, pipeline, compression and related facilities required to receive, regulate and meter natural gas fuel and to transport such fuel from the Fuel Delivery Point to the

Combustion Unit(s) for the generation of electric energy under this PPA, including those facilities required to heat or filter/separate such natural gas fuel as Seller, in its sole judgment, deems necessary to install.

“NERC” means the North American Electric Reliability Council or any successor organization.

“Net Capability” or “NC” shall have the meaning set forth in Section 3.2(C).

“Network Resource” means the applicable amount of capacity for the Facility that has been designated as a “network resource” under the Transmission Tariff.

“Non-Compensable Curtailment” shall have the meaning set forth in Section 8.3(B)(2).

“Non-Conforming Gas” shall have the meaning set forth in Section 5.4(C).

“Operating Committee” means one representative each from Company and Seller pursuant to Section 10.8.

“Operating Procedures” means those procedures developed by the Operating Committee pursuant to Section 10.8, if any.

“Operating Records” means all agreements associated with the Facility, operating logs, blueprints for construction, operating manuals, all warranties on equipment, and all documents, whether in printed or electronic format, that Seller uses or maintains for the operation of the Facility.

“Operating Reserves” means the undispached portion of the Capacity Resource, which (i) is maintained by Company to provide for regulation, load forecasting error, forced and scheduled outages, and system reliability; and (ii) qualifies as operating reserve available to Company in accordance with the definitions and descriptions in the minimum operating reliability criteria, as such criteria are published or updated from time to time by ERO or Transmission Authority.

“Park Potential” means the number of MW that depicts Seller’s real time calculation of the Potential Energy capable of being provided by the Solar Units to Company at the Point of Delivery. Park Potential shall be calculated using the best-available data obtained through Commercially Reasonable methods; and shall be dependent upon measured wind speeds, power curves, Solar Units availability, and derate(s) and transmission line losses, and any other adjustment necessary to accurately reflect the Potential Energy at the Point of Delivery. Park Potential should be provided to the Company in real time through the Company’s SCADA System in accordance with Exhibit I – Operating Standards.

“Partial Completion Declaration” shall have the meaning set forth in Section 4.5(D).

“Party” and “Parties” shall have the meanings set forth in the introductory paragraph.

"Pending Facility Transaction" or "PFT" shall have the meaning set forth in Section 19.4(D).

"Permit(s)" shall have the meaning set forth in Section 4.3(D).

"Permit Deficiency" shall have the meaning set forth in Section 7.3.

"PFT Notice" shall have the meaning set forth in Section 19.4(A).

"Planned Permitted Energy" shall have the meaning set forth in Section 7.3(E).

"Point of Delivery" means the physical point within the operational authority of Transmission Authority at which Seller makes available and delivers to Company the Contract Energy being provided by Seller to Company under this PPA. The Point of Delivery is specified in Exhibit C - Facility Description to this PPA.

"Post-COD Test Energy" shall have the meaning set forth in Section 10.4(D).

"Pre-COD Test Energy" shall have the meaning set forth in Section 4.6(C).

"Potential Energy" for any period of time means the MWh of energy that the Solar Units are actually capable of delivering to the Point of Delivery by virtue of the Park Potential during such period.

"Predicted Net Heat Rate" means the predicted net heat rate for the Facility, stated in Btu/kWh, HHV, at Reference Conditions, with (as applicable) cooling of intake air and full supplemental fuel firing, and adjusted to reflect the Combustion Unit manufacturer's estimated degradation in equipment performance over the period of Commercial Operation from new and clean equipment conditions as specified in Exhibit K - Heat Rate Testing. The initial Predicted Net Heat Rate shall be the lesser of (i) [REDACTED] Btu/kWh HHV or (ii) the Actual Net Heat Rate measured by the initial heat rate test of the Facility. [The Predicted Net Heat Rate degradation adjustment, as specified in Exhibit K - Heat Rate Testing, shall be used to adjust such initial Predicted Net Heat Rate, and thereby establish the Predicted Net Heat Rate, over the Term.]

"PUC" means the Colorado Public Utilities Commission or any successor agency.

"PUC Approval" shall have the meaning set forth in Section 6.1(D).

"Price of Fuel" shall have the meaning set forth in Section 8.7(A).

"REC Registration Program" means the applicable Colorado, regional, or federal program established to register Eligible Energy Resources such as the Facility, and create and certify RECs arising from energy generated from such Resources, including any rights associated with any renewable energy information or tracking system that exists or may be established by Applicable Law with regard to monitoring, registering, tracking, certifying, or trading such credits. For purposes of this PPA, the REC Registration program shall mean the Western Renewable Energy Generation Information System (aka WREGIS).

"Reference Conditions" means the operating and ambient conditions used to establish the Predicted Net Heat Rate and to provide a reference for adjustment in determining the Actual Net Heat Rate from heat rate testing pursuant to Exhibit K – Heat Rate Testing.

- The Reference Conditions for the Facility shall be an ambient temperature of \_\_\_ degrees Fahrenheit (°F), \_\_\_% ambient relative humidity, and standard ambient pressure (14.696 psia at mean sea level) adjusted to the Site elevation of [ ] feet above mean sea level. *[insert applicable winter reference conditions]*
- The operating Reference Conditions for the Facility shall be the following design parameters for the Combustion Units, where appropriate:

Fuel Composition:	_____
Intake Pressure Drop:	_____
Exhaust Pressure Drop:	_____
Firing/Exhaust Temperature:	_____
Use of Bleed Air:	_____
Water or Steam Injections Rate:	_____
Steam Turbine Exhaust Pressure:	_____
Cooling Water Temperature:	_____
Generator Power Factor:	_____
Boiler Blowdown %:	_____
Fuel Temperature:	_____
Thermal Energy Export:	_____

"Renewable Energy Credits" or "RECs" means the right to all non-energy and environmental attributes (including economic, carbon and pollutant-related tags and credits, benefits, avoided or reduced emissions reductions, offsets, emission rate reductions, tags and allowances, howsoever titled) attributable to the capacity available and/or energy generated by the Facility, including environmental air quality credits, tags and allowances created by Applicable Law by virtue of the Facility's environmentally favorable or renewable characteristics or attributes. "RECs" includes but is not necessarily limited to rights eligible for registration, trading and/or use under the REC Registration Program. In Colorado, "REC" shall include renewable energy credits as defined and used in Colorado's Renewable Energy Standard, 4 CCR 723-3650 *et seq.*

For the avoidance of doubt, "RECs" exclude (i) PTCs, ITCs and other local, state or federal tax credits providing a tax benefit to Seller based on ownership of the Facility or energy production therefrom, including the [production tax credit] [investment tax credit] that may be available to Seller with respect to the Facility under IRC [§45] [§48], and (ii) depreciation and other tax benefits arising from ownership or operation of the Facility unrelated to its status as a generator of renewable or environmentally clean energy.

"Replacement Power Costs" means the costs incurred by Company, after the Commercial Operation Milestone, that are necessary to replace the products and services that Seller was required to provide under this PPA, but failed to so provide, less the sum of any payments from Company to Seller, under this PPA, that were

eliminated as a result of such failure; *provided, however, that* the net amount shall never be less than zero in any hour and if the calculation for any hour results in a number less than zero, the number for such hour shall be deemed to be zero. Replacement Power Costs shall be determined on an hourly basis and shall equal the sum of all hours where the following calculation achieves a positive number.

Replacement Power Costs = (A + B + C) – D, where

“A” is the the sum of (i) product of (x) the number of MW of capacity derived by subtracting the number of MW of capacity that qualifies for capacity credit actually made available to Company from the amount of Solar Capability associated with the entire Facility, and (y) the applicable market price for equivalent capacity made available to Company’s system and (ii) the product of (a) the number of MW of Gas Capability derived from any source other than Solar Capability and (b) the applicable market price for capacity made available to Company’s system

Gas Capability “B” is the sum of (i) the product of the number of MWh of Solar energy purchased by Company associated with the replacement Solar Capability to replace any of the Committed Solar Energy that was not delivered under this PPA and the applicable market price for equivalent solar energy delivered to Company’s system at a point nearest to the Point of Delivery for the hour, (ii) the product of the MWh of energy derived in clause (i) and the actual cost of registered RECs for that number of MWh; and (iii) energy associated with the replacement capacity.

“C” an amount equal to the actual cost of transmission, ancillary services, fuel and fuel transportation and related penalties that could not be avoided or mitigated and transaction charges to deliver reasonably available energy to Company in amounts equal to the number of MWh for which Replacement Power Costs are owed;

“D” is the sum of any payments from Company to Seller, under this PPA that would have been made but were eliminated as a result of such failure and any costs of fuel that can be reasonably avoided by Company to obtain replacement energy.

“Reported Availability: Gas” and “Reported Availability: Fuel Oil” shall have the meanings set forth in Sections 10.9 and 10.10, respectively.

“ROFO” and “ROFO Notice” shall have the meaning set forth in Section 19.3(A).

“SCADA” means supervisory control and data acquisition.

“Scheduled Termination Date” shall have the meaning set forth in Article 2.

“Scheduled Maintenance Energy” shall have the meaning set forth in Section 8.4.

“Scheduled Outage/Derating” means a planned interruption/reduction of the Facility’s generation that (i) has been coordinated in advance with Company, per Exhibit P – Maintenance Requirements, (ii) is required for inspection, or preventive or corrective maintenance, and (iii) complies with the scheduling requirements of the applicable Transmission Authority.



"Site" means the parcel of real property on which the Facility will be constructed and located, including any easements, rights of way, surface use agreements and other interests or rights in real estate necessary for the construction, operation and maintenance of the Facility. The Site is more specifically described in Exhibit C - Facility Description to this PPA.

"Security Fund" shall have the meaning set forth in Section 11.1(A).

"Solar Energy" shall have the meaning set forth in Section 7.1(A)(3).

"Solar Energy Payment Rate" means the rate as shown in Exhibit M – Committed Solar Energy and Solar Energy Payment Rate.

"Solar Units" means the equipment necessary for the Facility to collect sunlight at the Site and convert it into electricity or thermal energy. Solar Units includes photovoltaic arrays, mirrors, lenses, and tracking devices. [add manufacturer, Model # ]

"Step-In Rights" shall have the meaning set forth in Section 12.5.

"Successful Start" means, in response to a request from Company to start a Generating Unit [on natural gas or fuel oil, as designated by Company *if applicable*], Seller's start and operation of such Unit that:

(i) achieves the Minimum Loading level for the requested operating configuration within thirty (30) minutes for single-cycle starts (90 minutes for combined cycle starts) after the time Company requests the Combustion Unit start to begin, and

(ii) upon achieving such Minimum Loading level, generates continuously for a period of not less than one hour while synchronized to Transmission Authority's System at or above such Minimum Loading level without experiencing any abnormal operating conditions.

"Target COD" shall have the meaning set forth in Section 4.5(A).

"Tax Benefits" means any and all (i) tax credits based on ownership of, investment in or energy production from the Facility or any portion thereof, including the production credit and the investment credit described, respectively, in Sections 45 and 48 of the Internal Revenue Code of 1986, as amended, (ii) grants based on ownership of, investment in or energy production from the Facility or any portion thereof, including the grant described in Section 1603 of the American Recovery and Reinvestment Tax Act of 2009 and (iii) other tax benefits, including depreciation and other cost recovery deductions, arising in connection with ownership of, investment in, or operation of the Facility, or any portion thereof, in each case allocated, allowed, allowable, assigned, awarded, certified or otherwise transferred or granted to Seller or Company by any Governmental Authority in any jurisdiction in connection with the Facility.

"Term" means the period of time during which this PPA shall remain in full force and effect as further defined in Article 2.

"Termination LDs" shall have the meaning set forth in Section 12.2(C).

“Test Energy Rate” for Solar Energy shall be [70% of the Solar Energy Payoff Rate]. The Test Energy Rate for Natural Gas Generated Energy shall be [\$\_\_\_\_/MW].

“Tolling Price” is as defined in Section 8.6.

“Transmission Authority” means collectively those entities owning and/or operating the interconnected transmission system applicable to Seller and the Facility pursuant to a Transmission Tariff, including (i) Public Service Company of Colorado operating under and in accordance with its Transmission Tariff, and (ii) all entity(s) responsible under the Interconnection Agreement for providing the transmission lines, any Interconnection Facilities and other equipment and facilities with which the Facility interconnects at the Interconnection Point and transmission system.

“Transmission Authority’s System” means the contiguously interconnected electric transmission and sub-transmission facilities over which the Transmission Authority has rights (by ownership or contract) to provide bulk transmission of capacity and energy from the Interconnection Point.

“Transmission Tariff” means the applicable Open Access Transmission of the Transmission Authority, as amended from time to time.

“Ultimate Parent Entity” shall have the meaning set forth under Section 7A of the Clayton Act, 15 U.S.C. 18a, also known as Hart-Scott-Rodino Antitrust Improvements Act of 1976.

“Upstream Pipeline” means the interstate or intrastate natural gas pipeline [to be] interconnected to the Facility at the Fuel Delivery Point. The initial Upstream Pipeline is

## EXHIBIT B CONSTRUCTION MILESTONES

Construction Milestone	Outcome
<i>Date]</i>	Seller and all required counterparties shall have executed such Construction Contracts as are needed to construct the Facility.
<i>Date]</i>	Seller and the Transmission Authority shall have executed the Interconnection Agreement.
<i>Date]</i>	Seller shall have achieved closing on financing for the Facility or provided Company with proof of financial capability to construct the Facility.
<i>Date]</i>	Seller shall have achieved closing on financing for the Facility or provided Company with proof of financial capability to construct the Facility.
<i>Date]</i>	Seller shall have laid the foundation for all Facility buildings, generating facilities and step-up transformation facilities.
<i>Date]</i>	The <i>Combustion Unit(s)</i> and step-up transformer shall have been delivered to, and installed at, the Site [May require modification.]
<i>Date]</i>	All fuel supply and transportation arrangements have been put in place and the fuel interconnection facilities have been constructed and are operational.
<i>Date]</i>	Seller shall have constructed Seller's Interconnection Facilities and such facilities are capable of being energized..
	Seller shall make all applications and/or

<i>Date]</i>	filings required by Applicable Law for REC accreditation and for the provision of such RECs to Company.
<i>Date]</i>	Target COD.

## EXHIBIT C FACILITY DESCRIPTION

***[This Exhibit shall include a description of the Facility and all material components thereof, including map, aerial pictures, one-line diagram, Point of Delivery and (if different) the Interconnection Point.]***

The Facility shall be located on the Site and shall be identified as Seller's [REDACTED] Generation Facility. Maps and one-line diagrams of the Facility and associated equipment are included as part of this Exhibit.

The address of the Facility is [REDACTED].

The Facility must include the following specific components::

- \* have the panel space and 125VDC battery supplied voltage necessary to accommodate the metering, telemetering and communications equipment required by the PPA;
- \* have communication circuits from the Facility to the EMCC for the purpose of telemetering, SCADA, and voice communications as required by Company;
- \* include equipment and software necessary to receive, accept and react to an AGC signal from Company's SCADA System for each operating configuration, as further specified on Exhibit I - Operating Standards;
- \* be capable of sending real time data (including fuel flows) and OPC interface to Company's plant information system (OPC is the Object Linking and Embedding for Process Control interface);
- \* be capable of starting and fully operating all Solar Unit or Combustion Units on all applicable fuel types;
- \* be capable of dispatch at Minimum Loading levels with AGC and without AGC for each Solar Unit or Combustion Unit and combination of Units, including 10-minute (quick remote start) capability, if applicable;
- \* be capable of operating, or continuing to operate without interruption in all required operating modes in the event of a planned or unplanned outage of one or more, but not all of the Solar Unit or Combustion Units;

***[Additional Bid Specific requirements to be added]***

## EXHIBIT D NOTICES AND CONTACT INFORMATION

Company	Seller
<p><b>Notices:</b></p> <p>_____ Purchased Power Manager Xcel Energy Services Inc. 1800 Larimer Street, Suite ____ Denver, CO 80202 e-mail: ____@xcelenergy.com</p> <p><i>with a cc to:</i></p> <p>_____ Purchased Power Analyst Xcel Energy Services Inc. 1800 Larimer Street, Suite 1000 Denver, CO 80202 e-mail: ____@xcelenergy.com</p>	<p><b>Notices:</b></p> <p>_____ _____ _____ e-mail: ____@____.com</p> <p><i>with a cc to:</i></p> <p>_____ _____ _____ e-mail: ____@____.com</p>
<p><b>Operating Committee Representative:</b></p> <p>_____ Purchased Power Manager Xcel Energy Services Inc. 1800 Larimer Street, Suite 1000 Denver, CO 80202 e-mail: ____@xcelenergy.com</p> <p><b>Alternate:</b></p> <p>_____ Purchased Power Analyst Xcel Energy Services Inc. 1800 Larimer Street, Suite 1000 Denver, CO 80202 e-mail: ____@xcelenergy.com</p>	<p><b>Operating Committee Representative:</b></p> <p>_____ _____ _____ e-mail: ____@____.com</p> <p><b>Alternate:</b></p> <p>_____ _____ _____ e-mail: ____@____.com</p>
<p><b>Real-Time Contact Information</b></p> <p><u>EMCC (24 hour coverage):</u> Phone: 303-571-6280 E-mail: ____@xcelenergy.com</p> <p><u>Transmission Ops:</u> Phone: 303-571-6490 E-mail: ____@xcelenergy.com</p>	<p><b>Real-Time Contact Information</b></p> <p><u>[Operations Command Center]</u> (24 hour coverage): Phone: _____ E-mail: ____@____.com</p>

## EXHIBIT E INSURANCE COVERAGE

Type of Insurance	Minimum Limits of Coverage
Commercial General Liability (CGL) and commercial umbrella	\$11,000,000 combined single limit each occurrence and the aggregate, where applicable. If CGL insurance contains a general aggregate limit, it shall apply separately to the Facility.

CGL insurance shall be written on ISO occurrence form CG 00 01 01 96 (or a substitute form providing equivalent coverage) and shall cover liability arising from premises, operations, independent contractors, products/completed operations, contracts, property damage, personal injury and advertising injury, and liability assumed under an insured contract (including the tort liability of another assumed in a business contract), all with limits as specified above. CGL insurance shall include ISO endorsement CG 24 17 (or an equivalent endorsement) which modifies the definition of "Insured contract" to eliminate the exclusion of easement or license agreements in connection with construction or demolition operations on or within 50 feet of a railroad. There shall be no endorsement or modification of the CGL insurance limiting the scope of coverage for liability arising from explosion, collapse, or underground property damage.

Company shall be included as an insured under the CGL policy, using ISO additional insured endorsement CG 20 10 (or a substitute providing equivalent coverage), and under the commercial umbrella insurance. The commercial umbrella insurance shall provide coverage over the top of the CGL insurance, the Business Automobile Liability insurance, and the Employers Liability insurance.

The CGL and commercial umbrella insurance to be obtained by or on behalf of Seller shall be endorsed as follows:

ii. Such insurance as afforded by this policy for the benefit of Company shall be primary as respects any claims, losses, damages, expenses, or liabilities arising out of this PPA, and insured hereunder, and any insurance carried by Company shall be excess of and noncontributing with insurance afforded by this policy.

Business Automobile Liability	\$2,000,000 combined single limit (each accident), including all Owned, Non-Owned, Hired and Leased Autos.
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Business Automobile Liability insurance shall be written on ISO form CA 00 01, CA 00 05, CA 00 12, CA 00 20, or a substitute form providing equivalent liability coverage. If necessary, the policy shall be endorsed to provide contractual liability coverage equivalent to that provided in the 1990 and later editions of CA 00 01.

Workers Compensation	Statutory Requirements. Seller may comply with these requirements through the use of a
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	qualified self-insurance plan.
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Type of Insurance	Minimum Limits of Coverage
Employers Liability	\$2,000,000 each accident for bodily injury by accident, or \$2,000,000 each employee for bodily injury by disease.

Builder's Risk	Replacement value of the Facility.
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Builder's Risk insurance, or an installation floater, shall include coverage for earthquake and flood, collapse, faulty workmanship, materials and design, testing of machinery or equipment, freezing or changes in temperature, debris removal, and partial occupancy.

Environmental Impairment Liability	\$5,000,000 each occurrence.
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All-Risk Property insurance covering physical loss or damage to the Facility	Full replacement value of the Facility. A deductible may be carried which deductible shall be the absolute responsibility of Seller.
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All-Risk Property insurance shall include: (i) coverage for fire, flood, wind and storm, tornado and earthquake with respect to facilities similar in construction, location and occupancy to the Facility, with sublimits of no less than \$10,000,000 each for flood and earthquake; and (ii) Boiler and Machinery insurance covering all objects customarily subject to such insurance, including boilers and turbines, in an amount equal to their full replacement value.

Business Interruption insurance	Amount required to cover Seller's continuing or increased expenses, resulting from full interruption, for a period of 12 calendar months.
---------------------------------	---

Business Interruption insurance shall cover loss of revenues or the increased expense to resume operations attributable to the Facility by reason of total or partial suspension or delay of, or interruption in, the operation of the Facility as a result of an insured peril covered under Property insurance as set forth above, to the extent available on Commercially Reasonable terms as determined by Company, subject to a Commercially Reasonable deductible that shall be the responsibility of Seller. Notwithstanding any other provision of this PPA, Seller shall not be required to have Business Interruption insurance until the Commercial Operation Date.

**EXHIBIT F  
NEEDED PERMITS**

**EXHIBIT G**  
**FORM OF SECURITY DOCUMENTS**

**EXHIBIT G-1**  
**FORM OF LETTER OF CREDIT**

[LETTERHEAD OF ISSUING BANK]

Irrevocable Standby Letter of Credit Date of Issuance: \_\_\_\_\_

No: \_\_\_\_\_

Initial Expiration Date: [Must be at least

Beneficiary: Public Service Company one year after date of issuance]  
of Colorado

Applicant:

As the Issuing Bank ("Issuer"), we, [Name of Issuing Bank], hereby establish this irrevocable Standby Letter of Credit No. \_\_\_\_\_ (this "Letter of Credit") in favor of the above-named beneficiary ("Beneficiary") for the account of the above-named applicant ("Applicant") in the amount of US\$\_\_\_\_\_ (\_\_\_\_\_ Million U.S. Dollars).

Beneficiary may draw all or any portion of this Letter of Credit at any time and from time to time, and Issuer will make funds immediately available to Beneficiary upon presentation of Beneficiary's draft(s) at sight in substantially the form attached hereto as Exhibit "A" ("Sight Draft"), drawn on Issuer and accompanied by this Letter of Credit. All Sight Drafts must be signed on behalf of Beneficiary, and the signator must indicate his or her title or other official capacity. No other documents will be required to be presented. Issuer will effect payment under this Letter of Credit within twenty-four (24) hours after presentment of any Sight Draft. Payment shall be made in U.S. Dollars with Issuer's own funds in immediately available funds.

Issuer will honor any Sight Draft presented in substantial compliance with the terms of this Letter of Credit at the Issuer's letterhead office, the office located at \_\_\_\_\_ or any other full service office of the Issuer on or before the above-stated expiration date, as such expiration date may be extended hereunder. Partial and multiple draws and presentations are permitted on any number of occasions. Following any partial draw, Issuer will endorse this Letter of Credit and return the original to Beneficiary.

This Letter of Credit is issued pursuant to the provisions of that certain Power Purchase Agreement between Beneficiary and Applicant dated as of \_\_\_\_\_, 20\_\_ (as the same may have been or may be amended from time to time, the "PPA"). Notwithstanding any reference in this Letter of Credit to the PPA or any other documents, instruments or agreements, or references in the PPA or any other documents, instruments or agreements to this Letter of Credit, this Letter of Credit contains the entire agreement between Beneficiary and Issuer relating to the obligations of Issuer hereunder.

This Letter of Credit will be automatically extended each year without amendment for a period of one (1) year from the expiration date hereof, as extended, unless at least

thirty (30) days prior to the expiration date, Issuer notifies Beneficiary by registered mail that it elects not to extend this Letter of Credit for such additional period. Notice of non-extension will be given by Issuer to Beneficiary at Beneficiary's address set forth herein or at such other address as Beneficiary may designate to Issuer in writing at Issuer's letterhead address.

This Letter of Credit is freely transferable by Beneficiary in whole or in part, and the number of transfers is unlimited. Issuer shall effect any transfers immediately upon presentation to Issuer of this Letter of Credit and a completed written transfer request substantially in the form attached hereto as Exhibit "B." Such transfer will be effected at no cost to Beneficiary. Any transfer fees assessed by Issuer will be payable solely by Applicant, and the payment of any transfer fees will not be a condition to the validity or effectiveness of the transfer of this Letter of Credit.

Issuer waives any rights it may have, at law or otherwise, to subrogate to any claims which Beneficiary may have against Applicant or Applicant may have against Beneficiary.

This Letter of Credit is subject to the uniform customs and practice for documentary credits (2007 Revision), International Chamber of Commerce publication No. 600 (the "UCP"), except to the extent that the terms hereof are inconsistent with the provisions of the UCP, including but not limited to Articles 14(b) and 36 of the UCP, in which case the terms of this Letter of Credit shall govern. With respect to Article 14(b) of the UCP, Issuer shall have a reasonable amount of time, not to exceed three (3) banking days following the date of Issuer's receipt of documents from Beneficiary (to the extent required herein), to examine the documents and determine whether to take up or refuse the documents and to inform Beneficiary accordingly.

In the event of an act of God, riot, civil commotion, insurrection, war or any other cause beyond Issuer's control that interrupts Issuer's business and causes the place for presentation of this Letter of Credit to be closed for business on the last day for presentation, the expiry date of this Letter of Credit will be automatically extended without amendment to a date thirty (30) calendar days after the place for presentation reopens for business.

ISSUER:

By: \_\_\_\_\_  
Authorized Signature

**EXHIBIT "A"**  
TO LETTER OF CREDIT

**SIGHT DRAFT**

Draft Number \_\_\_\_\_  
\$ \_\_\_\_\_

At sight, pay to the order of [Name of Beneficiary to be inserted], the amount of  
USD \$ \_\_\_\_\_ ( \_\_\_\_\_ and 00/100ths U.S. Dollars).

Value received and charged to the account of: [Name of Issuer and address].  
Drawn under [Name of Issuer to be inserted] Standby Letter of Credit No.  
\_\_\_\_\_.

Dated: \_\_\_\_\_

Public Service Company of Colorado

By: \_\_\_\_\_  
[name and title]

Account: [Applicant to be inserted]

**EXHIBIT "B"**  
TO LETTER OF CREDIT

**FORM OF TRANSFER REQUEST**

Irrevocable Standby Letter of Credit No. \_\_\_\_\_

Current Beneficiary:

Applicant:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

To: [Name of Issuer] ("Issuer")

The undersigned, as the current "Beneficiary" of the above-referenced Letter of Credit, hereby requests that you reissue the Letter of Credit in favor of the transferee named below [insert transferee name and address below]:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

From and after the date this transfer request is delivered to Issuer, the transferee shall be the "Beneficiary" under the Letter of Credit for all purposes and shall be entitled to exercise and enjoy all of the rights, privileges and benefits thereof.

Dated: \_\_\_\_\_

Public Service Company of Colorado

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

[Notary Acknowledgement]

To be signed by a person purporting to be an authorized representative of Beneficiary and indicating his or her title or other official capacity, and acknowledged by a notary public.

## EXHIBIT H FORM OF GUARANTY

### GUARANTY

This Guaranty is executed and delivered as of this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ by \_\_\_\_\_, a \_\_\_\_\_ [corporation] ("Guarantor"), in favor of **Public Service Company of Colorado** ("Company"), in connection with the performance by \_\_\_\_\_, a \_\_\_\_\_ [limited liability company] ("Seller") of a Power Purchase Agreement dated \_\_\_\_\_, 20\_\_\_\_ between Seller and Company (the "PPA").

- RECITALS -

A. Seller owns and operates a [wind] [solar] power electric generation facility having total nameplate capacity of approximately \_\_\_\_\_ MW located in \_\_\_\_\_ County, \_\_\_\_\_ (the "Facility").

B. Seller and Company have entered into the PPA for the purchase and sale of capacity and electrical energy from the Facility on the terms and conditions set forth therein.

C. Seller is controlled by Guarantor. Guarantor expects to derive substantial benefits from the performance of the PPA by Seller and Company. To induce Company to enter into and continue the PPA and to consummate the purchase and sale of electrical energy contemplated by the PPA, Guarantor has agreed to guarantee the obligations of Seller as provided in this Guaranty.

NOW, THEREFORE, in consideration of the foregoing, Guarantor agrees as follows:

- AGREEMENT -

1. Guaranty. Subject to the provisions of this Guaranty, Guarantor hereby absolutely, irrevocably, unconditionally, and fully guarantees to Company the due, prompt, and complete observance, performance, and discharge of each and every payment obligation of Seller under the PPA, whether incurred before or after the date of delivery of this Guaranty (the "Obligations"). This is a guaranty of payment, not of collection, and as such, Company shall not be required to institute, pursue, or exhaust any remedies against Seller before instituting suit, obtaining judgment, and executing thereon against Guarantor under this Guaranty. This Guaranty shall survive termination of the PPA to the extent necessary to enforce and complete the rights, duties and obligations of Company and Seller thereunder.

2. Maximum Liability. Notwithstanding anything herein to the contrary, Guarantor's maximum liability under this Guaranty shall be limited to \_\_\_\_\_ dollars (US\$\_\_\_\_\_) plus costs of collection under Section 10 below.



3. Rights of Company. Guarantor hereby grants to Company, in Company's discretion and without the need to notify or obtain any consent from Guarantor, and without termination, impairment, or any other effect upon Guarantor's duties hereunder, the power and authority from time to time:

(a) to renew, compromise, extend, accelerate, or otherwise change, substitute, supersede, or terminate the terms of performance of any of the Obligations, in each case in accordance with the PPA;

(b) to grant any indulgences, forbearances, and waivers, on one or more occasions, for any length of time, with respect to Seller's performance of any of the Obligations; and

(c) to accept collateral, further guaranties, and/or other security for the Obligations, and, if so accepted, then to impair, exhaust, exchange, enforce, waive, or release any such security.

4. Performance. If any of the Obligations are not performed according to the tenor thereof, and any applicable notice and cure period provided by the PPA has expired ("Default"), Guarantor shall immediately upon receipt of written demand by Company (a) perform or cause Seller to perform the Obligation in Default, and (b) pay, reimburse, and indemnify Company against any liabilities, damages, and related costs (including attorneys' fees) incurred by Company as a result thereof, all in such manner and at such times as Company may reasonably direct.

5. Satisfaction. Satisfaction by Guarantor of any duty hereunder incident to a particular Default or the occurrence of any other Default shall not discharge Guarantor except with respect to the Default satisfied, it being the intent of Guarantor that this Guaranty be continuing until such time as all of the Obligations have irrevocably been discharged in full, at which time this Guaranty shall automatically terminate. If at any time the performance of any Obligation by Seller or Guarantor is rescinded or voided under the federal Bankruptcy Code or otherwise, then Guarantor's duties hereunder shall continue and be deemed to have been automatically reinstated, restored, and continued with respect to that Obligation, as though the performance of that Obligation had never occurred, regardless or whether this Guaranty otherwise had terminated or would have been terminated following or as a result of that performance.

6. Notice of Acceptance. Guarantor waives and acknowledges notice of acceptance of this Guaranty by Company.

7. Waivers by Guarantor. Guarantor hereby waives and agrees not to assert or take advantage of:

(a) all set-offs, counterclaims, and, subject to Section 4 above, all presentments, demands for performance, notices of non-performance, protests, and notices of every kind that may be required by Applicable Laws;

(b) any right to require Company to proceed against Seller or any other person, or to require Company first to exhaust any remedies against Seller or any other person, before proceeding against Guarantor hereunder;

(c) any defense based upon an election of remedies by Company;

(d) any duty of Company to protect or not impair any security for the Obligations;

(e) the benefit of any laws limiting the liability of a surety;

(f) any duty of Company to disclose to Guarantor any facts concerning Seller, the PPA or the Facility, or any other circumstances, that would or allegedly would increase the risk to Guarantor under this Guaranty, whether now known or hereafter learned by Company, it being understood that Guarantor is capable of and assumes the responsibility for being and remaining informed as to all such facts and circumstances; and

(g) until all Obligations in Default have been fully paid and/or performed, any rights of subrogation, contribution, reimbursement, indemnification, or other rights of payment or recovery for any payment or performance by it hereunder. For the avoidance of doubt, if any amount is paid to Guarantor in violation of this provision, such amount shall be held by Guarantor for the benefit of, and promptly paid to, Company.

8. Cumulative Remedies. The rights and remedies of Company hereunder shall be cumulative and not alternative to any other rights, powers, and remedies that Company may have at law, in equity, or under the PPA. The obligations of Guarantor hereunder are independent of those of Seller and shall survive unaffected by the bankruptcy of Seller. Company need not join Seller in any action against Guarantor to preserve its rights set forth herein.

9. Representations and Warranties. Guarantor represents and warrants to Company as follows:

(a) Guarantor is a corporation, duly organized, validly existing, and in good standing under the laws of the state of its incorporation. Seller is a direct or indirect wholly-owned subsidiary of Guarantor. Guarantor has all necessary corporate power and authority to execute and deliver this Guaranty and to perform its obligations hereunder.

(b) The execution, delivery and performance of this Guaranty has been duly and validly authorized by all corporate proceedings of Guarantor and is not in violation of any law, judgment of court or government agency. This Guaranty has been duly and validly executed and delivered by Guarantor and constitutes a legal, valid and binding obligation of Guarantor, enforceable against Guarantor in accordance with its terms.

10. Collection Costs. Guarantor shall pay to Company, upon demand, and in addition to the maximum liability set forth in Section 3 hereof, all reasonable attorneys' fees and other expenses which Company may expend or incur in enforcing the Obligations against Seller and/or enforcing this Guaranty against Guarantor, whether or not suit is filed, including, without limitation, all attorneys' fees, and other expenses incurred by Company in connection with any insolvency, bankruptcy, reorganization, arrangement, or other similar proceedings involving Seller that in any way affect the exercise by Company of its rights and remedies hereunder.

11. Severability. Should any one or more provisions of this Guaranty be determined to be illegal or unenforceable, all other provisions nevertheless shall be effective.

12. Waiver or Amendment. No provision of this Guaranty or right of Company hereunder can be waived, nor can Guarantor be released from Guarantor's duties hereunder, except by a writing duly executed by Company. This Guaranty may not be modified, amended, revised, revoked, terminated, changed, or varied in any way whatsoever except by the express terms of a writing duly executed by Company.

13. Successors and Assigns. This Guaranty shall inure to the benefit of and bind the successors and assigns of Company and Guarantor.

14. Governing Law. This Guaranty shall be governed by and construed in accordance with the law of the State of Colorado without regard to the principles of conflicts of law thereof. Venue for any dispute hereunder shall be as set forth in Section 13.5 of the PPA.

15. Notices. All notices, requests, claims, demands, and other communications hereunder shall be in writing and shall be given (and shall be deemed to have been duly given upon receipt) by delivery in the manner contemplated by the PPA, addressed as follows:

(a) if to Company: as provided in the PPA

(b) if to Guarantor: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Attn:

with a copy to: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Attn:

or to such other address (es) as the person to whom notice is given may have previously furnished to the others in writing in the manner set forth above.

**[Name of Guarantor]**

Name:

STATE OF \_\_\_\_\_ )  
 ) ss.  
COUNTY OF \_\_\_\_\_ )

Witness my hand and official seal.

Notary Public

## EXHIBIT I OPERATING STANDARDS

(A) Dispatchability Requirements. Each Combustion Unit shall be capable of providing:

1. A minimum regulating range 15 MW per Combustion Unit or the highest 40% of the capacity available at the time of dispatch, whichever is greater, in automatic load regulation capacity;

2. Continuous response to EMCC pulsing at a minimum increasing rate of five percent of the capacity available at the time per minute over the regulating range, and a minimum rate of five percent of the capacity available at the time per minute over the regulating range; and

3. A low load point for the regulating range of the Combustion Unit, which is equal to or less than the Minimum Loading level for operation with AGC.

(B) Testing. Company shall have the right to routinely conduct, from the EMCC, verification testing of the Ramp Rate Availability Factor (RRAF) of the Facility, without prior notice to Seller. RRAF verification testing shall be conducted over the minimum regulating range of Unit(s) being tested, beginning at or below the applicable Minimum Loading of such minimum regulating range and ending at the maximum reported available capacity during the hour of the test (the "specified ramp range"), taking into consideration non-standard ambient conditions which exist at the time of the test. The timed portion of the test used to determine the increasing ramp rate shall begin when the output level of the Unit(s) being tested is at the minimum load point of the specified ramp range and shall end when such output is one MW less than the maximum load point of the specified ramp range. The timed portion of the test used to determine the decreasing ramp rate shall begin when the output level of the Unit(s) being tested is at the maximum load point of the specified ramp range and shall end when such output is one (1) MW greater than the minimum load point of the specified ramp range. The calculated "Actual Ramp Rate" for determining RRAF shall be the mean average of the increasing and decreasing ramp rates for the specified ramp range.

(C) AGC.

1. Equipment. Company shall design, purchase, own, install and test telemetry equipment, generation load control equipment and associated circuits from the Facility demark to the EMCC, suitable for Automatic Generation Control of the Facility. Generation load control equipment is defined as the equipment and associated hardware necessary to interpret the request for a generation load change and provide a signal to the governor of Seller's equipment. Seller shall in no way constrict or modify the generation load change signal path without review and written authorization by Company. The telemetry and generation load equipment is to provide the following: instantaneous net MW and MVar levels, control status (available for automatic

generation control), load regulation range limits, remote pulsing circuit, and any other parameters deemed necessary by Company. Seller shall purchase, own, install and test at the Facility the necessary generation load control equipment to interface and respond to Company's generation load control equipment, including equipment that reflects the identical MW and MVA<sub>r</sub> values as those telemetered to the EMCC.

2. Testing. Company shall monitor the ability of the Facility to be automatically dispatched. It is the expectation of the Parties that the Facility will be available for automatic generation dispatch during 100% of the Facility's on-line hours (excluding periods of failure of Company's telemetry, during which the Facility will manually be dispatched by Company). Company shall notify Seller of any material non-compliance

(D) Data Collection

1. At least two months prior to the Commercial Operation Date, Seller shall deliver to Company a report showing (i) manufacturer, model and year of all panels, inverters and meteorological instrumentation, and (ii) the latitude and longitude of the center of the solar panels for every inverter and every meteorological tower. Beginning upon COD, Seller shall transmit and provide to Company the real-time data set forth below, refreshed as frequently as allowed by the SCADA System, not to exceed sixty (60) second intervals:

- a. Two (2) data points from each inverter:
  - i. Inverter generation (kW); and
  - ii. Inverter availability
- b. Five (5) data points from each meteorological tower:
  - i. Direct normal solar insolation (solar intensity)
  - ii. Temperature;
  - iii. Barometric pressure;
  - iv. Wind speed (mph);
  - v. Wind direction (degrees relative to true north)

Seller shall provide a map and key for each inverter sufficient to allow Company to correlate the data received through Company's data historian system to each individual inverter.

\* \* \*

## EXHIBIT J LENDER CONSENT PROVISIONS

In the event Seller collaterally assigns its rights hereunder to the Facility Lender as security, any related Lender Consent will contain provisions substantially as follows:

1. Seller and Company will neither modify nor terminate the PPA other than as provided therein, without the prior written consent of the Facility Lender.
2. The Facility Lender shall have the right, but not the obligation, to do any act required to be performed by Seller under the PPA, and any such act performed by the Facility Lender shall be as effective to prevent or cure a default as if done by Seller itself.
3. If Company becomes entitled to terminate the PPA due to an uncured Event of Default by Seller, Company shall not terminate the PPA unless it has first given notice of such uncured Event of Default to the Facility Lender and has given the Facility Lender the same cure period afforded to Seller under Section 12.1 of the PPA, plus an additional 30 Days beyond Seller's cure period to cure such Event of Default; *provided, however*, that if the Facility Lender requires possession of the Facility in order to cure the Event of Default, and if the Facility Lender diligently seeks possession, the Facility Lender's additional 30-Day cure period shall not begin until foreclosure is completed, a receiver is appointed or possession is otherwise obtained by or on behalf of the Facility Lender.
4. Neither the Facility Lender nor any other participant in the Facility Debt shall be obligated to perform or be liable for any obligation of Seller under the PPA until and unless any of them assumes possession of the Facility through the exercise of the Facility Lender's rights and remedies.
5. Any party taking possession of the Facility through the exercise of the Facility Lender's rights and remedies shall remain subject to the terms of the PPA and shall assume all of Seller's obligations under the PPA, both prospective and accrued, including the obligation to cure any then-existing defaults capable of cure by performance or the payment of money damages. In the event that the Facility Lender or its successor assumes the PPA in accordance with this paragraph 6, Company shall continue the PPA with the Facility Lender or its successor, as the case may be, substituted wholly in the place of Seller.
6. Within ninety (90) Days of any termination of the PPA in connection with any bankruptcy or insolvency Event of Default of Seller, the Facility Lender (or its successor) and Company shall enter into a new power purchase agreement on the same terms and conditions as the PPA and for the period that would have been remaining under the PPA but for such termination.

## **EXHIBIT K HEAT RATE TESTING**

The Actual Net Heat Rate shall be determined by heat rate testing by Seller at the Net Capability for all of the Combustion Units comprising the Facility, using Acceptable Natural Gas Fuel, at an ambient temperature of not less than 70 degrees F, with, if applicable, cooling of intake air, and, if applicable, supplemental fuel firing of \_\_\_\_\_ MMBtu/hour required to provide power augmentation and produce the Net Capability from the combined total of all of the Combustion Units of the Facility.

The results of such testing shall be adjusted to Reference Conditions using the final design correction curves for the Facility (specifically, the design correction curves reflecting expected Facility equipment performance after all equipment tuning and adjustments have been completed) to determine the Actual Net Heat Rate. For the purposes of heat rate testing and determination of the Actual Net Heat Rate, (i) fuel input shall be measured at the Fuel Delivery Point and (ii) electric output shall be measured at the Point of Delivery. Testing shall be conducted over a continuous period until operation of the Combustion Units is held constant for up to one hour. The Facility will be operated in full compliance with all Permits and Applicable Law throughout the test, with all auxiliary equipment (including thermal export), used during normal operation of the Facility. Seller may be required to provide operational records to be used to substantiate the normal mode of operation. Testing shall be performed in accordance with the current ASME test codes applicable to the Combustion Units, or in accordance with other mutually agreed upon test codes/procedures.

Each Party shall have the right to request and schedule a heat rate test on a Business Day, not more often than once during any calendar year and upon Notice to the other Party at least 120 Days prior to the Day of such test, pursuant to the procedures set forth in this Exhibit. Seller shall perform the heat rate test under Company observation and concurrence. Company shall have the right of access to all areas of the Facility necessary to observe and verify testing activities. Company shall have the right to install, during the heat rate test and at Company's expense, any temporary, redundant test equipment complying with the governing test codes, that Company deems necessary for the purpose of verifying test measurements obtained by, or on behalf of, Seller.

Seller shall prepare and submit to Company for review and approval, at least 120 Days prior to each heat rate test, the proposed heat rate test procedure. Such test procedure shall include (i) specification of the governing test codes, (ii) the extent to which the test codes will be followed, (iii) provisions for testing, including collection of test data, (iv) any deviations from the test code, and (v) the methodology for calculating test results, including the planned method of adjusting the test net heat rate to each of the Reference Conditions, and (v) the configuration and operation of the plant equipment (i.e. specific firing curve, turbine governor valve position, use of duct burners, foggers, chillers, etc.). Seller shall be responsible for the full scope of heat rate testing, including, furnishing the test instrumentation, instrument calibration, set-up, data gathering, fuel analysis, data analysis and the issuance of a final report.



Electronic and paper copies of the raw test data shall be provided to Company at the conclusion of each test run. Immediately following each heat rate test Seller shall provide to Company all raw test data. Within 60 Days following performance of each heat rate test, Seller shall provide to Company for review and approval (i) calculations, fuel analyses and a final test report, in written and electronic format, (ii) all as-built equipment specifications, correction curves, equations and other information necessary for review of the heat rate test results that have not been previously submitted to Company, and (iii) a fully functioning electronic model, in Gate-cycle or a similar program, that Company can use to verify Seller's calculations of, and adjustments to, test data. The final test report shall include clear and complete explanations of the calculations resulting in the test net heat rate and the adjustment of the test net heat rate to each of the Reference Conditions. Uncertainty, as defined in the ASME power test codes, shall not be used to adjust heat rate test results.

In connection with any heat rate test, at the Seller's cost, Company may also require Seller to perform heat rate testing at up to five Company specified load points for each possible Facility operating configuration (i.e. with and without supplemental fuel firing and each simple cycle and combined cycle Combustion Unit operating mode) for the sole purpose of developing an accurate dispatch heat rate curve for each possible Facility operating configuration.

Seller shall notify Company of any generation equipment tuning and adjustment that may impact the heat rate performance of the Facility or the accuracy of the correction curves utilized to adjust the results of the most recent heat rate test. Upon such notification, Company may require Seller to perform additional heat rate testing of the Facility and provide new correction curves, that reflect the actual post-tuning condition of the Facility equipment.

Seller shall perform the initial heat rate test on or before the first August 31<sup>st</sup> following the Commercial Operation Date. If the initial heat rate test is performed after the Commercial Operation Date, the Actual Net Heat Rate resulting from such initial heat rate test shall apply retroactively from the Commercial Operation Date for the purposes of determining the Heat Rate Adjustment pursuant to Section 8.7. The heat rate test performed by Seller, or on behalf of Seller, prior to Seller's acceptance of the Combustion Units and auxiliary equipment may constitute the initial heat rate test, *provided, however, that* such test is performed in accordance with all the requirements for heat rate testing set forth in this Exhibit. Notwithstanding the foregoing, if Seller elects to establish such Facility equipment acceptance heat rate test as the initial heat rate test under this PPA, the requirement that the heat rate test be performed at an ambient temperature of not less than 70 degrees F shall be waived for such initial heat rate test.

**EXHIBIT L**  
**FUEL QUALITY SPECIFICATIONS**

Acceptable Natural Gas – Per Upstream Pipeline Tariff (to be attached)

Fuel Oil – ASTM D975-10C-Low Sulfur

***[DETAILS TO BE PROJECT SPECIFIC]***

**EXHIBIT M**  
**COMMITTED SOLAR ENERGY AND SOLAR ENERGY PAYMENT RATE**  
**(By Commercial Operation Year)**

*[This entire Exhibit shall be deemed Confidential Information pursuant to Section 20.19]*

<b>Committed Solar Energy and Committed Solar Energy Rate</b>					
Commercial Operation Year	Committed Solar Energy (MWh)	Rate \$/ (MWh)	Commercial Operation Year	Committed Solar Energy (MWh)	Rate \$/ (MWh)
1			11		
2			12		
3			13		
4			14		
5			15		
6			16		
7			17		
8			18		
9			19		
10			20		

**EXHIBIT N**  
**EXPECTED MONTHLY GENERATION PROFILE**

Month	Percent of Annual Generation
January	
February	
March	
April	
May	
June	
July	
August	
September	
October	
November	
December	

## **EXHIBIT O**

### **CAPACITY TEST REQUIREMENTS FOR GENERATORS**

#### **Regional Capacity Testing Criteria:**

For Generators in the MISO Region:

Seller shall cooperate with Company to comply with relevant MISO tariff requirements to test and determine the amount of net generating capacity associated with the Facility for which Capacity credit may be obtained under applicable planning reserve procedures and requirements as they may change from time to time. Initially, such requirements are set forth in Module E of the MISO Tariff and MISO Business Practices Manual for Resource Adequacy.

Seller shall collect data and perform tests and calculations in compliance with Module E of the OATT and MISO Business Practices Manual for Resource Adequacy, as they change from time to time. All required testing shall be conducted at Seller's expense.

For Generators in the SPS Region:

Seller shall cooperate with Company to comply with relevant SPS tariff requirements to test and determine the amount of net generating capacity associated with the Facility for which Capacity credit may be obtained under applicable planning reserve procedures and requirements as they may change from time to time. Initially, such requirements are set forth in the SPS Tariff and related requirements.

Seller shall collect data and perform tests and calculations in compliance with the SPS Tariff, as they change from time to time. All required testing shall be conducted at Seller's expense.

For Generators in the PSCo Region:

1. There are no testing requirements beyond the General Capacity Testing Criteria found below

#### **General Capacity Testing Criteria:**

For Company's planning, operating and reporting purposes, the Seasonal Capacity Test (Test) is the testing procedure to determine the seasonal net dependable capacity of the Facility which can be expected during Company's summer and winter peak load periods after supplying power to all of the Facility's auxiliary equipment. The Seasonal Capacity Test will be determined and reported as the lowest sustained, seasonally adjusted net kWh for any one clock hour of the four clock hour Test period. At Company's sole determination, the adjustments required to determine and perform the Test may include such applicable adjustments for ambient air conditions, condensing water availability and temperature, fuels, steam or water injection rates for

emission control, steam heating loads, thermal host energy usage, reservoir levels, elevations and scheduled reservoir releases and water flow conditions. The Facility shall be operated in full compliance with Applicable Law during the Test. If the Facility fails to operate during the Test in accordance with any requirements of the Test, Company will require a retest of the Facility.

The Test shall be performed at least once every two years for the summer (April 1 to September 30) and winter (October 1 to March 31) seasons to demonstrate and verify that the Test is representative of what can be generated during Company's summer and winter peak load periods. Company shall conduct the Test on a date mutually agreed upon by Company and Seller. If the seasonal net dependable capacity determined by the Test is not representative of the actual capacity output of Seller's Facility at the time of Company's seasonal peak capacity requirements, then Company will require a subsequent Test at Seller's expense. Company shall conduct the Test as outlined below and may install Test equipment, obtain necessary Test readings, and specify equipment operation mode to insure Test conditions are met as outlined in this Exhibit. If, at any time, the corrected test capacity of the Facility does not equal or exceed the seasonal net dependable capacity as determined by the most recent Test, Company may, in its sole discretion, require a subsequent Test at Seller's expense. Such Test will be conducted on a date solely determined by Company. The expenses for which Seller shall be obligated to reimburse Company in connection with a subsequent Test required by Company pursuant to the provisions of this Exhibit include the fuel, fuel transportation, labor, labor transportation, analysis, reporting, and equipment usage expenses incurred by Company in connection with such subsequent Test.

During the Test all auxiliary equipment needed for normal operation of the Facility shall be in service and shall be in typical operating condition and in a normal state of maintenance. This includes equipment associated with any process or thermal host connected to the Facility. It shall be Seller's obligation to ensure that all auxiliary equipment needed for normal operation of the Facility is in typical operating condition for the scheduled Test. Extended, peak firing or emergency capability shall be excluded during the Test and all equipment, which is not intended to be used on a normal daily basis, which could be used to extend capability, shall be excluded during the Test period. Seller shall be required to provide operational records to be used to substantiate the normal mode of operation.

Steady state operation is required for the performance test. The facility shall be considered to be at steady state prior to starting a test if the facility has operated at the baseload operating condition for at least one hour with power output maintained at a near constant level. If the Facility is unable to maintain a near constant power output level during the scheduled Test period, Company may, in its sole discretion, require a subsequent Test at Seller's expense. Unless found to be inaccurate, the Electric Metering Device(s) will be utilized to measure the Facility's net power output during the Test period. During the Test and its preparation, Seller shall give Company personnel

access to the Facility's equipment and instrumentation for observation and recording of process operating parameters and conditions.

Prior to each Test, Seller shall submit for Company's review a description of the Facility. Such Facility description shall include as appropriate:

Such Facility description shall include as applicable:

- a. A description of the system.
- b. Cycle diagram(s) indicating the design/contract values for power generation and any connected process including mass flow rates, pressures, temperatures and enthalpies of the various process flow paths and heat rates.
- c. Any modifications to the Facility that could impact the Facility's capacity output since the last Test. Modifications include, but are not limited to;
  - 1) Installation of new equipment or systems
  - 2) Alterations to existing equipment or systems
  - 3) Changes to any digital control system (DCS) control parameters including firing curves, temperature and pressure limits and steam/water injection schemes.
  - 4) Known damage or limitations of equipment or systems
- d. Annual natural gas and oil energy input. Use lower heating value for gas and oil. Separately identify any gas or oil used for duct firing or other types of supplementary firing.
- e. Annual useful energy output. (Net electrical output and net mechanical output, if applicable).
- f. All relevant generation and process correction data, curves, thermal kits and application methodology.
- g. Cooling tower and/or Air Cooled Condenser performance and correction curves.
- h. Annual useful thermal energy output (topping cycles). List annual usage showing daily and hourly maximum and average usages per month for each season for processing and heating/cooling usage.
- i. Description of how the useful thermal output is applied.

- j. All requested historical operating data, in electronic and “hard copy” format. Historic data may be used to identify, analyze and review effects of any changes in the Facility’s equipment, DCS control parameters, Facility performance degradation, etc.
- k. The technical support information included in the Facility’s state emission permit(s).
- l. Reservoir storage, elevations and water flow data.

For the initial Test, this information shall be submitted to Company no later than 90 Days prior to the Commercial Operation Date. For the initial Test, the Facility’s generation and process correction values will be calculated based on design or test information, in lieu of historic operational data.

For subsequent Tests, Seller shall provide to Company historic seasonal operational data from Facility’s operation. Such data shall include thermal energy supplied to and utilized by industrial or commercial processing loads, and heating and/or cooling processing loads. Prior to the Test, Company shall provide Seller with a comprehensive list of the historic seasonal operational data required.

*Turbo-Generator Units Tests:*

The Test period for steam turbo-generating Units will be not less than four continuous hours for the summer seasons and not less than two continuous hours for the winter seasons.

The Test as affected by the turbine exhaust pressure shall be seasonally adjusted to values representative of cooling water conditions at Company’s corresponding seasonal maximum system load period. This adjustment may be based on historic cooling water temperature measurements, Test data and/or design information.

Steam conditions will correspond to the operating standards established by the turbine manufacturer for the Facility. The steam generator will be operated with the regularly available type and quality of fuel.

*Combustion Unit and Internal Combustion Unit Tests:*

The Test period for a Combustion Unit and internal Combustion Units will be not less than four continuous hours for the summer seasons and not less than two continuous hours for the winter seasons.

For the summer season, ambient temperature and relative humidity conditions at the Facility during the Test shall be corrected to the historic five year average of the daily high temperatures and daily high relative humidity for the Days of Company’s



maximum system summer load requirements. For the winter season, ambient temperature and relative humidity conditions at the Facility during the Test shall be corrected to the historic five year average of the daily mean temperature and daily mean relative humidity for the Days of Company's maximum system winter load requirements. Historical ambient temperature and relative humidity information will be obtained from the nearest National/State Climatic Data Center. Also, for both summer and winter season Tests, ambient pressure at the Facility during the Test shall be corrected to standard ambient pressure (14.696 psia at mean sea level) adjusted to "Reference Conditions" means the Facility operating and ambient conditions used to establish the Predicted Net Heat Rate and to provide a reference for adjustment in determining the Actual Net Heat Rate from heat rate testing of the Facility pursuant to Section 8.7. The ambient Reference Conditions for the Facility shall be an ambient temperature of 95 degrees Fahrenheit (F), 20% ambient relative humidity, and standard ambient pressure (14.696 psia at mean sea level) adjusted to the Site elevation of [REDACTED] feet above mean sea level. The operating Reference Conditions for the Facility shall be the design parameters for the Facility generating equipment as follows:

The Site elevation above mean sea level. The above referenced ambient temperature, relative humidity and pressure corrections are to be applied to the as-tested capacity to determine the expected seasonal net capacity.

The ambient air temperature measurement for the Test will represent surrounding ambient air temperature and not ambient air temperature which is heated or cooled by nearby equipment. For the purpose of the Test, having all compressor intake air conditioning equipment (i.e., evaporative coolers, humidifiers, heaters, etc.) out of service, shall be considered as the normal mode of operations. Air conditioning equipment may be used during the Test only to the extent that Seller can prove, with historical records, that said equipment is normally in service. The performance of intake air conditioning equipment shall be adjusted to historic ambient air conditions. Combustion Unit exhaust temperatures shall not exceed the design operating point established by the Combustion Unit manufacturer and specific to the Combustion Unit being tested. The Test will be conducted using only an approved DCS control scheme governing operating parameters (i.e., turbine firing curve, etc.) as specified in the Combustion Unit manufacturer's requirements and consistent with Good Utility Practices.

Steam or water injection rates for emission control shall not exceed the levels specified in the technical support information in the application for the Facility emission permit(s).

\* \* \*

## EXHIBIT P MAINTENANCE REQUIREMENTS

(A) Seller shall provide a schedule of the expected Scheduled Outages/Deratings for the Facility ("Maintenance Schedule") for the first Commercial Operation Year on or before February 1 of the year prior to COD. Thereafter, on or before February 1 of each successive year, Seller shall submit an annual Maintenance Schedule for the next successive Commercial Operation Year; each scheduled outage shall include the start time and expected duration of the outage. On or before February 1<sup>st</sup>, and every February 1<sup>st</sup> thereafter, Seller shall also supply a long-term Maintenance Schedule that will encompass the following four Commercial Operation Years. Any change in the annual Maintenance Schedule, by either Party, shall be furnished to the other Party with advance notice. Minimum advance notice of any change in or extension of the Maintenance Schedule is as follows based on the original total duration:

c.	<u>Scheduled Outage Expected Duration</u>	d.	<u>Advance Notice Required</u>
e.	(1) Less than 2 Days	f.	at least 24 hours
g.	(2) 2 to 5 Days	h.	at least 7 Days
i.	(3) Major overhauls (over 5 Days)	j.	at least 90 Days

(B) Scheduled Maintenance Energy.

1. If the Facility is comprised only of combustion turbine Combustion Units, Company shall provide Seller the opportunity to use 360 MWh of Scheduled Maintenance Energy ("SME") per MW of Net Capability during each Commercial Operation Year as a credit towards Seller's Capacity Availability Factor ("CAF") pursuant to the payment calculation specified in Section 8.4, *provided, however, that* such SME is scheduled in advance with Company pursuant to this Article and approved in writing by Company prior to Seller's use of such SME. If Seller uses less than 360 MWh of SME per MW of Net Capability in a Commercial Operation Year, Seller may carry over for use in the next Commercial Operation Year unused SME as additional credit towards Seller's CAF during the next Commercial Operation Year, *provided, however, that* such SME carried over shall also be scheduled in advance with Company pursuant to this Article and approved in writing by Company prior to Seller's use of such SME, and *provided, further, that* the total SME per MW of Net Capability that may be accumulated by Seller for use in any Commercial Operation Year, beginning with the second Commercial Operation Year and including carry over SME, shall not exceed 672 MWh of SME per MW of Net Capability for that Commercial Operation Year. SME may not be advanced from future Commercial Operation Years.

2. If the Facility is comprised of combustion turbine and steam turbine Combustion Units operating in combined cycle mode, Company shall provide Seller the opportunity to use 456 MWh of Scheduled Maintenance Energy ("SME") per MW of Net Capability during each Commercial Operation Year as a credit towards Seller's Capacity Availability Factor ("CAF") pursuant to the payment calculation specified in Section 8.4, *provided, however, that* such SME is scheduled in advance

with Company pursuant to this Article and approved in writing by Company prior to Seller's use of such SME. If Seller uses less than 456 MWh of SME per MW of Net Capability in a Commercial Operation Year, Seller may carry over for use in the next Commercial Operation Year unused SME as additional credit towards Seller's CAF during the next Commercial Operation Year, provided, however, that such SME carried over shall also be scheduled in advance with Company pursuant to this Article and approved in writing by Company prior to Seller's use of such SME, and provided, further, that the total SME per MW of Net Capability that may be accumulated by Seller for use in any Commercial Operation Year, beginning with the second Commercial Operation Year and including carry over SME, shall not exceed 720 MWh of SME per MW of Net Capability for that Commercial Operation Year. SME may not be advanced from future Commercial Operation Years.

## EXHIBIT Q ESC EVENT ADJUSTMENT

(A) If during some or all of an ESC Event the entire Facility either (i) is fully available, (ii) is deemed fully available pursuant to Section 8.4 and this Exhibit, and/or (iii) is subject to a scheduled maintenance outage eligible for SME under Section 10.2 and Exhibit P – Maintenance Requirements (an “SME Outage”), Seller shall be entitled to a positive ESC Adjustment with respect to such ESC Event in the amount of  $NC \times DE \times ABF$ , where:

NC = the Net Capability of the Facility expressed in kW;

DE = the number of hours during the ESC Event, during which the Facility is fully available (excluding the number of hours (if any) during the ESC Event when the Facility was subject to an SME Outage); and

ABF = the applicable Availability Bonus Factor:  
Yellow ABF: \$0.005  
Orange ABF: \$0.015  
Red ABF: \$0.050

(B) If some or all of the Facility is not fully available (other than due to SME Outages) during some or all of an ESC Event, Seller shall be subject to a negative ESC Adjustment with respect to such ESC Event in the amount of  $ANC \times DO \times ARF$ , where:

ANC = the Affected Net Capability of the Facility (i.e. the portion of the Net Capability subject to the outage), expressed in kW;

DO = the hours during which the Net Capability of the Facility is not fully available due to causes other than SME Outages; and

ARF = the applicable Availability Reduction Factor:  
Yellow ARF: (\$0.025)  
Orange ARF: (\$0.075)  
Red ARF: (\$0.250)

*provided, however, that* with respect to each Commercial Operation Year, in no event shall aggregate net ESC Event Adjustment under this Section exceed:

(i) an amount equal to 200 hours x Yellow ARF x NC, with respect to Yellow ESC Events during such Commercial Operation Year;

(ii) an amount equal to 50 hours x Orange ARF x NC, with respect to Orange ESC Events during such Commercial Operation Year; or

(iii) an amount equal to 25 hours x Red ARF x NC, with respect to Red ESC Events during such Commercial Operation Year.

*[Choose as appropriate]:*

(C) In determining whether the Facility is “fully available” for purposes of an ESC Event (in contrast to Section 8.4), the Facility will not be de-rated for ambient conditions.

*[for gas-only facilities]*

or

(D) In determining whether the Facility is “fully available” for purposes of an ESC Event (in contrast to Section 8.4) *[for dual-fuel facilities]*

1. the Facility will not be de-rated for ambient conditions,
2. if Acceptable Natural Gas Fuel is available on an interruptible basis at the Fuel Delivery Point, the Facility must be available on Acceptable Natural Gas Fuel, and
3. if Acceptable Natural Gas Fuel is not available on an interruptible basis at the Fuel Delivery Point, the Facility must be available on both Acceptable Natural Gas Fuel and Acceptable Fuel Oil.

## **EXHIBIT R PSA PROVISIONS**

Any PSA executed to implement exercise of Company's ROFO rights will include provisions substantially as follows:

1. The PSA shall close on such Business Day as may be specified by Company, not more than 180 Days following execution of the PSA (or such longer period as may be required for the PUC to act thereon).

2. Seller shall operate the Facility, and both Parties shall perform the PPA, in the ordinary course of business pending closing of the PSA.

3. Seller shall convey the Facility to Company via special warranty deed, free and clear of all mortgages, deeds of trust, UCC-1s, and other liens materially adverse to Company's ownership and operation thereof.

4. All revenues and expenses of the Facility shall be prorated as of the date of closing.

5. Seller shall provide customary comprehensive representations, warranties and indemnities to Company regarding its legal right to execute and perform the PSA, and regarding title, physical condition, vendors, employees, operations, finances, contracts, maintenance and other relevant matters pertaining to the Facility, unqualified by its knowledge but subject to such factual exceptions as Seller may disclose. Absent fraud, Seller's liability for breach of such reps and warranties shall not exceed 100% of the purchase price. Seller's post-closing obligations shall be secured by a suitable combination of hold-back escrow, letter of credit and/or guaranty from a creditworthy affiliate.

6. Company shall provide customary representations and warranties to Seller regarding its capacity and legal right to execute and perform the PSA, unqualified by its knowledge.

7. Company shall assume all material contracts of Seller related to the Facility that are reviewed and approved by Company (such approval not to be unreasonably withheld) during the due diligence period.

8. Company's obligation to close shall be conditioned upon (i) approval by the PUC, (ii) counterparty consent under all material contracts requiring such consent, (iii) receipt by Company of all Permits needed to own and operate the Facility, and (iv) no material casualty or condemnation of the Facility prior to closing.

9. Company shall have the right of specific performance, without the need to post bond or prove irreparable harm from Seller's failure to close. Venue for any dispute under the PSA shall be the [Colorado] District Court for the County in which the Facility is located.

10. Such other terms as may then be standard in the market.

\* \* \* \* \*

## EXHIBIT S METHODOLOGY FOR ADJUSTING COMMITTED SOLAR ENERGY

In determining whether a default by Seller has occurred under Section 12.1(A)(11):

A. Periods when the Facility is incapacitated in whole or in part due to Force Majeure shall be excluded from the calculation.

For example, if the Facility is 50% unavailable during the entire month of March 2025 due to Force Majeure, (i) the Committed Energy required from Seller for the relevant Commercial Operation Year shall be reduced by % *[insert March % from Exhibit N]*, and (ii) the output of the Facility for the month of March shall be excluded in determining the quantity of Solar Energy delivered by Seller during the relevant Commercial Operation Year.

B. Periods of Non-Compensable Curtailment shall be excluded from the calculation.

For example, if the Facility is off-line for 8 days in October 2027 due to a maintenance outage on the transmission system beyond the Point of Delivery, the Committed Energy required from Seller for the relevant Commercial Operation Year shall be reduced by % *[insert 8/31 x October % from Exhibit N]*.

C. Energy generation foregone due to Compensable Curtailments shall be deemed to have been delivered to Company.

D. The Committed Solar Energy for the relevant Commercial Operation Year shall be multiplied by the ratio of the actual global horizontal irradiance for such Commercial Operation Year to the annual expected global horizontal irradiance for the Facility. Seller represents and warrants that the annual expected global horizontal irradiance for the Facility is [ ] kWh/m<sup>2</sup>/yr (+/- 1%). ***ntd: Seller should provide proof to Xcel as part of bid process***

For example, if during the sixth Commercial Operation Year, the Facility actually generates \_\_\_\_ MWh of Solar Energy but the actual solar irradiance for such Commercial Operation Year was \_\_\_\_ kWh/m<sup>2</sup>, the Committed Energy for such Commercial Operation Year (assuming no other adjustments under paragraphs A-C above) shall be reduced from \_\_\_\_ MWh to \_\_\_\_ MWh for purposes of determining a default by Seller under Section 12.1(A)(11).

The actual solar irradiance for a Commercial Operation Year shall be determined by the pyranometer readings at the Site (or from [insert alternate – e.g. “NSRDB site at \_\_\_\_\_” or “GeoModel Solar GIS DataBase published by \_\_\_\_\_, for \_\_\_\_\_]”, for any periods when the pyranometer at the Site is inoperable). Seller shall provide to Company upon request all pertinent GeoModel SolarGIS data and on-site pyranometer data for any Commercial Operation Year.

\* \* \* \* \*

## **EXHIBIT T FUEL OIL**

*[if applicable]*

Fuel Oil Storage Facilities. The Fuel Oil Storage Facilities included in the Facility shall include one or more active storage tanks for Fuel Oil sufficient to operate the Facility at its full capacity exclusively on Fuel Oil for a period of at least 72 and no more than 96 consecutive hours.

Fuel Oil Management Plan. *[insert manufacturer's requirements for periodic testing of the Facility on fuel oil, and for use of fuel oil sufficiently frequently to avoid degradation below Acceptable Fuel Oil standards]*

Specifications for Acceptable Fuel Oil. *[insert manufacturer's requirements for Acceptable Fuel Oil – e.g. ASTM D975-10C Low Sulfur fuel oil; or list specs]*



### **3.4 COMPANY OWNERSHIP RFP**

#### **Attachment 3.4-1 Company Ownership RFP**

Public Service's 2016 ERP Company Ownership RFP.

#### **Attachment 3.4-2 Company Ownership RFP Forms**

The Forms that are referenced in Appendix A of the 2016 ERP Company Ownership RFP.

#### **Attachment 3.4-3 Company Ownership Purchase Agreement**

The Model Company Ownership Purchase Agreement referenced in Appendix D of the 2016 ERP Company Ownership RFP.

# **PUBLIC SERVICE COMPANY OF COLORADO**

## **2017 Solicitation**

### **Company Ownership Request for Proposals**



date

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### ***Appendix A***

Proposal Forms and Instructions

### ***Appendix B***

General Planning Assumptions

### ***Appendix C***

Transmission Costs

### ***Appendix D***

Term Sheet for the Purchase and Sale of a Wind Energy Generation Project

Term Sheet for the Purchase and Sale of a Solar Photovoltaic Energy Generation Project

Term Sheet for the Purchase and Sale of a Natural Gas-Fired Energy Generation Project

### ***Appendix E***

Solicitation Timeline

### ***Appendix F***

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Form B	Bid Certification Form
Form C	Bid Cover Sheet
Form D2	Electrical Interconnection Cost Estimates
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Form F2	Facility Performance
Form F3	Heat Rates
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Form F6	Section 123 Qualifications
Form F7	Technical Description_PV
Form F8	Technical Description_Wind
Form G1	Natural Gas and Backup Fuel Supply
Form G2	Solid Fuel Information
Form H	Emission Rates
Form I	Interconnection Information Forms

### **Notice of Disclaimer**

The information contained in this Request for Proposals ("RFP") for energy and capacity resources has been prepared solely to assist bidders in deciding whether or not to submit a proposal. Public Service Company of Colorado ("Public Service" or "Company") does not represent this information to be comprehensive or to contain all of the information that a respondent may need to consider in order to submit a proposal. None of the Company, its affiliates, or their respective employees, directors, officers, customers, agents and consultants makes, or will be deemed to have made, any current or future representation, promise or warranty, express or implied, as to the accuracy, reliability or completeness of the information contained herein, or in any document or information made available to a respondent, whether or not the aforementioned parties knew or should have known of any errors or omissions, or were responsible for their inclusion in, or omission from, this RFP.

The Company reserves the right to modify, supplement or withdraw this RFP at any time, whether due to changes in law or otherwise, and including by issuing one or more addenda to this RFP during this solicitation, which addenda shall become a part of this RFP. No part of this RFP and no part of any subsequent correspondence by the Company, its affiliates, or their respective employees, directors, officers, customers, agents or consultants shall be taken as providing legal, financial or other advice or as establishing a contract or contractual obligation. Contractual obligations on the part of the Company will arise only if and when definitive agreements have been approved and executed by the appropriate parties having the authority to approve and enter into such agreements. The Company reserves the right to request from a respondent (a.k.a., bidder) information that is not explicitly detailed in this document, obtain clarification from bidders concerning proposals, conduct contract development discussions with selected respondents, conduct discussions with members of the evaluation team and other support resources as described in this RFP and in compliance with all FERC Code of Conduct rules and provide data to and conduct discussions with the Independent Evaluator ("IE") as necessary for the IE to satisfy the IE's role as defined by the Colorado Public Utilities Commission ("CPUC" or "Commission") in Decision No. C13-0094.

The Company will, in its sole discretion and without limitation, evaluate proposals and proceed in the manner the Company deems appropriate, which may include deviation from the Company's expected evaluation process, the waiver of any requirements and the request for additional information. The Company reserves the right to reject any, all or portions of any proposal received for failure to meet any criteria set forth in this RFP or otherwise and to accept proposals other than the lowest cost proposal. The Company also may decline to enter into any agreement with any bidder, terminate negotiations with any bidder or abandon the RFP process in its entirety at any time, for any reason and without notice thereof. Respondents that submit proposals agree to do so without legal recourse against the Company, its affiliates, or their respective employees, directors, officers, customers, agents or consultants for rejection of their proposals or for failure to execute an agreement for any reason. The Company and its affiliates shall not be liable to any respondent or other party in law or equity for any reason whatsoever for any acts or omissions arising out of or in connection with this RFP. Except as otherwise provided in the rules and orders of the Public Utilities Commission of the state of Colorado, by submitting its proposal, each respondent waives any right to challenge any valuation by the Company of its proposal. By submitting its proposal, each respondent waives any right to challenge any determination of the Company to select or reject its proposal. Each respondent, in submitting its proposal, irrevocably agrees and acknowledges that it is making its proposal subject to and in agreement with the terms of this RFP.

Each respondent shall be liable for all of its costs incurred to prepare, submit, respond or negotiate its proposal and any resulting agreement and for any other activity related thereto, and the Company shall not be responsible for any of the respondent's costs.

## ***Public Service Company of Colorado 2017 Company Ownership RFP***

### **Section 1. Introduction**

Public Service Company of Colorado ("Public Service" or the "Company"), an operating company subsidiary of Xcel Energy Inc., is issuing this Request for Proposals ("RFP") as a component of Public Service's 2016 Electric Resource Plan. This RFP is one of four RFPs to be issued. These four requests for proposals are:

- 2017 Dispatchable Resources RFP
- 2017 Renewable Resources RFP
- 2017 Semi-Dispatchable Renewable Capacity Resources RFP
- 2017 Company Ownership RFP (this RFP)

Segmenting the Solicitation into these categories is driven by the differing proposal development and contracting requirements for different generation technologies and by the different ownership models. As a result, each RFP contains a model contract(s) or term sheet(s) that has/have been tailored to address certain issues associated with each technology or ownership structure.

Examples of the types of projects which would be applicable to each RFP are shown in Table 1 below. This list is intended to provide guidance as respondents develop their proposals; more detailed information may be found in the specific RFP documents. Respondents who are uncertain as to which RFP would apply to their project should contact the RFP Project Manager (Section 1.4) for clarification.

**Table 1. Example Resource Types for the Various RFPs**

<b>RFP Document</b>	<b>Resource Types</b>
2017 Dispatchable Resources RFP	<ul style="list-style-type: none"><li>• Simple cycle gas turbines</li><li>• Combined cycle gas turbines</li><li>• Stand-alone storage projects</li></ul>
2017 Semi-Dispatchable Renewable Capacity Resources RFP	<ul style="list-style-type: none"><li>• Solar thermal with thermal storage or fuel back-up</li><li>• Any other intermittent resource with storage or fuel backup</li></ul>
2017 Renewable Resources RFP	<ul style="list-style-type: none"><li>• Wind</li><li>• Solar without storage or fuel backup</li><li>• Hydroelectric</li><li>• Geothermal</li><li>• Biomass</li><li>• Recycled Energy</li></ul>
2017 Company Ownership RFP	<ul style="list-style-type: none"><li>• New or existing simple cycle gas turbines</li><li>• New or existing wind or solar</li></ul>

## **1.1 Regulatory Context**

The CPUC's Resource Planning Rules ("RP Rules") establish a process that jurisdictional electric utilities must follow to determine the need for additional electric resources and to procure needed resources. Public Service filed its 2016 Electric Resource Plan ("ERP") on xxxx in accordance with the RP Rules ("Phase I"). In its 2016 ERP, Public Service identified a need for future generation resources and presented the Commission with multiple portfolios of generic resources that could be used to meet that need. As part of its 2016 ERP, the Company proposed to solicit proposals through a competitive solicitation ("Phase II"). The CPUC heard arguments by multiple parties concerning Public Service's resource need and acquisition plans. The CPUC approved the issuance of this Solicitation as part of Public Service's 2016 ERP in Decision No. Cxx-xxxx.

The RP Rules and Decision No. C13-0094 require that an Independent Evaluator ("IE") conduct a review of Public Service's evaluation of proposals received in response to the Solicitation. The Company will work cooperatively with the IE and shall provide the IE immediate and continuing access to all documents and data reviewed, used, or produced by the utility in this Solicitation and evaluation.

Additionally, the RP Rules require that Public Service: 1) make a communication to bidders concerning bid disclosure and bid model representation dispute resolution; 2) provide the Commission's order or orders specifying the form of nondisclosure agreement; and 3) require of bidders that they provide bidder contact and employment metric information.

### **Commission Required Communications**

#### ***Bid Information Disclosure***

Public Service notifies bidders that, upon completion of the competitive acquisition process begun with this RFP,<sup>1</sup> Public Service will post on its website the following information from all bids and utility proposals: bidder name; bid price and utility cost; generation technology type; size of project; contract duration or expected useful life of facility for utility proposals; and whether the proposed purchased power agreement includes an option for the utility to purchase the bid facility during or at the end of the contract term.

In addition Public Service notifies bidders that, pursuant to RP Rule 3614(b), a reasonable number of attorneys and a reasonable number of subject matter experts representing a party to the Company's 2016 ERP docket can, upon the execution of the appropriate non-disclosure agreement, request access to all Phase II information regarded by the Company as highly-confidential. The Company has claimed that bid information of any sort should be treated as highly-confidential, thus any bid information provided to the Company is subject to release to such individuals regardless of a bidder's claim of confidentiality.

#### ***Model Representation and Dispute Resolution***

Public Service will, within 45 days of bid receipt, provide notice in writing by electronic mail to the bidder whether its bid is advanced to computer-based modeling to evaluate the cost or the ranking of the bid resource, and, if not advanced, the reasons why Public Service will not further

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<sup>1</sup> Completion of the resource acquisition process is defined as the execution of all PPAs and/or completion of asset purchase negotiations and certificate of public convenience and necessity approvals, if any, for the solicited resources.



evaluate the bid using computer-based modeling.<sup>2</sup> With its notice Public Service will also provide bidders the modeling inputs and assumptions that reasonably relate to their bid resource or to the transmission of electricity from their proposed facility to Public Service; these inputs and assumptions may include, among other things, costs related to transmission interconnection, gas supply, and resource integration. Public Service will request that the bidder execute a highly confidential nondisclosure agreement prior to receiving the information. The form of the agreement is included as Appendix F.

For those bids advanced to computer-based modeling, within seven calendar days after receiving the modeling inputs and assumptions the bidder will notify Public Service in writing by electronic mail the specific details of any potential dispute regarding its bid's modeling inputs and assumptions. The bidder must attempt to resolve any dispute with Public Service. If the bidder and Public Service cannot resolve the dispute within three calendar days, Public Service will immediately notify the Commission with a filing in the 2016 ERP docket. If the bidder is not already a party to the 2016 ERP, the bidder will file a notice of intervention as of right pursuant to paragraph 1401(b) of the Commission's Rules of Practice and Procedure, within one business day of Public Service filing the notice of dispute to the Commission, for the limited purpose of resolving the disputed modeling inputs and assumptions.

An Administrative Law Judge ("ALJ") will expeditiously schedule a technical conference at which Public Service and the bidder shall present their dispute for resolution. The ALJ will enter an interim order determining whether corrections to the bid's modeling inputs and assumptions are necessary. If the ALJ determines that corrections to the bid's modeling inputs and assumptions are necessary, Public Service will, within three business days of the issuance of the ALJ's interim decision, provide the corrected information to both the bidder and the Independent Evaluator. In its 120-Day Bid Evaluation Report, Public Service will confirm, by performing additional modeling as necessary, that the bid resource is fairly and accurately represented.

#### Required Bidder Information

Public Service requires that each bidder in its Form C provide the contact name of the owner or developer designated to receive notice of whether the bid is advanced to computer-based modeling.

Public Service requires that bidders provide employment metric information for the bid to be eligible for this RFP. See the requirements for the Employment Metrics Narrative Topic.

## **1.2 Resource Needs Assessment**

This RFP is part of a Solicitation process whose purpose is to acquire sufficient resources to meet the Company's forecasted electric demand (plus reserves) over a resource acquisition period ("RAP") through 2023. Through this Solicitation, the Company seeks to fill an

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<sup>2</sup> See exceptions discussed in Section 5.1, Step 4.

approximate xxx MW capacity need<sup>3</sup> over the RAP to meet summer peak load plus a 16.3% planning reserve.<sup>4</sup> Table 2 illustrates the general timing of this capacity need by year.

**Table 2. Estimated Resource Capacity Need by Year**

Year	2017	2018	2019	2020	2021	2022	2023
Resource Need							

In any year, the Company may acquire more or fewer resources than is shown in Table 2 and the final level of resource need by year may change from that shown due to changed circumstances. While Table 2 shows an estimated capacity need for years beginning 20xx, the Company will review bids for resources that become commercially operational prior to this period.

### **1.3 Resources Sought through this RFP**

Through this Company Ownership RFP, the Company seeks proposals for the sale of new or existing generation assets. The Company is primarily interested in natural gas-fired, wind, and photovoltaic solar generation assets. As such, indicative term sheets for the purchase and sale of these asset types, structured as a purchase by the Company of 100% of the ownership interests of the project company holding the assets, are included as part of this RFP. The Company will, however, review any and all bids for any generation type other than coal-fired generation, and any and all bids for other Company ownership models and transaction structures, submitted as part of this RFP. All resources for new generation assets offered through this RFP must achieve commercial operation no later than May 1, 2023; all existing asset sales must be completed by May 1, 2023 also.

The amount of generation that the Company may acquire from this RFP depends, among other things, on the quality of bids received in response to the Solicitation, on economic comparison to other RFP responses and Company Ownership proposals, on updates to the Company's forecasts, on regional transmission availability, and on changes to regulatory or legal requirements.

### **1.4 RFP Project Manager and RFP Website**

The primary point of contact for communications between the Company and potential bidders is the RFP Project Manager. This individual may be contacted at xxxx; all communications between potential bidders and the Company must be conducted through this email account. See Section 4.7 for more information.

The Public Service 2017 Solicitation webpage can be found at [xxxx](#).

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<sup>3</sup> Certain generation resources such as wind and solar will count towards this need at a level less than the nameplate rating of the facility. As a result the final resource mix selected through the Solicitation could include significantly more than xxx MW from a nameplate rating standpoint. Unless otherwise stated, all references to kW, MW, and MWh in this document refer to AC ratings.

<sup>4</sup> The ultimate resource need and/or components of that need may differ as a result of adjustments to reflect any subsequent forecast updates or other events that would impact the identified resource need during the RAP, including decisions of the CPUC.

## **1.5 Section 123 Resources**

Colorado Revised Statutes (“C.R.S.”) 40-2-123(1)(a) states as follows:

“The commission shall give the fullest possible consideration to the cost-effective implementation of new clean energy and energy-efficient technologies in its consideration of generation acquisitions for electric utilities, bearing in mind the beneficial contributions such technologies make to Colorado's energy security, economic prosperity, insulation from fuel price increases, and environmental protection . . . .”

These “new clean energy and energy-efficient technologies” are referred to as “Section 123 resources.”

The Commission clarified in Decision No. C13-0094 (“Decision”) that a Section 123 resource must be both *new* and *clean* pursuant to the statute. In its Decision the Commission further defined the terms “new” and “clean”:

A new project shall either: (1) incorporate one or more technologies, representing a substantial portion of its overall installed cost, that have not been regularly commercially demonstrated,<sup>5</sup> up to the point in time that the resource is formally bid, or if not bid, acquired; or (2) be a project used to demonstrate the feasibility of a technology not before implemented in its proposed configuration.

A clean project must demonstrate that it would likely cause a decrease in greenhouse gas emissions (e.g., carbon dioxide) or significantly reduce other pollutants. A clean project may also result in reduced water usage.

Respondents to this RFP who believe their proposal meets the definition of a Section 123 resource should indicate in the Beneficial Contributions/Section 123 Resources Bid Narrative Topic why the respondent believes the resource qualifies as a Section 123 resource. Public Service will identify in its 30-Day Report to the Commission a listing of all bids that claim Section 123 status along with its opposition to any claimed Section 123 status and provide the Commission, under seal, a copy of the disputed bids. The Commission will determine whether the disputed bids qualify for further evaluation as a Section 123 resource.

## **Section 2. Eligible Project Information**

### **2.1 Eligible Project Structures**

Company Ownership RFP proposals will be for the purchase of a currently existing asset or the purchase of a newly-constructed facility through a build-own-transfer transaction or other bidder-proposed transaction structure resulting in Company ownership during the RAP.

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<sup>5</sup> The Commission's Decision indicated its review of a Section 123 resource would consider the commercial demonstration both within the State of Colorado and elsewhere.

## **2.2 Eligible Generation Resources**

For a project to be eligible under this RFP, it must: 1) have a nameplate electric rating greater than 2 MW, 2) meet all or a portion of the Company's resource needs during the RAP, 3) be located in the State of Colorado, and 4) interconnect to the Company's transmission system. The Company will not accept Company Ownership proposals from coal-fired generation.

A proposal may be for a new, a to-be-built resource, or an existing resource.

Although projects do not need to meet the Commission rule definition of an Eligible Energy Resource (as that term is defined in rule 3652), bidders are advised of the restrictions on the size of certain generation resources in the Commission's Renewable Energy Standard rules. Specifically, in order to be an Eligible Energy Resource: 1) hydro resources in existence on January 1, 2005 must have a nameplate rating of 30 MW or less and hydro resources not in existence on January 1, 2005 must have a nameplate rating of 10 MW or less, and 2) recycled energy resources must be 15 MW or less. The Company reserves the right to weigh the potential benefits of acquiring Renewable Energy Credits and generation from a project deemed to be an Eligible Energy Resource in its Non-Price Factor Analysis; see Section 5.1.

## **2.3 Pricing**

All pricing must be in terms of current year dollars, also referred to as escalated or nominal dollars. For example, a \$5,000,000 asset purchase price for 2018 means that in 2018 the facility will be purchased for \$5,000,000.

Respondents should provide pricing with assumptions that: 1) the project will qualify for federal tax incentives applicable to the proposed technology and to the proposed in-service date and, 2) that existing federal tax incentives will be applicable to the project even if those incentives are due to expire or decline by the time of the proposed in-service date. Respondents should describe the federal tax incentive assumptions made (including the percentage level of the production tax credit or investment tax credit, as applicable, for which any proposed wind or solar project is expected to be eligible) in the Project Description Narrative Topic. Respondents should also describe how they will meet any start of construction requirements to achieve the PTC or ITC, as applicable.

Under the terms of any asset purchase transaction for wind or solar projects, the purchase of the project shall include all right, title and interest to all renewable energy credits and environmental benefits generated from the proposed project after the closing of the transaction.

Proposal pricing for wind projects must specify whether payment is to be made in a lump sum or in milestone payments. If the proposal includes options for both lump sum and milestone payments, the proposal must specify any difference in total price between the two options. If milestone payments are proposed, an indicative schedule of milestone payments should be provided, including corresponding milestones and estimated timing of payments.

Proposal pricing must include initial cost estimates for any new or upgraded interconnection facilities required for the electrical interconnection of the proposed project to the Public Service transmission system, and must include the cost of any dedicated radial transmission line(s) from the generation facility to the proposed point of interconnection. See Form D2.

The Company will pay any costs required to upgrade or reinforce the Public Service electric transmission system beyond the Point of Delivery, as a consequence of adding a respondent's project to the Public Service system. All pricing in respondents' proposals should reflect those costs (to the extent applicable) at the time of submittal.

## **2.4 Regulatory Approvals**

At the completion of the evaluation process, pursuant to RP Rule 3613(a), the Company will file a report with the Commission that describes the cost-effective resource plans that conform to the Commission's Phase I decision. Upon Commission approval of Phase II of the Company's 2016 ERP, Company actions consistent with that approval are presumed prudent under RP Rule 3617(d). However, the Company reserves the right to: 1) inform the Commission that the Company could not reach agreement with the proponent of a selected resource and 2) to terminate any agreement if the Company fails to receive Commission approval of submitted agreements.

Execution of any purchase agreement will be subject to ultimate Commission approval of a certificate of public convenience and necessity or other Commission approval.

## **Section 3. Delivery and Interconnection Information**

### **3.1 General information**

Bids that propose to interconnect to the Company's transmission system and that do not have an existing Large Generator Interconnection Agreement ("LGIA"), Small Generator Interconnection Agreement ("SGIA"), or an existing interconnection queue position will be studied by Public Service to estimate electric interconnection and delivery requirements and costs. These procedures, and associated respondent responsibilities, are detailed in Appendix C.<sup>6</sup>

Bids that propose to interconnect to the Company's distribution system will be studied pursuant to CPUC rules 3667 or 3900 depending upon facility size.<sup>7</sup>

If the Company has received a certificate of public convenience and necessity ("CPCN") to construct a transmission upgrade the cost of the upgrade will not be included in the evaluation of proposals that use those upgrades; provided, however, that sufficient transmission transfer capability exists on the transmission project specified in the CPCN after accounting for other generation projects.<sup>8</sup>

Existing generation resources from which the Company currently purchases capacity and energy will not be burdened with any incremental electrical transmission interconnection or

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<sup>6</sup> Note that the Company will apply the appropriate study procedure (i.e. LGIP or SGIP) during any formal interconnection study process.

<sup>7</sup> The Company's "Safety, Interference and Interconnection Guidelines for Cogenerators, Small Power Producers and Customer-Owned Generation" is available at:  
<http://www.xcelenergy.com/staticfiles/xcel/Regulatory/Transmission/CO-DG-Tech-Manual.pdf>

<sup>8</sup> As the Company is no longer pursuing the SLV-Walsenburg-Comanche transmission project, the Company will not entertain bids that require the construction of that transmission facility.

network delivery costs provided that the Company currently has sufficient transmission capacity to deliver the entire generation to its load.

### **3.2 Electric Transmission Injection Capability**

Public Service performs transmission studies for Large Generator Interconnect Agreement ("LGIA") requests. The LGIA requests are made to determine the feasibility, cost, time to construct, and injection capability for the transmission system interconnection of an electric generating resource. The Company posts the results of these studies on its OASIS website.<sup>9</sup> The Company performs other transmission studies for purposes of transmission planning that determine like information.

The transmission system is interrelated and generation injection at one point on the system likely changes the injection capability at other points; e.g., incremental generation injections at Pawnee would decrease the generation injection capability at Missile Site and vice versa. The generation injection capability values provided below in Table 3 are approximations based on the stand-alone transmission studies performed for LGIA requests. The generation injection capability values can change when Public Service performs additional specific resource and resource portfolio transmission studies whether for resource evaluation or an LGIA request.

Table 3. Transmission System Injection Capabilities

**(this Table to be updated prior to RFP release to reflect then-current information)**

Location	LGIA Study	Injection Capability (MW)	Time to Construct

## **Section 4. Proposal Content Requirements and Submission Procedure**

### **4.1 Schedule Estimate**

An indicative schedule for this RFP process is provided in Table 4 below.<sup>10</sup> A graphical timeline is provided in Appendix E.

Table 4. Solicitation Schedule

Activity	Date
Pre-Bid Conference	T-68
Notice of Intent to Respond Due	T-14

<sup>9</sup> Information regarding posted studies may be found on a public site:  
[http://www.rmao.com/wtpp/psco\\_studies.html](http://www.rmao.com/wtpp/psco_studies.html).

<sup>10</sup> The Company reserves the right to adjust this schedule appropriately, including, but not limited to, for changes to the regulatory calendar.

Proposals Due	T
120-Day Report to Commission	T+120
Commission Phase II Decision	T+210

## **4.2 Minimum Requirements for Proposals**

This section describes the minimum requirements that all proposals must satisfy to be eligible for consideration in this Solicitation. Unless the Company in its sole discretion elects otherwise, proposals that do not comply with these requirements will be deemed ineligible and will not be considered further. The Company reserves the right to reject any bid and all bids.

- Proposals must include all applicable content requirements described in Section 4.3, including clear and complete written descriptions of all information requested and completed forms.
- Proposals must clearly specify all pricing terms in accordance with Section 2.3.
- Proposals must clearly demonstrate compliance with all power delivery requirements listed in Appendix C, CPUC 3667, or CPUC 3900 as applicable.
- Proposals must demonstrate an acceptable level of development and technology risk, as determined by the Company's evaluation team.
- For non-Section 123 proposals, the respondent's project development team must demonstrate that it has successfully completed the development, construction and commissioning of at least one utility-scale and utility-grade project with technology similar to the proposed project.
- For Section 123 proposals, the respondent's project development team must demonstrate that it has successfully completed the development, construction and commissioning of at least one utility-scale and utility-grade project.
- Respondents must demonstrate to the satisfaction of the Company that they can meet the security requirements contained in the Model Term Sheets.
- Proposals must clearly demonstrate any financing requirements and an indicative construction financing structure for any proposed resources that will be delivered under the proposals. Respondents should include a description of how current financial markets are likely to impact the respondent's ability to access the debt and tax equity markets, as applicable
- Each respondent must present clear and sufficient proof that it has or can secure an adequate and confirmed supply of generation equipment sufficient (at a minimum) to meet the required proposal.
- Respondents must provide the required bid fee (described in Section 4.8 below) for each proposal submitted.

### **4.3 Proposal Content Requirements**

This section outlines the content and format requirements for all proposals submitted in response to this RFP. Unless the Company in its sole discretion elects otherwise, proposals that do not include the information requested in this section will be ineligible for further evaluation, unless the information requested is not applicable or relevant to a given proposal. The Company reserves the right to conduct any further due diligence it considers necessary to fully understand and evaluate proposals.

#### **Proposal Format**

The first section of each proposal must contain an Executive Summary that provides an overview of the proposed generating resource characteristics, including any unique aspects or benefits. The second section of the proposal must include a completed set of applicable forms included in Appendix A. These forms will contain essential information about each proposal. A separate set of forms and related information must be submitted with each proposal. The third section of the proposal must include additional information presented in narrative form under specific topic headings.

A complete proposal will include the following components:

1. Executive Summary
2. Complete set of applicable forms
3. Form attachments (as necessary to elaborate on form information)
4. Narrative Topics Discussion
5. Requested maps and electronic data

The proposal forms and topic headings are listed below.

#### **Proposal Forms**

Form A	Notice of Intent to Respond
Form B	Bid Certification Form
Form C	Bid Cover Sheet
Form D2	Electrical Interconnection Cost Estimates
Form E	Construction Milestones
Form F1	Contract Capacity
Form F2	Facility Performance
Form F3	Heat Rates
Form F4	Heat Rate Degradation
Form F6	Section 123 Qualifications
Form F7	Technical Description_PV
Form F8	Technical Description_Wind
Form G1	Natural Gas and Backup Fuel Supply
Form G2	Solid Fuel Information
Form H	Emission Rates
Form I	Interconnection Information Forms

The individual forms in Appendix A include additional instructions for completion.



## Narrative Topics

In addition to completed forms, each proposal must also include a thorough written discussion of each of the following topics. Narrative topics should be organized under the following headings:

- Development Experience
- Financial Information
- Project Description and Development Schedule
- Equipment Description
- Energy Production Profile
- Real Property Acquisition Description and Plan
- Permitting Plan
- Transmission Plan
- Community/State Reaction Assessment
- Operations and Maintenance Plan
- Exceptions to Model Term Sheet
- Beneficial Contributions/Section 123 Resources
- Employment Metrics

***Development Experience.*** All proposals must describe the respondent's qualifications and experience in developing, constructing, commissioning and operating generation facilities similar to the proposed facility, including the experience, qualifications and safety record of key personnel who will manage development and an overview of utility scale and utility grade projects the respondent has developed during the last 5 years. If an EPC team is in place, the proposal should identify the members of the team; if such a group is not in place, the proposal must set forth the respondent's plan for assembling such team (including process and timing).

***Financial Information.*** All proposals must provide detailed financial information about the proposed project. This information shall include two years of audited financial statements or the equivalent for respondents and other responsible parties (including any entities that would provide parent guaranties of the respondents' obligations), whether the project will be financed as a recourse or non-recourse project, the percentages of debt and equity financing, and the expected cost of debt. In addition, respondents shall provide a detailed plan for financing the proposed project during construction including the financing commitments that the respondent has obtained. Proposals shall also explain in detail the plan for meeting the security requirements outlined in the Model Term Sheet and must set forth the credit rating (if any) of any entities that would provide parent guaranties of the respondents' obligations. Proposals must include an organization chart showing the entities that own the respondent's organization and a description of the respondents' organization structure (including primary and secondary businesses). Financial information may be provided primarily in electronic format so long as at least one (1) hard copy of the financial information is provided with each proposal.

***Project Description and Development Schedule.*** All proposals for the construction of new generation facilities must set out a description of the proposed project, including a description and plans for the proposed site and rights of way, utilities services, equipment configuration, transmission and interconnection construction and procurement, supply of spare parts,

opportunities for future expansion of the project, required permits, the nameplate capacity of the resource in MW, the respondent's key consultants (if known) for meteorological studies and permitting studies, and the respondent's construction contractors and prime subcontractors (if known). Such proposals must provide a detailed Gantt chart of project development activities developed using Microsoft Project or similar software (note that .pdf file-type is preferred for submittal) that includes (at a minimum) entering major equipment and construction subcontracts, target completion dates for financing, engineering, permitting, equipment procurement, construction, startup and commissioning, and guaranteed dates for substantial completion. Proposals must describe the overall development strategy that will ensure that the project can be developed in time to meet the proposed commercial operation date. Respondents proposing Section 123 resource generation projects should describe the risks associated with deploying such new technology specifically as those risks impact the proposed commercial operation date and the first years of operation.

Proposals for the sale of existing resources must include a description of the age of the equipment and remaining plant life; a summary of the pricing and term of existing fuel contracts; status of existing water rights (for natural gas-fired facilities); a summary of all material claims threatened or pending involving the facility; a description of the information available related to safety history, capital expenditure history, and operating and cost history (including heat rate, outage and availability record, fixed and variable costs fuel costs, and starts and cycling history). However, Respondents should not provide safety history, capital expenditure history and operating and cost history in their initial bid submissions. Upon request, respondents must be prepared to provide the Company with the foregoing information for evaluation purposes.

It is the Company's expectation that it will have first rights to all proposed projects submitted into the RFP for the period during the proposal review and approval process. Respondents must also provide any and all information which would restrict the respondent from providing the Company with exclusive rights to negotiate a purchase agreement for the proposed project. Such restrictions could include, but are not limited to, prior active submission or participation in other RFPs, exclusivity rights granted to other parties, rights of first offer or refusal, purchase options, and active auctions for the project as applicable.

**Equipment Description.** At a minimum, proposals should indicate for all major equipment 1) the name of the manufacturer and other vendors, 2) models, 3) key metrics and characteristics of the equipment, 4) performance history of the equipment, 5) contracting status, and 6) planned delivery dates.

**Energy Production Profile.** Proposals for wind and solar projects must include a description of any on-site meteorological data gathered by, or in the possession of, the respondent and the periods over which those data were collected (start and end dates and data collection frequency). However, Respondents should not provide on-site meteorological data in their initial bid submissions. Upon request, respondents must be prepared to provide the Company with the underlying meteorological data with the understanding that the Company may engage an external consultant for an independent verification and evaluation of the generation resource. The data provided must be sufficient for these purposes.

**Real Property Acquisition Description and Plan.** Proposals must provide a description of the status of real property acquisition and land use permitting for the project that is sufficient for the Company to assess the completeness and sufficiency of the respondent's real property rights, including but not limited to:

- The status of current site ownership or control. Indicate if control is through:

- Ownership of a leasehold interest in, or a right to develop a site for the purpose of constructing the proposed generating facility,
- An option to purchase or acquire a leasehold site for such purpose, or
- An exclusivity or other business relationship between bidder and the entity having the right to sell, lease, or grant bidder the right to possess or occupy a site for such purpose.
- The plan for acquiring any and all currently uncontrolled necessary real property rights to the project,
- Acreage of real property required for the project and a schedule for the completion of the real property acquisition process,
- A description of any subdivision or zoning modifications and all city, county, or state land use permits that will be required, such as conditional use, special use or other similar permits and approvals, which will be required for any phase of development, construction, or operations of the project, and
- A description of existing and planned land use in all directions surrounding the proposed site.

Proposals must include a USGS-based map showing the location of the proposed site.

**Permitting Plan.** Proposals must describe all air quality permits that will be required for the project. State whether any air permits have been secured, and if not, whether applications have been filed. Report on the status of any pending applications and any feedback from permitting agencies. Describe the expected time frame to obtain the necessary air permits after application submittal to the State.

Describe all other federal, state and local permits and approvals that will be required for the project, including but not limited to:

- Federal environmental assessments under the National Environmental Policy Act ("EA/EIS"),
- Water supply,
- Wastewater discharge permits,
- Hazardous waste permits, and
- No-hazard permits/determinations from the Federal Aviation Administration.

Describe the current status of obtaining these permits and any feedback from permitting agencies.

Describe the water supply strategy for the project, including a description of water requirements, water supply source(s), discharge plans, new water pipeline requirements, and any work completed to date on the water supply plan.

Explain any expected restrictions on operations due to air and/or water permits.

If the proposed site does not currently have the appropriate zoning designation, provide any rezoning requirements, plans to obtain the rezoning, and any known issues as to rezoning.

For projects proposing to utilize an eligible energy resource<sup>11</sup>, proposals must also provide written documentation evidencing that consultation has occurred with appropriate governmental agencies (for example, the Colorado Division of Wildlife or the U.S. Fish and Wildlife Service) responsible for reviewing potential project development impacts to state and federally listed wildlife species, as well as species and habitats of concern.

**Transmission Plan.** Provide a detailed description of the Point of Delivery to the Public Service electric system, including the location and voltage level of such point. All proposals should include a description of the respondent's plan to transmit power from the Project to the proposed Point of Delivery on the Public Service transmission system as described in Appendix C. The information should include a description and expected route of any radial transmission line dedicated principally to the Project if known, including a summary of the status of obtaining requisite easements and alternatives.

If any new FERC-regulated transmission or any upgrades to non-Public Service transmission will be required to deliver power from the Project to the proposed point of delivery ("New Transmission"), the proposal also should include a complete description of the required New Transmission including:

- The owner and developer of the New Transmission,
- The complete expected route for the New Transmission,
- The voltage and capacity of the New Transmission,
- The status of planning, permitting, financing and construction of the New Transmission, to the extent known to the respondent,
- The location of the interconnection of the Project into the New Transmission, and
- Whether the respondent's Project, if successful, would be sufficient for the New Transmission to be built without the participation of other power projects, and if not, what other projects would need to be built and in what time frame to allow the New Transmission to be built in time for the respondent to meet its scheduled in-service date.

Attach a USGS-based map that shows the location of the interconnection point with the third-party and the generation facility.

**Community/State Reaction Assessment.** Each respondent must present a current assessment of, and a plan for continuing to monitor, local community and state reaction to the project, and a plan to work with the local community on project issues. Such plan might include the following elements:

- A list of the references used to assess the community reaction, and the methodology used to draw conclusions,
- A list of key local contacts interviewed and their opinions,
- An assessment of the local community reaction at the time of the proposal,
- An action plan for working with the local community/state to successfully complete the project, and
- A description of the respondent's proposed conflict resolution methodology.

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<sup>11</sup> Eligible energy resources are defined in the Commission's rules, section 3652, "Definitions".

**Operations and Maintenance Plan.** Respondents shall summarize their proposed operations and maintenance plans or applicable manufacturer or third-party service arrangements for the generation facilities associated with their proposals.

**Exceptions to Model Term Sheet.** In support of the Company's efforts to complete project evaluation, and contract negotiations in a timely manner, respondents shall review and provide exceptions and/or comments to the Model Term Sheet. To the extent that the validity of a respondent's proposal and/or the respondent's ability to execute a purchase agreement is contingent upon material changes to the language in the Model Term Sheet, respondents should specifically identify the terms in the Model Term Sheet they propose to change and should summarize their proposed changes to such terms. To the extent that a respondent wishes to propose changes to the Model Term Sheet that, if accepted by the Company, would reduce the respondent's proposed pricing the proposal should specifically identify such changes and the associated price reduction. To the extent practicable, respondents should develop exhibits, schedules, attachments and other supplemental documents required by the Model Term Sheet.

Exceptions taken to model Term Sheet terms must be clearly expressed such that the Company can reasonably understand the bidder's concerns. Statements containing language such as "To be discussed" do not provide the Company sufficient information to understand the bidder's concerns. Bidder's providing such comments will be required to more fully explain their concerns so that the Company can adequately conduct its due diligence activities.

**Beneficial Contributions/Section 123 Resources.** Respondents should indicate whether or not they believe their project meets the requirements of a Section 123 resource. Bidders claiming Section 123 status must complete Form F6. Regardless of claimed Section 123 status, **all bidders must provide information concerning the beneficial contributions of their proposed technology** including benefits associated with Colorado's 1) energy security, 2) economic prosperity, 3) environmental protection, and 4) insulation from fuel price increases.

This information is needed from **all bidders** in order to allow the Commission to consider whether certain benefits are common across proposals and whether certain benefits tie specifically to the implementation of a particular new and clean energy technology.

**Employment Metrics.** Respondents shall include descriptions of each best value employment metric described below as it relates to the bid project.

- The availability of training programs, including training through apprenticeship programs registered with the United States Department of Labor, Office of Apprenticeship and Training,
- The employment of Colorado workers as compared to importation of out-of-state workers,
- Long-term career opportunities, and
- Industry-standard wages, health care, and pension benefits.

#### **4.4 Pre-Bid Conference**

Time: xxxx  
Date: xxxx  
Location: 1800 Larimer St.  
Denver, Colorado 80202

Public Service will webcast the meeting and will provide means for remote, electronic participation by potential RFP respondents. Public Service will post information concerning webcast access and remote participation on the RFP website once confirmed. Interested parties are encouraged to provide written questions to the Company's RFP Project Manager by email prior to the pre-bid meeting. A summary of the bid conference proceedings, including submitted questions and answers, and answers to any question remaining unanswered at the end of the meeting will be prepared by the Company and posted on the RFP website.

#### **4.5 Notice of Intent to Respond**

Respondents who intend to submit a proposal are encouraged to submit a non-binding Notice of Intent to Respond (NOIR), Form A in Appendix A. Submit the completed NOIR by email no later than 4:00 P.M. Mountain Time on xxxx to the RFP Project Manager. There is no fee required to submit an NOIR.

#### **4.6 Proposal Submission Deadline**

All proposals, including Company self-build proposals will be accepted until 4:00 P.M. Mountain Time on the date indicated in Section 4.1. All proposals must be transmitted by express, certified or registered mail, or hand delivered to the following address:

PSCo 2017 Solicitation  
Attn: RFP Project Manager  
Xcel Energy Services Inc.  
1800 Larimer St, Ste 1400  
Denver, Colorado 80202

Proposals received later than the due date and time indicated will be rejected and returned unopened, unless the Company determines, at its sole discretion, to consider such proposals. With the exception of the financial information (of which only one (1) hard copy is required), four (4) bound hard copies of the proposal must be included in the submittal. In addition, respondents must submit three (3) electronic copies (CD, DVD, or flashdrive) with completed forms in a Microsoft Office format.

Proposals must be submitted in a sealed package with the following information shown on the package:

**Response to PSCo 2017 Company Ownership RFP  
Confidential Sealed Bid Proposal**

The respondent's company name and address must be clearly indicated on the package containing the proposal.

#### **4.7 Information Policy**

To obtain additional information about this RFP, potential respondents as well as all other parties may only submit inquiries to the RFP Project Manager via email at [xxxx](#). Potential respondents as well as all other parties should not attempt to acquire information through any other means including telephone calls to the Company. The Company will maintain a log of all inquiries and coordinate the preparation of written responses. Once a response is prepared, the Company will forward the response to the inquiring party and, at the Company's sole discretion if the response is germane to all other respondents, all other respondents that have provided the Company an email address. Parties without email addresses will not receive these responses directly. Questions and responses, when germane, will be periodically posted to the RFP Web Site in a FAQ. The Company has established this information policy to ensure that all respondents have the same timely access and knowledge about the bidding and evaluation process.

All bidders as well as all parties in the resource plan proceeding other than the utility are restricted from initiating contact with the IE.

#### **4.8 Bid Evaluation Fees**

All respondents are required to pay to the Company a bid evaluation fee with each proposal submitted; bid fees are determined by the nameplate capacity of the bid according to Table 5 below. Public Service may deem proposals that do not satisfy the requirements for a single proposal as multiple proposals, each of which would require a separate bid evaluation fee. For example, a proposal that triggers electric interconnection studies for multiple points or levels of interconnection would be deemed separate proposals for each such point or level. In addition, proposals offering multiple commercial operation dates for the same project or facility will be viewed as multiple proposals. If the Company deems a respondent's proposal to be multiple proposals, the Company will notify the respondent and allow it to elect to pay the incremental bid fee or to revise its proposal to comply with the Company's requirements for a single proposal.

Notwithstanding the above, respondents who submit proposals in this 2017 Company Ownership RFP may also submit a proposal for the same generation facility in one of the other RFPs in this Solicitation with no incremental bid fees.

Checks should be made out to "Public Service Company of Colorado" and must be included with the proposal. Bid evaluation fees are non-refundable.

Table 5. Bid Fees

<b>MW &gt;</b>	<b>MW &lt;=</b>	<b>Bid Fee</b>
2	5	\$1,500
5	10	\$3,000
10		\$10,000

#### **4.9 Clarification of Proposals**

While evaluating proposals, the Company may request clarification or additional information about any item in the proposal. Such requests will be sent via email to respondents identified on Form C, by the RFP Project Manager, typically, and respondents are required to provide a written or electronic response back to the RFP Project Manager within five (5) business days, or the Company may deem the respondent to be non-responsive and either suspend or terminate evaluation of the proposal. Respondents are encouraged to provide an alternate point of contact to ensure a timely response to clarification questions.

#### **4.10 Confidentiality**

Respondents are allowed to identify any information in their proposals that respondents claim should be considered to be confidential or proprietary. Nonetheless, the Company reserves the right to release all proposals to its affiliates and to its and such affiliates' agents, advisors, consultants, and the IE for purposes of proposal evaluation. The Company will, to the extent required by law, advise each agent, advisor or consultant that receives such claimed confidential information of its obligations to protect such information. In addition, all information, regardless of its confidential or proprietary nature, will be subject to review by the Commission and other governmental authorities and courts with jurisdiction, and may be subject to legal discovery. It is not the Company's intent to enter into any separate confidentiality, non-disclosure, or similar agreements as a condition to receiving a respondent's proposal.

Notwithstanding the above paragraph and as indicated in Section 1.1, a reasonable number of attorneys and a reasonable number of subject matter experts representing a party to the Company's 2016 ERP docket can, upon the execution of the appropriate non-disclosure agreement, request and receive access to all bid information provided to the Company in response to this RFP regardless of a bidder's claim of confidentiality or propriety. In addition, upon completion of the competitive acquisition process Public Service will post on its website and thereby make publically available the following information from all bids and utility proposals: bidder name; bid price and utility cost; generation technology type; size of facility; contract duration or expected useful life of facility for utility proposals; and whether the proposed purchased power agreement includes an option for the utility to purchase the bid facility during or at the end of the contract term.

#### **4.11 Addenda to RFP**

Any additional responses required from respondents as a result of an Addendum to this RFP shall become part of each proposal. Respondents must list all submitted Addenda at the bottom of the Bid Certification Form (Form B).

### **Section 5. Evaluation and Criteria**

The objective of the Company's Solicitation evaluation is to identify portfolios of proposals that meet the resource needs identified in the solicitation in a reliable and cost-effective manner, while achieving the resource goals of the Commission-approved ERP.

As described below, the evaluation process will include an assessment of both economic and non-economic criteria.



## **5.1 Evaluation Process**

An evaluation team, made up of various groups within Xcel Energy Services and the Company will evaluate proposals; however, the Company reserves the right to retain the services of outside experts to assist in the evaluation of proposals. The RFP Project Manager may contact respondents directly at any point during the evaluation process for the purposes of clarifying proposals. The Company will also cooperate with, and provide access to information provided by respondents to, the Independent Evaluator as required by RP Rule 3612. All bidders as well as all parties in the resource plan proceeding other than the utility are restricted from initiating contact with the IE.

Proposals will be evaluated using a multi-step process as follows:

### **Step 1 – Bid Eligibility Screening**

Each proposal will be reviewed to ensure it meets the minimum requirements outlined in Section 4.2. The Company will notify each proposal respondent within 15 days of bid receipt as to the Company's bid eligibility evaluation.

### **Step 2 – Interconnection Assessment and Initial Economic Evaluation**

While not entirely concurrent, the activities described in Steps 2.A., 2.B. and 2.C. below will overlap to some extent.

#### **A. Electric Interconnection Cost Estimates**

The Company will determine or verify electric interconnection cost estimates provided by bidders. If substantial differences occur, the Company will provide its cost estimates to the applicable bidders so that they can update their bid pricing, as they deem appropriate. Such bidders must submit final bid pricing back to the Company within 5 calendar days of the date the interconnection cost estimates are provided.

#### **B. Transmission and Distribution Upgrade Schedule Assessment**

Some or all of the proposals will also be evaluated to assess the general siting, permitting, and construction time requirements associated with Public Service transmission and/or distribution network upgrades, including network upgrades for interconnection, that may be needed for each proposal to:

- Interconnect the proposed generation with the Public Service transmission or distribution system,
- Deliver the entire proposed capacity and energy to the Company's customers, and/or
- Deliver the entire proposed capacity and energy from a third party transmission system to the Public Service electric system.

The impact of these analyses on a respondent's proposed schedule will be a factor in the evaluation of its proposal.

### **C. Initial Economic Screening**

The primary purpose of the initial economic screening is to rank each bid by technology so that the most promising bids can be forwarded to the subject matter experts for their review as quickly as possible and to identify those bids likely to be moved forward for computer modeling of bid portfolios. The initial economic screening consists of calculating an “all-in” levelized cost of energy (“LEC”). Calculations are shown on the “LEC” tab of the bid forms (Appendix A).

In addition to the costs provided in the bid, the Company will estimate incremental costs or benefits, as necessary, such as:

- Electrical interconnection costs and network upgrades not included in pricing. These incremental capital costs are converted to a variable rate by assuming a levelized fixed charge rate of 0.12 and an annual capacity factor based on the type of generator proposed.
- For bids proposing wind generation, the Company will estimate resource integration costs as determined in the Company’s most recent wind integration cost study.
- For bids proposing solar generation (PV or solar thermal), the Company will estimate resource integration costs as determined in the Company’s most recent solar integration cost study.
- Projects that propose to interconnect to the Public Service distribution system will be credited with an avoided line loss assumption in their LEC calculations.
- Estimates of the Company’s cost to deliver fuel (e.g., natural gas) to a tolled facility.
- Bids for energy storage will be credited with wind curtailment benefits, as applicable.

LECs for dispatchable generation resources are calculated by converting fixed costs to variable \$/MWh costs by assuming an annual capacity factor and by assuming an average annual heat rate with which to estimate fuel volumes and costs. Gas-fired, peaking resources (defined as units with base capacity heat rates over 8,000 Btu/kWh) will be screened with an assumption of a 5% annual capacity factor. Gas-fired, intermediate resources (defined as units with base capacity heat rates of 8,000 Btu/kWh or lower) will be screened with an assumption of a 40% annual capacity factor. The average annual heat rate utilized in the LEC calculations will be the base capacity heat rates (i.e., heat rates without supplemental capacity) supplied on Form F3.

Start charges are converted to a variable \$/MWh cost by assuming a set number of hours that a unit will run at full output once started; full output is defined as the net capability of the unit without supplemental capacity (e.g., duct firing on a combined-cycle power plant). For peaking resources, the Company assumes a four (4) hour run time per unit per start. For intermediate resources, the Company assumes a twelve (12) hour run time per unit per start and that all combustion turbines are started.

Bids proposing secondary fuel sources (e.g., fuel oil) will be screened utilizing primary fuel parameters only. No incremental benefits for quick start or faster ramp rates are provided in the LEC calculations.

Regardless of their LEC calculations all eligible bids from existing generators, all Company self-build projects, and any bid claiming Section 123 status that is unopposed by the Company or, if opposed by the Company but later qualified as Section 123 by the Commission, will be advanced to computer modeling of bid portfolios.

### **Step 3 – Non-Price Factor Analysis**

The Company will assess the non-price characteristics of the proposals. Non-price factors that will be assessed include, as applicable and without limitation, the following:

- Financial strength of the respondent
- Financing plan, including ability to utilize tax advantages
- Development, construction and operation experience
- Generator technology, availability, and warranties
- Environmental permitting and compliance
- Land use permitting and zoning
- Other permitting
- Real property acquisition/site control progress and plan
- Project operational characteristics
- Scale of the project and whether or not it meets the Commission definition of an Eligible Energy Resource
- Community support for the project
- Transmission access plan feasibility and arrangements
- Transmission upgrade schedule assessment
- Construction and equipment supply plans and arrangements
- Project execution planning
- Accredibility of capacity to meet reliability needs
- Accounting assessment

### **Step 4 – Bidder Notification**

Contingent upon the existence of sufficient bids passing through bid eligibility and due diligence screening, the Company shall pass forward to the computer modeling of bid portfolios a sufficient quantity of bids across the various resource types such that resource plans can be created that conform to the Commission's Phase I decision.

Pursuant to rule 3613(a), within 45 days after bids are received the Company will email each bidder and indicate whether its bid has or has not been advanced to computer-based modeling of bid portfolios and provide each bidder the modeling inputs and assumptions that reasonably relate to that potential resource or to the transmission of electricity from that facility to the Company.<sup>12</sup> For those bids not advanced to computer modeling, the Company will provide the reason(s) why the project will not be evaluated further.

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<sup>12</sup> See Section 5.1 Step 5 for an exception to the notification policy for bids that are included in modeling after 45 days of bid receipt. See Section 5.1 Step 6 for an exception to the notification policy for bids smaller than 10 MW.

## **Step 5 – Computer-Based Modeling of Bid Portfolios**

The costs and operational characteristics of any Company self-build proposal and each remaining bid equal to or greater than 10 MW will be input into the Company's Strategist™ planning model.<sup>13</sup> The Strategist™ model will be used to construct portfolios of bids that meet the capacity and energy projections of the Public Service system, as well as the various objectives of the resource plan and Commission decisions. The Strategist™ model simulates operation of proposals together with the Company's existing resources (and to an extent, the regional power market), while keeping track of all associated fixed and variable costs of the Company's entire system.

Strategist™ will be utilized to develop portfolios that minimize the net present value of revenue requirements through 2054. The model will also be used to develop alternative resource portfolios that represent the costs and benefits from increasing amounts of renewable technologies and/or Section 123 resources. Portfolios will be developed in accordance with the scenario analysis directives of the Commission.

To the extent initial results indicate that all bids of a specific generation resource type (e.g., all wind bids) passed to computer modeling appear in the least-cost portfolio(s), additional bids utilizing that generation resource type will be included in subsequent model runs. This iterative process will be followed until no incremental bids employing that generation resource type are selected in the least-cost portfolio. Bidders whose projects are passed forward to computer modeling of bid portfolios after the 45 day report will be notified of their project's advancement pursuant to rule 3613(a).

The general planning assumptions that will be used in the development of resource portfolios are included in Appendix B to this RFP. Planning assumptions specific to certain renewable resource types follow.

Wind generation – A wind generation bid will be assigned an hourly generation shape of the typical week for each month based on the proposed site's Wind Zone. Each wind bid in each Wind Zone will be assigned the same typical week shape; however, the typical week shape for each bid will be modified by the bidder-specified monthly peak and total generation to arrive at the bidder's estimated annual capacity factor.

The Company will assign bids to a specific Wind Zone based on the following information:<sup>14</sup>

- Wind Zone 1
  - All of Larimer, Weld, Morgan, Logan, Sedgwick, and Phillips counties,
  - Portions of Washington and Yuma counties north of 40.0° latitude; except projects in GDA #4,<sup>15</sup>
  - In Wyoming, all of Platte, Goshen, and Laramie counties and southern and eastern portions of Albany County.
- Wind Zone 2

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<sup>13</sup> Depending upon the pool of proposed projects received, the Company may adjust the specific MW cutoff for various technologies instead of the 10 MW indicated here. Such an adjustment would be done in consultation with the Independent Evaluator.

<sup>14</sup> These geographic definitions of Wind Zones are for the sole purpose of assigning proposed wind sites to a proxy wind generation shape to facilitate their evaluation as part of this RFP.

<sup>15</sup> As defined by the SB07-91 Task Force on Renewable Resource Generation Development Areas.

- All of Adams, Arapahoe, Elbert, Lincoln, Kit Carson, and Cheyenne counties,
- Portions of Washington and Yuma counties south of 40.0° latitude, including projects in GDA #4,
- Portions of Kiowa county north of 38.5° latitude,
- Portions of El Paso county east of -104.8° longitude.
- Wind Zone 3
  - All of Bent, Prowers, and Baca counties,
  - Portions of Kiowa county south of 38.5° latitude,
  - Portions of Crowley, Otero, and Las Animas counties east of -103.6° longitude.
- Wind Zone 5
  - All of Pueblo county,
  - Portions of Crowley, Otero, and Las Animas counties west of -103.6° longitude,
  - Portions of Custer and Huerfano counties on the eastern side of the Sangre De Cristo mountains.

The Company will employ the best meteorological data available to develop typical week wind shapes for projects that propose a site that does not match any of the Wind Zones listed above.

Solar generation – A solar generation bid (without storage) will be assigned an hourly generation shape of the typical week for each month based on the proposed site's Solar Zone and its ability to track. Each fixed system and each tracking system solar bid in each Solar Zone will be assigned the same typical week shape; however, the typical week shape for each bid will be modified by the bidder-specified monthly peak and total generation to arrive at the bidder's estimated annual capacity factor.

The Company will assign bids to a specific Solar Zone based on the following information:

- Northern Front Range
  - Defined as the geographic area north of the southern Denver metro area (e.g., Denver, Boulder, and Greeley).
- Southern Front Range
  - Defined as a broad geographic area around Pueblo.
- Western Slope
  - Defined as a broad geographic area around Grand Junction.
- San Luis Valley

### **Step 6 – Evaluation of Bids Between 2 MW and 10 MW**

As indicated in Step 5, bids must have nameplate capacity ratings equal to 10 MW or greater to be included in the computer-based portfolio modeling step. In general, bids between 2 MW and 10 MW ("Small Bids") will be evaluated after the computer-based portfolio modeling step. As indicated in Section xxx, the Company will not entertain bids for Company ownership that are smaller than 2 MW.

At the conclusion of Step 5, the Company will review the least-cost portfolio from the base case run (that is, not from a sensitivity case) and determine each generation type selected in the portfolio. For each generation type selected, the Company will determine the all-in levelized energy cost of the most expensive bid. These all-in levelized energy costs will set the price against which Small Bids with similar generation technologies will be compared. The Company will include in all portfolios presented to the Commission each Small Bid with an all-in levelized

energy cost less than the most expensive bid with similar technology selected in the least-cost portfolio.

A final check will be made to ensure that the inclusion of all cost-effective Small Bids does not provide excess capacity credit to the least-cost portfolio through the RAP to such an extent that it could replace another source(s) of capacity selected through the Strategist modeling. If it does, two additional sets of ad hoc Strategist runs will be conducted to determine which is most cost-effective: 1) include all cost-effective Small Bids in the final portfolio, or 2) include all cost-effective Small Bids and exclude the other generator(s) that could potentially be displaced. The final portfolio would be the least-cost of these two runs assuming that both runs meet all reliability metrics.

To the extent the least-cost portfolio does not include a certain generation type (e.g. solar) but bids for that generation type were passed through to computer-based modeling and lower priced Small Bids exist, an ad hoc Strategist run including these Small Bids would be conducted to see if the revenue requirements of the least-cost portfolio increases or decreases. If the revenue requirements decrease with the addition of the Small Bids, they would be included in the final portfolios.

For certain generation types (e.g. hydro or gas-fired micro-turbines), the Company would not typically expect to receive bids in excess of 10 MW. For such situations, the lowest all-in LEC proposals (up to a maximum of three per technology) would be advanced to computer modeling and portfolio development along with those bids  $\geq 10$  MW in Step 5 above. To the extent the Strategist model selected all three of the lowest all-in LEC proposals and other proposals for the same technology were also received, then ad hoc Strategist runs would be conducted to determine the cost-effectiveness of these other proposals.

Bidders whose Small Bid projects are passed forward to computer modeling of bid portfolios after the 45 day report will be notified of their project's advancement pursuant to rule 3613(a).

## **Step 7 – Phase II Report to Commission**

Pursuant to rule 3613(d), the Company will file a 120-day report to the Commission describing the cost-effective resource plans that conform to the Commission's Phase I decision.

### **5.2 Independent Evaluator Report**

Within 30 days following the Company's 120-day report filing, the IE will report to the Commission its analysis of whether the Company conducted a fair bid solicitation and bid evaluation process, with any deficiencies specifically reported.

### **5.3 Phase II Commission Evaluation**

Within 90 days of the Company's filing of its 120-day report, the Commission will issue a written decision approving, conditioning, modifying, or rejecting the Company's preferred cost-effective plan. The Company is required to complete this RFP process within 18 months after the receipt of bids unless the Company can show good cause for a requested deadline extension.

## Appendix A

### *Proposal Forms and Instructions*

As discussed in Section 4, the completed forms, attachments and narrative topic discussions, will comprise a complete proposal, except that Form I need not be completed by a bidder who has already entered into a formal interconnection process for their project. The contents of each form and any special instructions for completing the forms are described below. These forms can be downloaded from the RFP web site in a format appropriate for respondent input.

If additional space is needed to elaborate on information requested on any form, please attach additional sheets with the heading "Form [ ] – Additional Information."

If certain information is requested that does not apply to the proposal, the respondent must indicate that the information is not applicable. If appropriate, the respondent should explain why the information is not applicable.

In addition to submitting four (4)<sup>16</sup> hard copies of the proposal, respondents must also include three (3) electronic copies (CD, DVD or flashdrive) with all completed Forms in executable format, i.e. not PDF. The Company will provide the IE with one electronic copy of the proposal and, at their request, one hard copy.

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<sup>16</sup> Respondents are required to submit only one (1) hard copy of their financial data with each proposal.

## Appendix B

### *General Planning Assumptions*

The following planning assumptions will underlie the evaluation of proposals received in response to the Company's Solicitation. Note that the following is not a complete listing of all assumptions that will be applied in the evaluation process. Further note that the assumptions noted below represent "base case" assumptions. Sensitivity analyses will be performed in which certain of these assumptions are altered in accordance with Commission directives. To the extent any of these general planning assumptions are updated after release of this 2017 RFP, the updated values will be provided to the Commission and made available to all potential respondents and parties.

**(this Appendix to be updated prior to the RFP release to reflect then-current information and the Commission's Phase I Decision)**



## Appendix C

### Transmission Costs

#### 1. Power Delivery Requirements

Proposals must specify delivery of capacity and energy to the Public Service system at a point of delivery within or at the boundary of the Public Service Control Area and at a Public Service-owned transmission facility.

#### 2. Proposals Requiring Third-Party Transmission Service

For proposals that will require third-party transmission service(s) for the delivery of capacity and energy to the bid-specified point of delivery on the Public Service system, respondents are responsible for any interconnection, electric losses, transmission and ancillary service arrangements required to deliver the proposed capacity and energy to the bid-specified point of delivery on a firm basis. Such proposals must identify all third-party interconnections, electric losses, transmission and ancillary service providers, components and costs, provide a complete description of those service arrangements and provide documentation that such service(s) will be available to a RFP respondent or the Company during the full term of service proposed. The cost of all such third party services, for which a RFP respondent intends to seek compensation from the Company, must be included in the bid prices provided on the applicable forms. Respondents should recognize that wheeling and other costs associated with such services may adversely affect the cost-effectiveness of their proposals.

#### 3. Interconnection Costs

Proposals that will require a new or upgraded electrical interconnection to the Public Service transmission system should include in their proposal pricing any costs for the generator interconnection facilities. To clarify, these are the facilities between the generation project and the point of interconnection to the Public Service transmission system (these types of facilities are commonly referred to as “Generator Interconnection Facilities” and “PSCo-Owned, Customer Funded Interconnection Facilities” in the LGIP and SGIP). Because these facilities are not considered a part of the transmission system, they are part of the cost of the generation project and must therefore be incorporated in the proposal pricing. The following table includes an estimated cost at each voltage level that should be considered if the PSCo (or other Transmission Provider)-Owned, Customer-Funded interconnection cost has not been otherwise estimated for the project, e.g., in an interconnection study report from the Transmission Provider.

Voltage	PSCo-Owned, Customer-Funded Interconnection Facilities Estimated Cost
69 kV	\$660,000
115 kV	\$750,000
230 kV	\$1,200,000
345 kV	\$1,800,000

If the bidder has an active LGIP request, the bidder should provide the LGIP or SGIP identifier(s) associated with its project in its proposal. Bidders are urged not to submit a generation interconnection request or transmission service request pursuant to the Xcel Energy Open Access Transmission Tariff ("OATT") to receive these interconnection cost estimates.

As discussed in Section 5.1 of this RFP, proposal-specific cost estimates of Generator Interconnection Facilities provided by bidders in Form D2 will be verified or determined by the Company and, if required, Company estimates will be provided back to bidders so that they can update their bid pricing as needed. Such bidders must submit final bid pricing back to the Company within 5 calendar days of the date the interconnection cost estimates are provided. These estimates and other transmission and interconnection-related information will be posted, as required, on the Company's OASIS<sup>17</sup> in a manner that preserves individual bidder confidentiality. Information posted on the Company's OASIS will not identify bidder Company name but rather will identify location of proposed interconnection, generation capacity and type proposed, and a summary of the study results.

#### **4. Application of the Xcel Energy OATT**

The Company anticipates that all transmission usage rights associated with bids selected through this RFP will be "network" use rights held by the Company. Under FERC Order No. 888<sup>18</sup> where the Company will hold the transmission service rights, the Company must provide non-discriminatory access to its transmission system, and must designate network resources in the same manner as a similarly situated OATT customer. In addition, under FERC Order No. 2003 (August 2003), Order No. 2003-A (March 2004), Order No. 2003-B (January 2005),<sup>19</sup> all new requests for interconnection of a large generator (larger than 20 MW) to the Public Service transmission system, including interconnection requests associated with this RFP, must be administered in a non-discriminatory manner in compliance with the LGIP contained in the Xcel Energy OATT. Likewise, under FERC Order No. 2006 (May 2005), Order No. 2006-A (November 2005), and Order No. 2006-B (July 2006),<sup>20</sup> all new requests for interconnection of a small generator (less than 20 MW) to the Public Service

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<sup>17</sup> Information regarding posted studies may be found on the public site [http://www.rmao.com/wtpp/psco\\_studies.html](http://www.rmao.com/wtpp/psco_studies.html). This website does not require registration to view, while the Company's OASIS site located at <http://www.westtrans.net> does require registration.

<sup>18</sup> Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities and Transmitting Utilities, Order No. 888, F.E.R.C. Stats. & Regs. 31,036, (1996) ("Order No. 888"), order on reh'g, Order No. 888-A, F.E.R.C. Stats. & Regs. 31,048 (1997), order on reh'g, Order No. 888-B, 81 F.E.R.C. ¶ 61,248 (1997) ("Order No. 888-B"), order on reh'g, Order No. 888-C, 82 F.E.R.C. ¶ 61,046 (1998), *aff'd New York, et al. v. FERC*, 122 S.Ct. 1012 (2002).

<sup>19</sup> *Standardization of Generator Interconnection Agreements and Procedures*, Order No. 2003, 68 Fed. Reg. 49,845 (Aug. 19, 2003); FERC Stats. & Regs. ¶ 31,146 (2003); *reh'g granted*, Order No. 2003-A, 106 FERC ¶ 61,220 (March 5, 2004), 69 Fed. Reg. 15932 (March 26, 2004); Order No. 2003-B, 109 FERC ¶ 61,287, 70 Fed. Reg. 264 (January 4, 2005).

<sup>20</sup> *Standardization of Small Generator Interconnection Agreements and Procedures*, Order No. 2006, 70 FR 34100 (Jun. 13, 2005), FERC Stats. & Regs. ¶ 31,180 (2005), (Order No. 2006), order on reh'g, Order No. 2006-A, 70 FR 71760 (Nov. 30, 2005), FERC Stats. & Regs. ¶ 31,196 (2005).

transmission system, including interconnection requests associated with this RFP, must be administered in a non-discriminatory manner in compliance with the SGIP contained in the Xcel Energy OATT.

## **5. LGIP and SGIP Interconnection Studies**

Given the short period of time available to evaluate bids, the Company's evaluation team and the Company's Transmission Access group and Transmission Function will employ an abbreviated process for estimating the transmission Network Upgrades, associated costs and construction timeframes necessary to deliver power from proposed facilities to customer loads. In general, this abbreviated process will consist of four stages:

*Stage 1* – The Transmission Access group will rely on existing LGIP or SGIP studies posted on the Public Service OASIS to determine/verify bid-specific interconnection and delivery facilities and costs.

*Stage 2* – The evaluation team will develop a number of portfolios of bids that will meet the Company's needs and the various Commission directives. The Transmission Access group will provide estimates of the network facilities and upgrades required for each portfolio and provide that information to the Transmission Function.

*Stage 3* – The Transmission Function will review the Transmission Access group's estimates of network facilities and upgrades and modify as deemed appropriate. The resulting cost information will be used to determine the bid's levelized energy cost in initial economic screening and will be in the computer-based modeling in the event the bid is advanced to computer-based modeling.

*Stage 4* – Depending on the number of bids received and their location, the Company may decide to also utilize the "Resource Solicitation Cluster" provisions contained in the Xcel Energy OATT for providing more refined estimates of network facilities and upgrades necessary to deliver power from portfolios of bids to customer loads. If this process is utilized, the Transmission Access Group will submit portfolios into the LGIP or SGIP for consideration. A given portfolio submitted into the LGIP or SGIP will occupy a single queue position (based on the date of the portfolio Interconnection Request) for the required Interconnection studies. This Stage will likely not be completed prior to the end of the 120 day evaluation period.

Each bid passed to the Transmission Function for study in the Resource Solicitation Cluster that requires a new or expanded transmission interconnection must provide an Interconnection Request deposit of \$50,000 (or such other amount as is required under the LGIP or SGIP provisions of the Xcel Energy OATT)<sup>21</sup> which will be forwarded to the Transmission Function to pay the cost of Feasibility and/or System Impact studies that will be performed for each portfolio.

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21 The bidder must demonstrate "site control," which the OATT defines as "documentation reasonably demonstrating: (1) ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the Generating Facility; (2) an option to purchase or acquire a leasehold site for such purpose; or (3) an exclusivity or other business relationship between Interconnection Customer and the entity having the right to sell, lease or grant Interconnection Customer the right to possess or occupy a site for such purpose."

Once the Transmission Function has completed the Feasibility and/or System Impact studies, the study results will be posted on the Company's OASIS in a manner that preserves individual bidder confidentiality. Respondents ultimately selected through this process must work directly with the Transmission Function from this point to complete the LGIP or SGIP process and execute an LGIA or SGIA.

Respondents that fail to provide the required LGIP study deposits at any time will be removed from the interconnection queue and will be removed from further consideration in the evaluation process. As required by the OATT, the Transmission Function will refund to bidders all LGIP and SGIP study fees not expended or will bill bidders for any study costs exceeding the deposited amount. The Transmission Access group will act as each bidder's Authorized Representative only through the System Impact Study phase.

**6. Network Designation and Funding of Transmission System Upgrades For Interconnection**

- Network Resource Designation:

As indicated above, the Company anticipates that it will declare each proposal selected through this RFP as a Network Resource of the Company, and that the Company will bear the cost of any network transmission service on the Public Service system (whether or not procured under the OATT) for a proposal that is selected and achieves commercial operation. Each selected proposal not requiring a new transmission interconnection (e.g., either a generator already connected to the Public Service transmission system or each off-system generator not connected to the Public Service transmission system) and each portfolio of bids requiring new or expanded generation interconnections will be evaluated as proposed designated Network Resources pursuant to Article III of the OATT.

- Funding of Network Upgrades for Interconnection:

For purposes of achieving an interconnection, the Company's LGIP provides for the option of funding the network upgrades or requiring the interconnection customer (i.e., the respondent) to fund such upgrades and receive revenue credits based on future transmission services used by the interconnection customer or through some other refunding mechanism.

The Company will make a determination about which, if any, interconnection costs are to be financed by respondents after it completes the LGIP studies that are conducted in connection with this RFP. If the Company determines that certain infrastructure costs are to be funded by respondents, any financing arrangements will be negotiated as part of the LGIA or SGIA.

## **Appendix D**

### **Model Asset Purchase Term Sheets**

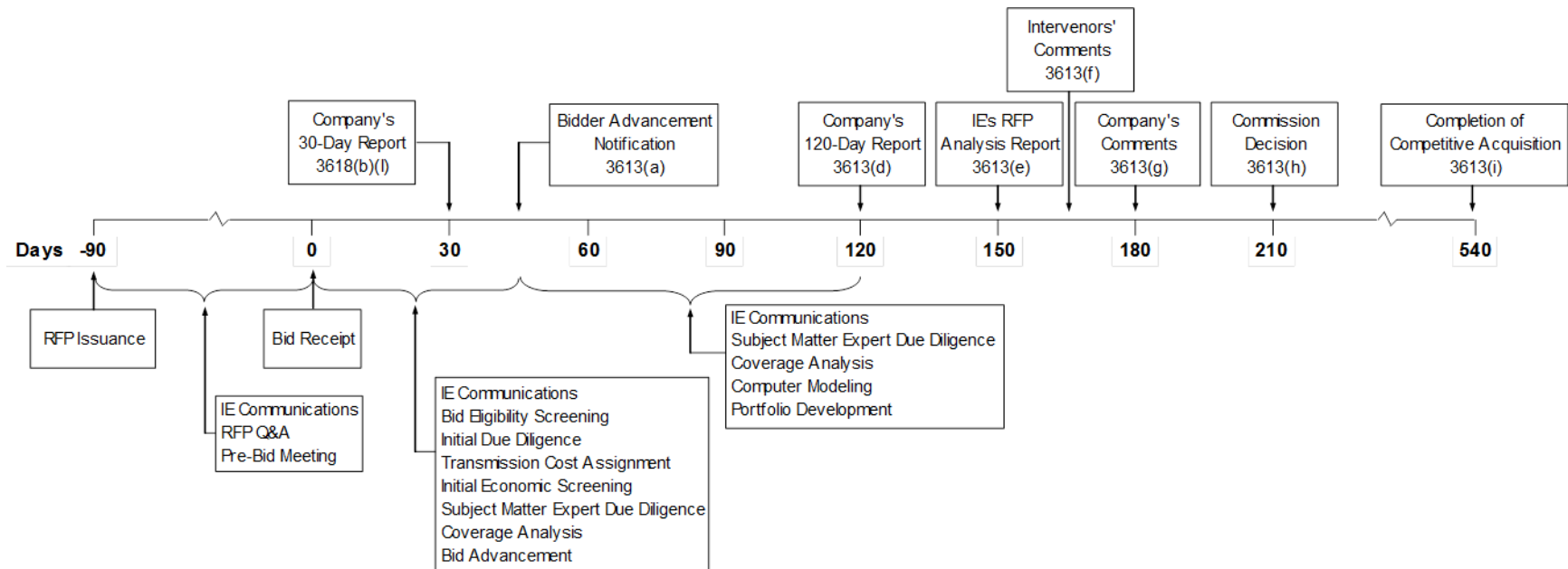
**See file titled PSCo2017\_TermSheet-Wind.doc**

**See file titled PSCo2017\_TermSheet-Solar.doc**

**See file titled PSCo2017\_TermSheet-Gas.doc**

## Appendix E

### Solicitation Timeline



## **Appendix F**

### **Commission Confidentiality Order**

#### **BIDDER HIGHLY CONFIDENTIAL NONDISCLOSURE AGREEMENT**

I, \_\_\_\_\_, state that I am employed by a bidder in Public Service Company of Colorado's 2017 Solicitation.

For purposes of this highly confidential nondisclosure agreement "Potential Resource" means the new or existing resource of the bidder by which I am employed.

For purposes of this highly confidential nondisclosure agreement "Highly Confidential Information" means highly confidential modeling inputs and assumptions that reasonably relate to the Potential Resource or to the transmission of electricity from that Potential Resource to Public Service.

I understand that I may obtain Highly Confidential Information for the sole purpose of assisting the bidder to identify modeling errors or omissions concerning its Potential Resource so that the modeling errors or omissions may be corrected before the competitive acquisition process is completed.

I hereby state that I have read the protective provisions relating to confidential information contained in 4 Code of Colorado Regulations 723-1-1100 through 1104. With respect to all Highly Confidential Information that may be provided to me, I agree to be bound by the terms of the protective provisions contained in 4 Code of Colorado Regulations 723-1-1100.

I hereby state that I will properly implement and maintain extraordinary confidentiality provisions for the Highly Confidential Information I receive.

I hereby state that the Highly Confidential Information I receive shall not be used or disclosed for any purpose other than assisting the bidder to identify modeling errors or omissions concerning its Potential Resource so that the modeling errors or omissions may be corrected before the 2017 Solicitation competitive acquisition process is completed.

I hereby state that I will not disclose or disseminate any Highly Confidential Information I receive to any third party other than to those who are specifically authorized to review such Highly Confidential Information and who have signed a highly confidential nondisclosure agreement. At the conclusion of the 2017 Solicitation competitive acquisition process, I agree to return all Highly Confidential Information to Public Service Company of Colorado.

---

Name

---

Title

---

Employer or Firm

---

Business Address

---

Bidder Represented

---

Date

---

Signature



**Form A – Notice of Intent to Respond**

**Public Service Company of Colorado 2017 Solicitation**

**Notice of Intent to Respond**

Company Name		
Address		
City	State	ZIP
Company Representative Name		
Signature		
Email	Phone Number	FAX Number
Project Name	Generation Technology (e.g., CT, CC)	
Net Capability (MW)	Summer Full Load Heat Rate (Btu/kWh)	
Project Location (City, County, State)	Proposed Commercial Operation Date	Asset Life (years)
<input type="checkbox"/> Project Proposed as a Section 123 Resource		
Notes (as appropriate)		

Submit the NOIR by email to xxxx@xcelenergy.com by xxxx.

## Form B - Bid Certification

The bidder hereby certifies that all of the statements and representations made in this proposal are true to the best of the bidder's knowledge and belief, and agrees to be bound by the representations, terms, and conditions contained in the RFP including restrictions on the bidder's claims of confidentiality. The bidder has reviewed the applicable term sheet included in the RFP, except as specifically noted in writing. The bidder acknowledges that the officer whose signature appears below is able to contractually commit the bidder for its proposal.

Submitted by:

(exact legal name of firm)

Bidder:

(if different than above)

Signature of an  
officer of bidder:

Name of officer:

Title:

Date Signed:

**Form C - Bid Cover Sheet**

1) **Project / Facility Name:** \_\_\_\_\_

2) **Project Location (city, county, state):** \_\_\_\_\_

(latitude, longitude): \_\_\_\_\_ °N \_\_\_\_\_ °W  
(decimal format; accurate to three (3) decimal places)

3) **Bidder Contact:**

The individual whose name appears as the Bidder Contact will be the person designated by the bid respondent to receive notice pursuant to Commission rule 3613(a) as it pertains to the Company's 45-day report to bidders.

L Name: \_\_\_\_\_  
Company: \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone / Fax: \_\_\_\_\_  
email: \_\_\_\_\_

4) **Alternate Contact:**

Name: \_\_\_\_\_  
Company: \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone / Fax: \_\_\_\_\_  
email: \_\_\_\_\_

5) **Sale Type: (check all that apply)**

Sale of Greenfield Facility  
Sale of Existing Facility

Other (describe) \_\_\_\_\_

6) **Generation Technology:** (general description, including manufacturers and model numbers where applicable)

\_\_\_\_\_  
\_\_\_\_\_

7) **Net Capability (MW):** \_\_\_\_\_

8) **Point of Delivery:**

Point of Delivery is on the PSCo  
Distribution System

\_\_\_\_\_  
\_\_\_\_\_

9) **Fuel Type:** primary: \_\_\_\_\_ secondary: \_\_\_\_\_

10) **Commercial Operation Date:** \_\_\_\_\_

12) **Estimated Useful Life of Facility at Commercial Operation Date (years):** \_\_\_\_\_

13) **Name of Utility Providing Retail Service at Proposed Location:** \_\_\_\_\_

\* Unless noted otherwise, kW, kWh, MW, MWh refer to AC power and energy.

## Form D2 - Electric Interconnection Cost Estimates

### 1) Electric Interconnection Costs Included in Form D1 Pricing

LGIP Identifier (or source of estimate if no LGIP)	
Generator Interconnection Facilities (including Radial Lines)	\$ -
PSCo-Owned, Generator-Funded Interconnection Facilities	\$ -

### 2) 3rd-Party Transmission Costs Included in Form D1 Pricing

3rd-Party Transmission Provider	
Wheeling and Ancillary Charges:	
OATT Schedule 1 (\$/kW-mo)	\$ -
OATT Schedule 2 (\$/kW-mo)	\$ -
OATT Schedule 7 (\$/kW-mo)	\$ -

### 3) Electric Interconnection Costs Not Included in Form D1 Pricing (List, if known; else, Public Service will estimate and complete)

LGIP Identifier (or source of estimate if no LGIP)	
PSCo-Owned, PSCo-Funded Interconnection Facilities	
Network Upgrades for Delivery	

### 4) Wheeling Losses

If the facility is not located at the Point of Delivery, provide an estimate of the wheeling losses between the facility and the Point of Delivery.	0.0%
---	------

**Form E - Construction Milestones**

Insert the proposed date for each milestone shown here as would be found on the detailed Development Schedule provided with the proposal. Milestones should be based on the requirements to achieve the proposed commercial operation date.

<b>Construction Milestone Date</b>	<b>Construction Milestones</b>
	Seller and all required counterparties have executed major procurement contracts, the Construction Contract, any operating agreements, and the Interconnection Agreement needed to commence construction of the Facility.
	Seller shall have achieved closing on financing for the Facility or provided Company with proof of financial capability to construct the Facility.
	Seller shall have laid the foundation for all Facility buildings, generating facilities and step-up transformation facilities.
	The turbine(s)/generator(s)/step-up transformer shall have been delivered to, and installed at, the Site.
	All fuel supply and transportation arrangements have been put in place and fuel interconnection facilities in have been constructed and are operational.
	Seller shall have constructed Seller's Interconnection Facilities and such facilities are capable of being energized.
	Start-up testing of the Facility commences.
	Commercial Operation Milestone.

### Form F1 - Contract Capacity for Gas-Fired Resources

Provide estimated summer and winter Contract Capacities and Net Capability (in MW) that would be available to PSCo over the proposed contract term. The values should reflect the average summer and winter capacities during the commercial operating year at the Point of Delivery and must be net of all parasitic loads and house power requirements. Neither the summer or winter Contract Capacity should exceed the Net Capability.

If the proposal includes any supplemental capacity (whether from duct-firing, steam injection, or any other type), indicate the amounts available under summer and winter conditions. Note any limitations including, but not limited to, emission permitting limitations on the availability of such supplemental capacity. The Base and Supplemental Contract Capacity values should match the values provided on Form F3 for 100% summer and winter unit loadings.

Summer Contract Capacity should be based on an ambient temperature of 95 degrees Fahrenheit, 30% relative humidity, and altitude adjusted. Winter Contract Capacity should be based on an ambient temperature of 6 degrees Fahrenheit, 68% relative humidity, and altitude adjusted.

	Summer Contract Capacity (MW)		Winter Contract Capacity (MW)		Net Capability (MW)
	Base	Supplemental	Base	Supplemental	
At Commercial Operations Date					

Notes to Contract Capacity:

## Form F2 - Facility Performance

### 1) Outages:

Annual Expected Forced Outage Rate  
(%):

Expected Average Annual  
Maintenance Requirements  
(days/year):

### 2) Manual Control:

Lowest stable operating point on  
manual control  
(% of full load):

Highest stable operating point on  
manual control  
(% of full load):

Normal Up Ramp Rate on  
manual control (MW/min):

Normal Down Ramp Rate on  
manual control (MW/min):

Emergency Up Ramp Rate on  
manual control (MW/min):

Emergency Down Ramp Rate on  
manual control (MW/min):

### 3) Automatic Generation Control (leave blank if no AGC capability):

Lowest stable operating point on  
AGC (% of full load):

Highest stable operating point on  
AGC (% of full load):

Maximum Up Ramp Rate on  
AGC (MW/min):

Maximum Down Ramp Rate on  
AGC (MW/min):

### 4) Start Times (time to start unit, sync to grid, and reach minimum load):

Off-line for 6 hours (minutes):

Off-line for 8 hours (minutes):

Off-line for 12 hours (minutes):

Off-line for 3 days (minutes):

Maximum load achievable in  
10 minutes (% of full load):

Maximum load achievable in  
15 minutes (% of full load):

Maximum load achievable in  
30 minutes (% of full load):

### 5) Minimum Up Time (min. time between generator breaker close and re-open) (minutes):

### 6) Minimum Down Time (min. time generator must be off-line before restarting) (minutes):

### 8) Consumptive Water Use (gallons/MWh at 100% annual average base capacity)

Notes to Facility Performance:

**Form F3 - Heat Rates**

For proposals involving tolling or other fuel-indexed arrangements, enter the average summer and winter heat rates at the unit loading levels indicated. Heat rates must be stated at the higher heating value (HHV), ambient air pressure of 14.7 psi at sea level adjusted to site elevation, and 95° F and 30% RH for summer conditions and 6° F and 68% RH for winter conditions.

Unit Loading	Summer		Winter	
	Capacity (MW)	Heat Rate (Btu/kWh)	Capacity (MW)	Heat Rate (Btu/kWh)
Lowest stable operating point				
Lowest stable operating point on AGC				
25% of base capacity				
50% of base capacity				
75% of base capacity				
100% of base capacity				
100% of base capacity, plus 100% of supplemental capacity				

Notes to Heat Rates:



## Form F4 - Heat Rate Degradation

For proposals involving tolling or other fuel-indexed arrangements, enter the predicted percentage degradation in the facility's HHV heat rate at ambient summer conditions (95° F, 30% RH, and ambient air pressure of 14.7 psi at sea level adjusted to site elevation).

Bidders should indicate if predicted heat rates are tied to unit maintenance, and if so, provide details. If Form F3 shows flat heat rates with no degradation, the proposal should indicate that bidder does not want the guaranteed heat rate to change over the term of its proposed PPA.

Operating Hour Range		Percentage Degradation	Heat Rate (Btu/kWh)
Period Start (Hrs)	Period End (Hrs)		
0			
-			
-			
-			
-			
-			
-			
-			
-			
-			
-			

Notes to Heat Rate Degradation:

## Form F6 - Section 123 Qualifications

In Decision C13-0094, the Colorado Public Utilities Commission set out its criteria for a proposed project to qualify as a Section 123 resource. For those bids claiming Section 123 status, to meet the Commission's definitions of "New" indicate in Question 1 under Method 1 and/or Method 2 below the attributes of the proposed project for which Section 123 status is claimed. To meet the Commission's definition of "Clean" complete Question 2.

### 1) Qualification as New:

#### Method 1

List the proposed technology or technologies that have not been regularly commercially demonstrated, within Colorado or elsewhere, for which Section 123 status is claimed:

What percent of the overall installed cost is represented by this technology or technologies?

#### Method 2

List the proposed technology that has not before been implemented in the proposed configuration:

### 2) Qualification as Clean:

List the attributes of the proposed project that demonstrate that it would likely cause 1) a decrease in greenhouse gas emissions or significantly reduce other pollutants and/or 2) result in reduced water usage:

**Form F1 - Technical Description - Photovoltaic**

**Module Level Information**

Manufacturer:	
Model #:	
Cell Material:	
Total # of Modules:	

**Array Level Information**

# Modules per String:	
Strings in Parallel:	<input type="checkbox"/>
Total Active Surface Area (m <sup>2</sup> ):	

**Inverter Information**

Manufacturer:	
Model #:	
Total # Inverters:	

Confirm that the facility meets the Exhibit H  
Operating Standards as shown in the Model PPA

Yes

No

**Mounting/Orientation**

Fixed		azimuth (deg)		elevation (deg)
1-axis tracking		azimuth (deg)		elevation (deg)
2-axis tracking				

**Facility Level Information**

Annual Plant Availability (%)	
Ground Coverage Ratio:	
Estimated Land Area (acres):	
Consumptive Water Use (gallon/MWh):	

\* Standard Test Conditions (25 °C, 1 kW/m<sup>2</sup>, AM 1.5)

Notes to PV Technical Description:

--

**Form F3 - Technical Description - Wind**

**Turbine Level Information**

Manufacturer:	
Model #:	
Nameplate per Turbine (MW):	
Rotor Diameter (meters):	
Tower Height (meters):	
Lower Operating Temperature, standard package (° C):	
Lower Operating Temperature, cold weather package (° C):	
Indicative Form D1 Energy Payment Rate Increase for Cold Weather Package, if not already included (\$/MWh)	

**Facility Level Information**

Number of Turbines:	
Annual Plant Availability (%):	
Estimated Land Area (acres):	

Confirm that facility meets the Exhibit H Operating Standards as shown in the Model PPA:

Yes      No

Notes to Wind Technical Description:

--

**Form G1 - Natural Gas and Backup Fuel Supply**

**1) Natural Gas Supply**

Identify whether the proposal is for a tolling arrangement or an electric energy sale arrangement. For tolling bids, identify the pipeline to which the bidder plans to interconnect. For energy sale (non-tolling) bids in which bidder plans to acquire and manage the fuel supply, describe supply plan and identify all contracts that support the supply of firm gas transportation and firm supply to the proposed plant.

--

**2) Natural Gas Interconnection**

Describe the gas interconnection facilities that have been included in the Form D1 bid price, including the size, length and location of the lateral interconnection and fuel delivery point. State the capital cost estimates included in the Form D1 pricing and the change in that pricing for a \$100,000 change in the capital cost estimate. Attach a USGS-based map showing the gas pipeline delivery point, the location of any lateral lines, compressors and meters.

--

Gas interconnection capital costs included in Form D1 pricing:


Impact on Form D1 prices for a \$100,000 change in capital cost estimate (\$/kW-mo, levelized):

**3) Natural Gas Pressure**

Minimum pressure required at gas interconnection point:

	(psig)
--	--------

Maximum pressure required at gas interconnection point:

	(psig)
--	--------

Minimum pressure required at plant burner tip:

	(psig)
--	--------

Gas delivery pressure **guaranteed** by the interconnecting pipeline at the fuel delivery point:

	(psig)
--	--------

**4) Natural Gas Quantities**

Indicate the maximum daily and hourly gas consumption at the proposed plant.

Maximum Daily Consumption for Electrical Generation (MMBtu/day)

Summer	Winter

Maximum Hourly Consumption for Electrical Generation (MMBtu/hour)

--	--

Describe any ancillary equipment which may utilize fuel when the facility is off-line and describe who is responsible for the ancillary gas usage costs. Indicate the maximum ancillary volumes below.

--

Maximum Daily Consumption for Ancillaries (MMBtu/day)

Summer	Winter

Maximum Hourly Consumption for Ancillaries (MMBtu/hour)

--	--

**5) Natural Gas Quality**

Indicate if any of the following pipelines have **unacceptable** gas quality. If yes, indicate in Notes why.

Colorado Interstate Gas  
Wyoming Interstate Gas  
Public Service Company of Colorado

**6) Secondary Fuel Supply**

If secondary, on-site fuel storage is proposed, describe the fuel type, including quality specifications, quantity, maximum number of full-load run hours on secondary fuel, and levelized Capacity Price reduction for the same project with no backup fuel capability.

--

Proposed secondary fuel, on-site storage volume (gallon)


Estimated, Net Capability run hours on secondary fuel (hours)

Reduction in Form D1 Capacity Price for project with **no** backup fuel supply  
(levelized \$/kW-mo)


Notes to Gas Supply:

--

## Form G2 - Solid Fuel Information and Carbon Capture/Sequestration

\* This form applies only to proposals for coal-fired projects that feature carbon dioxide capture and sequestration

- 1) Describe the type and design of the proposed boiler:
- 2) Provide the following fuel specifications:

Fuel Type	<input type="text"/>	Sulfur Content	<input type="text"/>
Heat Content	<input type="text"/>	Ash Content	<input type="text"/>
Moisture Content	<input type="text"/>	Ash Fusion Temp.	<input type="text"/>
- 3) Describe the type(s) and source(s) of the fuel:
- 4) Describe the fuel procurement plan in terms of the percentage of total fuel that will be procured from a spot market versus contracts longer than 5 years in length:
- 5) Describe the fuel transportation / supply plan, including all railroad(s), truck routes, quantities and frequencies. Explain any highway or rail improvements that may be necessary to accommodate the proposed transportation plan, such as paving, bridges, new spurs, etc., as well as plans for accomplishing such improvements.
- 6) Identify all rail carriers and describe the status of any transport negotiations or agreements, including any known or anticipated freight rates.
- 7) Describe any governmental approvals or permits required related to fuel supply and transport.
- 8) Plans for ash removal, marketing and disposal:
- 9) Fuel sulfur content and SO2 emissions:
- 10) Emission control costs (e.g., re-agent consumption):
- 11) Fuel scheduling (e.g., the Company would prefer flexibility to vary schedules):
- 12) Fuel commodity ownership during transportation:
- 13) Fuel unloading arrangements:
- 14) Ownership of fuel inventory (the Company expects unrestricted access to inventory site):
- 15) Inventory verification (the Company expects unrestricted access to inventory site):
- 16) Fuel sampling, analysis and weights:
- 17) Fuel quality:
- 18) Administration of the fuel tolling contract:
- 19) Carbon Dioxide Capture and Sequestration Plan. Please include detailed information regarding the type of carbon capture the project will employ (e.g., underground sequestration, transportation via pipeline for EOR activities, etc.), the carbon capture technology the project will employ and the percentage of plant CO2 emissions that will be captured.

**Form H - Emission Rates**

Provide emission rate information for the proposed generator(s), including fuel requirements for base and supplemental capacity and/or freeze protection. On this form, calculate Planned Energy based on the plant's estimated performance on Primary Fuel and Full Load on Base Capacity.

Planned Energy (MWh)

Emission Rates on <b>Primary Fuel</b> :		
	Full Load on Base Capacity (lbs/MMBtu)	Full Load on Base and Supplemental Capacity (lbs/MMBtu)
Oxides of Sulfur:	<input type="text"/>	<input type="text"/>
Oxides of Nitrogen:	<input type="text"/>	<input type="text"/>
Carbon Dioxide:	<input type="text"/>	<input type="text"/>
Carbon Monoxide:	<input type="text"/>	<input type="text"/>
Volatile Organic Compounds:	<input type="text"/>	<input type="text"/>
Particulate Matter - PM10	<input type="text"/>	<input type="text"/>
Particulate Matter - PM2.5:	<input type="text"/>	<input type="text"/>
Lead:	<input type="text"/>	<input type="text"/>
Mercury:	<input type="text"/>	<input type="text"/>
Maximum NO <sub>x</sub> emission rate (in parts per million):		<input type="text"/>
Maximum CO emission rate (in parts per million):		<input type="text"/>
Maximum permitted/permittable annual capacity factor (% of Net Capability):		<input type="text"/>

Emission Rates on <b>Secondary Fuel</b> (if applicable):		
	Full Load on Base Capacity (lbs/MMBtu)	Full Load on Base and Supplemental Capacity (lbs/MMBtu)
Oxides of Sulfur:	<input type="text"/>	<input type="text"/>
Oxides of Nitrogen:	<input type="text"/>	<input type="text"/>
Carbon Dioxide:	<input type="text"/>	<input type="text"/>
Carbon Monoxide:	<input type="text"/>	<input type="text"/>
Volatile Organic Compounds:	<input type="text"/>	<input type="text"/>
Particulate Matter - PM10	<input type="text"/>	<input type="text"/>
Particulate Matter - PM2.5:	<input type="text"/>	<input type="text"/>
Lead:	<input type="text"/>	<input type="text"/>
Mercury:	<input type="text"/>	<input type="text"/>
Maximum NO <sub>x</sub> emission rate (in parts per million):		<input type="text"/>
Maximum CO emission rate (in parts per million):		<input type="text"/>
Maximum permitted/permittable annual capacity factor (% of Net Capability):		<input type="text"/>

Notes to Emission Rates:

--

## **Public Service Company of Colorado 2017 Solicitation**

### **Additional Appendix A Forms**

<b>Form</b>	<b>Title</b>
<a href="#"><u>I1</u></a>	Small Generator – Distribution Interconnection
<a href="#"><u>I2</u></a>	Small Generator – Transmission Interconnection
<a href="#"><u>I3</u></a>	Large Generator – Transmission Interconnection



## **Form I1**

Small Generator Interconnection Information – Distribution Interconnection

## SMALL GENERATOR INTERCONNECTION INFORMATION

This Form should be completed by those bidders proposing to interconnect to the Company's distribution system. This is not a formal request to interconnect.

<b>OWNER/APPLICANT INFORMATION</b>			
Company:			
Representative:	Phone Number:	FAX Number:	
Title:	Email Address:		
Mailing Address:			
<b>PROPOSED LOCATION OF GENERATING PLANT AND PROPOSED INTERCONNECTION</b>			
Address:			
<b>PROJECT DESIGN / ENGINEERING</b>			
Company:			
Representative:	Phone:	FAX Number:	
Mailing Address:	Email Address:		
<b>ELECTRICAL CONTRACTOR</b>			
Company:			
Representative:	Phone:	FAX Number:	
Mailing Address	Email Address:		
<b>ESTIMATED LOAD INFORMATION</b>			
The following information will be used to help properly design the Xcel-Customer interconnection. This information is not intended as a commitment or contract for billing purposes.			
Minimum anticipated load (generation not operating):		kVA:	Time:
Maximum anticipated load (generation not operating):		kVA:	Time:

### **Existing Electric Service:**

Capacity: \_\_\_\_\_ Amperes      Voltage: \_\_\_\_\_ Volts  
Service Character:    ☐ Single Phase      ☐ Three Phase

**Estimated In-Service Date:** \_\_\_\_\_

**Site Control Documentation:** Documentation of site control must be submitted with the interconnection request as required by Code of Colorado Regulations, CCR 4 723-3, Rule 3667.

Site Control: ☐ Ownership of Site    ☐ Option to Purchase Site    ☐ Other – Specify \_\_\_\_\_

## SMALL GENERATOR INTERCONNECTION INFORMATION

### Energy Producing Equipment/Inverter Summary:

Manufacturer: \_\_\_\_\_  
 Model No.: \_\_\_\_\_ Version No.: \_\_\_\_\_  
☐ Synchronous      ☐ Induction      ☐ Inverter      ☐ Other \_\_\_\_\_  
 Rating: \_\_\_\_\_ kW      Rating: \_\_\_\_\_ kVA  
 Generator Connection:    ☐ Delta      ☐ Wye Ungrounded      ☐ Wye Grounded  
 Generator Voltage: \_\_\_\_\_ Volts  
 System Type Tested (Total System):    ☐ Yes      ☐ No; attach product literature  
 Equipment Type Tested: ☐ Yes (i.e. Inverter, Protection System)    ☐ No; attach product literature  
 (Type Tested per IEEE 1547.1 or IEEE 929; i.e., Pre-certified)

(Complete all applicable items, Copy this page as required for additional generators)			
<b>SYNCHRONOUS GENERATOR DATA</b>			
Unit Designation:		Total number of units with listed specifications on site:	
Manufacturer:			
Type:		Date of manufacture:	
Serial Number (each):			
Phases: 1 or 3		Speed:      RPM:      Frequency:      Hz	
Rated Output (each unit) Kilowatt:		kW    Kilovolt-Ampere:      kVA	
Rated Power Factor:      %		Rated Voltage:      V      Rated Current:      A	
Field Voltage:      V		Field Current:      A      Motoring Power:      kW	
Synchronous Reactance ( $X_d$ ):		% on      kVA base	
Transient Reactance ( $X'_d$ ):		% on      kVA base	
Subtransient Reactance ( $X''_d$ ):		% on      kVA base	
Negative Sequence Reactance ( $X_s$ ):		% on      kVA base	
Zero Sequence Reactance ( $X_o$ ):		% on      kVA base	
Neutral Grounding Resistor (if applicable):    Yes    No    Resistance:      Ohms			
$I^2 t$ or K (heating time constant):			
Exciter data:			
Governor data:			
Additional Information:			
<b>INDUCTION GENERATOR DATA</b>			
Rotor Resistance ( $R_r$ ):		Stator Resistance ( $R_s$ ):	
Rotor Reactance ( $X_r$ ):		Stator Reactance ( $X_s$ ):	
Magnetizing Reactance ( $X_m$ ):		Short Circuit Reactance ( $X_d''$ ):	
Design Letter:		Frame Size:	
Exciting Current:		Temp Rise (deg C°):	
Rated Output:      kW			
Reactive Power Required:      kVAr (no Load)      kVAr (full load)			
For a wound-rotor machine, describe external equipment to be connected (resistor, rheostat, power converter, etc.) to rotor circuit, and circuit configuration. Describe ability, if any, to adjust generator reactive power output.			



## SMALL GENERATOR INTERCONNECTION INFORMATION

<b>PRIME MOVER</b> (Complete all applicable items)				
Unit Designation:		Type:		
Manufacturer:				
Serial Number:		Date of Manufacture:		
H.P. Rated:	H.P. Max:	Inertia Constant:		lb.-ft. <sup>2</sup>
Energy Source (hydro, steam, wind, etc.):				
Additional Information:				
<b>Type of Interconnected operation</b>				
Long term Parallel operation:		Yes	No	
Closed momentary transition:		Yes	No	Transition Closed Time: seconds
Other (describe):				
<b>TRANSFORMER</b> (If applicable)				
Manufacturer:		kVA:		
Date of Manufacture:		Serial Number:		
High Voltage:	V	Connection: <input type="checkbox"/> delta <input type="checkbox"/> wye	Neutral solidly grounded? Yes No	
Low Voltage:	V	Connection: <input type="checkbox"/> delta <input type="checkbox"/> wye	Neutral solidly grounded? Yes No	
Transformer Impedance (Z):		% on	kVA base	
Transformer Resistance (R):		% on	kVA base	
Transformer Reactance (X):		% on	kVA base	
Neutral Grounding Resistor (if applicable)		Yes	No	Resistance: Ohms
Additional Information:				
<b>INVERTER DATA</b> (If applicable)				
UL Pre-certified per UL 1741 and IEEE 929?		Yes	No	Certification Number:
Manufacturer:		Model:		
Rated Power Factor (%):	Rated Voltage (Volts):	V	Rated Current (Amperes):	A
Inverter Type (ferroresonant, step, pulse-width modulation, etc.):				
Type of Commutation: <input type="checkbox"/> forced <input type="checkbox"/> line		Minimum Short Circuit Ratio required:		
Minimum voltage for successful commutation:				
Current Harmonic Distortion:		Maximum Individual Harmonic (%):		
		Maximum Total Harmonic Distortion (%):		
Voltage Harmonic Distortion:		Maximum Individual Harmonic (%):		
		Maximum Total Harmonic Distortion (%):		
Describe capability, if any, to adjust reactive output to provide voltage regulation:				
Additional Information:				
<b>NOTE:</b> Attach all available calculations, test reports, and oscillographic prints showing inverter output voltage and current waveforms.				

## SMALL GENERATOR INTERCONNECTION INFORMATION

<b>POWER CIRCUIT BREAKER</b> (if applicable)		
Manufacturer:		Model:
Rated Voltage: kV		Rated Ampacity (Amperes): A
Interrupting Rating: A		BIL Rating: kV
Interrupting Medium (vacuum, oil, gas, etc.):		Insulating Medium (vacuum, oil, gas, etc.):
Control Voltage (Closing): (Volts) <input type="checkbox"/> AC <input type="checkbox"/> DC		
Control Voltage (Tripping): (Volts) <input type="checkbox"/> AC <input type="checkbox"/> DC <input type="checkbox"/> Battery <input type="checkbox"/> Charged Capacitor		
Close Energy: <input type="checkbox"/> Spring <input type="checkbox"/> Motor <input type="checkbox"/> Hydraulic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Other		
Trip Energy: <input type="checkbox"/> Spring <input type="checkbox"/> Motor <input type="checkbox"/> Hydraulic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Other		
Bushing Current Transformers (Max. ratio):		Relay Accuracy Class:
Multi Ratio? <input type="checkbox"/> No <input type="checkbox"/> Yes: (Available taps):		
Construction Schedule:	Start date:	Completion date:
<b>MISCELLANEOUS</b> (Use this area and any additional sheets for applicable notes and comments)		

**ADDITIONAL REQUIREMENTS:** In addition to the items listed on this form, please attach:

- 1) Detailed One Line Diagram: ☐ Yes
- 2) Installation Test Plan: ☐ Yes
- 3) Site plan: ☐ Yes
- 4) Major equipment (generators, transformers, inverters, circuit breakers, protective relays, isolation disconnect, etc.) specifications: ☐ Yes
- 5) Relaying detail: ☐ Yes Date: \_\_\_\_\_
- 6) Metering telemetry: ☐ Yes Date: \_\_\_\_\_
- 7) Test reports attached: ☐ Yes Date: \_\_\_\_\_
- 8) Other applicable drawings or documents necessary for the proper design of the interconnection:  
Describe \_\_\_\_\_

## **Form I2**

Small Generator Interconnection Information – Transmission Interconnection

## SMALL GENERATOR INTERCONNECTION INFORMATION

This Form should be completed by those bidders proposing to interconnect to the Company's transmission system. This is not a formal request to interconnect.

### Transmission Provider:

Designated Contact Person: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

Fax: \_\_\_\_\_

E-Mail Address: \_\_\_\_\_

### Interconnection Customer Information

Legal Name of the Interconnection Customer (or, if an individual, individual's name)

Name: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Facility Location (if different from above): \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ Telephone (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Alternative Contact Information (if different from the Interconnection Customer)

Contact Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Telephone (Day): \_\_\_\_\_ Telephone (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Application is for:    \_\_\_\_\_ New Small Generating Facility  
                              \_\_\_\_\_ Capacity addition to Existing Small Generating Facility

If capacity addition to existing facility, please describe: \_\_\_\_\_

\_\_\_\_\_

Will the Small Generating Facility be used for any of the following?

Net Metering? Yes \_\_\_\_ No \_\_\_\_

To Supply Power to the Interconnection Customer? Yes \_\_\_\_ No \_\_\_\_

To Supply Power to Others? Yes \_\_\_\_ No \_\_\_\_

For installations at locations with existing electric service to which the proposed Small Generating Facility will interconnect, provide:

\_\_\_\_\_  
(Local Electric Service Provider\*)

\_\_\_\_\_  
(Existing Account Number\*)

[\*To be provided by the Interconnection Customer if the local electric service provider is different from the Transmission Provider]

Contact Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_



Telephone (Day): \_\_\_\_\_ Telephone (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Requested Point of Interconnection: \_\_\_\_\_

Interconnection Customer's Requested In-Service Date: \_\_\_\_\_

**Small Generating Facility Information**

Data apply only to the Small Generating Facility, not the Interconnection Facilities.

Energy Source: \_\_\_ Solar \_\_\_ Wind \_\_\_ Hydro \_\_\_ Hydro Type (e.g. Run-of-River): \_\_\_\_\_  
Diesel \_\_\_ Natural Gas \_\_\_ Fuel Oil \_\_\_ Other (state type) \_\_\_\_\_

Prime Mover: \_\_\_ Fuel Cell \_\_\_ Recip Engine \_\_\_ Gas Turb \_\_\_ Steam Turb  
\_\_\_ Microturbine \_\_\_ PV \_\_\_ Other

Type of Generator: \_\_\_ Synchronous \_\_\_ Induction \_\_\_ Inverter

Generator Nameplate Rating: \_\_\_\_\_ kW (Typical) Generator Nameplate kVAR: \_\_\_\_\_

Interconnection Customer or Customer-Site Load: \_\_\_\_\_ kW (if none, so state)

Typical Reactive Load (if known): \_\_\_\_\_

Maximum Physical Export Capability Requested: \_\_\_\_\_ kW

List components of the Small Generating Facility equipment package that are currently certified:

Equipment Type	Certifying Entity
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____

Is the prime mover compatible with the certified protective relay package? \_\_\_ Yes \_\_\_ No

Generator (or solar collector)

Manufacturer, Model Name & Number: \_\_\_\_\_

Version Number: \_\_\_\_\_

Nameplate Output Power Rating in kW: (Summer) \_\_\_\_\_ (Winter) \_\_\_\_\_

Nameplate Output Power Rating in kVA: (Summer) \_\_\_\_\_ (Winter) \_\_\_\_\_

Individual Generator Power Factor

Rated Power Factor: Leading: \_\_\_\_\_ Lagging: \_\_\_\_\_

Total Number of Generators in wind farm to be interconnected pursuant to this  
Interconnection Request: \_\_\_\_\_ Elevation: \_\_\_\_\_ \_\_\_ Single phase \_\_\_ Three phase

Inverter Manufacturer, Model Name & Number (if used): \_\_\_\_\_

List of adjustable set points for the protective equipment or software: \_\_\_\_\_

Note: A completed Power Systems Load Flow data sheet must be supplied with the Interconnection Request.

Small Generating Facility Characteristic Data (for inverter-based machines)

Max design fault contribution current: \_\_\_\_\_ Instantaneous \_\_\_ or RMS? \_\_\_

Harmonics Characteristics: \_\_\_\_\_

Start-up requirements: \_\_\_\_\_

Small Generating Facility Characteristic Data (for rotating machines)

RPM Frequency: \_\_\_\_\_

(\*) Neutral Grounding Resistor (If Applicable): \_\_\_\_\_

Synchronous Generators:

Direct Axis Synchronous Reactance,  $X_d$ : \_\_\_\_\_ P.U.

Direct Axis Transient Reactance,  $X'_d$ : \_\_\_\_\_ P.U.

Direct Axis Subtransient Reactance,  $X''_d$ : \_\_\_\_\_ P.U.

Negative Sequence Reactance,  $X_2$ : \_\_\_\_\_ P.U.

Zero Sequence Reactance,  $X_0$ : \_\_\_\_\_ P.U.

KVA Base: \_\_\_\_\_

Field Volts: \_\_\_\_\_

Field Amperes: \_\_\_\_\_

Induction Generators:

Motoring Power (kW): \_\_\_\_\_

$I_2^2t$  or K (Heating Time Constant): \_\_\_\_\_

Rotor Resistance,  $R_r$ : \_\_\_\_\_

Stator Resistance,  $R_s$ : \_\_\_\_\_

Stator Reactance,  $X_s$ : \_\_\_\_\_

Rotor Reactance,  $X_r$ : \_\_\_\_\_

Magnetizing Reactance,  $X_m$ : \_\_\_\_\_

Short Circuit Reactance,  $X_d''$ : \_\_\_\_\_  
Exciting Current: \_\_\_\_\_  
Temperature Rise: \_\_\_\_\_  
Frame Size: \_\_\_\_\_  
Design Letter: \_\_\_\_\_  
Reactive Power Required In Vars (No Load): \_\_\_\_\_  
Reactive Power Required In Vars (Full Load): \_\_\_\_\_  
Total Rotating Inertia, H: \_\_\_\_\_ Per Unit on kVA Base

Note: Please contact the Transmission Provider prior to submitting the Interconnection Request to determine if the specified information above is required.

Excitation and Governor System Data for Synchronous Generators Only

Provide appropriate IEEE model block diagram of excitation system, governor system and power system stabilizer (PSS) in accordance with the regional reliability council criteria. A PSS may be determined to be required by applicable studies. A copy of the manufacturer's block diagram may not be substituted.

**Interconnection Facilities Information**

Will a transformer be used between the generator and the point of common coupling? \_\_\_\_ Yes \_\_\_\_ No

Will the transformer be provided by the Interconnection Customer? \_\_\_\_ Yes \_\_\_\_ No

Transformer Data (If Applicable, for Interconnection Customer-Owned Transformer):

Is the transformer: \_\_\_\_ single phase \_\_\_\_ three phase? Size: \_\_\_\_\_ kVA  
Transformer Impedance: \_\_\_\_\_ % on \_\_\_\_\_ kVA Base

If Three Phase:

Transformer Primary: \_\_\_\_\_ Volts \_\_\_\_\_ Delta \_\_\_\_\_ Wye \_\_\_\_\_ Wye Grounded  
Transformer Secondary: \_\_\_\_\_ Volts \_\_\_\_\_ Delta \_\_\_\_\_ Wye \_\_\_\_\_ Wye Grounded  
Transformer Tertiary: \_\_\_\_\_ Volts \_\_\_\_\_ Delta \_\_\_\_\_ Wye \_\_\_\_\_ Wye Grounded

Transformer Fuse Data (If Applicable, for Interconnection Customer-Owned Fuse):

(Attach copy of fuse manufacturer's Minimum Melt and Total Clearing Time-Current Curves)

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Size: \_\_\_\_\_ Speed: \_\_\_\_\_

Interconnecting Circuit Breaker (if applicable):

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_  
Load Rating (Amps): \_\_\_\_\_ Interrupting Rating (Amps): \_\_\_\_\_ Trip Speed (Cycles): \_\_\_\_\_

Interconnection Protective Relays (If Applicable):

If Microprocessor-Controlled:

List of Functions and Adjustable Setpoints for the protective equipment or software:

Setpoint Function	Minimum	Maximum
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____
6. _____	_____	_____

If Discrete Components:

(Enclose Copy of any Proposed Time-Overcurrent Coordination Curves)

Manufacturer: _____	Type: _____	Style/Catalog No.: _____	Proposed Setting: _____
Manufacturer: _____	Type: _____	Style/Catalog No.: _____	Proposed Setting: _____
Manufacturer: _____	Type: _____	Style/Catalog No.: _____	Proposed Setting: _____
Manufacturer: _____	Type: _____	Style/Catalog No.: _____	Proposed Setting: _____
Manufacturer: _____	Type: _____	Style/Catalog No.: _____	Proposed Setting: _____

Current Transformer Data (If Applicable):

(Enclose Copy of Manufacturer's Excitation and Ratio Correction Curves)

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_ Proposed Ratio Connection: \_\_\_\_

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_ Proposed Ratio Connection: \_\_\_\_

Potential Transformer Data (If Applicable):

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_ Proposed Ratio Connection: \_\_\_\_

Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_ Proposed Ratio Connection: \_\_\_\_

**General Information**

Enclose copy of site electrical one-line diagram showing the configuration of all Small Generating Facility equipment, current and potential circuits, and protection and control schemes. This one-line diagram must be signed and stamped by a licensed Professional Engineer if the Small Generating Facility is larger than 50 kW. Is One-Line Diagram Enclosed? \_\_\_\_Yes \_\_\_\_No

Enclose copy of any site documentation that indicates the precise physical location of the proposed Small Generating Facility (e.g., USGS topographic map or other diagram or documentation).

Proposed location of protective interface equipment on property (include address if different from the Interconnection Customer's address) \_\_\_\_\_

Enclose copy of any site documentation that describes and details the operation of the protection and control schemes. Is Available Documentation Enclosed? \_\_\_\_Yes \_\_\_\_No

Enclose copies of schematic drawings for all protection and control circuits, relay current circuits, relay potential circuits, and alarm/monitoring circuits (if applicable).

Are Schematic Drawings Enclosed? \_\_\_\_Yes \_\_\_\_No

## **Form I3**

Large Generator Interconnection Information – Transmission Interconnection

**APPENDIX 1 to LGIP  
INTERCONNECTION REQUEST FOR A  
LARGE GENERATING FACILITY**

**This Form should be completed by those bidders proposing to interconnect to the Company's transmission system. This is not a formal request to interconnect.**

1. The undersigned Interconnection Customer submits this request to interconnect its Large Generating Facility with Transmission Provider's Transmission System pursuant to a Tariff.
2. This Interconnection Request is for (check one):  
☐ A proposed new Large Generating Facility.  
☐ An increase in the generating capacity or a Material Modification of an existing Generating Facility.  
☐ A Generating Facility proposed for inclusion in a resource solicitation process.
3. The type of interconnection service requested (check one):  
☐ Energy Resource Interconnection Service  
☐ Network Resource Interconnection Service
4. ☐ Check here only if Interconnection Customer requesting Network Resource Interconnection Service also seeks to have its Generating Facility studied for Energy Resource Interconnection Service
5. Interconnection Customer provides the following information:
  - a. Address or location of the proposed new Large Generating Facility site (to the extent known) or, in the case of an existing Generating Facility, the name and specific location of the existing Generating Facility;
  - b. Maximum summer at degrees C and winter at degrees C megawatt electrical output of the proposed new Large Generating Facility or the amount of megawatt increase in the generating capacity of an existing Generating Facility;
  - c. General description of the equipment configuration;
  - d. Commercial Operation Date (Day, Month, and Year);
  - e. Name, address, telephone number, and e-mail address of Interconnection Customer's contact person;
  - f. Approximate location of the proposed Point of Interconnection (optional);

- g. Interconnection Customer Data (set forth in Attachment A)
- 6. Applicable deposit amount as specified in the LGIP.
- 7. Evidence of Site Control as specified in the LGIP (check one)
  - ☐ Is attached to this Interconnection Request
  - ☐ Will be provided at a later date in accordance with this LGIP



8. This Interconnection Request shall be submitted to the representative indicated below:

[To be completed by Transmission Provider]

9. Representative of Interconnection Customer to contact:

[To be completed by Interconnection Customer]

10. This Interconnection Request is submitted by:

Name of Interconnection Customer: \_\_\_\_\_

By (signature): \_\_\_\_\_

Name (type or print): \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Attachment A to Appendix 1  
Interconnection Request**

**LARGE GENERATING FACILITY DATA**

**UNIT RATINGS**

kVA \_\_\_\_\_ °F \_\_\_\_\_ Voltage \_\_\_\_\_  
 Power Factor \_\_\_\_\_  
 Speed (RPM) \_\_\_\_\_ Connection (e.g. Wye) \_\_\_\_\_  
 Short Circuit Ratio \_\_\_\_\_ Frequency, Hertz \_\_\_\_\_  
 Stator Amperes at Rated kVA \_\_\_\_\_ Field Volts \_\_\_\_\_  
 Max Turbine MW \_\_\_\_\_ °F \_\_\_\_\_

**COMBINED TURBINE-GENERATOR-EXCITER INERTIA DATA**

Inertia Constant, H = \_\_\_\_\_ kW sec/kVA  
 Moment-of-Inertia,  $WR^2$  = \_\_\_\_\_ lb. ft.<sup>2</sup>

**REACTANCE DATA (PER UNIT-RATED KVA)**

	DIRECT AXIS	QUADRATURE AXIS
Synchronous – saturated	$X_{dv}$ _____	$X_{qv}$ _____
Synchronous – unsaturated	$X_{di}$ _____	$X_{qi}$ _____
Transient – saturated	$X'_{dv}$ _____	$X'_{qv}$ _____
Transient – unsaturated	$X'_{di}$ _____	$X'_{qi}$ _____
Subtransient – saturated	$X''_{dv}$ _____	$X''_{qv}$ _____
Subtransient – unsaturated	$X''_{di}$ _____	$X''_{qi}$ _____
Negative Sequence – saturated	$X_{2v}$ _____	
Negative Sequence – unsaturated	$X_{2i}$ _____	
Zero Sequence – saturated	$X_{0v}$ _____	
Zero Sequence – unsaturated	$X_{0i}$ _____	
Leakage Reactance	$X_{lm}$ _____	
	_____ (Saturated)	
	_____ (Unsaturated)	

**FIELD TIME CONSTANT DATA (SEC)**

Open Circuit	$T'_{do}$ _____	$T'_{qo}$ _____
Three-Phase Short Circuit Transient	$T'_{d3}$ _____	$T'_q$ _____
Line to Line Short Circuit Transient	$T'_{d2}$ _____	
Line to Neutral Short Circuit Transient	$T'_{d1}$ _____	
Short Circuit Subtransient	$T''_d$ _____	$T''_q$ _____
Open Circuit Subtransient	$T''_{do}$ _____	$T''_{qo}$ _____

### ARMATURE TIME CONSTANT DATA (SEC)

Three Phase Short Circuit	$T_{a3}$
Line to Line Short Circuit	$T_{a2}$
Line to Neutral Short Circuit	$T_{a1}$

NOTE: If requested information is not applicable, indicate by marking "N/A."

### MW CAPABILITY AND PLANT CONFIGURATION LARGE GENERATING FACILITY DATA

#### ARMATURE WINDING RESISTANCE DATA (PER UNIT)

Positive	$R_1$
Negative	$R_2$
Zero	$R_0$

Rotor Short Time Thermal Capacity  $I_2^2 t =$  \_\_\_\_\_  
 Field Current at Rated kVA, Armature Voltage and PF = \_amps  
 Field Current at Rated kVA and Armature Voltage, 0 PF = \_amps  
 Three Phase Armature Winding Capacitance = \_microfarad  
 Field Winding Resistance = ohms °C  
 Armature Winding Resistance (Per Phase) = \_ohms °C

### CURVES

Provide Saturation, Vee, Reactive Capability, Capacity Temperature Correction curves.  
 Designate normal and emergency Hydrogen Pressure operating range for multiple curves.

### GENERATOR STEP-UP TRANSFORMER DATA RATINGS

Capacity	Self-cooled/ Maximum Nameplate
____kVA	

Voltage Ratio(Generator Side/System side/Tertiary)  
 \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_ kV

Winding Connections (Low V/High V/Tertiary V (Delta or Wye))  
 \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

Fixed Taps Available \_\_\_\_\_

Present Tap Setting \_\_\_\_\_

### IMPEDANCE

Positive  $Z_1$  (on self-cooled kVA rating) \_\_\_\_\_ % \_\_\_\_\_ X/R  
Zero  $Z_0$  (on self-cooled kVA rating) \_\_\_\_\_ % \_\_\_\_\_ X/R

### EXCITATION SYSTEM DATA

Identify appropriate IEEE model block diagram of excitation system and power system stabilizer (PSS) for computer representation in power system stability simulations and the corresponding excitation system and PSS constants for use in the model.

### GOVERNOR SYSTEM DATA

Identify appropriate IEEE model block diagram of governor system for computer representation in power system stability simulations and the corresponding governor system constants for use in the model.

### WIND GENERATORS

Number of generators to be interconnected pursuant to this Interconnection Request:

\_\_\_\_\_

Elevation: \_\_\_\_\_ Single Phase \_\_\_\_\_ Three Phase

Inverter manufacturer, model name, number, and version:

\_\_\_\_\_

List of adjustable setpoints for the protective equipment or software:

\_\_\_\_\_

Note: A completed General Electric Company Power Systems Load Flow (PSLF) data sheet or other compatible formats, such as IEEE and PTI power flow models, must be supplied with the Interconnection Request. If other data sheets are more appropriate to the proposed device, then they shall be provided and discussed at Scoping Meeting.

**- Draft for Discussion Purposes Only – Not an Offer -  
TERM SHEET for the Purchase and Sale  
Of a**

**Natural Gas-Fired Energy Generation Project (the “Agreement”)**

**Buyer**

Public Service Company of Colorado, a Colorado corporation (“Buyer”).

**Seller**

[Developer/Seller Name] (“Seller”) [Buyer will also require a financially capable counter-party guarantee.]

**Type of Transaction**

The transaction will be structured as an entity acquisition. Buyer shall purchase and Seller shall sell 100% of the ownership interests of the project company (“Company”), which owns an operational natural gas-fired electricity generating plant with nameplate capacity of [XX] MW AC, and all facilities and all other assets and rights relating to the project (the “Project”), free and clear of all encumbrances and liabilities, except for permitted encumbrances and assumed liabilities as defined in the Agreement.

**Purchase Price and Payment Terms**

Buyer shall pay Seller the “Purchase Price,” which is not to exceed [\$\$\$ million] in total and is subject to certain adjustments including the capacity of the Project delivered at closing, working capital, liabilities, and, if applicable, fuel oil reserve and heat rate adjustments. Buyer shall pay the Purchase Price in a single lump sum payment at the closing. All obligations of Seller under the Agreement will be secured via a parental guarantee, letter of credit, or other suitable means of security, to be discussed with Seller.

Buyer shall be entitled to withhold from the payment of the Purchase Price up to [\$\$\$] in the event of certain breaches of Seller’s representations, warranties or covenants pending Seller’s cure of any such breach, with Buyer’s aggregate holdback amount not to exceed 20% of the Purchase Price.

Seller shall be responsible for all taxes relating to the pre-closing period and all transfer taxes and any sales, use or other taxes related to the purchase and sale of the ownership interests of the Company and any purchase or conveyance of real or personal property to the Company to be used in the Project.

Delay Damages: Seller shall make a per diem payment of [\$\$\$] for each day of unexcused delay in meeting the guaranteed completion date, such delay damages in aggregate not to exceed [\$\$\$ million].

**Seller’s Work and Other Responsibilities**

Upon closing, Seller shall sell 100% of the ownership interests of the Company to Buyer, free and clear of all encumbrances and liabilities, except for permitted encumbrances and assumed liabilities as defined in the Agreement.

**Seller’s Closing Deliverables:**

Upon the terms and conditions to be defined within the Agreement, the obligations of Buyer to consummate the transactions contemplated are subject to the satisfaction by Seller of certain closing conditions, including:

**- Draft for Discussion Purposes Only – Not an Offer -  
TERM SHEET for the Purchase and Sale  
Of a**

**Natural Gas-Fired Energy Generation Project (the “Agreement”)**

- Transfer of all of the ownership interests of the Company, which include all rights and title to assets necessary for the commercial operation of the Project, to Buyer or its designated affiliate.
- An opinion of legal counsel that each material discretionary permit required for the Project is valid, binding and in full force and effect.
- Evidence that any liens on the Company, Project, real property or any other assets or interests of the Company have been removed as of the Closing other than permitted liens which have been scheduled or liens which have been scheduled and bonded to Buyer’s reasonable satisfaction.
- All certifications, affidavits, approvals and permits required to demonstrate satisfaction of all representations, warranties, and covenants made by Seller pertaining to the closing.

**Buyer’s Closing Deliverables:**

Upon the terms and conditions to be defined within the Agreement, the obligations of Seller to consummate the transactions contemplated are subject to the satisfaction by Buyer of certain closing conditions, including:

- Delivery of the Purchase Price or any remaining portion thereof, subject to certain adjustments.
- All certifications, affidavits, approvals and permits required to demonstrate satisfaction of all representations, warranties, and covenants made by Buyer pertaining to the closing.

**Required Approvals**

The transaction is subject to obtaining specified approvals, authorizations, or orders, including but not limited to the following (to the extent necessary):

- Approval of the board of directors of Buyer and the board of directors or similar governing body of Seller shall be obtained prior to execution of the definitive agreement.
- Third party consents.
- Applicable governmental and regulatory approvals prior to closing, including to the extent necessary, any applicable state agencies or commissions regulating utility activities and any government agencies having approval, consent or authority over the transactions contemplated by the Agreement, including the Colorado Public Utilities Commission, the IRS, the FERC, and the Department of Justice.

**Representations and Warranties**

The transaction is subject to customary representations and warranties to be made by Buyer and Seller as of the execution date or the effective date of the definitive agreement and the closing thereunder, including the following:

- Corporate existence and powers – Seller is a [corporation] validly existing and in good standing and has the power and authority to conduct its business as now conducted.
- Company existence and powers – the Company is a limited liability company validly existing and in good standing and has the power and authority to develop, construct, operate and own the Project and has been engaged in no other business since its formation.
- Authority (execution and delivery)
- No conflicts - the transaction does not create any conflicts.

**TERM SHEET for the Purchase and Sale**

**Of a**

**Natural Gas-Fired Energy Generation Project (the “Agreement”)**

- Consents and approvals – no consent, approval or authorization is required in connection with the execution and performance of the Agreement.
- Legal proceedings of Buyer – there are no legal proceedings pending, or to Buyer’s knowledge, threatened in writing, against Buyer, that affect the consummation of the transaction contemplated by the Agreement.
- Legal proceedings of Seller and Company – there are no legal proceedings pending, or to Seller’s knowledge, threatened in writing, against the Seller or the Company relating to the Project or affecting Seller’s ability to sell the Company or the Project and there are no material legal proceedings pending, or to Seller’s knowledge, threatened in writing, against the Company relating to the Project.
- Sufficient funds – Buyer has available, or will maintain sufficient sources of, funds to complete the transaction.
- Compliance with Laws – Seller and the Company are in compliance with all laws applicable to the Seller, Company, Project and the transactions contemplated by the Agreement.
- Environmental – Seller, the Company and its affiliates have no environmental liabilities relating to the Project and are in compliance with environmental requirements relating to the Project. Seller and its affiliates have not received any notice of an alleged violation of environmental law pertaining to the Project from any governmental entity. There are no facts, circumstances, conditions or occurrences relating to the Project that could reasonably be expected to form the basis of a claim, requirement or obligation imposed by any governmental entity under any environmental law on Seller or its affiliates.
- Contracts – Schedule of material contracts binding on the Company or to which the Project is subject and Seller has furnished to Buyer true, correct and complete copies of all material contracts.
- Land Contracts – The land contracts and real property owned by the Company are in full force and effect, and shall comprise all of the real property interests necessary in connection with the acquisition, development, construction, installation, interconnection, completion and operation of the Project, all in accordance with all laws, and are sufficient to enable the Project to be commercially operable as contemplated in the Agreement, including legal and physical ingress and egress rights to and from public right-of-way for construction, operation, and maintenance of the Project.
- Permits - All permits required to develop, construct, own, and attain commercial operation of the Project are held by the Company, are final and non-appealable, are scheduled, and Seller has obtained and furnished to Buyer true, correct and complete copies of such permits. Such permits are in full force and effect and are legal, valid, binding and enforceable in accordance with their respective terms.
- Title – The Company is in possession of and has good and marketable title to the Project free and clear of all encumbrances, except for Permitted Encumbrances. Seller has good and marketable title to the Company’s equity interests, free and clear of all encumbrances. Seller and its affiliates have no legal obligation to, or non-binding agreement in principle with any other person, to sell or affect a sale of all, or any portion of, the Project or the Company.
- Other representation and warranties customary in a transaction of this nature, including those pertaining to taxes, title, finders, intellectual property, brokers and insurance.

**- Draft for Discussion Purposes Only – Not an Offer -  
TERM SHEET for the Purchase and Sale  
Of a**

**Natural Gas-Fired Energy Generation Project (the “Agreement”)**

**Other Agreements**

- Interconnection. Seller shall be responsible for complying with all requirements necessary to attain the interconnection of the Project.
- Fuel Supply. If the Project is not located within Buyer’s natural gas distribution service territory, the Company shall have entered into a fuel supply agreement acceptable to Buyer for the supply of natural gas.
- Technology. The major equipment components of the Project shall be manufactured by manufacturers reasonably acceptable to Buyer.
- Buyer’s right to inspect. Buyer and Buyer’s authorized representatives shall have the right to inspect the work and to maintain personnel at the Project site for such purpose. Such inspection of any part of the work shall in no way relieve Seller of its obligations under the agreement.

**Termination Provisions**

The Agreement may be terminated prior to the Closing upon written notice by the terminating party (as described below) in the event of certain occurrences, including:

- By either party, in the event the closing has not occurred by [date TBD], regardless of the reason for such termination, provided that the terminating party is not in breach of the Agreement.
- By either party in the event regulatory approvals for the transaction are not obtained on terms reasonably acceptable to Buyer.
- By Buyer in the event any authority has issued an order or taken any other action that restrains, enjoins, or otherwise prohibits the consummation of the transactions contemplated by the Agreement, and such order or action is nonappealable.
- By Seller in the event of repudiation of the Agreement by Buyer.
- By Buyer in the event of abandonment of the Project by the Company, material breach of the Agreement by Seller or in the event that the cost to complete unfinished or substandard work as of the guaranteed completion date, in Buyer’s reasonable estimation, exceeds 20% of the Purchase Price.

**Indemnification**

Each party shall indemnify and hold harmless the other party and its respective employees, representatives, officers, directors and agents from and against any and all damages arising out of the result of any breach or violation of any representation, warranty, covenant, inaccuracy within the Agreement, or any liability not assumed as part of the Agreement, or any fraud, willful misconduct, or negligence in performance of this Agreement. Seller shall indemnify Buyer for any environmental (including hazardous material) claims arising prior to the closing date other than environmental claims resulting from Buyer’s negligence. No claim for indemnification shall be brought against the indemnifying party until the total damages for which such party is liable exceeds in the aggregate a threshold amount of [\$XXX], at which point indemnification may be sought for the full aggregate amount of damages, including those amounts that do not exceed the threshold. The aggregate damages to which the indemnified parties are entitled shall not exceed the indemnity cap, which shall be at least



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30% of the purchase price.<sup>1</sup> Such threshold and indemnity cap shall not apply to damages to the extent they arise from a breach of certain “fundamental” representations (as applicable to each party) such as corporate existence, power, authority, conflicts, title, land contracts, real property, environmental, intellectual property or tax matters and shall not apply to liabilities arising prior to the closing date, which shall be the responsibility of Seller.

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<sup>1</sup> If deemed appropriate by Buyer based on the size and/or technology of the Project, the indemnity threshold and cap may be determined on a \$/kW or \$/MW basis.

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**Of a**

**Solar Photovoltaic Energy Generation Project (the “Agreement”)**

**Buyer**

Public Service Company of Colorado, a Colorado corporation (“Buyer”).

**Seller**

[Developer/Seller Name] (“Seller”) [Buyer will also require a financially capable counter-party guarantee.]

**Type of Transaction**

The transaction will be structured as an entity acquisition. Prior to the commercial operation date, Buyer shall purchase and Seller shall sell 100% of the ownership interests of the project company (“Company”), which owns a completed, ready to be commercially operational, Investment Tax Credit (“ITC”) qualified, integrated solar photovoltaic-powered electricity generating plant with nameplate capacity of [XX] MW AC, with [fixed][single-axis tracking] design,<sup>1</sup> and all facilities and all other assets and rights relating to the project (the “Project”), free and clear of all encumbrances and liabilities, except for permitted encumbrances and assumed liabilities as defined in the Agreement.

**Purchase Price and Payment Terms**

Buyer shall pay Seller the “Purchase Price,” which is not to exceed [\$XXX million] in total and is subject to certain adjustments including the capacity of the Project delivered at closing. Buyer shall pay the Purchase Price in a single lump sum payment at the closing. All obligations of Seller under the Agreement will be secured via a parental guarantee, letter of credit, or other suitable means of security, to be discussed with Seller.

Buyer shall be entitled to withhold from the payment of the Purchase Price (i) an amount sufficient to complete any punch list items, other unfinished work or work not completed to the required specifications, and (ii) up to [\$XXX] in the event of certain breaches of Seller’s representations, warranties or covenants pending Seller’s cure of any such breach, with Buyer’s aggregate holdback amount not to exceed 20% of the Purchase Price.

Seller shall be responsible for all taxes relating to the pre-closing period and all transfer taxes and any sales, use or other taxes related to the purchase and sale of the ownership interests of the Company and any purchase or conveyance of real or personal property to the Company to be used in the Project.

Delay Damages: Seller shall make a per diem payment of [\$XXX] for each day of unexcused delay in meeting the guaranteed completion date and a payment of [\$XXX] for failure of the Project to qualify for the [XX%] level ITC (pro rated for failure of only a portion of the Project to so qualify, if applicable) as a result of Seller’s unexcused failure to achieve commercial operation of the Project by December 31, [XXXX], such delay damages in aggregate not to exceed [\$XX million].

**Seller’s Work and Other Responsibilities**

Seller and/or Company is responsible for all work required to complete a ready to be commercially operational Project, including the integrated and ready to be operational infrastructure facilities, all

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<sup>1</sup> Buyer has a preference for fixed or single-axis tracking designs. For projects with single axis tracking, centralized solutions are preferred to distributed solutions requiring high numbers of individual drive motors.

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radial transmission lines and other interconnection facilities required to deliver power from the Project to the point of interconnection (as described in the interconnection agreement) and the fully assembled, installed, tested and ready to be operational solar photovoltaic panels and inverter and related equipment, all in accordance with the applicable supply agreements, all manufacturer’s warranties, the operations and maintenance agreement (if applicable), Seller’s engineering, procurement and construction subcontract, the interconnection agreement and the Agreement. All work shall be performed in accordance with prudent utility practices, prudent engineering practices, manufacturers’ specifications and recommendations, Seller’s quality management plan and Buyer’s technical specifications (to be provided by Buyer as part of the Agreement) that specify Buyer’s standards and requirements for the design, construction, materials, equipment and supplies for certain aspects of the Project. Buyer and Buyer’s authorized representatives shall have the right to inspect the work and to maintain personnel at the Project site for such purpose. Upon closing, Seller shall sell 100% of the ownership interests of the Company to Buyer, free and clear of all encumbrances and liabilities, except for permitted encumbrances and assumed liabilities as defined in the Agreement.

**Seller’s Closing Deliverables:**

Upon the terms and conditions to be defined within the Agreement, the obligations of Buyer to consummate the transactions contemplated are subject to the satisfaction by Seller of certain closing conditions, including:

- Transfer of all of the ownership interests of the Company, which include all rights and title to assets necessary for the commercial operation of the Project, to Buyer or its designated affiliate.
- Certification that the Project has achieved project mechanical, electrical and structural completion and has been commissioned in accordance with the terms of the Agreement.
- An opinion of tax counsel that the Project qualifies for the ITC at the [XX%] level.
- An opinion of legal counsel that each material discretionary permit required for the Project is valid, binding and in full force and effect.
- Evidence that any liens on the Company, Project, real property or any other assets or interests of the Company have been removed as of the Closing other than permitted liens which have been scheduled or liens which have been scheduled and bonded to Buyer’s reasonable satisfaction.
- All certifications, affidavits, approvals and permits required to demonstrate satisfaction of all representations, warranties, and covenants made by Seller pertaining to the closing.

**Buyer’s Closing Deliverables:**

Upon the terms and conditions to be defined within the Agreement, the obligations of Seller to consummate the transactions contemplated are subject to the satisfaction by Buyer of certain closing conditions, including:

- Delivery of the Purchase Price or any remaining portion thereof, subject to certain adjustments.
- All certifications, affidavits, approvals and permits required to demonstrate satisfaction of all representations, warranties, and covenants made by Buyer pertaining to the closing.

**Required Approvals**

The transaction is subject to obtaining specified approvals, authorizations, or orders, including but not

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limited to the following (to the extent necessary):

- Approval of the board of directors of Buyer and the board of directors or similar governing body of Seller shall be obtained prior to execution of the definitive agreement.
- Third party consents.
- Applicable governmental and regulatory approvals prior to closing, including to the extent necessary, any applicable state agencies or commissions regulating utility activities and any government agencies having approval, consent or authority over the transactions contemplated by the Agreement, including the Colorado Public Utilities Commission, the IRS, the FERC, the Department of Justice, the US Fish and Wildlife Service and the FAA.

**Representations and Warranties**

The transaction is subject to customary representations and warranties to be made by Buyer and Seller as of the execution date or the effective date of the definitive agreement and the closing thereunder, including the following:

- Corporate existence and powers – Seller is a [corporation] validly existing and in good standing and has the power and authority to conduct its business as now conducted.
- Company existence and powers – the Company is a limited liability company validly existing and in good standing and has the power and authority to develop, construct, operate and own the Project and has been engaged in no other business since its formation.
- Authority (execution and delivery)
- No conflicts - the transaction does not create any conflicts.
- Consents and approvals – no consent, approval or authorization is required in connection with the execution and performance of the Agreement.
- Legal proceedings of Buyer – there are no legal proceedings pending, or to Buyer’s knowledge, threatened in writing, against Buyer, that affect the consummation of the transaction contemplated by the Agreement.
- Legal proceedings of Seller and Company – there are no legal proceedings pending, or to Seller’s knowledge, threatened in writing, against the Seller or the Company relating to the Project or affecting Seller’s ability to sell the Company or the Project and there are no material legal proceedings pending, or to Seller’s knowledge, threatened in writing, against the Company relating to the Project.
- Sufficient funds – Buyer has available, or will maintain sufficient sources of, funds to complete the transaction.
- Compliance with Laws – Seller and the Company are in compliance with all laws applicable to the Seller, Company, Project and the transactions contemplated by the Agreement.
- Environmental – Seller, the Company and its affiliates have no environmental liabilities relating to the Project and are in compliance with environmental requirements relating to the Project. Seller and its affiliates have not received any notice of an alleged violation of environmental law pertaining to the Project from any governmental entity. There are no facts, circumstances, conditions or occurrences relating to the Project that could reasonably be expected to form the basis of a claim, requirement or obligation imposed by any governmental entity under any environmental law on Seller or its affiliates.

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- Contracts – Schedule of material contracts binding on the Company or to which the Project is subject and Seller has furnished to Buyer true, correct and complete copies of all material contracts.
- Land Contracts – The land contracts and real property owned by the Company are in full force and effect, and shall comprise all of the real property interests necessary in connection with the acquisition, development, construction, installation, interconnection, completion and operation of the Project, all in accordance with all laws, and are sufficient to enable the Project to be commercially operable as contemplated in the Agreement, including legal and physical ingress and egress rights to and from public right-of-way for construction, operation, and maintenance of the Project.
- Permits - All permits required to develop, construct, own, and attain commercial operation of the Project are held by the Company, are final and non-appealable, are scheduled, and Seller has obtained and furnished to Buyer true, correct and complete copies of such permits. Such permits are in full force and effect and are legal, valid, binding and enforceable in accordance with their respective terms.
- Solar Data – Seller has delivered to buyer true, correct and complete copies of all insolation and related meteorological data, if any, related to the Project.
- Title – The Company is in possession of and has good and marketable title to the Project free and clear of all encumbrances, except for Permitted Encumbrances. Seller has good and marketable title to the Company’s equity interests, free and clear of all encumbrances. Seller and its affiliates have no legal obligation to, or non-binding agreement in principle with any other person, to sell or affect a sale of all, or any portion of, the Project or the Company.
- Other representation and warranties customary in a transaction of this nature, including those pertaining to taxes, title, finders, intellectual property, brokers and insurance.

**Other Agreements**

- Interconnection. Seller shall be responsible for complying with all requirements necessary to attain the final interconnection of the Project, including all costs for the construction of any radial transmission line and other interconnection facilities and the costs of any upgrades to such interconnection facilities downstream of the point of interconnection or otherwise assigned to Seller or the Company in the interconnection agreement.
- Technology. The major equipment components of the Project shall be manufactured by manufacturers reasonably acceptable to Buyer.<sup>2</sup>
- Buyer’s right to inspect. Buyer and Buyer’s authorized representatives shall have the right to inspect the work and to maintain personnel at the Project site for such purpose. Such inspection of any part of the work shall in no way relieve Seller of its obligations under the agreement.
- Seller will cause the Project to satisfy (as defined in the Internal Revenue Code and associated guidance) requirements that qualify the project for the ITC at the [XX%] level.
- In addition to any pass-through warranties from the panel, inverter, racking and monitoring equipment manufacturers, balance of plant contractor and other suppliers and subcontractors, Seller shall provide a project warranty of no less than two years in duration as to defects in

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<sup>2</sup> Buyer will give preference to DC/AC inverters manufactured by ABB, General Electric (GE), SMA, Toshiba Mitsubishi-Electric Industrial Systems Corporation (TMEIC), or similar tier 1 supplier, as generally recognized in the industry. Buyer will give preference to panels manufactured by First Solar, Hanwa, Kyocera, LG Electronics, Sunpower or similar tier 1 supplier, as generally recognized in the industry.

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materials, workmanship and title, quality of work and performance as intended as a solar photovoltaic energy generation system.

**Termination Provisions**

The Agreement may be terminated prior to the Closing upon written notice by the terminating party (as described below) in the event of certain occurrences, including:

- By either party, in the event the closing has not occurred by [date TBD], regardless of the reason for such termination, provided that the terminating party is not in breach of the Agreement.
- By either party in the event regulatory approvals for the transaction are not obtained on terms reasonably acceptable to Buyer.
- By Buyer in the event any authority has issued an order or taken any other action that restrains, enjoins, or otherwise prohibits the consummation of the transactions contemplated by the Agreement, and such order or action is nonappealable.
- By Seller in the event of repudiation of the Agreement by Buyer.
- By Buyer in the event of abandonment of the Project by the Company, material breach of the Agreement by Seller or in the event that the cost to complete unfinished or substandard work as of the guaranteed completion date, in Buyer’s reasonable estimation, exceeds 20% of the Purchase Price.
- Liquidated Damages: Seller to make payment of a termination fee of [\$XX million] in the event that the Agreement is terminated due to Seller or Company’s failure to attain closing prior to the guaranteed project completion date; abandonment of the project, or bankruptcy.

**Indemnification**

Each party shall indemnify and hold harmless the other party and its respective employees, representatives, officers, directors and agents from and against any and all damages arising out of the result of any breach or violation of any representation, warranty, covenant, inaccuracy within the Agreement, or any liability not assumed as part of the Agreement, or any fraud, willful misconduct, or negligence in performance of this Agreement. Seller shall indemnify Buyer for any environmental (including hazardous material) claims arising prior to the closing date other than environmental claims resulting from Buyer’s negligence. No claim for indemnification shall be brought against the indemnifying party until the total damages for which such party is liable exceeds in the aggregate a threshold amount of [\$XXX], at which point indemnification may be sought for the full aggregate amount of damages, including those amounts that do not exceed the threshold. The aggregate damages to which the indemnified parties are entitled shall not exceed the indemnity cap, which shall be at least 30% of the purchase price.<sup>3</sup> Such threshold and indemnity cap shall not apply to damages to the extent they arise from a breach of certain “fundamental” representations (as applicable to each party) such as corporate existence, power, authority, conflicts, title, land contracts, real property, environmental, intellectual property or tax matters and shall not apply to liabilities arising prior to the closing date, which shall be the responsibility of Seller.

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<sup>3</sup> If deemed appropriate by Buyer based on the size and/or technology of the Project, the indemnity threshold and cap may be determined on a \$/kW or \$/MW basis.

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**Buyer**

Public Service Company of Colorado, a Colorado corporation (“Buyer”).

**Seller**

[Developer/Seller Name] (“Seller”) [Buyer will also require a financially capable counter-party guarantee.]

**Type of Transaction**

The transaction will be structured as an entity acquisition. Prior to the commercial operation date, Buyer shall purchase and Seller shall sell 100% of the ownership interests of the project company (“Company”), which owns a completed, ready to be commercially operational, Production Tax Credit (“PTC”) qualified, integrated wind-powered electricity generating plant with nameplate capacity of [XX] MW AC and all facilities and all other assets and rights relating to the project (the “Project”), free and clear of all encumbrances and liabilities, except for permitted encumbrances and assumed liabilities as defined in the Agreement.

**Purchase Price and Payment Terms**

Buyer shall pay Seller the “Purchase Price,” which is not to exceed [\$XXX million] in total and is subject to certain adjustments including the capacity of the Project delivered at closing. Buyer is open to either a single lump sum payment of the Purchase Price or periodic payments. All payments made by Buyer to Seller prior to the closing (and all other obligations of Seller under the Agreement) will be secured via a parental guarantee, letter of credit, or other suitable means of security, to be discussed with Seller.

Buyer shall be entitled to withhold from the payment of the Purchase Price (i) an amount sufficient to complete any punch list items, other unfinished work or work not completed to the required specifications, and (ii) up to [\$XXX] in the event of certain breaches of Seller’s representations, warranties or covenants pending Seller’s cure of any such breach, with Buyer’s aggregate holdback amount not to exceed 20% of the Purchase Price.

Seller shall be responsible for all taxes relating to the pre-closing period and all transfer taxes and any sales, use or other taxes related to the purchase and sale of the ownership interests of the Company and any purchase or conveyance of real or personal property to the Company to be used in the Project.

Delay Damages: Seller shall make a per diem payment of [\$XXX] for each day of unexcused delay in meeting the guaranteed completion date and a payment of [\$XXX] per turbine for each turbine that fails to qualify for the [XX%] level PTC as a result of Seller’s unexcused failure to achieve commercial operation of such turbine by December 31, [XXXX], such delay damages in aggregate not to exceed [\$XX million].

**Seller’s Work and Other Responsibilities**

Seller and/or Company is responsible for all work required to complete a ready to be commercially operational Project, including the integrated and ready to be operational infrastructure facilities, the operations and maintenance building, all radial transmission lines and other interconnection facilities

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required to deliver power from the Project to the point of interconnection (as described in the interconnection agreement) and the fully assembled, installed, tested and ready to be operational wind turbine generators, all in accordance with the turbine supply agreement, the turbine warranty and operations and maintenance agreement (if applicable), Seller’s engineering, procurement and construction subcontract, the interconnection agreement and the Agreement. All work shall be performed accordance with prudent utility practices, prudent engineering practices, manufacturers’ specifications and recommendations, Seller’s quality management plan and Buyer’s technical specifications (to be provided by Buyer as part of the Agreement) that specify Buyer’s standards and requirements for the design, construction, materials, equipment and supplies for certain aspects of the Project. Buyer and Buyer’s authorized representatives shall have the right to inspect the work and to maintain personnel at the Project site for such purpose. Upon closing, Seller shall sell 100% of the ownership interests of the Company to Buyer, free and clear of all encumbrances and liabilities, except for permitted encumbrances and assumed liabilities as defined in the Agreement.

**Seller’s Closing Deliverables:**

Upon the terms and conditions to be defined within the Agreement, the obligations of Buyer to consummate the transactions contemplated are subject to the satisfaction by Seller of certain closing conditions, including:

- Transfer of all of the ownership interests of the Company, which include all rights and title to assets necessary for the commercial operation of the Project, to Buyer or its designated affiliate.
- Certification that the Project has achieved project mechanical, electrical and structural completion and has been commissioned in accordance with the terms of the Agreement.
- An opinion of tax counsel that the Project qualifies for PTCs.
- An opinion of legal counsel that each material discretionary permit required for the Project is valid, binding and in full force and effect.
- Evidence that any liens on the Company, Project, real property or any other assets or interests of the Company have been removed as of the Closing other than permitted liens which have been scheduled or liens which have been scheduled and bonded to Buyer’s reasonable satisfaction.
- All certifications, affidavits, approvals and permits required to demonstrate satisfaction of all representations, warranties, and covenants made by Seller pertaining to the closing.

**Buyer’s Closing Deliverables:**

Upon the terms and conditions to be defined within the Agreement, the obligations of Seller to consummate the transactions contemplated are subject to the satisfaction by Buyer of certain closing conditions, including:

- Delivery of the Purchase Price or any remaining portion thereof, subject to certain adjustments.
- All certifications, affidavits, approvals and permits required to demonstrate satisfaction of all representations, warranties, and covenants made by Buyer pertaining to the closing.

**Required Approvals**

The transaction is subject to obtaining specified approvals, authorizations, or orders, including but not limited to the following (to the extent necessary):



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- Approval of the board of directors of Buyer and the board of directors or similar governing body of Seller shall be obtained prior to execution of the definitive agreement.
- Third party consents.
- Applicable governmental and regulatory approvals prior to closing, including to the extent necessary, any applicable state agencies or commissions regulating utility activities and any government agencies having approval, consent or authority over the transactions contemplated by the Agreement, including the Colorado Public Utilities Commission, the IRS, the FERC, the Department of Justice, the US Fish and Wildlife Service and the FAA.

**Representations and Warranties**

The transaction is subject to customary representations and warranties to be made by Buyer and Seller as of the execution date or the effective date of the definitive agreement and the closing thereunder, including the following:

- Corporate existence and powers – Seller is a [corporation] validly existing and in good standing and has the power and authority to conduct its business as now conducted.
- Company existence and powers – the Company is a limited liability company validly existing and in good standing and has the power and authority to develop, construct, operate and own the Project and has been engaged in no other business since its formation.
- Authority (execution and delivery)
- No conflicts - the transaction does not create any conflicts.
- Consents and approvals – no consent, approval or authorization is required in connection with the execution and performance of the Agreement.
- Legal proceedings of Buyer– there are no legal proceedings pending, or to Buyer’s knowledge, threatened in writing, against Buyer, that affect the consummation of the transaction contemplated by the Agreement.
- Legal proceedings of Seller and Company – there are no legal proceedings pending, or to Seller’s knowledge, threatened in writing, against the Seller or the Company relating to the Project or affecting Seller’s ability to sell the Company or the Project and there are no material legal proceedings pending, or to Seller’s knowledge, threatened in writing, against the Company relating to the Project.
- Sufficient funds – Buyer has available, or will maintain sufficient sources of, funds to complete the transaction.
- Compliance with Laws – Seller and the Company are in compliance with all laws applicable to the Seller, Company, Project and the transactions contemplated by the Agreement.
- Environmental – Seller, the Company and its affiliates have no environmental liabilities relating to the Project and are in compliance with environmental requirements relating to the Project. Seller and its affiliates have not received any notice of an alleged violation of environmental law pertaining to the Project from any governmental entity. There are no facts, circumstances, conditions or occurrences relating to the Project that could reasonably be expected to form the basis of a claim, requirement or obligation imposed by any governmental entity under any environmental law on Seller or its affiliates.

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- Contracts – Schedule of material contracts binding on the Company or to which the Project is subject and Seller has furnished to Buyer true, correct and complete copies of all material contracts.
- Land Contracts – The land contracts and real property owned by the Company are in full force and effect, and shall comprise all of the real property interests necessary in connection with the acquisition, development, construction, installation, interconnection, completion and operation of the Project, all in accordance with all laws, and are sufficient to enable the Project to be commercially operable as contemplated in the Agreement, including legal and physical ingress and egress rights to and from public right-of-way for construction, operation, and maintenance of the Project.
- Permits - All permits required to develop, construct, own, and attain commercial operation of the Project are held by the Company, are final and non-appealable, are scheduled, and Seller has obtained and furnished to Buyer true, correct and complete copies of such permits. Such permits are in full force and effect and are legal, valid, binding and enforceable in accordance with their respective terms.
- Wind Data – Seller has delivered to buyer true, correct and complete copies of all wind data related to the Project.
- Title – The Company is in possession of and has good and marketable title to the Project free and clear of all encumbrances, except for Permitted Encumbrances. Seller has good and marketable title to the Company’s equity interests, free and clear of all encumbrances. Seller and its affiliates have no legal obligation to, or non-binding agreement in principle with any other person, to sell or affect a sale of all, or any portion of, the Project or the Company.
- Other representation and warranties customary in a transaction of this nature, including those pertaining to taxes, title, finders, intellectual property, brokers and insurance.

**Other Agreements**

- Interconnection. Seller shall be responsible for complying with all requirements necessary to attain the final interconnection of the Project, including all costs for the construction of any radial transmission line and other interconnection facilities and the costs of any upgrades to such interconnection facilities downstream of the point of interconnection assigned to Seller or the Company in the interconnection agreement.
- Technology. The major equipment components of the Project shall be manufactured by manufacturers reasonably acceptable to Buyer.
- Buyer’s right to inspect. Buyer and Buyer’s authorized representatives shall have the right to inspect the work and to maintain personnel at the Project site for such purpose. Such inspection of any part of the work shall in no way relieve Seller of its obligations under the agreement.
- Seller will cause the Project to satisfy (as defined in the Internal Revenue Code and associated guidance) requirements that qualify the project for PTCs at the [XX%] level.
- In addition to any pass-through warranties from the turbine manufacturer, balance of plant contractor and other suppliers and subcontractors, Seller shall provide a project warranty of no less than two years in duration as to defects in materials, workmanship and title, quality of work and performance as intended as a wind energy generation system.

**Termination Provisions**

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The Agreement may be terminated prior to the Closing upon written notice by the terminating party (as described below) in the event of certain occurrences, including:

- By either party, in the event the closing has not occurred by [date TBD], regardless of the reason for such termination, provided that the terminating party is not in breach of the Agreement.
- By either party in the event regulatory approvals for the transaction are not obtained on terms reasonably acceptable to Buyer.
- By Buyer in the event any authority has issued an order or taken any other action that restrains, enjoins, or otherwise prohibits the consummation of the transactions contemplated by the Agreement, and such order or action is nonappealable.
- By Seller in the event of repudiation of the Agreement by Buyer.
- By Buyer in the event of abandonment of the Project by the Company, material breach of the Agreement by Seller or in the event that the cost to complete unfinished or substandard work as of the guaranteed completion date, in Buyer’s reasonable estimation, exceeds 20% of the Purchase Price.
- Liquidated Damages: Seller to make payment of a termination fee of [\$XX million] in the event that the Agreement is terminated due to Seller or Company’s failure to attain closing prior to the guaranteed project completion date; abandonment of the project, or bankruptcy.

**Indemnification**

Each party shall indemnify and hold harmless the other party and its respective employees, representatives, officers, directors and agents from and against any and all damages arising out of the result of any breach or violation of any representation, warranty, covenant, inaccuracy within the Agreement, or any liability not assumed as part of the Agreement, or any fraud, willful misconduct, or negligence in performance of this Agreement. Seller shall indemnify Buyer for any environmental (including hazardous material) claims arising prior to the closing date other than environmental claims resulting from Buyer’s negligence. No claim for indemnification shall be brought against the indemnifying party until the total damages for which such party is liable exceeds in the aggregate a threshold amount of [\$XXX], at which point indemnification may be sought for the full aggregate amount of damages, including those amounts that do not exceed the threshold. The aggregate damages to which the indemnified parties are entitled shall not exceed the indemnity cap, which shall be at least 30% of the purchase price.<sup>1</sup> Such threshold and indemnity cap shall not apply to damages to the extent they arise from a breach of certain “fundamental” representations (as applicable to each party) such as corporate existence, power, authority, conflicts, title, land contracts, real property, environmental, intellectual property or tax matters and shall not apply to liabilities arising prior to the closing date, which shall be the responsibility of Seller.

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<sup>1</sup> If deemed appropriate by Buyer based on the size and/or technology of the Project, the indemnity threshold and cap may be determined on a \$/kW or \$/MW basis.