

2022-2025 RENEWABLE ENERGY STANDARD PLAN

Public Service Company of Colorado
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Colorado PUC E-Filings System



Section 1 - Executive Summary

In this 2022-2025 Renewable Energy Compliance Plan (“2022-25 RE Plan” or “Plan”), Public Service Company of Colorado (“Public Service” or the “Company”) demonstrates the Company’s continued leadership in leading the clean energy transition, while continuing to offer customers a variety of cost-effective renewable and distributed energy choices. Building on the progress made in the Company’s current 2020-21 RE Plan, this Plan is designed to take the distributed energy and customer choice programs that are the focus of that RE Plan forward for the next four years. The 2022-25 RE Plan is the longest-duration RE Plan ever filed by the Company, and under it the Company expects to add more than 700 megawatts (“MW”) of distributed energy resources (“DER”) and 300 MW of utility-scale solar that support customer renewable programs. The Plan also proposes several new or reworked renewable choice offerings, a new solar plus storage product, and a new low-carbon natural gas product.

The 2022-25 RE Plan is designed to support a vision for solar energy and DER on the Company’s system that was first articulated in the Company’s 2021 Electric Resource Plan and Clean Energy Plan (“2021 ERP & CEP”) in Proceeding No. 21A-0141E, including the assumed addition of approximately 1,158 MW in distributed solar resources forecasted for 2021-2030 as part of the Company’s plan to reduce its generation carbon emissions by approximately 85 percent by 2030 – and thus exceed the 80 percent reduction currently required under Colorado law. This Plan was also greatly influenced by both new rules adopted by the Commission since the 2020-21 RE Plan (e.g., with respect to interconnection and community solar gardens (“CSGs”)), as well as continued stakeholder engagement and significant legislation (e.g., Senate Bill 21-261 (“SB 21-261”), Senate Bill 21-272 (“SB 21-272”), House Bill 21-1266 (“HB 21-1266”), and House Bill 21-1238 (“HB 21-1238”)) passed during the 2021 Legislative Session that will impact a wide range of RES requirements or programming during the 2022-2025 period.

The Company's program proposals under this 2022-25 RE Plan have been designed to reflect and incorporate this changing renewable energy landscape, while focusing on three key principles: (1) maintaining or enhancing grid value, and balancing the impacts of integrating and operating greater amounts of renewable resources; (2) increasing certainty for Colorado's distributed solar and DER industry; and, (3) maintaining or enhancing budget discipline and transparency, with an increased emphasis on income-qualified ("IQ") renewable programming. Importantly, through this Plan, the Company will continue to exceed Colorado's current Renewable Energy Standard ("RES") requirements, while meeting our customers' growing energy demands and continuing to provide customer choice, in the most reliable, safe, clean, and affordable way possible.

Under the current 2020-21 RE Plan, the Company implemented a measured increase in renewable energy programs and related customer choice options, intended to serve as a bridge between the prior 2017-19 RE Plan and this ambitious 2022-25 RE Plan. Under this Plan, the Company is now proposing further adjustments to our existing programs, to "right size" and structure them to customer demand while aligning with RESA funding and Retail Distributed Generation ("DG") capacity assumptions in the Company's 2021 ERP & CEP. We propose some program expansions, some small program reductions, some structural modifications and program evolution, some capacity transfers between programs, and the introduction of a new program

Regarding program evolution, we are proposing to transition our stand-alone Solar*Rewards® Small program to a new solar plus storage offering intended to provide grid value to all customers. Given that more customers are choosing to interconnect their small systems outside the Company's Solar*Rewards Small program on a Net Energy Metered Only (or "NEM Only") basis, this observation (and NEM only installation data) suggests that a performance-based incentive is no longer needed to support standalone PV for residential and small commercial customers. Instead, we will offer residential and small commercial customers solar incentives alongside battery incentives through our

new Solar*Rewards Battery Connect offering. We believe these incentives are better used to grow a more nascent market in a way that can also provide value to the grid.

We are also proposing to adjust our Solar*Rewards Medium offering to a Solar*Rewards Commercial and Industrial offering that is available only to demand-billed customers and offers different incentives based on system size. This offering expands the Standard Offer option to systems up to 1 MW in size. We are also introducing a new adder for Solar*Rewards Commercial and Industrial participants who qualify for IQ customer or Disproportionately Impacted Community status. We are proposing to keep our Solar*Rewards Large program open but adjusting capacity to respond to capacity needs and customer interest, and to accommodate the newly legislated off-site solar program in the Company's allocation of Retail DG capacity. We also plan to continue the Colorado Energy Office ("CEO") Low-Income Rooftop Solar program under the new name of Residential IQ On-Site Solar, which will continue to be administered by CEO.

Additionally, we recognize some of our customers are unable to add solar directly on their properties but may have accelerated sustainability goals. For these customers, we are committed to our Solar*Rewards Community® CSG program. This Plan more than triples the Solar*Rewards Community Standard Offer capacity based on stakeholder feedback and focuses much of that capacity on meeting the Company's legislated spending requirements for IQ customers or Disproportionately Impacted Communities. Competitive solicitations for Solar*Rewards Community capacity will continue to ensure market pricing and economic focus for these resources. The Company seeks to expand its own community solar offerings for IQ direct-billed residential customers.

In addition to the Company's Solar*Rewards and Solar*Rewards Community DER offerings, the Company is also proposing a new off-site solar offering as part of this 2022-25 RE Plan in response to directives set forth in SB 21-261. To comply with SB 21-261, the Company currently expects to reserve approximately 41 MW of capacity for its off-site solar offering in 2022 and 2023, with any unallocated or cancelled capacity carrying

forward into the remaining years of the Plan. Between the CSG and Off-site program, the Company will offer approximately 382 MW of distributed solar over the course of the Plan for customers who may be unable or unwilling to install solar at their premise. Collectively, the 708 MW for customer-site, CSG, and off-site programs proposed under the Plan account for 61% of the DG solar capacity assumed in the Company's 2021 ERP & CEP through 2030.

In addition to the Company's DER program offerings, this Plan also seeks to expand the existing Renewable*Connect® program so that more individual residential and commercial customers can choose to enroll in an easy, subscription-based renewable energy option. The Plan brings forth four new or adjusted Renewable*Connect offerings that provide pathways for all types of customers to subscribe to and obtain the benefits of a dedicated renewable energy program under terms that fits their needs. One of the new programs will be a rebranded and reconstructed Windsource® offering, which will retain many of the design elements of the existing month-to-month program while adding solar resources as a means to serve interested customers with both wind and solar resources.

The 2022-25 RE Plan also continues our Recycled Energy program without modification from the 2020-21 RE Plan. Recycled Energy is a clean energy option that uses what would otherwise be waste heat or steam to produce electricity at a customer's site.

The Company respectfully requests that the Commission approve this 2022-25 RE Plan in full.

Renewable Energy Standard

In November 2004, Colorado voters passed Amendment 37 (codified at § 40-2-124, C.R.S.), which established a RES for certain Colorado electric utilities termed Qualifying

Retail Utilities (“QRUs”).¹ The RES requires a QRU to generate or cause to be generated a certain percentage of their retail sales from renewable energy under certain retail rate impact limitations.

In 2010, the General Assembly passed House Bill 10-1001 (“HB 10-1001”), which increased the Colorado RES to require a QRU to generate or cause to be generated minimum amounts of electricity from renewable resources (called “Eligible Energy Resources”) equating to 30 percent of its electric sales by 2020. HB 10-1001 also eliminated the solar standard that had originally been established by Amendment 37 and instead established a requirement that a portion of the 30 percent RES be met with Renewable DG. For 2020 and beyond, this portion must total 3 percent of retail sales. There were two types of DG created by HB 10-1001: (1) retail distributed generation (“Retail DG”), defined as a renewable energy resource that is designed primarily to provide electric energy to serve the customer's load, which is located on the site of a customer's facilities and interconnected on the customer's side of the utility meter;² and (2) wholesale distributed generation (“Wholesale DG”), defined as a renewable energy resource in Colorado with a nameplate rating of 30 MW or less that does not qualify as retail distributed generation. At least one-half of the DG standard must be met with Retail DG. By definition, renewable resources greater than 30 MW are considered non-distributed generation (“Non-DG”).

In this same session, House Bill 10-1342 established what are commonly termed “community solar gardens” or “CSGs”, which are facilities that are large enough to meet the solar needs of many customers. Customers may participate in these solar projects by acquiring a share of a larger facility for purposes of receiving a dollar credit on their electric bills commensurate with their share of the CSG generation that they acquired. This bill directed the Commission to establish the minimum and maximum capacity levels.

¹ Capitalized terms in this Plan, if not otherwise defined herein, shall have the same meanings as in the Commission Rules implementing the RES, 4 CCR 723-3-3650), *et seq.*, and implementing the CSG statute, 4 CCR 723-3-3875, *et seq.*

² This includes both on-site renewable and CSG resources. Originally, Retail DG was limited in size to 120 percent of the customer's electric load. However, 2021's SB 21-261 raised this limit to 200 percent.

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Table 1 below presents the annual RES requirements by year.

Table 1 - Renewable Energy Standard

Period	RES	Distributed Generation	Retail Distributed Generation (Minimum)
2015 – 2016	20% of retail sales	1.75% of retail sales	Half of DG
2017-2019	20% of retail sales	2% of retail sales	Half of DG
2020 and beyond	30% of retail sales	3% of retail sales	Half of DG

In 2013, Senate Bill 13-252 (“SB 13-252”) was enacted to, among other things, expand the definition of Eligible Energy Resources to include resources using coal mine methane and synthetic gas produced by pyrolysis of municipal solid waste so long as the Commission determines that the greenhouse gases emitted by these resources is not greater than the volume of greenhouse gases that would have been emitted into the atmosphere over a subsequent five-year period had the resource not converted the gas to electricity. SB 13-252 allowed for a 1.25 renewable energy credit (“REC”) bonus on all resources, other than Retail DG, placed in service prior to January 1, 2015. All incremental renewable resources placed in service prior to January 1, 2015 retain the REC bonus.

House Bill 15-1284, enacted in 2015, expanded the geographic reach of CSGs by allowing CSGs to offer subscriptions to customers located in the same county or to customers in adjacent counties. In 2019, House Bill 19-1003 (“HB 19-1003”) increased the maximum CSG project capacity size to 5 MW (10 MW after July 1, 2023), and removed the adjacent county limitation, which enabled customers to subscribe to a CSG anywhere within a QRU’s service territory. Proceeding No. 19R-0608E, the

Commission's CSG rulemaking opened in accordance with HB 19-1003, allowed/required utilities to offer customers the ability to receive the REC generated by a CSG.

2019 also saw the passage of Senate Bill 19-236 ("SB 19-236"), a bill which covered several issues affecting the Commission and the electric utility industry in Colorado. Notably, SB 19-236 required electric public utilities to consider the cost of carbon "when determining the cost, benefit or net present value" of plans submitted for resource planning, RES planning, electric Demand-Side Management ("DSM") planning, and beneficial electrification plans. The cost of carbon provisions specify the use of the federal government's most recent social cost of carbon. This provision on the cost of carbon does not prohibit the Commission or the Company from also considering other costs for carbon emissions.

Among other things, 2021's Senate Bill 21-261 modified the RES statute to permit renewable-charged storage systems as Eligible Energy Resources for purposes of RES compliance, and provided for the use of off-site, customer-owned DG installations.

Acquisition Plan

The Company is ahead of compliance in all categories of the RES (Retail DG, Wholesale DG, and Non-DG) and will be able to meet its RES compliance goals in the 2022-2025 Compliance Years. Notwithstanding this, under its proposals, Public Service will continue to offer substantial amounts of Eligible Energy Resource options to its customers above these minimum state requirements through this 2022-25 RE Plan.

Non-Distributed Generation

Between the wind and solar generation acquired through the Company's ERPs since 2005, the Company's 600 MW Rush Creek Wind Project and 500 MW Cheyenne Ridge Wind Project, and other renewable generation contractually acquired through power purchase agreements, the Company has acquired a substantial amount of utility-scale renewable energy resources. Public Service will have sufficient Non-DG RECs to meet

and exceed the RES for the 2022-2025 Compliance Years. Public Service also projects it will have sufficient Non-DG RECs from existing Eligible Energy Resources for compliance through the full 10-year planning horizon under the current RES rules.

This Plan does not address the acquisition of incremental Non-DG resources. The Company's retail rate impact results, which are presented in Attachment JW1-2, Tables 7-2(a) through 7-2(c), include all Non-DG resources used to meet the Company's Non-DG compliance requirements. For the 2022 Compliance Year, the Company will have 4,071 MW (nameplate) of Non-DG wind serving the Company system and 1,282 MW (nameplate) capacity of Non-DG solar.

Wholesale Distributed Generation

The Company has a number of Wholesale DG resources serving the load needs of our customers. Commission Rule 3652(II) defines Wholesale DG to include renewable energy resources located in Colorado with a nameplate rating of 30 MW or less that do not qualify as retail renewable DG. The Wholesale DG resources, as listed in Attachment JW1-2, Table 4-2, include 67 MW of small hydro facilities, 55 MW of wind, 85 MW of utility solar and 3 MW of biomass. As a result of these renewable resources acquired under previous RFPs, as well as other generation owned or contractually acquired by the Company in prior periods, Public Service will have sufficient Wholesale DG RECs to meet its RES requirement for the 2022-2025 Compliance Years.

Retail Distributed Generation

Tables 4-2 through 4-4, in Attachment JW1-2 of the 2022-25 RE Plan, set forth the projected totals for standard offer RECs and other REC purchases. RECs are presented by market segments: Small (0.5-25.0 kW), Medium (25.1-500.0 kW), Large (>500.0 kW), and Solar*Rewards Community projects. RECs listed as "REC Only" are for those customer-sited roof-top solar systems installed prior to 2006.

The Company will have sufficient Retail DG RECs for compliance in 2022-2025. As shown in Attachment JWI-2, Table 4-3, as of 2021 the Company has approximately 500 MW_{DC} of on-site solar installations connected to the system that are currently generating RECs. Those connections are expected to generate over 500,000 RECs annually while the more 100 MW of CSG installations are expected to produce approximately 186,000 RECs annually. Projected acquisition of Retail DG RECs for 2022 through 2025 is set forth in Attachment JWI-2, Tables 4-2, 4-3, and 4-4. The Company's forecasts of the Retail Rate Impact and estimated Renewable Energy Standard Adjustment ("RESA") balance are presented in Attachment JWI-2, Tables 7-1 through 7-2(c). The forecast of RESA expenditures presented in the Tables is based upon the maximum forecast capacity additions proposed in this Plan. The anticipated costs of our proposed programs are included in the On-Site Solar Costs set forth in Attachment JWI-2, Tables 7-2(a), (b) and (c).

Solar* Rewards Community

The Solar*Rewards Community program is a program that enables customers who cannot, or do not wish to participate, in rooftop solar. The program, which launched in August 2012, serves customers who purchase or lease portions of a CSG installed in their community. Subscribing customers receive credits on their bill for the energy produced at a central location, avoiding the need to install solar on their premises. This program provides Public Service customers with more solar choices. Program capacities through 2020 are presented in the Table 2 below:

Table 2 - Solar*Rewards Community Awards & Operations Summary

Capacity by Vintage (MW_{AC}) & Status	Pre-2016	2016	2017	2018	2019	2020	Total	% of Total
Cancelled/Withdrawn	0.0	9.1	7.2	12.0	0.0	0.0	28.3	11%
Not Sited	0.0	0.0	0.0	0.0	1.5	18.2	19.7	8%
In study/ review	0.0	0.0	0.0	3.1	0.0	28.7	31.8	12%
In design for an IA or IA issued	0.0	0.0	0.0	0.0	3.4	37.5	40.9	16%
Interconnection Agreement Signed	0.0	2.0	3.0	5.8	20.3	0.5	31.5	12%
Active & Interconnected	37.7	34.8	14.2	7.7	10.5	0.0	104.9	41%
Total	37.7	45.9	24.4	28.6	35.6	85.0	257.1	
2019 Includes 4.5 MW of Company-Owned CSGs from the 2017-19 RE Plan								
Prior to 2020 capacity was issued in MW _{DC} . This table is converted to MW _{AC} for consistency and clarity.								

Recycled Energy

The Company's Recycled Energy program offers customers an avenue to generate clean energy through the use of waste heat and steam, which would otherwise not be used at all. According to 4 CCR 723-3-3652(v):

“Recycled energy” means energy produced by a generation unit with a nameplate capacity of not more than fifteen megawatts that converts the otherwise lost energy from the heat from exhaust stacks or pipes to electricity and that does not combust additional fossil fuel. Recycled energy does not include energy produced by any system that uses energy, lost or otherwise, from a process whose primary purpose is the generation of electricity, including, without limitation, any process involving engine-driven generation or pumped hydroelectricity generation.

Although Recycled Energy is not defined as a renewable energy resource under the Commission's Rules, and therefore does not produce RECs, it is an Eligible Energy Resource and generation of energy from a recycled energy generator can be used to meet Colorado's RES under § 40-2-124, C.R.S.

The Company is not proposing any changes to its Recycled Energy program in this Plan.

Windsor (Proposed as Renewable*Connect Month-to-Month, or R*C-MTM)

Xcel Energy's Windsor program is one of the largest utility green pricing programs in the country. As of June 2021, there were 72,906 Windsor customers in Colorado. The Windsor program was originally established as an experimental, voluntary, value-priced energy program. Designed to stimulate wind development in Colorado, the program was responsible for development of the first commercial wind farm in Colorado, the 30 MW Ponnequin wind farm. Demand for the program grew significantly, making Windsor a leading voluntary green power program in the country.

In 2020, the Company credited \$3.62 million in premiums from Windsor sales to the RESA, which increases the amount of dollars available to acquire renewable resources. Public Service retires RECs in proportion to the amount of Windsor sales above what is inherent in those sales that are retired for RES compliance.

Windsor is structured to accomplish the following objectives:

- Meet the demand of customers who wish to purchase renewable energy in excess of RES;
- Offer renewable energy at reasonable rates under flexible terms;
- Ensure that non-participants are not economically impacted by the Windsor program;
- Minimize year-to-year Windsor price volatility;
- Ensure renewable energy supplies are readily available to meet rapid changes in voluntary program demand; and,
- Increase the amount of renewable generation on the system in accordance with customer demand.

While Windsor remains popular with residential and commercial customers as a voluntary renewable program, this legacy program is facing some challenges. First, customers subscribing to Windsor have expressed a desire to be served by solar resources in addition to wind. Second, some customers are confused about the presence of more than one brand of "green tariff" in the Company's portfolio and are unclear about the distinctions between Windsor and Renewable*Connect. As such, the Company is

proposing to discontinue use of the Windsource brand and create Renewable*Connect Month-to-Month (R*C-MTM), a new voluntary program that is structured similarly to Windsource but will incorporate solar resource(s) in addition to the wind resources that have supported the program since its inception. The new program will share the same objectives above as Windsource, with current Windsource subscribers seamlessly transitioned to the new program.

Renewable*Connect

Renewable*Connect was launched in 2018 using a two-phase enrollment period in June/July, during which time the program became fully subscribed. At the end of 2020, there were 3,217 subscribers, with 13 percent of capacity subscribed to by residential customers and 87 percent of capacity subscribed to by commercial/industrial customers.

After the program was fully subscribed in July 2018, a program waitlist became available to customers. At the end of 2020, there were 2,564 residential customers on the waitlist, representing roughly 6.9 MW of demand, and 146 commercial/industrial customers on the waitlist, representing roughly 178 MW of additional demand.

With the large customer demand for additional capacity within Renewable*Connect, the Company is seeking to introduce a second tranche of Renewable*Connect, while at the same time bringing together other existing and new voluntary off-site renewable retail energy programs under the Renewable*Connect banner.

Specifically, for the 2022-25 Plan, the Company is seeking to bring together five programs under the Renewable*Connect program brand, which will now consist of one existing program and four new offerings.

- 1) The existing Renewable*Connect program will continue as Renewable*Connect 1.0, and will be incorporated under the expanded Renewable*Connect umbrella.

- 2) Renewable*Connect 2.0, a second tranche of capacity being offered as a new program, designed to meet the customer demand for an expansion of Renewable*Connect.
- 3) Renewable*Connect Month-to-Month, a reconstituted and rebranded Windsource® that includes both wind and solar resource(s).
- 4) Renewable*Connect Community program, a new program offers to sell RECs generated in the Company's Colorado service territory to Colorado communities.
- 5) Renewable*Connect Natural Gas, a new program involving natural gas

RESA Deferred Balance

Commission Rule 3661 establishes the parameters for determining the retail rate impact of implementing the RES. Rule 3661(a) states that the net rate impact of Public Service's actions to comply with the RES shall not exceed two percent of the total electric bill annually for each retail customer. However, the RESA surcharge was reduced to one percent effective November 1, 2020 to offset the newly implemented one percent Colorado Energy Plan Adjustment surcharge. The Company projects that contributions to the RESA will be sufficient to cover the costs to be charged to the RESA for the years 2022 through 2025.

Our projection that we will not need to advance funds to the RESA during the compliance period is based upon certain projections and assumptions embodied in this 2022-25 RE Plan.

Per Decision No. C20-0700, the RESA is currently set to expire on December 31, 2022. However, the Company is proposing to maintain the RESA at the one percent collection level beyond that date, as it will continue to provide an important source of support in managing customer bill impacts as the Company continues its path to 100 percent clean energy by 2050.

Section 2 – Introduction

Public Service's 2022-25 RE Plan is comprised of three Volumes contained in three separate attachments. Attachment JW1-1 (Volume 1) contains a narrative that describes the details of the Company's proposals for complying with the Commission's rules implementing the RES, 4 CCR 723-3-3650 *et seq.* Attachment JW1-2 (Volume 2) contains the supporting tables that are referenced in Attachment JW1-1. Attachment JW1-3 (Volume 3) contains the Company's standard contracts and other documents related to its Requests for Proposal ("RFPs") under the Plan.

The first part of Attachment JW1-1 is divided into 11 sections, which provide the following information consistent with Commission Rule 3657:

- **Section 1** Executive Summary.
- **Section 2** Introduction.
- **Section 3** Retail Energy Forecast. This section describes Public Service's retail energy forecast used to estimate the Company's retail electricity sales from 2021 through 2031. Rule 3657(b)(IV).
- **Section 4** Estimates of Existing and Forecasted RECs. This section describes the Company's estimates of the RECs that the Company must acquire to meet the RES and describes the Company's projected transfer of RECs to its wholesale customers, and RECs which are projected to be retired on behalf of the Windsource® (now proposed as Renewable*Connect Month-to-Month) customers. This section focuses on the years 2021 through 2025, but also provides longer-range projections of RECs needed through 2031. Rules 3657(b)(V), 3657(b)(VII), and 3657(b)(XV).
- **Section 5** Acquisition Plans. This Section describes Public Service's plans to acquire eligible energy from various categories of solar and non-solar resources, divided into subparts for each resource type. Rules 3657(b)(VII), (VIII), (X), (XI), (XII), (XIII), and (XIV). This section of the Plan also

includes the acquisition of solar resources for the Solar*Rewards Community® program including minimum and maximum recommended amounts.

- **Section 6** Other Customer Choice Products. This section discusses how Renewable*Connect, Windsource® (proposed to be rebranded as Renewable*Connect Month-to-Month), and Recycled Energy programs. This section discusses program features and explains what we propose to charge for these services.
- **Section 7** Retail Rate Impact. This section discusses the retail rate impact of the Company's projection of the costs of acquiring the proposed Eligible Energy Resources through 2029. Rules 3657(b)(I), (II), (III), (VI), (VII), and (IX).
- **Section 8** Cost Recovery. This section describes the cost recovery mechanism proposed by the Company associated with the cost of implementing the RES within the retail rate impact cap. Rule 3657(b)(VI).
- **Section 9** Net Metering. This section discusses the rules, regulations, and tariffs for the net metering for renewable energy resources pursuant to rule 3664. Rule 3657(b)(XVI).
- **Section 10** Interconnection. This section explains that the Company is not proposing any changes to its interconnection procedures under Rules 3850-3859.
- **Section 11** Conclusion. This section presents the approvals the Company is seeking as part of the 2022-25 RE Plan including the various elements presented in the Plan. Rule 3657(c).

Section 3 – Retail Energy Forecast

For its 2022-25 RE Plan, Public Service is using its most recent retail energy forecast, which was developed in July 2021.¹

Forecast Methodology

Public Service uses monthly historical customer and sales data by rate class, together with historical and forecast weather, economic, demographic, price, and appliance saturation and efficiency data to develop its forecast of energy sales. The residential sales and commercial and industrial sales forecasts are developed using a Statistically-Adjusted End-Use (“SAE”) modeling approach. The SAE method entails specifying energy use as a function of the primary end-use variables (heating, cooling, and base use). The factors that affect these end-use energy requirements include price, economic and demographic variables, weather, and appliance saturation and efficiency indices.

Forecasts for sales to resale customers are developed using information from the customers and trend analysis or contractual requirements. The wholesale sales forecasts are net of the contractual schedules of energy allocations from Western Area Power Administration (“WAPA”).

The historical customer, sales, and price data are obtained from the Company’s billing system. Forecasted economic and demographic data are obtained from IHS Markit. Historical and forecasted appliance saturation and efficiency data is obtained through studies conducted by the Company and from Itron, Inc.

Forecast Overview

From 2010 through 2020, Public Service experienced historical growth in retail electric sales, averaging 0.2 percent per year. This growth was driven by economic growth in the service territory, an increase in the number of customers, somewhat off-set by lighting

¹ Projected growth rates are expressed using 2021 as the base year.
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efficiency gains, DSM, and DG solar. The COVID-19 pandemic also resulted in a sales decline in 2020, as the additional sales to residential customers was not enough to offset declines in the Commercial and Industrial classes. Public Service's combined annual retail and long-term firm wholesale electric sales decreased at an average rate of -0.3 percent over the past 10 years. The negative historical growth rate reflects declines in wholesale sales due to the expiration of resale contracts. This loss of wholesale customers has stabilized in recent years but is expected to continue in the forecast period.

Public Service's retail electric sales are forecasted to increase at an average annual rate of 0.9 percent through 2031, while combined annual retail and long-term firm wholesale electric sales are projected to increase at 0.5 percent per year on average through 2031. The projected growth rate in retail electric sales reflects continued residential and commercial customer growth, a rebound from the COVID-19 pandemic, and increasing sales due to electric vehicles. This growth is, in turn, offset by the implementation of federal energy efficiency standards, the inclusion in the energy sales forecast the assumption that we will achieve through our applicable DSM Plan goals, and the continued installation of customer-sited solar generation.

Details of the July 2021 Energy Sales Forecast

The results of Public Service's projected growth rate can be explained by several factors: 1) retail customer growth, which is projected to grow at an average annual rate of 0.9 percent through 2031; 2) the implementation of federal energy efficiency initiatives (including further lighting standards); 3) the inclusion in the energy sales forecast the assumption tied to our applicable DSM Plan goals; 4) reduced volumes resulting from the installation of customer-sited solar generation; and 5) increasing penetration of electric vehicles. The combination of these factors results in an expected growth in energy sales that is slightly higher than historical growth.

Residential energy sales increased by an average of 1.0 percent per year over the past 10 years, with customer growth averaging 1.2 percent per year and use per customer decreasing at an average annual rate of -0.2 percent since 2010. This customer growth is expected to continue, with annual gains averaging 1.0 percent per year through 2031. Use per customer is expected to increase at an average annual rate of 0.4 percent through 2031. The increase in use per customer is due to the increasing penetration of electric vehicles, somewhat off-set by the implementation of federal energy efficiency initiatives; the achievement of DSM goals; and reduced volumes resulting from the installation of customer-sited solar generation. As a result, residential sales are forecasted to increase at 1.4 percent per year on average through 2031.

Commercial and industrial sales are projected to increase at an average annual rate of 0.7 percent through 2031, which is higher than the average decline of -0.2 percent per year since 2010. The faster forecasted growth is primarily due to the rebound from the COVID-19 pandemic early in the forecast period, adoption of electric vehicles, and general economic growth in the service territory. This is offset by the achievement of DSM goals, the implementation of federal energy efficiency initiatives that reduce lighting-related usage, and reduced volumes resulting from the installation of customer-sited solar generation.

Over the past 10 years, total long-term firm resale sales decreased by -3.6 percent per year on average. This negative rate reflects the expiration of some wholesale contracts. Through 2031, long-term firm resale sales are expected to decrease by -7.4 percent per year on average due primarily to the expiration of additional contracts. Public Service's combined retail and long-term firm wholesale electric sales are projected to grow at 0.5 percent per year on average through 2031.

The Company's sales forecasts are depicted graphically in Figure 1 and in tabular form in Table 3.

Figure 1 - Actual and Forecasted Electric Sales (GWh)

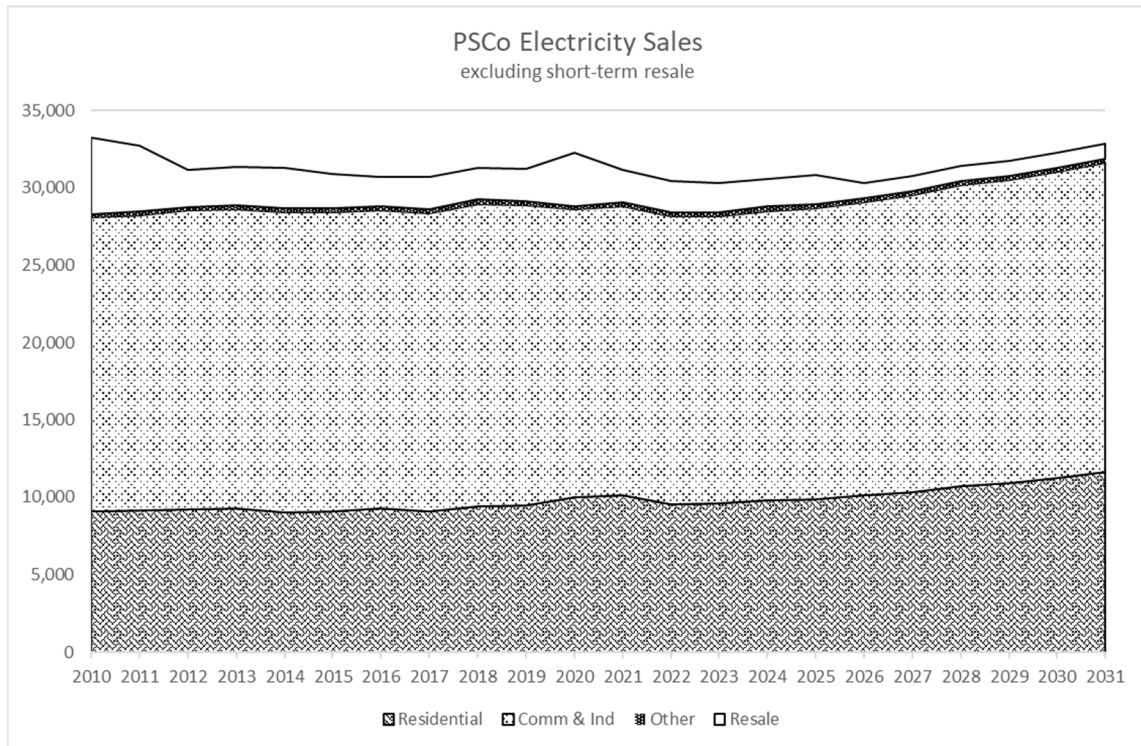


Table 3 - Actual and Forecasted Electric Sales (GWh)

Year	Retail Sales	Long-Term Firm Wholesale Sales	Total Sales
2010	28,296	4,959	33,255
2011	28,483	4,265	32,748
2012	28,783	2,386	31,169
2013	28,858	2,511	31,370
2014	28,668	2,613	31,281
2015	28,697	2,192	30,888
2016	28,798	1,939	30,737
2017	28,626	2,086	30,712
2018	29,246	2,077	31,323
2019	29,153	2,053	31,206
2020	28,845	3,449	32,294
2021	29,079	2,102	31,181
2022	28,425	1,995	30,420
2023	28,410	1,919	30,329
2024	28,785	1,767	30,553
2025	28,972	1,879	30,851
2026	29,363	957	30,320
2027	29,788	974	30,762
2028	30,434	957	31,391
2029	30,768	963	31,731
2030	31,282	979	32,260
2031	31,877	971	32,848

Note: Values above the heavy line are actual historical values; values below the line are forecast

Section 4 – Estimates of Existing and Forecasted RECs

Renewable Energy Standard

Under Commission Rule 3654, Public Service is required to procure RECs to meet the RES. Generally, one REC results from one megawatt-hour of electric energy generated from an eligible energy resource.¹ The RES is based upon percentages of the QRU annual retail energy sales. The RES has three requirements, which are summarized below.

In 2010, the General Assembly passed HB 10-1001 that increased the Colorado RES to require a QRU to generate or cause to be generated minimum amounts of electricity from eligible energy resources equating to 30 percent of its electric sales by 2020. HB 10-1001 also eliminated the solar standard that had originally been established by Ballot Amendment 37 (2004) and instead established a requirement that a portion of the 30 percent RES be met with Renewable DG. The DG requirement was divided between Wholesale DG and Retail DG. Retail DG is a renewable resource located on property that is owned or leased by a customer. By statute, which was recently revised by Senate Bill 21-261, it shall be sized to supply no more than two hundred percent of the reasonably expected average annual total consumption of electricity at all properties owned or leased by the customer within the utility's service territory. Wholesale DG is defined as a renewable resource with a nameplate rating of 30 MW or less and does not qualify as Retail DG. Table 4 presents the annual RES requirements by year.

¹ Under certain circumstances multipliers are allowed which increase the number of RECs per MWh.

Table 4 - Renewable Energy Standard

Period	RES	Distributed Generation (DG)	Retail Distributed Generation (Minimum Requirement)
2015 – 2016	20% of retail sales	1.75% of retail sales	Half of DG
2017 – 2019	20% of retail sales	2% of retail sales	Half of DG
2020 and beyond	30% of retail sales	3% of retail sales	Half of DG

Table 4-1, in Attachment JW1-2, shows the total RECs Public Service needs to meet the RES for each year 2021 through 2031, based upon the Company's July 2021 retail energy sales forecast. Additionally, Table 4-1 reflects the number of Retail DG, Wholesale DG and Non-DG RECs required to meet Colorado's Renewable Energy Standards each year.

Table 4-2, in Attachment JW1-2, provides detailed information about the cycle of RECs Public Service procures. Specifically, the Table shows the amount of RECs the Company acquired, the amount of RECs the Company expects to acquire each year, bonus calculations, and the RECs Public Service anticipates retiring to comply with the 2022 – 2025 RE Plan². The Tables show the sources of RECs and quantity of RECs produced. Table 4-2 also shows the RECs needed through 2025 for compliance based on the Company's July 2021 sales forecast. Table 4-3 shows RECs transferred, wholesale REC allocation, the RECs retired on behalf of Windsource® (now proposed as Renewable*Connect Month-to-Month, or "R*C MTM") customers, the RECs retired on behalf of

² The Company does not project any Recycled Energy contributions to compliance until such time as we have actual projects authorized under the program.

Renewable*Connect (now being branded as Renewable*Connect 1.0, or “R*C 1.0”), and the RECs sold. Table 4-4, in Attachment JWI-2 provides information on the RECs Public Service plans to acquire through 2037 based on the 2022-25 RE Plan. Table 4-5 in Attachment JWI-2 shows the RECs from a new solar facility designated specifically for the Company’s R*C 1.0 program.

Wholesale Customers

In addition to meeting its RES, Public Service must plan for the transfer of RECs to its wholesale customers based upon each wholesale customer’s load ratio share of Public Service’s total retail and wholesale sales. The load met through the Company’s Solar*Rewards or the new Solar*Rewards Community programs is not included in the calculation of the load ratio shares of our wholesale customers.

Public Service offered load-ratio shares of its non-Retail DG RECs, to six wholesale customers: Grand Valley Rural Power Lines, Inc. (“Grand Valley”); Holy Cross Electric Association, Inc. (“Holy Cross”); Yampa Valley Electric Association, Inc. (“Yampa Valley”); Intermountain Rural Electric Association (“IREA” – recently renamed as CORE Electric); City of Burlington; and Town of Center.

For the 2022-25 RE Plan Grand Valley, Holy Cross, Yampa Valley, IREA, and the City of Burlington have agreed to pay for the acquisition of non-Retail DG eligible energy resources and receive their load ratio share of RECs accordingly. At the time of this filing, the City of Center does not receive RECs from Public Service.

Table 4-3 in Attachment JWI-2 shows the forecasted REC transfers for those wholesale customers electing to pay the full costs of their load ratio share

of the Non-Retail DG eligible energy resources. The transferred RECs will not be available to Public Service to meet the RES.

Windsource® (R*C MTM) Sales

Currently, the Company is offering the Windsource® product pursuant to terms the Commission approved in Proceeding No. 13A-0836E. Those terms recognize that a Windsource® customer who purchases 100 percent of their energy from Windsource® is already receiving a percentage of their energy from resources that meet the RES requirements. In 2022-25, that percentage is 30 percent. Therefore, for those customers who purchase 100 percent of their energy through Windsource® in 2022-25, RECs equal to 30 percent of the energy sales to those customers are retired to meet the RES. This method of REC accounting is in accordance with Green-e Standards. Windsource® customers are notified in the Windsource® Summary of Prices, Terms and Conditions that a portion of Windsource® sales are retired for RES compliance. From Proceeding No. 16A-0139E, the Windsource® premium price is \$1.50 per 100 kilowatt-hour block, or 1.5¢/kWh. For the 2022-25 RE Plan, the Company is proposing to not only rebrand the program R*C MTM but also is proposing to reduce the price to \$1.00 per 100 kilowatt-hour block, or 1¢ kWh.

Applicable RES Rules

Commission Rule 3654 permits a QRU to count eligible energy generated on or after January 1, 2004 for compliance with the RES. The Rule also contains a carry forward provision that permits a REC to be retired for RES compliance in the year that the energy is generated or for five years following the year in which it was generated.

Commission Rule 3654(g) currently provides for a 25 percent “bonus” for each kilowatt-hour of eligible energy generated in Colorado. The sole exception is

Retail DG, where the in-state bonus only applies to purchase transactions entered into prior to August 11, 2010. Also, Rule 3654(h) provides for a 50 percent “bonus” for each kilowatt-hour of eligible energy generated from a Community-Based project, which means that Community-Based project generated RECs count as 1.5 RECs toward RES compliance. However, for each kilowatt-hour of eligible energy, a QRU may take advantage of only one of the compliance multipliers. The Company applies a 1.25 REC bonus to qualified resources. Senate Bill 13-252 enacted by the 2013 General restricts the resources eligible for the 1.25 bonus multiplier to all Non-Retail DG resources that were in-service prior to January 1, 2015.

Tracking of RECs

On December 30, 2010, Commission Rule 3659(j) became effective. The Rule requires that all renewable generators larger than 1 MW be registered and create REC certificates with the Western Renewable Energy Generation Information System (“WREGIS”). As of November 1, 2010, all on-site solar systems greater than 1 MW are tracked in WREGIS. Retirement of RECs for RES compliance occurs in WREGIS.

Retail DG systems smaller than 1 MW have been and will continue to be tracked in the Company’s REC tracking system. WREGIS currently requires revenue-quality meter data for all classes of generators, including customer-sited distributed generation; therefore, the on-site solar systems installed before March 23, 2011, of 10 kW or less, that are customer owned that do not have a production meter cannot currently be registered in WREGIS. The number of RECs generated from Retail DG solar systems of 10 kW or less that were acquired prior to March 23, 2011, are determined by the PVWATTS program in place at the time the system was placed under contract. The production meter requirement that solar systems of 10 kW or less continued until the Commission rejected that requirement in Proceeding No. 19A-0369E (Decision No. C20-2022-2025 Renewable Energy Plan

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0289). Based upon that Decision, the Company has transitioned away from production meters and back to PV Watts for systems 10 kW or less as of approximately June 8, 2020. The number of RECs generated from for all other Retail DG systems are calculated based on meter data.

Plan to Meet RES Requirements

A. Non-DG RECs

Table 4-2 provides the Company's projections for the Non-DG RECs it will have from 2021 through 2025. Public Service is able to meet its 2022 through 2025 Non-DG RES requirements with Non-DG RECs carried forward from prior years.

B. Wholesale DG RECs

Table 4-2 provides the Wholesale DG resources and associated RECs we forecast we will have to meet the 2022 – 2025 Wholesale DG RES requirements. Public Service is able to meet its 2022 – 2025 Wholesale DG RES requirements with Wholesale DG RECs carried forward from prior years.

C. Retail DG RECs

As shown on Table 4-2, based on its proposed acquisition plan, Public Service will have sufficient Retail DG RECs to meet the 2022 – 2025 RES requirements using RECs carried forward from prior years.

Short-Term Forecast of RES Compliance

Table 4-2, in Attachment JW1-2, projects Public Service's acquisition and retirement of RECs for compliance with the 2022-2025 RES requirements based on electric retail sales as shown in Table 4-1. All the RECs carried forward and acquired for purposes of meeting the RES, with the exception of the RECs transferred, sold, or retired for either Windsource® (R*C MTM) or R*C 1.0, are eligible to be counted for RES compliance.

Tables 4-2 summarizes Public Service's forecasted REC position for 2022 – 2025 RES compliance. Table 4-2 summarizes, by renewable resource type (including "bonus" RECs): the RECs carried forward from past years; the expected acquisition of RECs; the expected retirement of RECs for compliance; and the RECs that Public Service forecasts it will have available to carry forward to future years.

Long-Range Forecast of RES Sources

Table 4-4, in Attachment JW1-2, sets forth Public Service's long-range plan for the acquisition of RECs through 2037 based on the resources in the 2022-2025 RE Plan.

The plan is based upon the RECs the Company has acquired from existing eligible energy resources, including resources acquired through the Company's Solar*Rewards and Solar*Rewards Community programs. Table 4-4 shows only the RECs that the Company expects to acquire -- including the projected bonuses allowed by the RES Rules -- net of transfers each year. Table 4-4 does not show the impact on the REC balance of the carry forward provisions in the Commission's RES Rules.

Public Service will acquire Retail DG RECs through its Solar*Rewards programs and through the Company's Solar*Rewards Community standard offers and competitive bids (Column A).³ The RECs retired for Windsource® (R*C MTM) or R*C 1.0 are presented in Column B. Column C provides a place for the Company to reflect the RECs it forecasts it will sell, prior to the application of the 25 percent "bonus," that number is 0 in column C because at the time of this filing the Company does not have contracts to sell Retail DG RECs. HB 10-1001

³ Beginning with the 2022-25 RE Plan, the Company will offer a Solar*Rewards Community standard offer program whereby participating customers may retain their associated RECs.

removed the “bonus” application for Solar*Rewards for transactions entered into after August 11, 2010, while HB 10-1001 grandfathered Retail DG RECs prior to this date (Column D). We have a column for the incremental 25 percent bonus (above the in-state bonus) that is provided by Community-Based RECs in Column E, should future projects be considered Community-Based. Currently, our REC forecast does not include the multiplier of 1.5 for Solar*Rewards Community. The total Retail DG RECs that we project are set forth in Column F.

Columns G through L of Table 4-4 show the projections of the Wholesale DG RECs that the Company plans to acquire through 2037, the projections of REC retirements on behalf of Windsource® (R*C MTM) or R*C 1.0 customers and REC sales. In Table 4-4, all of the Wholesale DG RECs are assumed to qualify for the 1.25 bonus and none of the Wholesale DG RECs are assumed to qualify for the Community-Based bonus. Table 4-4 does not show the impact of the carry forward provision in the RES Rules.

Table 4-4, Columns M through R show the Non-DG RECs that Public Service estimates will be produced through 2037 and the projections for Windsource® (R*C MTM) retirements, R*C 1.0 retirements, and REC sales. The sources of these RECs are eligible energy resources owned by the Company and purchases from eligible energy resources. These projections do not account for the carry forward provision in the RES Rules.

Column A in Table 4-5, shows RECs from the 50 MW Titan solar facility that serves our R*C 1.0 program. The Company retires 100 percent of the RECs from the facility on behalf of the customers that subscribe to the program.

Section 5 – Acquisition Plans

This section describes the acquisition of renewable energy resources for all categories of renewable energy: Non-Distributed Generation, Wholesale DG and Retail DG. By definition, renewable resources greater than 30 MW are considered to be Non-Distributed Generation, while renewable resources 30 MW or less are considered to be either Wholesale DG (not customer-sited) or Retail DG (customer-sited, including CSGs).

Non-Distributed Generation

Public Service will have sufficient Non-DG RECs to meet the RES in 2022 through 2025 as a result of acquiring wind and solar generation under its ERPs since 2005, the company-owned Rush Creek and Cheyenne Ridge wind farms, and other wind generation contractually acquired by the Company through power purchase agreements. Public Service also projects it will have sufficient Non-DG RECs from existing Eligible Energy Resources for compliance through the full 10-year planning horizon under the current Commission RES rules.

This Plan does not address the acquisition of incremental Non-DG resources. The Company's retail rate impact results presented in Tables 7-2(a) through 7-2(c) include all Non-DG resources utilized to meet the Company's Non-DG REC compliance requirements. For the 2022 Compliance Year, the Company will have 4,071 MW (name plate) of Non-DG wind serving the Company system and 1,282 MW (name plate) capacity of Non-DG solar.

Wholesale Distributed Generation

The Company has several Wholesale DG resources serving the load needs of its customers. Rule 3652(II) provides the Commission definition of Wholesale DG, which includes renewable energy resources located in Colorado with a nameplate rating of 30 MW or less that do not qualify as Retail DG. The Wholesale DG resources, as listed in Table 4-2, include 67 MW of small hydro facilities, 55 MW

wind, 85 MW solar and 3 MW of biomass. As a result of renewable resources acquired under previous RFPs, as well as other generation previously owned or contractually acquired by the Company, Public Service will have sufficient Wholesale DG RECs to meet the RES for the 2022 through 2025 Compliance Years. In addition, Public Service projects it will have sufficient Wholesale DG RECs from existing Eligible Energy Resources for the full planning horizon under the 2022–25 RE Plan.

Retail Distributed Generation

A. Retail REC Acquisition

Tables 4-2 through 4-4, provided in Attachment JW1-2 of the 2022-25 RE Plan, set forth the projected totals for standard offer RECs and other REC purchases. RECs are presented by market segments: Solar*Rewards® Small (<25 kW), Solar*Rewards Medium (25.1-500.0 kW), Solar*Rewards Large (>500.0 kW), Rooftop Low-income Solar, and Solar*Rewards Community projects.¹ RECs listed as “REC Only” are for those customer-sited roof-top solar systems installed prior to 2006 that were located outside of Public Service’s service territory and used for early small-system RES compliance.

B. Goals for Retail DG

As of December 31, 2021, the Company has more than 500 MW of Colorado on-site solar installations connected to the system as reflected in Attachment JW1-2, Table 4-2. This includes Solar*Rewards and Net Energy Metering Only solar installations. The Solar*Rewards connections are expected to generate over 500,000 RECs annually while solar garden installations installed through 2020 are expected to produce over 186,000 RECs annually.

¹ Solar*Rewards Small will be transitioned to Solar*Rewards Battery Connect and includes system 25 kW and below, the Solar*Rewards Medium Program is being rebranded as Solar*Rewards Commercial & Industrial, and Solar*Rewards Large was increased from 500 kW to 1 MW through the enactment of S.B. 261

The Company will have sufficient Retail DG RECs for Compliance in 2022 through 2025. The acquisition of Retail DG RECs for 2021 through 2025 is set forth in Attachment JW1-2, Tables 4-2, 4-3, and 4-4. The Company's forecast of Retail Rate Impact and estimated RESA balance are presented in Attachment JW1-2, Table 7-2(c). The forecasts of RESA expenditures presented in these tables are based upon the forecasted capacity additions proposed in 2022-2025. The anticipated costs of our proposed programs are included in the On-Site Solar Costs (which include Solar*Rewards Community) set forth in Attachment JW1-2, Tables 7-2(a), (b) and (c).

On-Site Solar: Solar*Rewards and Net Energy Metering Only

Solar*Rewards continues to be chosen by many customers each year. However, Net Energy Metering Only interconnections saw an ongoing increase between the start of the 2017-19 RE Plan and today. In 2017, Net Energy Metering Only and Solar*Rewards interconnections acquired the same amount of capacity whereby 2020 Net Energy Metering Only interconnections more than doubled that of Solar*Rewards. This trend is expected to continue through 2021. The tables below expressed in MW_{DC} shows the consistent upward trend of annual installed capacity of Net Energy Metering Only interconnections compared to Solar*Rewards between 2017 and 2020, and cumulative capacity showing strong growth of solar installations since Solar*Rewards began in 2006 with an average of 60 MW of installed capacity per year since 2017.

Figure 2- Annual Solar*Rewards and Net Metering Installed Capacity

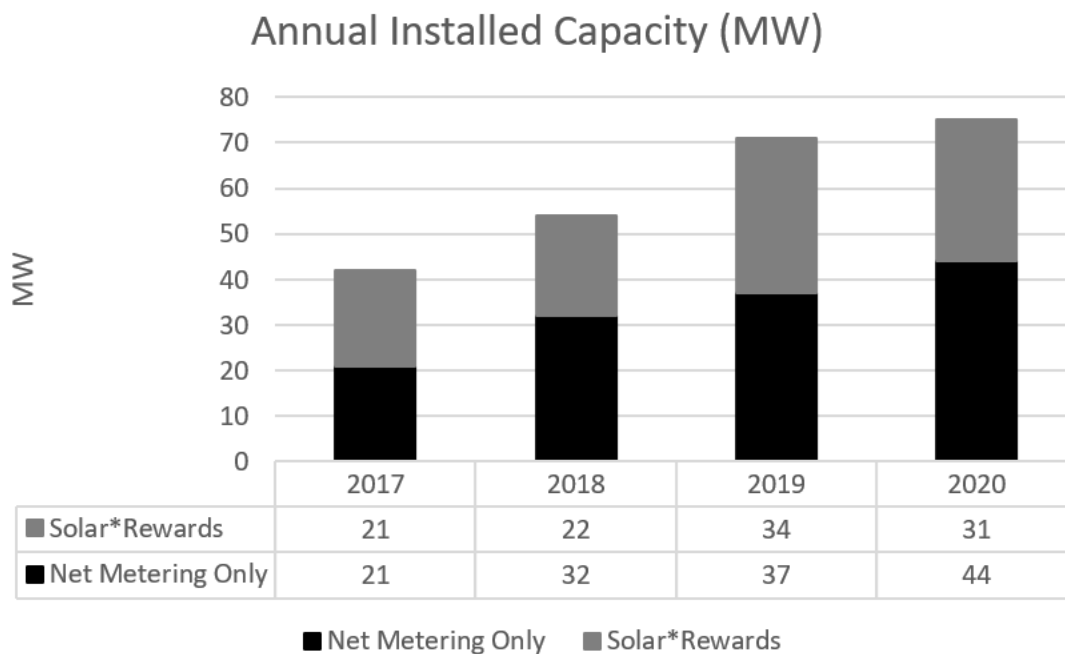
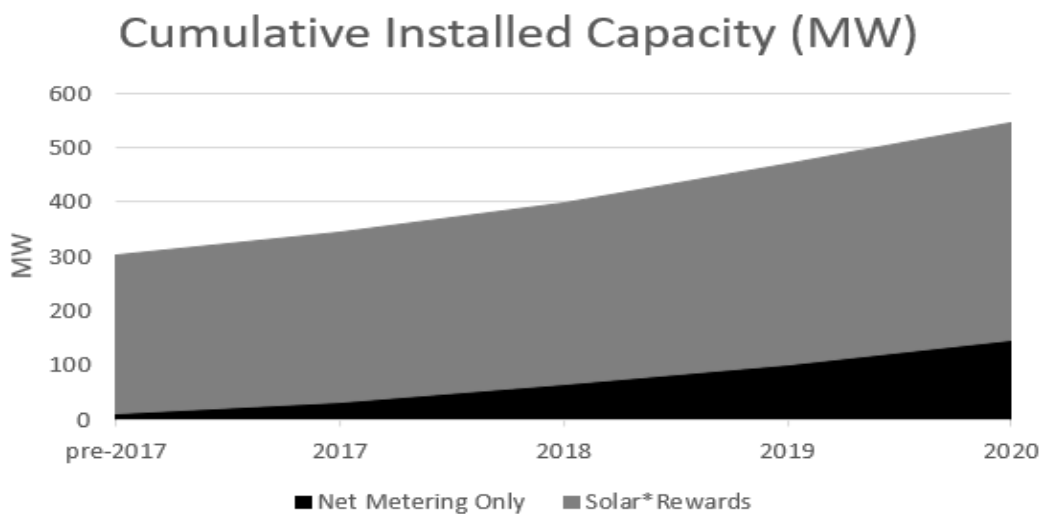


Figure 3 - Cumulative Solar*Rewards and Net Metering Installed Capacity



Solar*Rewards Acquisition and Pricing

A. Recommended RE Plan

The Company's Plan strives to facilitate solar and other DER options for our customers, while balancing the costs all customers pay and meeting the Company's Retail DG assumptions set forth in the 2021 Energy Resource Plan ("ERP"). In this 2022-25 RE Plan, Public Service proposes to continue manageable growth of the capacity available for the various customer choice programs it offers. Table 7 provides a summary view of the Solar*Rewards and Solar*Rewards Community program offerings with expanded offerings for Income Qualified ("IQ") and Disproportionally Impacted Communities and battery storage. A more detailed discussion of each offering presented in the table and sections below.

Table 7 – 2022-2025 Solar*Rewards Acquisition Plan (MW_{ac})

	Offering	2020-21 RE Plan Annual Avg*	2022	2023	2024	2024	Total 2022-25 RE Plan
On-Site	Net-Metering Only (Uncapped Estimate)	26	47	47	47	47	188
	Solar*Rewards Battery Connect (Residential/Sm Commercial)	0	4.3	4.3	4.3	4.3	17.2
	Solar*Rewards Income Qualified On-Site Solar (CEO)	0.28	0.25	0.25	0.25	0.25	1
	Solar*Rewards Commercial/Industrial (Formerly Medium)	19	15	15	15	15	60
	Solar*Rewards Income Qualified/ Disproportionately Impacted Communities	N/A	Solar*Rewards Commercial/Industrial Incentive Adder Without Additional Capacity				
	Solar*Rewards Large RFP	16	15	15	15	15	60
Off-Site	Off-Site Solar	N/A	41	41	0	0	82
Community Solar	Solar*Rewards Community RFP Max.	60	35	35	35	35	140
	Solar*Rewards Community Standard Offer	8	30	30	30	30	120
	Solar*Rewards Community Company-Offered Income Qualified	3	10	10	10	10	40
Total		132.28	197.55	197.55	156.55	156.55	708.2

As discussed earlier, without the incremental additions proposed in this Plan the Company will exceed its compliance requirement for Retail DG in Compliance Years 2022 through 2025. These offerings are consistent with the requirements set forth in *2022-2025 Renewable Energy Plan*

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Colorado law to develop and utilize renewable energy resources to the maximum practicable extent.

The Company proposes to adjust the structure, increase Standard Offer availability, and alter incentives and capacities for on-site Retail DG as set forth in Table 8 below. The Company also introduces a solar plus storage offering, and an incentive adder for Commercial and Industrial installations up to 1 MW in size that are dedicated to IQ or Disproportionately Impacted Community benefits.

Table 8 – Summary of On-Site Solar Offerings

Offering	Incentives (20-Year Solar PBI Unless Noted)	Solar Capacity (MW _{AC})				
		2022	2023	2024	2024	Total 2022-25 RE Plan
Net-Metering Only (Uncapped Estimate)	N/A	47	47	47	47	188
Solar*Rewards Battery Connect (Residential/Sm Commercial)	\$125/kW of storage up-front \$1250 residential max/ customer \$2500 sm commercial max/ customer 4 MW of storage annual max.	4.3	4.3	4.3	4.3	17.2
	\$0.005/kWh solar production					
	\$100 annual participation bonus					
Solar*Rewards Income Qualified On-Site Solar (CEO)	≤7 kW \$0.034 PBI \$2/Watt up-front	0.25	0.25	0.25	0.25	1
Solar*Rewards Commercial/Industrial (Formerly Medium)	Option A (50-250 kW) \$0.04/kWh	15	15	15	15	60
	Option B (250-500 kW) \$0.0375/kWh					
	Option C (500 kW - 1 MW) \$0.035/kWh					
Solar*Rewards Income Qualified/ Disproportionately Impacted Communities	\$0.015/W up-front \$700,000 annual max.					
Solar*Rewards Large RFP	> 1 MW As bid with PBI max of \$0.03/kWh	15	15	15	15	60
Total On-Site Solar*Rewards		34.55	34.55	34.55	34.55	138.20
Total On-Site Retail DG		81.6	81.6	81.6	81.6	326.20

The Solar*Rewards Large offering will continue to be administered through a competitive RFP solicitation to be issued after approval of the Plan. The Company will issue the RFP in each of the Plan years to acquire up to the proposed levels of

annual capacity. Like other RFPs the Company has offered, criteria include (but are not limited to) price and developer performance in scoring the respondents' bids. Under this Plan, the Company will reserve the right to employ a price ceiling of \$0.03/kWh on Solar*Rewards Large project awards and raise the minimum size to greater than 1 MW.

As discussed below, the Company's recommended Plan strikes a balance between the needs of participants, the solar industry, and non-participants.

B. Solar*Rewards Program Changes

Customer demand, technology costs, state policy, and other attributes in the on-site solar market continue to evolve. In an effort to adapt to anticipated market changes based on recent trends and the Company's capacity targets for Retail DG, along with mindfulness of the cost impacts of various options, notable changes in the 2022-25 RE Plan include:

- Transitioning Solar*Rewards capacity program targets from DC to AC. This effectively increases installed capacity under the Plan by 20 percent or more compared to the DC program targets of previous plans and aligns calculation metrics across the Plan.
- Increasing solar system sizing allowance from 120 percent to 200 percent of the aggregate reasonably expected average annual consumption of electricity at all properties owned or leased by the Customer within the Company's service territory, as discussed further in the Direct Testimony of Company witness Ms. Kerry Klemm.
- Transitioning stand-alone Solar*Rewards incentives for residential and small commercial customers, as determined by rate class to a solar plus storage program.
- Introducing a multi-incentive solar and storage offering for residential or small commercial customers as discussed further below.
- Transitioning the Solar*Rewards Medium offering to a Commercial and Industrial Standard Offer that varies incentives by system size and increases the eligible size to 1 MW. The Company will also introduce a \$700,000 annual

budget for an IQ or Disproportionately Impacted Community adder to be applied toward qualifying Solar*Rewards Commercial and Industrial projects.

- Slightly reducing the Solar*Rewards Large RFP offering capacity to accommodate the newly legislated off-site solar program in the Company's allocation of Retail DG installation targets set forth in its 2021 ERP & CEP. The Company will also introduce a bid ceiling of \$0.03/kWh for this offering.
- Continuing to offer the Low-income On-Site Solar program that was started in 2017 and is administered exclusively by the Colorado Energy Office, but under the new name of Residential IQ On-Site Solar. The Company will offer approximately the same annual capacity when measured in MW_{AC} and a roughly \$513,000 annual first-year incentive budget but increase the per-project size limit to 7 kW.
- Updating the deposit amounts and forfeiture structure, and completion timelines across Solar*Rewards and Solar*Rewards Community offerings. This encourages project completion in a reasonable amount of time, while providing options for extenuating circumstances. It also aligns deposit risk timing with points of project certainty for larger projects that have greater potential for interconnection risk or other project-side development barriers.
- Introducing an off-site solar program to allow customers to virtually net meter solar from a location other than the location of the customer meter and account.
- Creating special incentives, program considerations and spending targets for IQ or Disproportionately Impacted Community beneficiaries.

Program Details

A. Solar*Rewards Battery Connect

The Company proposes to transition its Solar*Rewards Small offering to a Solar*Rewards Battery Connect offering for residential or small commercial customers. The offering builds upon the Company's existing DSM Battery Connect Pilot that is expected to be completed in September 2022. The offering provides multiple incentives for installing solar plus storage systems including an up-front storage incentive per participating customer premise (based upon kW of installed battery capacity), a solar production-based incentive ("PBI") for a term of 20-years, and an annual incentive for allowing the Company to dispatch the battery. The solar

and battery offering will support approximately 340 battery systems and 4 MW_{AC} of storage, paired with approximately 4.3 MW_{AC} of solar capacity on an annual basis.

All participants in the Solar*Rewards Battery Connect offering will enter into a contract with the Company to generate solar energy for a term of 20 years with a PBI payment stream over that 20-year period paid based on actual production or estimates from NREL PV Watts Calculator for systems 10kW_{DC} and smaller that are not required to have a production meter. If the customer fails to participate in the battery program for at least five years, Public Service can terminate the agreement, which ends the PBIs (*i.e.*, REC purchases and incentives).

B. Solar*Rewards Commercial and Industrial (Systems up to 1 MW)

The Company proposes transitioning the Solar*Rewards Medium Standard Offer to a Solar*Rewards Commercial and Industrial (or “C&I”) offering for demand-billed customers with some significant adjustments compared to the Medium offering in the 2020-21 RE Plan. The Company proposes reducing the capacity from 24 MW_{DC} annually to 15 MW_{AC} annually to accommodate more than 80 MW in the new Off-Site solar offering over the Plan period. The maximum project size for an individual system will increase from 500 kW_{DC} currently to 1 MW_{AC} as a result of the recent legislation and the Company’s universal change to measuring systems and capacities by AC rating instead of DC rating. The Company is also proposing tiered incentive levels based on project size and a new IQ or Disproportionately Impacted Community incentive adder. This results in 60 MW of capacity available over a four-year plan and an annual budget of \$700,000 for an up-front IQ or Disproportionately Impacted Community adder funded through the RESA.

For all participants in the Commercial and Industrial offering, the end-use customer will enter into a contract with the Company to generate solar energy for a term of 20 years with a PBI payment stream over that 20-year period paid based on actual

production or estimates from NREL PV Watts Calculator for system 10 kW_{DC} and smaller that are not required to have a production meter.

C. Solar*Rewards Large (RFP) (Systems greater than 1 MW)

The Solar*Rewards Large proposal continues as an annual competitive solicitation each year of the four-year plan. The offering allocates 15 MW_{AC} of capacity per year for the program for projects larger than 1 MW_{AC}. As a result of the overall maximum project size increase of the Standard Offer program to 1 MW_{AC}, the Company has removed the small carveout for systems greater than 500 kW up to 1.5 MW from the Solar*Rewards Large option. And a proposed pricing cap that may not exceed \$0.03/kWh.

For all bid winners in the Solar*Rewards Large offering, the end-use customer will enter a contract with the Company to generate solar energy for a term of 20 years with a PBI payment stream over that 20-year period paid based on actual production. The incentive levels will be set by customer participants through an RFP each year and may not exceed the bid cap. Additional details regarding the Solar*Rewards Large RFP are discussed in further detail in Ms. Klemm's Direct Testimony.

Operational changes to the Solar*Rewards Large RFP include a revised deposit requirement, deposit forfeiture timing, and project timeline as discussed in further detail in Ms. Klemm's Direct Testimony. After a complete review of the RFP is conducted, projects will be awarded to the bid winners and are subject to substantial completion within 18 months following an executed and funded Interconnection Agreement, with an automatic 6-month extension with forfeiture of the deposit to the RESA account in daily increments, not to exceed the deposit. The requester must meet the minimum bid eligibility requirements to be considered for the RFP. Proposals that do not comply with the minimum requirements of the RFP will be deemed ineligible and will not be considered for further evaluation. A complete

proposal will include the following three components: (1) an executive summary, (2) complete set of applicable forms, and (3) narrative topics discussion. Evaluation screening and scoring will also include an assessment of cost factors and potential technical challenges.

Once a bidder is notified of an accepted bid, they will have 60 calendar days to submit: (1) a letter from the proposed retailer indicating their agreement to go forward with the project citing specific address and system size; (2) a deposit of \$50 per kW; (3) a non-refundable interconnection study fee; and (4) engineering documents. Once a bidder has been notified that a bid has been accepted, the project location, interconnection premise, and retail customer cannot be changed. If the post-bid requirements are not fulfilled, the bid will be considered abandoned.

D. Solar*Rewards Residential IQ On-Site Solar

The Solar*Rewards Residential IQ On-Site Solar offering (renamed from Low-Income Rooftop Solar) will continue to be coordinated by the CEO, who will install rooftop solar PV on qualified low-income-occupied dwellings located within the Company's service area. The program annual capacity size offering is adjusted to 0.25 MW_{AC} in each year of the Plan but allowing an increase of size per system to 7 kW. The solar PBI REC purchase of \$0.034/kWh and an upfront incentive of \$2.00/Watt paid to CEO continues. CEO may leverage additional funds from organizations other than Public Service to cover the cost of the solar installations. The total of all leveraged funds shall not exceed the actual installed cost for each system.

E. Solar*Rewards Capacity Application & Reservation Parameters

The Company will continue to proactively notify developers and publicly post when the offerings will open, the amount of capacity that will be made available, and when all capacity has been allocated. This system enables customers to have the opportunity to participate in Solar*Rewards throughout the year and allows the

option to stay open all year. Any unsubscribed capacity, including from cancelled projects, will carry forward within the calendar year and into the next year of the program but not over RE Plans.

The online interconnection application portal is designed to collect accurate, viable applications, and comply with program processes and interconnection rules to assist the Company and other interested parties in maintaining an accurate queue of projects.

There are several changes the Company is proposing to the deposits, deposit forfeiture timing, and construction deadlines and discussed in detail in the Direct Testimony of Ms. Kerry Klemm and shown in Table 9 below. Namely, a universal deposit amount of \$50 per kW is proposed for all solar offerings in this Plan providing a scalable approach to project size differences. Projects are expected to be completed 18 months after receipt of an application or the execution of an interconnection agreement ("IA") (each with deposit payment), as applicable.

Table 9 - Deposits, Deposit Forfeiture Timing and Construction Deadlines

	Offsite	S*RC	S*R Large RFP	S*R C&I	S*R Battery Connect
Deposit	\$50 per kW _{AC}				\$50 per kW _{AC} of storage
Refundability	100% if completed in allowed timeframe. 75% if withdrawn prior to IA execution unless interconnection costs exceed \$150/kW			100% if completed in allowed timeframe	
Substantial Completion Due Date	18-months from IA execution and payment			18-months from application deposit received date	
1 st Extension, Due Date, and Deposit Forfeiture	6-month extension granted automatically; Deposit forfeited in daily increments over the first 180 days after 18-months (approx. \$0.28 per day, per kW)			Full deposit forfeited one day after 18 months when 6-month extension is automatically applied	
Final Project Due Date	24 Months Project subject to cancellation			24 Months Project subject to cancellation	

For the Solar*Rewards Battery Connect and Commercial and Industrial offerings, changes are allowed to the systems nameplate capacity for a total variance of +/- 10 percent up until the contracts have been signed by any party, so long as any additional capacity is within the maximums allowed by statute and this option. Any system that varies beyond the 10 percent level after initial submission may be canceled and required to reapply. Deposits and fees will not be transferable and new fees will need to be submitted. After award and deposit completion, but before contracts have been signed by any party, projects within the Solar*Rewards Large offering are allowed to reduce project size beyond 10 percent without risk of project cancellation.

For the Solar*Rewards Battery Connect, Commercial and Industrial, and Large offerings, plus IQ Residential On-Site Solar offering, the Company will set two meters, a net energy meter and a dedicated production meter for systems greater than 10kW_{DC}. The net energy meter will be used to record the amount of energy a customer will be charged for during the billing period. The production meter will be owned and maintained by the Company in order to accurately meter and credit customers for any generated RECs, while also providing information for distribution planning. The system owner of record will be assessed a monthly production metering fee based on the average embedded costs. The fee will be assessed based on the customer rate schedule and will be deducted from the monthly REC payment.

All net-metered customers, including Solar*Rewards participants, have an option when it comes to excess energy credits at the end of the year. Customers have a one-time option to choose to roll excess monetized kWh credits over from year-to-year until the customer discontinues electric service, at which time the solar bank is “dissolved.” The other option is to have excess kWh credits “cashed-out” at the end of each calendar year, paid out at the Average Hourly Incremental Cost of electricity

(“AHIC”). Upon discontinuing electric service, the customer is paid for any remaining excess energy for those who choose to be “cashed-out.”

F. Tracking Customer Participation in Solar*Rewards

Public Service uses an online interconnection application portal for administering all distributed energy generation interconnections to Xcel Energy’s grid. Enhancements are underway to improve the online portal to enable efficiencies in program administration as well as alignment with current interconnection rules and requirements. The online portal offers a public interface to the dataset that includes all on-site customer and system details needed to manage the applications.

G. Solar*Rewards Contracts

Rule 3657 directs the Company to file with the Commission:

- Proposed RFP including any standard contracts the investor owned QRU plans to use as part of a competitive acquisition process; and,
- Application forms, standard agreements, and general procedures for the investor owned QRU’s SRO programs under Rule 3658 and for the interconnection of renewable energy resources pursuant to rule 3667 (now Rules 3850-3859).

Consistent with past practice, the Company has included these agreements in Volume 3 of its 2022-25 RE Plan (Attachment JW1-3). The three types of agreements contained in Volume 3 that Public Service filed in its 2020-21 RE Plan include Public Service’s:

- Solar*Rewards REC Purchase Contract (“REC Agreement”), including the low-income version;
- Solar*Rewards Community Producer Agreement (“Producer Agreement”); and,
- Distributed Energy Resource Interconnection Agreement (“Interconnection Agreement”).

The following list are the new agreements contained in Volume 3:

- Renewable*Connect 2.0 Subscriber Agreement;
- Renewable*Connect Community Program Agreement;
- Solar*Rewards Battery*Connect Agreement;
- Solar*Rewards Large RFP;
- Solar*Rewards Community RFP; and
- Host Acknowledgement;

These agreements are discussed in greater detail within the Direct Testimony of Ms. Kerry Klemm, with the exception of the Renewable*Connect 2.0 Subscriber Agreement and the Renewable*Connect Community Program Agreement, which are discussed in the Direct Testimony of Mr. R. Neil Cowan.

H. Off-Site Solar

The Off-Site Solar program was enacted under SB 21-261 to allow individual customers to locate solar facilities at one or more premise(s) located within Public Service's service territory and provide virtual net metering credits to their other premise(s) under the same account that are non-contiguous properties. As described by Company witness Mr. Jack Ihle, the capacity available for this offering will be approximately 41 MW_{AC} annually in 2022 and 2023, with any unallocated or cancelled capacity carrying forward into the remaining years of this Plan.² SB 21-261 only specifies capacity levels for off-site solar offerings for 2022 and 2023.³ Further details of this offering are discussed in Ms. Klemm's Direct Testimony.

² The capacity available is determined statutorily as one quarter of one percent of retail sales from the preceding year. Therefore, slight variations may be possible in 2022 based upon the Company's actual retail sales for 2021. See § 40-2-124(1)(e)(I)(E), C.R.S.

³ See § 40-2-124(1)(e)(I)(E), C.R.S.

Community Solar Gardens

A. Solar*Rewards Community Program

Solar*Rewards Community is a program that enables customers who cannot, or do not wish to participate, in the Solar*Rewards program an opportunity to participate in a solar option. The program, which launched in August 2012, serves customers subscribe to portions of a solar garden installed in Public Service's Colorado service territory. Subscribing customers receive credits on their bill as payment for their portion of energy produced at the CSG, avoiding the need to install solar on their premises. This program provides Public Service customers with more solar choices. The Solar Energy Industry Association's Q3 2021 *US Solar Market Insight* Report notes that Colorado is fourth in capacity installed in the first half of 2021.

As of October 1, 2021, 104.9 MW_{AC} of CSG projects are operating in the Solar*Rewards Community program, including Company owned CSGs in Colorado. That was almost double the operational capacity from the end of 2018. This growth is illustrated in Table 10 below, along with the RE Plan capacity from pre-2020 through 2021. We anticipate that in Q4 2021, up to 22.3 MW of CSGs will be added to the operational capacity. The cumulative active installations through Q3 2021 includes 7.9 MW from the Standard Offer program segment for projects between 10.0 kW and 500.0 kW, 92.4 MW from the General RFP segment for projects between 500.1 kW and 2.0 MW, and 4.5 MW for the Company Owned Low-Income Gardens. The 104.9 MW consists of 91 solar gardens owned by several different developers and 3 solar gardens owned by Xcel Energy located throughout Public Service's territory.

Table 10 – Solar*Rewards Community Awards & Operations Summary

Capacity by Vintage (MW_{AC}) & Status	Pre-2016	2016	2017	2018	2019	2020	Total	% of Total
Cancelled/Withdrawn	0.0	9.1	7.2	12.0	0.0	0.0	28.3	11%
Not Sited	0.0	0.0	0.0	0.0	1.5	18.2	19.7	8%
In study/ review	0.0	0.0	0.0	3.1	0.0	28.7	31.8	12%
In design for an IA or IA issued	0.0	0.0	0.0	0.0	3.4	37.5	40.9	16%
Interconnection Agreement Signed	0.0	2.0	3.0	5.8	20.3	0.5	31.5	12%
Active & Interconnected	37.7	34.8	14.2	7.7	10.5	0.0	104.9	41%
Total	37.7	45.9	24.4	28.6	35.6	85.0	257.1	
2019 Includes 4.5 MW of Company-Owned CSGs from the 2017-19 RE Plan								
Prior to 2020 capacity was issued in MW _{DC} . This table is converted to MW _{AC} for consistency and clarity. Data is current through 10.11.2021.								

B. Solar*Rewards Community Acquisition

For the 2022-25 RE Plan years, the Solar*Rewards Community program will offer to purchase the energy and RECs from qualified CSGs annually as shown in the following amounts in Table 11:

Table 11 – Solar Rewards Community Planned MW_{AC} Acquisitions & Incentives

	Competitive Solicitation (RFP)	Standard Offer	Company CSGs	Total
Annual Capacity Offered	35 MWAC	30 MW	10 MW	75 MW
Per CSG Size Maximum	5 MW prior to 7/1/23 & 10 MW after 7/1/23	2 MW	5 MW prior to 7/1/23 & 10 MW after 7/1/23	
Subscriber Requirements	50% RASCIQ	50% RASCIQ per garden 75% IQ / Disproportionately Impacted Community targeted capacity	100% Residential direct-billed IQ with ≥30% net subscriber savings plus planned labor agreement	
Incentives	Competitively bid including any applicable REC adjustment	Conditional incentives (can be combined) +\$0.01/kWh small system ≤ 1 MWAC + \$0.035/kWh IQ- Disproportionately Impacted Community with 30%+ net savings + \$0.015 direct-billed residential + \$0.005 community redevelopment \$0.01 REC adjustment		
RASCIQ = Residential / Agriculture / Small Commercial / Income Qualified Net savings = net subscriber savings after subscription payment for the applicable billing period REC adjustment is a subtraction from the applicable incentive for CSGs where the subscriber bill credits are retired on behalf of the subscriber, thus enabling the subscriber to make REC claims for marketing or tracking toward their own sustainability goals.				

These capacities have been developed by analyzing the Company's need for clean energy resources, and through its ERP the substantial amount of retail DER, including CSGs, assumed to contribute to meeting ERP resource needs, and considering the ability for developers to complete the awarded capacities within the program's timelines. They also take into account the Plan's need to meet new subscriber and CSG requirements for IQ and Disproportionately Impacted Community set forth in SB21-272 and CSG Rules regarding subscriber commitments as noted above. This Plan takes into account natural attrition, which historically amounts to less than 20 percent of allocated capacity, to attempt to meet the need to add DER capacity by 2030 as indicated in the ERP.

C. Changes to Solar*Rewards Community

Since the 2020-21 RE Plan, the Company has conducted stakeholder and sub-group sessions regarding the RFP solicitation and award process. The Company will continue these discussions as needed to continue to update and improve the RFP process.

Notable changes from the 2020-21 RE Plan include:

- The 2020-21 RE Plan increased the Standard Offer maximum project size from 100 kW_{DC} to 500 kW_{DC} and expanded the Standard Offer Capacity from 1 MW_{DC} to 10 MW_{DC} annually. This Plan further expands Standard Offer maximum sizes by more than doubling the eligible per-project maximum size from 1 MW_{DC} to 2 MW_{AC} and tripling the annual Standard Offer capacity, offering in total 120 MW_{AC} of Standard Offer CSG capacity over the course of this Plan.
- This RE Plan proposes increasing Company-offered program capacity from 4 MW_{AC} to 10 MW_{AC} per year, with the potential for expanded low-income customer enrollment partnerships, incentive adjustments equal to other Standard Offer CSGs, a 100 percent low-income direct-billed residential subscriber commitment with at least 30 percent subscriber net (after subscription) savings, and a collaborative labor partnership under a Project Labor Agreement (“PLA”).
- The 2022-25 RE Plan proposes requiring all CSGs to meet subscriber commitments of at least 50 percent of capacity subscribed to residential, agricultural, small commercial or IQ customers.
- This RE Plan proposes requiring all CSGs to submit subscriber information via its online subscriber portal that must also denote for each subscriber which of the following categories such subscriber falls within: (i) residential, (ii) small commercial, (iii) agricultural, (iv) eligible low-income CSG subscribers, (v) eligible low-income service providers, or (vi) none of the foregoing. If any subscriber list information does not in aggregate comply with the CSG’s commitments set forth in the Producer Agreement, Public Service reserves the right to treat the CSG energy as unsubscribed, as explained in the Direct Testimony of Ms. Kerry Klemm.

- The 2022-25 RE Plan is targeting 75 percent of Standard Offer CSG capacity to meet requirements to qualify for IQ/ Disproportionately Impacted Community status.
- This RE Plan is setting a baseline Standard Offer incentives of \$0/kWh, and allow incentive adjustment factors based on criteria set forth in the Direct Testimony of Ms. Kerry Klemm and reflected in Table 11 above.
- The 2022-25 RE Plan is changing the deposit structure, completion timeline and forfeiture of deposits to align with other Solar*Rewards offerings as shown in Table 11 above.
- This Plan is aligning CSG RFP bid evaluation fees with those used in other parts of the Company as reflected in Table 12 below:

Table 12 – Bid Fees

MW Range	Bid Fee
>0.1 to 1 MW	\$375
>1 to 2 MW	\$750
>2 to 5 MW	\$1,500
>5 to 10 MW	\$3,000

- The 2022-25 Plan is removing site-move options for all types of CSGs after competitive solicitation bids or program applications are received.
- This Plan is instituting a wait list for all CSG awards that continues until 90 days prior to the release of the next CSG awards of that type.
- For solicited bids, this Plan provides Public Service the right to award less than the maximum capacity identified or not proceed with waitlist projects if it cannot economically do so.
- The 2022-25 RE Plan is initiating a process to allow donation of excess subscriber bill credits.
- This Plan is initiating a REC adjustment equal to the amount of the REC charge for the Company's Renewable*Connect offering when the CSG elects to unbundle the RECs from the CSG energy and not retire RECs in Public Service's name, as set forth in the Direct Testimony of Ms. Kerry Klemm.

- The 2022-25 Plan is changing the calculation of the maximum size per CSG to AC instead of the prior DC to comport with the updated CSG rules.
- This Plan introduces changes to the Solar*Rewards Community General RFP solicitation and producer agreement to align with the program changes and operational business practices.

D. Solar*Rewards Community – Standard Offer

The Company proposes to significantly increase the capacity and project size for the Standard Offer portion of the Solar*Rewards Community program as shown in Table 5 above. The Company will provide at least 30-day notice prior to the opening, and applications will be time stamped within the online application portal.

E. Standard Offer Project Selection

The Company will utilize time-stamped application data and award capacity on a first applied, first awarded basis for the Standard (25% of capacity) and IQ/Disproportionately Impacted Community (75% of capacity) categories. The Company will close the Standard Offer option by category to new applications once at least 100% of the year's available capacity is represented on a waitlist for that category. Projects must be 100% committed to meeting IQ/Disproportionately Impacted Community qualifications to be considered in this category.

The waitlist will be maintained and utilized if any awarded CSG withdraws its application or is cancelled due to failure to timely meet project deadlines up until 90 days prior to the next Standard Offer release. The Company will publish an anonymized waitlist for each Standard Offer category monthly while the waitlist is open. All waitlists will be cleared 90 days prior to the opening of the next Standard Offer cycle.

F. Solar*Rewards Community - General RFP Competitive Solicitation

The Company will competitively solicit 35 MW_{AC} of installations annually. The information for the competitive solicitation will be available on the Company website⁴ after the 2022-25 RE Plan is approved by the Commission and the RFP will open in 2022 pending approval of the Plan. The RFP will require that at least 50 percent of each CSG's capacity be subscribed to residential, agricultural, small commercial, or IQ customers as defined in the Commission's Rules. The Company reserves the right to issue an incremental RFP as needed to comply with Company needs or compliance with Commission rules or legislative requirements.

G. General RFP Competitive Solicitation

The Company evaluates RFPs based on the criteria laid out in the bid proposals. While prior to 2020, historically bids were awarded primarily on an economic basis, sometimes developer experience, subscriber diversity, low-income commitments, location near an under-served area, unique commitments and other criteria have led to project awards that were not solely based on economics, particularly when presented with economically similar bids. When bids are awarded based on non-economic factors, bidders have been held to those factors for the life of the CSG as a condition of the award and resulting contracts.

In the 2020-21 RE Plan, the Company expanded its bid evaluation criteria approved as part of the Plan and agreed that if there was global agreement on any modification to the criteria by the intervenors and stakeholders (including Commission Trial Staff), the Company reserved the right to present the revised bid criteria via a Motion before the Commission for approval. This occurred prior to the release of the 2020 and 2021 RFPs.

⁴ Xcel Energy Solar*Rewards Community Developer Resources, *available at* https://www.xcelenergy.com/working_with_us/renewable_developer_resource_center/solar_rewards_community_developer_resources (last visited June 25, 2019).

The Evaluation Criteria presented in the table represent a simplified model of scoring criteria compared to what was used in the 2021 RFP. In the 2022-25 RE Plan with a larger Standard Offer program with increased size options and incentive adjustments available to meet varied project needs, the Company hopes to achieve lower-cost large-scale resources that reflect scale and market efficiencies using more straightforward RFP scoring criteria that emphasize interconnection (via no site moves and a high deposit amount) and economics. Subscriber commitments will be required of all CSGs and the Company intends to achieve additional subscriber and spending commitments using the Standard Offer options. The Company reserves the right to collaborate with stakeholders and propose changing these criteria in the event the Commission issues new rules that impact the Solar*Rewards Community program, additional compliance needs are identified, or in the event of other, unforeseen conditions. If the Company determines changes to the methodology are warranted for any of these reasons, the Company commits to making an informational filing that contains the modified criteria at least 15 days prior to releasing the RFP.

The Company will continue to provide Commission Trial Staff the opportunity to review bid selections prior to award notification.

H. Xcel Energy IQ CSGs and Collaborative Labor Partnership

The Company currently has 6 MW of Xcel Energy IQ CSGs online with about 900 active residential subscribers, and another 8 MW in development with a planned Q4 2022 in-service date. The Company proposes to extend its this CSG offering in several ways.

First, the Company proposes to exclusively offer capacity from these CSGs to 100 percent low-income direct-billed residential customers. The Company will partner

with Energy Outreach Colorado and will solicit additional provider(s) to recruit, validate and manage customer subscriptions.

Second, Public Service will continue to develop this capacity using a collaborative labor partnership under a PLA, which the Company sees as a positive opportunity for Colorado trade laborers to gain valuable experience in constructing solar facilities. Finally, Public Service proposes to expand annual capacity by 10 MW per year in this Plan, to allow for a total capacity expansion of 40 MW of Company-owned IQ CSGs. The Company anticipates this will impact an estimated 1,500 additional subscribers per year of this Plan, or 6,000 subscribers receiving an estimated \$170 in net bill savings each year.

I. Solar*Rewards Community Production Credit

Customers that have subscribed to a Solar*Rewards Community CSG will receive a Solar*Rewards Community production credit on their monthly bill pursuant to the Company's filed tariff. Generally, the credit is based on the total monthly solar energy generated by the solar garden and the customer's percentage share in the garden. This credit, expressed in dollars, is calculated by multiplying the customer's portion of the solar garden production by the Company's average retail rate for the class in which the customer takes retail service from the Company adjusted for certain costs pursuant to statute.

The Company's Solar*Rewards Community Service ("SRCS") tariff specifies how to calculate the bill credits for each customer class. The SRCS was updated to a Total Aggregate Fixed Retail Rate ("TAFRR") in 2016, following a unanimous settlement and decision from Proceeding No. 13A-0836E.⁵ The solar credits and the TAFRR are expressed as a cent per kilowatt-hour (kWh) rate. The change simplifies the credit calculation and allows all customers within a rate class to be given the same

⁵ Proceeding No. 13A-0836E, Decision No. C16-0747 (mailed Aug. 12, 2016)

solar credits and avoids any unintentional influence of marketing to only a certain type of customer.

J. Solar*Rewards Community Administration

The system owner will be required to provide the necessary application documentation and meet the requirements stated in the Commission's rules before the application will be reviewed for approval. Due to the competitive nature of the offering and to ensure fairness to all applicants, an application may be cancelled by the Company from the application process for lack of action after certain points in the process.

K. Tracking Customer Participation

Public Service will use an online application and tracking system and a REC operations payment system for all RECs and unsubscribed energy production. This system will also house a subscriber management system that will be accessible by CSG owners and used for inputting subscriber information, system allocation/subscriber and for managing subscriber additions/deletions to their system. Public Service will use the same database as the reference list for both customer validation of new additions and for monthly bill crediting. The online system is the public interface to the dataset that includes both Solar*Rewards Community information and the application/subscriber management system for Solar*Rewards Community owners.

L. Reservation Deposits

A reservation deposit and escrow fee is required for each system application. For both the Standard Offer and Competitive Solicitation the reservation deposit is \$50 per kW and the escrow fee is an additional \$100 per kW. The escrow fee is always refundable, regardless of project completion or timeline.

Section 6 – Other Choice Products

Windsource® (Proposed to be rebranded as R*C-MTM)

The Windsource® program is one of the largest utility green pricing programs in the United States. The program began in 1997 and remains an important part of Public Service's renewable portfolio and enables customers to proactively purchase renewable energy to meet their personal and business needs. The existing Windsource program allows customers to purchase RECs from Public Service's generation portfolio, so that participating customers can offset the environmental impacts of their energy usage. As of the end of 2020 there were 67,712 residential and commercial/industrial Colorado customers purchased over 241,000 MWh of Windsource and contributed \$3.6 million to the RESA account. The program remains a vital part of Public Service's renewable portfolio, enabling customers an easy, low-risk way to purchase renewable energy to offset their energy use and meet their sustainability goals.

A. Background

The Windsource program was originally established as an experimental, voluntary, value-priced energy program in 1997. Designed to stimulate wind development in Colorado, the program was responsible for development of the first commercial wind farm in Colorado, the 30 MW Ponnequin wind farm. Demand for the program grew significantly and Windsource® became one of the leading voluntary green power programs in the country.

In 2009 the Commission approved a Windsource redesign, where premiums from Windsource sales are credited to the RESA thereby increasing dollars available to acquire renewable resources. Public Service retires RECs in proportion to the amount of Windsource sales above what is inherent in those sales that are retired for RES compliance.

The Company's Windsource program was structured to accomplish the following objectives:

- Meet the needs of customers who wish to purchase renewable energy in excess of the RES;
- Offer renewable energy at reasonable, competitive rates under flexible terms; and,
- Ensure that non-participants are not economically impacted by the Windsource® program.

B. Program Changes

While Windsource remains popular with residential and commercial customers as a voluntary renewable program, this legacy program is facing some challenges. First, customers subscribing to Windsource have expressed a desire to be served by solar resources in addition to wind. Second, some customers are confused about the presence of more than one brand of "green tariff" in the Company's portfolio and are unclear about the distinctions between Windsource and R*C. As such, the Company is proposing the following modifications:

- The discontinuation of Windsource as a brand name.
- Creation of a new voluntary month-to-month program, structured similarly to Windsource but existing under the R*C brand and incorporating solar resource(s). The Company seeks to continue the program but under Renewable*Connect Month-to-Month (R*C-MTM) name.
- The migration of customers currently subscribing to Windsource to this new R*C-MTM.
- The program premium is proposed to be set at \$1.00 per one hundred (100) kWh block (equivalent to \$10 per REC), a thirty-three percent drop in price compared to the current Windsource price of one dollar and fifty cents (\$1.50) per one-hundred kWh block (or \$15 per REC).

C. Pricing Methodology and Premium

To support this change in price, the Company conducted a market analysis of third-party REC sale programs in Colorado. To assess the appropriateness of the program pricing, the Company conducted a comparison of pricing for similar voluntary renewable programs currently in the Colorado market. While pricing is often not made public, pricing generally falls between \$6.25 and \$15 per REC for those that are available, with an average of \$11.45 per REC. With a proposed pricing of \$10 per REC (equal to \$1.00 per 100-kWh block), the Company's pricing aligns with the average cost of similar products currently available in the market.

D. Green-e Certification

The R*C-MTM program will continue to maintain its certification through the Center for Resource Solution's Green-e Energy program. Green-e Energy provides oversight for voluntary renewable energy transactions in the United States. The Green-e Energy National Standard identifies many criteria renewable energy must meet to be certified.

To be Green-e Energy certified, the corresponding RECs associated with the energy sold under R*C-MTM cannot be used to fulfill a state renewable energy goal and cannot be "double-counted" toward that goal, with one exception. Pursuant to Green-e's Renewable Energy Standard for Canada and the United States Version 3.3 (formerly Green-e Energy National Standard): "Only for a certified renewable electricity product that meets 100% of a customer's load or a Green-e Direct certified purchase of renewable electricity, Green-e Energy allows a percentage of the product content to be satisfied with renewables reported toward a renewable portfolio standard (RPS) or other similar state policy, up to

the amount that is attributable to the customer of the voluntary product.”¹ Consequently, for example, R*C-MTM customers who choose to buy all of their electricity under the Windsource or another Green-e Certified program in 2022, 30 percent of the RECs associated with the energy they purchase will be retired to meet the RES, leaving 70 percent of their RECs required retired under R*C-MTM. They will retain the right to claim 100 percent renewable energy usage under this Green-e rule.

E. R*C-MTM Forecast

Since 2012, Windsource has grown an average of eight percent annually. Continuing this trajectory forward with R*C-MTM, but at a slightly more conservative rate of 5 percent annual growth, the Company estimates 89,606 participants by 2025 as seen below.

Table 13 - Annual R*C-MTM Participation Estimate

Annual R*C-MTM Participation Estimate				
Year	2022	2023	2024	2025
Participants	77,405	81,275	85,339	89,606

Renewable*Connect® (Proposed for to be Rebranded as Renewable*Connect 1.0)

A. Background

Renewable*Connect 1.0 (or R*C-1.0) provides Public Service’s residential and commercial customers with the option to power their homes and businesses from a dedicated 50 MW utility-scale solar energy produced in Deer Trail, Colorado.

¹ Green-e Renewable Energy Standard for Canada and the United States Version 3.3, p. 12 (January 24, 2019), available at <https://www.green-e.org/docs/energy/Green-e%20Standard%20v3.3%20US.pdf>.

The program allows for flexible terms and conditions with a set charge and an annually updated credit. The current capacity of R*C-1.0 is 50 MW, and the program has been fully subscribed since the program launched in 2018. The Company has maintained a waiting list since the inception of the program. When a customer terminates its participation in R*C-1.0, the departing customer's spot is immediately filled from the waiting list.

B. Program Participation

The Company effectively implemented a fair and transparent enrollment process in 2018. The first eight weeks of enrollment were reserved for residential and small commercial customers only. A total of 8 MW was filled during this eight-week period. After the initial eight-week limited enrollment period, commercial customers had the opportunity to submit subscription requests for the remaining capacity. Interest from commercial customers exceeded the remaining available 42 MW, and each commercial customer received 20.3 percent of their requested capacity. The 50 MW was fully subscribed during the initial enrollment period and the program has remained fully subscribed since that time. The R*C-1.0 program is in its third year and is fully subscribed with the following customer breakdown as of year-end 2020 as seen in table 14 below:

Table 14 - Renewable*Connect-1.0 Participants (2020)

R*C-1.0 Participants		
	Residential	Business (including Small Commercial and Commercial)
Customer Count	2,500	717
kW	6,599	43,403

The Company has maintained a waitlist from which it adds new R*C-1.0 participants if an existing R*C-1.0 participant leaves the program. At the end of 2020, the waitlist was as follows in the table 15 below:

Table 15 - Renewable*Connect-1.0 Participant Waitlist (2020)

R*C-1.0 Waitlist		
	Residential	Business (including Small Commercial and Commercial)
Customer Count	2,564	147
kW	6,893	178,129

Renewable*Connect 2.0 (R*C-2.0)

A. Description

Building off the success of R*C-1.0, the Company is seeking a program capacity of up to 300 MW of incremental solar generation. The actual program capacity amount will be dependent upon customer interest via Memorandums of Understanding (“MOUs”) or similar expressions of interest before the expansion program launches, which will enable the Company to “right-size” the capacity to the identified customer demand. The MOU process will be open to all customers on eligible rates. Before opening the MOU enrollment to all customers, the Company will allow customers on R and C rates to enroll for a set period of time beforehand in order to ensure enough capacity exists for customers that will likely enroll for smaller subscription amounts.

The Company proposes to procure one or more solar resources through PPA(s). The Company anticipates that the PPA(s) will be for a term of approximately 15 years and for a capacity of up to 300 MW. The resource(s) will be selected either

through a separate solicitation or from unselected bids (i.e., bids that are not either selected in Phase II of the ERP or identified as back-up bids) from the Company's Phase II ERP in Proceeding No. 21A-0141E. The resource will be fully supported and contained by the program and will be incremental to other resources procured from Phase II of the 2021 ERP & CEP. The resource will be required to be located in Colorado. If this program is approved by the Commission, it is anticipated that the selection of this resource will be completed by the end of 2022 and begin construction sometime in 2023. It is expected that the resource will be operational by late 2024 or in 2025.

The Company is confident that there is enough demand for this size resource. However, during the process of executing MOUs, the Company will "right-size" the resource to better align with demand before publishing the RFP for solar procurement. The full capacity of the resource will be based on the total capacity expressed in the MOUs. Therefore, total resource capacity will be completely filled by MOUs before program resources come online. If the Company is only able to secure MOUs for less than 50 MW, the Company would not move forward with the new capacity for R*C-2.0 and would not continue to develop nor introduce the R*C-2.0 brand.

B. Pricing

As with the current R*C-1.0 program charge, the R*C-2.0 program charge will be based on: (1) the resource cost, which will likely be set at a fixed \$/MWh, set forth in the PPA(s) for the resource(s);² (2) integration costs for the resource; and (3) program administration costs. The resource cost will be based on the flat cost of the PPA with no escalators as it is done for R*C-1.0. The resource

² The PPA(s) with the resource may also reflect certain curtailment costs, to accommodate the eventuality that the dedicated R*C-2.0 resource(s) may need to be curtailed on the system at certain times over the course of the PPA term. Such curtailment costs and terms will be set forth in the applicable PPA(s).

integration costs are the incremental ancillary services that are needed to support the addition of non-dispatchable resources like solar. The program administration costs are costs for marketing the program, labor costs for administration, and the cost of any IT infrastructure necessary to support the program. Because this program expansion will only include a 15-year term option,³ a risk factor adjustment (which was included in the initial R*C-1.0 program) is not necessary.

The general structure of the R*C Credit for both the existing R*C-1.0 program and for R*C-2.0 remains the same. The Company will continue to follow the QF methodology with a variable energy credit and a fixed capacity credit for R*C-2.0. The Company will update these amounts annually via an Advice Letter filed with the Commission with the same timing as the current Advice Letter filing (on or before November 15) annually.

C. Program Policies

Customers will be able to subscribe up to 100 percent of their annual electric energy consumption through R*C-2.0. Subscriptions will be in terms of kilowatts ("kW"). As I explained above, the R*C-2.0 charge is designed to cover all of the program costs, including administrative and IT costs, so that non-participating customers will not be impacted financially.

The Company will offer only a single, 15-year R*C-2.0 program term, which aligns with the anticipated PPA term. To the extent the PPA term length is different than 15 years, the R*C-2.0 contract length will match the term of the PPA(s).

³ The actual term of the Subscriber Agreement may be for a different length of time, depending on the term of the PPA(s) the Company will execute for the dedicated solar resource(s) for R*C-2.0.

RECs associated with the energy under the R*C-2.0 program will be retired on the customer's behalf and will be certified via Green-e. Customers will continue to be able to claim the renewable attributes of their subscription's energy generation.

The Company is proposing to make the earnings sharing mechanism simpler by splitting the profit; the Company would retain eighty percent of the profit and the remaining 20 percent would be distributed to the RESA.

The Company is also proposing a new feature that is not currently offered under the existing R*C program. Within R*C-2.0, subscribers will be able to choose to purchase additional capacity that will be turned into donated subscriptions for IQ customers. The IQ customers will receive the subscription credit, while the purchasing customer will receive the RECs which the Company will retire on their behalf.

Renewable*Connect Community (R*C-C)

A. Description

The objective of R*C-C is to provide cities and counties with a pathway to adopt clean energy and claim the associated RECs to meet their renewable electricity goals. In essence, a participating city is buying renewable energy to cover up to 100 percent of the electric usage within the city. In the same vein, residential and commercial customers are limited to 100 percent of their electric usage. Communities are in a unique position where their ability to reach ambitious community-wide environmental and sustainability goals will be difficult to achieve. R*C-C provides communities a tool to help with that effort and can be adjusted as the grid and community participation in programs increases.

This option will be available to all communities throughout Public Service's electric service territory. The Company will work with interested cities and counties to determine the appropriate number of RECs to purchase. The process for enrollment and billing will proceed as follows:

- (1) the Company conducts a renewable energy gap analysis in collaboration with an interested city. The gap analysis takes into total electricity usage within the community, then calculates the current percentage of that electricity that is renewable, accounting for the Company's Certified Renewable Percentage ("CRP"), as well as existing and future renewable energy program participation, such as other R*C programs, Solar*Rewards, Solar*Rewards Community, and Demand Side Management for all customers within the community, including municipal and residential customers;
- (2) the City considers its goal timeline and how R*C-C can best meet its needs;
- (3) using the gap analysis, the Community decides upon the number of RECs to purchase. Subscriptions are determined and contracts executed including payment schedule and payment mechanism;
- (4) the City is invoiced on a predetermined schedule, which may be monthly, quarterly, or annually; and
- (5) RECs are transferred to the community customer or retired on behalf of the customer in line with the invoicing schedule. Contract terms will be annual, allowing the customer to resize the subscription based on updated calculations of community consumption and interest. The Company will allow a subscription size adjustment upward of 10 percent if capacity in the program is available. A downward adjustment will be allowed if the community has successfully lowered electric consumption through DSM programs or if the community has increased participation in other renewable energy programs.

Contract duration is one year. This allows customers to update their contract annually based on updated calculations within the gap analysis described above to incorporate the latest CRP and latest data on community participation in renewable energy programs. Pricing will be a negotiated amount each year that the community participates. Finally, there is no termination fee.

Renewable*Connect Natural Gas (R*C-NG)

A. Description

R*C-NG is a new, voluntary retail program that will enable the Company's natural gas customers to reduce the carbon footprint of their natural gas usage through a combination of Renewable Natural Gas ("RNG") and carbon offsets.

Reducing emissions from the Company's natural gas system and those resulting from customer use of natural gas is crucial to continuing the Company's broader carbon reduction strategy. With R*C-NG, the Company proposes to institute a carbon reduction program for natural gas customers by utilizing a relatively new low/no-carbon fuel option and taking advantage of established methods for reducing carbon consumption—namely, RNG and carbon offsets.

B. Program Design

Under R*C-NG, Public Service will offer natural gas customers the opportunity to avoid a block of approximately 0.0827 metric tons (or "tonnes") of carbon emissions for a flat rate of \$5. The product is sized and priced so that the purchase of one \$5 block each month (i.e., \$60 per year) would enable an average residential customer to avoid one-quarter of their carbon emissions from natural gas each year, based on the average natural gas consumption of customers. The avoided carbon emissions will come from a blend of RNG and carbon offsets.

The block pricing methodology provides a simple format for participation and gives customers a clear understanding of the impacts of their investment. Each \$5 block will correspond to an amount of carbon reduced as a result of RNG and offset purchase—specifically, 0.0827 tonnes of carbon emissions. These blocks will be represented to customers through marketing materials and upon completing program sign-up as a percentage of carbon reduction for the average natural gas consumption, and the amount of equivalent therms of fossil gas that will be offset with a purchase of each block—1.56 dekatherms (“Dth”).

On average, a Public Service natural gas customer’s annual natural gas consumption is 74.88 Dth, which represents 3.97 tonnes of carbon emissions. This amount was then divided by 48 to establish blocks of 0.0827 tonnes of carbon emissions. Each block of 0.0827 tonnes of carbon emissions will cost \$5. If a customer purchases one \$5 block per month (\$60 for 12 blocks over the course of the year), that would represent the avoidance of 0.99 tonnes of carbon emissions, or 25 percent of the average carbon emissions from a natural gas customer over the year. If a customer purchases four \$5 blocks each month (\$20 per month), this will represent carbon reductions equivalent to 100 percent of the average natural gas carbon emissions from a natural gas customer over a year.

Customers will be able to purchase an unlimited number of blocks regardless of their usage. In this way, a customer may purchase a greater amount of carbon emissions reductions than their own natural gas consumption.

C. Customer Experience

The program will be open to all residential and commercial gas sales customers in Public Service’s territory. The program will not be open to gas transport customers. While the program is open to all natural gas sales customers, the Company anticipates that the participation will be largely among residential

customers and small business customers with lower usage based on the customer surveys conducted and customer behavior in other premium priced programs.

There is no limit to the number of blocks that a customer can purchase per month, including above their own natural gas consumption. In addition, customers will be allowed to increase their enrollment at any time and purchase as many program blocks as they like.

There is no pre-defined term of enrollment for customers and therefore no early termination fees. Participation is on a month-to-month basis and customers are free to unenroll at any time with no penalty.

Recycled Energy

A. Description

The Company's Recycled Energy program offers customers an option to generate clean energy through the use of waste heat and steam which would otherwise not be used at all. As set forth in the Commission rules, 4 CCR 723-3 3652(v):

“Recycled energy” means energy produced by a generation unit with a nameplate capacity of not more than fifteen megawatts that converts the otherwise lost energy from the heat from exhaust stacks or pipes to electricity and that does not combust additional fossil fuel. Recycled energy does not include energy produced by any system that uses energy, lost or otherwise, from a process whose primary purpose is the generation of electricity, including, without limitation, any process involving engine-driven generation or pumped hydroelectricity generation.

Although Recycled Energy is not a renewable energy resource by definition under the Commission's rules, and therefore does not produce RECs, it is an

Eligible Energy Resource, and generation of energy from a Recycled Energy generator can be used to meet Colorado's RES under C.R.S. § 40-2-124.

B. Program Participation

The application process for these projects is straightforward but also requires robust system information to evaluate the potential for energy production and the associated incentives.

On its website, the Company has developed and made available information to help customers make an informed decision about potential Recycled Energy projects.⁴ Account managers and Business Solutions Center representatives have been trained and provided customer outreach materials. The Company also worked with the Colorado Energy Office to assist in the creation of materials aimed at building interest in Recycled Energy projects.

Once a customer decides to move forward with a Recycled Energy project, they will submit an application which will be reviewed for completeness and accuracy with the terms of the tariff by the Recycled Energy program product manager. The product manager will either approve the application as complete or provide feedback to the customer with necessary revisions.

An approved application will result in the reservation of capacity in the program. Capacity is reserved on a first come, first served basis. At this point, the customer can then move on to the construction phase of the project. Customers shall install, own, operate, and maintain their Recycled Energy generation system. Upon completion of construction, the customer signs the verification section of the application and submits it to the product manager. The product

⁴ See Xcel Energy Recycled Energy, *available at* https://www.xcelenergy.com/programs_and_rebates/business_programs_and_rebates/renewable_energy_options_business/recycled_energy (last visited June 25, 2019).

manager provides the customer with the Recycled Energy program contract, which requires the customer's signature.

Once the program contract is signed and returned, a production meter will be installed, and the Company will bill the customer pursuant to Schedule RE in the Colorado PUC Electric Tariff.

C. Program Changes

Public Service is not proposing any changes to the program or pricing structure.

Section 7 – Retail Rate Impact and Projected Spending Levels

Introduction

Commission Rule 3661 establishes the parameters for determining the retail rate impact from implementing the RES. Rule 3661(a) states that the net rate impact of Public Service's actions to comply with the RES shall not exceed two percent of the total electric bill annually for each retail customer. Under § 40-2-124(1)(g)(I), C.R.S.: "...the commission shall establish a maximum retail rate impact for this section of two percent of the total electric bill annually for each customer. The retail rate impact shall be determined net of new alternative sources of electricity supply from noneligible energy resources that are reasonably available at the time of the determination." The Company currently collects as a one percent charge assessed on customer bills and the RESA complies with the two percent retail rate impact cap.

The Company's 2022-25 RE Plan provides for the acquisition of Eligible Energy Resources in advance of when such resources are needed to comply with the RES. Section 40-2-124(1)(g)(I), C.R.S., permits a utility to acquire more than the minimum amount of Eligible Energy Resources and RECs required by the RES, so long as the retail rate impact does not exceed the maximum two percent on customers' bills allowed by law. As is shown by Attachment JWI-2, Table 7-2(c), the Company continues to estimate that these resources can be acquired for an incremental rate impact of one percent over the ten-year RES planning period. As part of the Company's 2022-25 RE Plan the Company is requesting the Commission maintain the RESA at the one percent collection level. The Company anticipates needing revenue from the RESA at this level through the duration of this Plan and through 2030.

RES/NO RES Modeling

Commission Rule 3661(h) sets forth the basic method for calculating the additional or “incremental” costs that result from adding Eligible Energy Resources to the Public Service system in order to comply with the RES. The rule details the methodology by which Public Service is to use its computer models to estimate the incremental costs associated with the addition of Eligible Energy Resources. The rule methodology requires modeling the total electric system costs of two alternative scenarios or models of electric resources over the RES Planning Period. The first scenario (“RES Plan”) includes the Eligible Energy Resources that are present or projected to be added on the Public Service system. The second scenario (the “No RES Plan”) is comprised of a sufficient amount of “non-renewable resources reasonably available” that would be needed to replace the “new” Eligible Energy Resources in the RES Plan. The difference in annual system costs between these two scenarios for any particular year is referred to as the net modeled incremental costs of the Eligible Energy Resources.

Assumptions Used in RES/NO RES Modeling

Commission Rule 3661(e) states that for purposes of calculating the retail rate impact, Public Service “shall use the same methodologies and assumptions it used in its most recently approved electric resource plan under the Commission’s Electric Resource Planning Rules, unless otherwise approved by the Commission.” The Company used the same modeling assumptions for the RES and No RES plans as were filed in Public Service’s 2021 Electric Resource Plan and Clean Energy Plan (filed March 31, 2021) (Proceeding No. 21A-0141E).

The Company included carbon cost imputations in the model runs and other calculations set forth in Attachment JW1-2, Table 7-1 and Tables 7-2(a), (b) and (c) for this 2022-25 RE Plan, consistent with the assumptions filed in Proceeding No. 21A-0141E.

Resources Included in Both RES and No RES Plans

Commission Rule 3661(h)(III) considers all Eligible Energy Resources whose acquisition commenced prior to July 2, 2006 to be considered “sunk” resources, meaning that those resources and their cost impacts are included in both the RES Plan and the No RES Plan models. When the annual costs of the RES Plan and No RES Plan are compared with one another to determine the incremental cost of renewables, the cost impacts of the sunk resources effectively cancel out between the two plans and thus do not contribute to the modeled incremental costs of the Eligible Energy Resources.

Section 8 of this Plan (Cost Recovery) discusses the cost recovery mechanisms used to recover the incremental cost of Eligible Energy Resources, and the amounts spent to acquire them. The Commission’s Rules recognize the difficulty in estimating the incremental costs associated with the acquisition of Eligible Energy Resources given that these costs can change from year-to-year. To help the utility temper the potential for changing incremental cost estimates from year-to-year, which can result in over or under collection of costs through the RESA in any particular year, Rule 3661(h)(V) allows the QRU to “Lock Down” the costs of Eligible Energy Resources if the QRU requests that the Commission do so. This lock down process eliminates the year-to-year changes in the assumptions which drive the annual incremental cost estimates and allows the QRU to better project the total incremental costs charged to the RESA for Eligible Energy Resources. The purpose of this lock down process is to better project the cost impacts of incremental Eligible Energy Resources on the RESA over time. This improved certainty regarding the RESA impact of Eligible Energy Resources gives the Commission the opportunity to better understand and be able to adequately plan for the effects of new renewable resources and the cost impacts to customers.

For those Eligible Energy Resources whose incremental costs have been explicitly locked-down by prior Commission order or as proposed by the Company, only the locked-down incremental cost of those resources are

included when calculating the total retail rate impact for the period of the lock down. Volume II (Attachment JW1-2), Tables 7-3 (a) and (b) identify the Eligible Energy Resources that have had their respective incremental costs explicitly locked down, and are included in both the RES and No RES Plans when performing the retail rate impact calculations for the current RES Planning Period.

The following Eligible Energy Resources incremental cost impacts have been locked down for various periods of time by prior Commission order:

- Pre-2009 Solar*Rewards®
- SunE Alamosa 8 MW PV solar
- Northern Colorado Wind I 151 MW wind
- Northern Colorado Wind II 23 MW wind
- Solar*Rewards® after January 1, 2009
- Solar Rewards® Community
- Cedar Creek II 250 MW wind
- Cedar Point Wind 250 MW wind
- San Luis Solar 30 PV solar
- Greater Sandhill 18 MW PV solar
- Limon I 200 MW wind
- Limon II 200 MW wind
- Limon III 201 MW wind
- Golden West 249 MW wind
- Comanche 120 MW PV solar
- Solar Star 50 MW PV solar

Additionally, The Company has proposed the “2021 Time Fence” under which the Company is proposing to lock the modeled cost impacts associated with resources added through the 2016 ERP as part of the approved Colorado Energy

Plan Portfolio, resources added through the 2020-2021 RES Plan, and currently locked resources listed above.

Tables 7-3(a) and (b) identify the incremental costs of these locked down resources. As provided by Rule 3661(h)(V), the incremental costs for all locked down resources contained in Tables 7-3(a) and (b), (with the exception of (1) SunE Alamosa and on-site solar prior to 2009 whose incremental costs have been locked in for the entire life of the PPA/contract and (2) the remaining resources contemplated under the 2021 Time Fence, were locked down for the period extending through 2030.

The incremental costs of renewable resources acquired as a result of the 2021 ERP & CEP process have not been explicitly locked down. Instead, their respective incremental costs have been set using the assumptions of the current RES Compliance Plan. For this 2022-25 RE Plan, all unlocked resources would have their incremental costs set for 2022-2025 using the assumptions underlying this 2022-25 RE Plan. The incremental costs for the “unlocked” resources have been estimated from the RES and No RES model runs performed to prepare this 2022-25 RE Plan.

RES and No RES Model Runs, Calculation of Incremental Costs, and Avoided Energy Costs

Once all of the Eligible Energy Resources that have not been locked down have been identified, the RES and the No RES Plans can be run. Traditionally, the Company has identified the costs resulting from the No RES Plan as the system “Avoided Energy Cost,” or the costs that would have otherwise been incurred but for the Eligible Energy Resources. The costs identified in the RES Plan then are compared to the costs identified in the No RES Plan. The resulting difference in costs are the incremental costs to be allocated to and recovered through the RESA, which are included in calculating the retail rate impact. The Avoided

Energy Costs, which are the costs that would have been incurred without the addition of any Eligible Energy Resources, are charged to the ECA.

Credits to the RESA Deferred Account

By Decision Nos. C12-0081 and C12-0294 in Docket No. 11A-510E, the Commission determined that margins on Hybrid REC sales shall be split 80 percent to customers and 20 percent to Public Service for total annual Hybrid REC margins of \$20 million or less. For total Hybrid REC margins above \$20 million, the split is 90 percent to customers and 10 percent to Public Service. The Commission also ordered that the customer portion of Hybrid REC margins shall be applied to the RESA account. Decision No. C21-0173 in Proceeding No. 20A-0226E extended this treatment through December 31, 2023. The Company has not projected future Hybrid REC sales, but may engage in additional sales should the opportunity become available. As such, Table 7-2(c) under column I titled “REC Margin Revenue” contains the year-to-date Hybrid REC margins attributable to the RESA account, but does not estimate any further transactions.

Finally, the RESA deferred account is credited with the projected wholesale customer load ratio share of the incremental costs of the Eligible Energy Resources that the Company estimates it will collect under its existing wholesale rates.

Both the Windsource® revenues and Recycled Energy revenues and costs are allocated to the RESA, which will potentially have a positive net effect on the RESA. The Company does not project any costs or revenues under the Recycled Energy program and has therefore only included expected Windsource® revenues.

Retail Rate Impact Analysis

Tables 7-2(a), (b), and (c) represent the retail rate impact calculations similar to the retail rate impact calculations presented in prior RES compliance plans. The values contained in Tables 7-2(a), (b), and (c) are derived from modeling that is based on the gas and coal price forecasts, methodologies, and other assumptions filed in the 2021 ERP & CEP.

Public Service's modeling reflects the fact that the incremental costs of the Company's existing portfolio of renewable generation is equal to or below the projected RESA revenues for the term of this plan. Table 7-2(c) shows, assuming the Company's RESA extension is approved, the RESA balance is projected to be positive throughout the term of the 2022-25 RE Plan and over the 10-year planning period until 2030.

Description of Tables

Tables 7-1 through 7-3 segregate costs between: (1) the costs associated with Eligible Energy Resources locked down by Commission order or as proposed in this proceeding; and (2) the costs associated with Eligible Energy Resources whose costs are not locked down, but are set by the assumptions in this 2022-25 RE Plan. Further, for both locked down and unlocked resources, the design explicitly demonstrates the total cost of Eligible Energy Resources, as well as the portion of the cost that are incremental and recoverable through the RESA, and the portion of the costs that are avoided and recoverable through the ECA.

A. Table 7-1

Table 7-1 is a high-level summary of the total of both the unlocked and locked costs of Eligible Energy Resources that are charged to the RESA deferred account. These costs are separated into their Incremental Cost and Avoided Energy Cost components. The columns that contain the word "unlocked" in the column heading contain the costs for Eligible Energy Resources that have not

had their respective costs locked by Commission order. The columns that contain the word “locked” in the column heading contain the costs for Eligible Energy Resources that have had their costs locked by Commission order, or as proposed in this proceeding. If a resource had its costs locked in for a finite period of time (e.g. not for the life of the resource), its costs will shift from the locked columns to the unlocked columns once the lock down period for that resource has expired.

B. Tables 7-2(a) and (b):

Tables 7-2(a) and (b) provide the calculations for the Incremental and Avoided Energy Costs of the unlocked or locked down resources. Tables 7-2(a) and (b) contain identical calculations, except 7-2(a) only contains unlocked resources and 7-2(b) only contains locked resources. Tables 7-2(a) and (b) are set up as follows: Column A identifies the calendar year. Column B, “Central Solar Total Costs,” identifies the estimated total cost of the Company’s Central Solar facilities.

Column C, “Wind Total Costs,” identifies the estimated total costs of Wind resources. Column D, “Other Renewable Total Costs,” identifies the estimated total costs of the non-solar, non-wind, Eligible Energy Resources.

For Table 7-2(a), Columns B, C, and D only contain the costs Eligible Energy Resources which have not been locked down by Commission order. For Table 7-2(b), Columns B, C, and D only contain the costs of Eligible Energy Resources that have been locked down by Commission order. If a resource is locked down for a finite period of time, its costs will shift from Table 7-2(b) to Table 7-2(a) once the lock down has expired.

Column E, “Total Cost,” is a summation of the total costs contained in columns B, C, and D. This total does not include the costs of the Company’s

Solar*Rewards® or Solar Rewards Community® programs. These programs are reflected in columns H through J.

Column F, “B, C, D Modeled Incremental Cost,” (Table 7-2(a)) and “B, C, D, Locked Incremental Cost,” (Table 7-2(b)) shows the incremental costs associated with the resources contained in columns B, C, and D. In Table 7-2(a), Column F is the unlocked incremental cost and is equal to the difference of system costs between the RES and No-RES Plan scenarios. In Table 7-2(b), Column F shows the locked down incremental costs as set by Commission order. A more detailed calculation of costs that are locked for life can be found in Tables 7-3(a) and (b).

Column G, “B, C, D Calculated Avoided Cost,” reflects the difference between the total cost in column E and the incremental cost in column F, and is equal to the Avoided Energy Costs of the Eligible Energy Resources.

Column H, “On-Site Solar Total Costs,” contains the total estimated cost of the Solar*Rewards® and Solar*Rewards Community® programs. Column H in Table 7-2(a) contemplates the unlocked tranches of Solar*Rewards® and all of Solar*Rewards Community®, and Column H in Table 7-2(b) contemplates the locked tranches of the Solar*Rewards® program.

Column I, “Modeled On-Site Solar Avoided Costs,” (Table 7-2 (a)) or “Locked On-Site Avoided Cost” (Table 7-2(b)) is the modeled avoided costs of the on-site solar resources. This is determined from the sum of the modeled “benefits” or Avoided Energy Costs calculated from a RES and No RES Plan comparison, which only considers the Solar*Rewards® in question. For Table 7-2(b), the modeled Avoided Energy Costs are for the tranches of Solar*Rewards® that were locked by Commission order, and therefore were determined from RES and No RES Plan comparison using the approved modeling assumptions from the RES Compliance Plan in place at the time their respective costs were locked.

The locked avoided costs for the two tranches of Solar*Rewards®, which have their incremental costs locked are detailed in Tables 7-3 (a) and (b).

Column J, “Calculated On-Site Solar Incremental Cost,” is the difference between the On-Site Solar Total Costs in column H and the On-Site Solar Avoided Costs contained in column I.

Column K, “Total Costs,” is the sum of the Eligible Energy Resource costs in columns E and H.

Column L, “Incremental Costs,” is the sum of the Eligible Energy Resource Incremental Costs in columns F and J.

Column M, “Avoided Costs,” is the sum of the Eligible Energy Resource Avoided Energy Costs in columns G and I.

C. Table 7-2 (c):

Table 7-2(c) pulls information from Tables 7-2(a) and (b) to calculate the estimate of the RESA deferred balance. Table 7-2 (c) is set up as follows:

Column A identifies the calendar year.

Column B, “Unlocked Costs,” is the sum of the total costs of Eligible Energy Resources whose costs are not locked down by Commission order or as proposed in this proceeding. This is calculated in column K in Table 7-2(a).

Column C, “Locked Costs,” is the sum of the total costs of Eligible Energy Resources whose cost are locked down by Commission order or as proposed in this proceeding. This is calculated in column K on Table 7-2(b).

Column D, “Unlocked Incremental Costs,” is the sum of the incremental costs, recoverable through the RESA, from eligible energy resources whose costs are not locked down by Commission order or as proposed in this proceeding. This is calculated in column L in Table 7-2(a).

Column E, “Locked Incremental Costs,” is the sum of the incremental costs, recoverable through the RESA, from Eligible Energy Resources whose costs are locked down by Commission order or as proposed in this proceeding. This is calculated in column L in Table 7-2 (b).

Column F contains the portion of RESA costs that are associated with the CEP that are allocated to be recovered through the CEPR.

Column G contains the additional costs associated with up-front payments for REC incentives and Battery Connect that were not contemplated in the 2021 ERP & CEP.

Column H, “Wholesale Customer RESA RJA Credit” is the projected wholesale customer load ratio share of the incremental costs of the Eligible Energy Resources the Company estimates it will collect under its existing wholesale rates.

Column I, “RESA Program & Admin Costs,” contains an estimate of the program and administrative costs associated with the RESA.

Column J, “RESA Rider Revenue,” is an estimate of the annual revenue that the Company will recover from retail customers through the RESA rider.

Column K, “WindSource Revenue,” is a projection of the annual revenue that the Company will receive as a result of REC sales through the Windsource® program.

Column L, “REC Margin Revenue,” identifies the customer’s share of the forecasted margins the Company may earn from the sale or trading of RECs. Future REC sales may provide additional revenue to the RESA.

Column M, “Unlocked Avoided Costs,” is the total avoided costs, recoverable through the ECA, of the Eligible Energy Resources that have not been locked down by Commission order. This is calculated in column M in Table 7-2(a).

Column N, “Locked Avoided Costs,” is the total avoided costs, recoverable through the ECA, of the Eligible Energy Resources, which have been locked down by Commission order. This is calculated in column M in Table 7-2(b).

Column P, “Total Renewable Resource Costs,” is the total costs of all locked and unlocked Eligible Energy Resources contemplated by the RESA. The column is a sum of columns B and C.

Column Q, “Total RESA Costs,” is the sum of columns D through F and represents the total costs of the renewable resources which are collected through the RESA. This includes the incremental costs of Eligible Energy Resources, administration and program costs, and incentive payments made through the Solar*Rewards® and Solar*Rewards Community® programs.

Column R, “Total RESA Revenues,” is the sum of columns G through J and represents the total revenues collected through various means to pay for the costs borne by the RESA. This includes RESA Rider Revenue, Windsource Revenue, and the proceeds from the sale or trading of Hybrid REC Margins that are credited to customers through the RESA.

Column S, “Annual Excess/Deficiency,” identifies the calculated difference between the RESA Revenue collected and the RESA costs for each year.

Column T, "Interest," shows the amount of interest accrued on the balance in the RESA-funding account.

Column U, "Annual Excess/Deficiency w/Interest," shows the total Annual Excess or Deficiency with the Interest included.

Column V, "RESA Rolling Balance (Deferred)," shows the projected running accrual of surpluses or deficits in the RESA account from year to year over the entire RES Planning Period.

Approval of Spending Levels and Request for Prudence Determination

In this 2022-25 RE Plan, the Company projects that contributions to the RESA will be sufficient to cover the costs to be charged to the RESA in the 2022-2025 Compliance Years. See Table 7-2(c) in Column S. Thus, we project we will not need to advance any dollars to the RESA for the compliance period.

Our projection that we will not need to advance funds to the RESA during the compliance period is based upon certain projections and assumptions embodied in this 2022-25 RE Plan, but should be reevaluated following the Phase II of the Company's 2021 ERP & CEP. We anticipate that the Company's actual energy sales, the level of renewable generation and possibly other projections and assumptions will be different than what is embodied in our 2022-25 RE Plan. Should those projections and assumptions prove to be inaccurate; the Company may need to advance further funds to the RESA in order to meet its obligations in the 2022-2025 compliance years. If the Company determines that it may be required to advance an amount to the RESA that exceeds the amounts set forth above, the Company will make the appropriate filing(s) with the Commission.

Section 8 – Cost Recovery

Cost Recovery Mechanism

Public Service plans to use the same cost recovery and deferred accounting mechanisms for its 2022-25 RE Plan that the Commission has approved for its 2009 through 2021 RES Compliance Years, namely: (1) the Electric Commodity Adjustment (“ECA”) is used to recover the costs of Eligible Energy Resources that match the costs of the avoided non-renewable resources; and (2) the RESA is used to recover the costs of the Eligible Energy Resources that are incremental to the costs of the avoided non-renewable resources as well as the program and administration costs of the Solar*Rewards® and Solar*Rewards Community® programs.

In its 2009 through 2021 compliance years the Company used the ECA deferred account as the true-up mechanism for cost allocation of Eligible Energy Resources. Under this mechanism, Public Service first charges the ECA for 100 percent of the allowable costs of eligible energy resources except Solar*Rewards®. After all costs are in the ECA, the incremental costs associated with the Eligible Energy Resources that are recoverable in RESA are transferred from the ECA deferred account into the RESA deferred account. As a result, the Avoided Energy Costs for the period are collected through the ECA and the modeled incremental costs are collected through the RESA. The Company determines, through modeling the incremental costs of these resources, which is derived from the difference between the RES Plan and the No RES model runs. In this way, the RESA continues to recover only the net incremental costs of Eligible Energy Resources. The Commission initially approved this cost recovery mechanism in Decision No. C09-1037 in Proceeding No. 08A-532E and reaffirmed it in all subsequent decisions related to the accounting treatment of Eligible Energy Resources for Public Service.

The incremental costs as discussed in Section 7 of the Non-DG Eligible Energy Resources are derived by multiplying the actual monthly production for each Eligible Energy Resources, which are then recovered through the RESA. The incremental costs of the Eligible Energy Resources are charged against the RESA by transferring an amount equal to the net incremental costs from the ECA to the RESA deferred account. The costs of Eligible Energy Resources charged to the ECA are the avoided costs which are considered the costs that would have been experienced without the addition of any Eligible Energy Resources.

The accounting treatment is different for the rebates and REC payments made to Solar*Rewards® and Solar*Rewards Community® customers. Public Service incurs costs related to its Solar*Rewards® and Solar*Rewards Community® programs, including payments for RECs and the administrative costs of running the programs. The costs incurred are deferred 100 percent in the RESA deferred account. After all costs are included in RESA, Public Service transfers the Avoided Energy Cost associated with the Solar*Rewards® program from the RESA deferred account to the ECA deferred account. This process leaves the Avoided Energy Costs to be collected as part of the ECA and incremental costs as part of RESA. This pertains to all systems installed as part of the Solar*Rewards® program whether the incentives were paid up front or whether the payments are made over time based upon production.

The Solar*Rewards Community® program makes payments to both the Developer and the subscriber. The Developer is paid an amount based on their bid or on the Standard Offer commensurate with the amount of energy produced for subscriber customers. Any unsubscribed production is paid to the developers at energy price of preceding year's average hourly incremental rate (or average hourly incremental cost, "AHIC"). Payments made to Developers for subscribed energy generated by the solar garden are directly charged to the RESA deferred

account. Any unsubscribed energy purchases at the AHIC from the Developer are allocated to the retail jurisdiction as costs to the ECA deferred account and recovered through that mechanism.

The Company also gives a bill credit to each subscriber based on the energy generated on their behalf from the solar garden. The costs incurred to purchase subscriber energy are initially deferred 100 percent to the ECA. After all costs are included in the ECA, the Company transfers any cost which is above the Avoided Energy Cost from the ECA deferred account to the RESA deferred account.

The RESA will also be used to pay for the program and administrative costs of the Solar*Rewards® and Solar*Rewards Community® programs. Any credits from Wholesale customers under the Renewable Energy Credit Ownership Agreements will be credited against the RESA deferred balance. Premiums paid by Windsource® (now proposed as Renewable*Connect Month-to-Month) customers and REC margins that the Commission has determined by rule or decisions should be credited to the RESA deferred account are also credited to the RESA.

RESA Expenditures

House Bill 10-1001 recognized the authority of a utility to advance funds to the RESA prior to their collection from customers in order to acquire renewable resources in advance of funds being available. The statute provides that: “[s]uch funds shall be repaid from future retail rate collections, with interest calculated at the qualifying retail utility's after-tax weighted average cost of capital, so long as the retail rate impact does not exceed two percent of the total annual electric bill for each customer.” C.R.S. § 40-2-124(g)(I)(B). The statute does not require the reciprocal interest calculation on a positive RESA balance. However, when the Commission incorporated this statutory language in to Rule 3660(e), the

Commission went beyond the statute by requiring the interest be reciprocal on the RESA balance.

Assuming the Company's RESA extension is approved, the RESA balance is projected to be positive throughout the term of the 2022-25 RE Plan and over the 10-year planning period until 2030 based on the Company's proposed customer choice offerings presented in Section 5.

Regulatory Accounting for the RESA Program

In accordance with Accounting Standards Codification Topic 980 Regulated Operations (ASC 980), formerly referred to as Statement of Financial Accounting Standards No. 71 (SFAS 71), a deferred regulatory account has been established to record the revenue, costs, and accrued interest for the RESA program, which are reported to the Commission via the Company's monthly reports. In addition, transactions are captured to meet the program's regulatory reporting requirements. For example, work orders summarize costs by type and size of renewable resource (e.g. customer-sited solar <25 kW), and other segments of the account code detail the nature of the cost (labor, consulting, renewable energy credits) and the business area incurring the cost.

Costs booked to the deferred regulatory account are classified as either program or administrative costs. Program costs include, but are not limited to:

- RECs
- Rebates
- REC certification
- Meter sets for second meter
- Incremental energy costs
- Application deposits

Administrative costs include, but are not limited to:

- Incremental labor, employee expenses
- Marketing
- IT software for REC database
- IT software for Solar*Rewards Community®
- Billing costs
- Audit fees

Rule 3661(d) caps administrative costs at 10 percent per year of the total annual collection. Public Service is requesting a waiver from this rule to be permitted to recover administrative costs up to 15 percent.

Section 9 – Net Metering

General Discussion

Net Metering Service (“Schedule NM”) and Photovoltaic Service (“Schedule PV”) are available as optional services under applicable rate schedules. Colorado’s Net Metering policy effectively allows for customer sited renewable energy resources, including rooftop solar customers, to offset, kWh for kWh, their energy charge commensurate with the energy produce by the renewable resource.

Beginning in 2022, the Company proposes offering an “off-site” net metering program, consistent with SB 21-261. In addition, SB 21-261 increases the system size maximum from 120 percent of average annual electricity consumption to 200 percent of reasonably expected average annual total consumption.

The Company is not proposing any changes to its Schedule NM or Schedule PV in its 2022-25 RE Plan.

Section 10 – Interconnection Requirements & Standard Agreements

Public Service is not proposing any changes to the Commission's interconnection rules or requirements in this 2022-25 RE Plan as the Commission's Interconnection Rules (Rules 3850 – 3859) were recently revised in Proceeding No. 19R-0654E. The Company's Solar*Rewards® contracts, customer forms, and Interconnection Agreements are found in Attachment JW1-3 of this Plan.

Rule 3657 directs the Company to (among other things) file with the Commission:

- Proposed RFPs including any standard contracts the investor owned QRU plans to use as part of a competitive acquisition process.
- Application forms, standard agreements, and general procedures for the investor owned QRU's SRO programs under Rule 3658 and for the interconnection of renewable energy resources pursuant to Rule 3667.

Consistent with past practice, the Company has included these agreements in Volume 3 of its 2022-25 RE Plan (Attachment JW1-3). The Company has included the same two RFPs as included in previous RE Plans: Solar*Rewards Large and Solar*Rewards Community®.

The three types of agreements contained in Volume 3 that Public Service filed in its 2020-21 RE Plan include Public Service's:

- Solar*Rewards REC Purchase Contract ("REC Agreement"), including the low-income version;
- Solar*Rewards Community Producer Agreement ("Producer Agreement"); and,
- Distributed Energy Resource Interconnection Agreement ("Interconnection Agreement").

The following list are the new agreements contained in Volume 3:

- Renewable*Connect 2.0 Subscriber Agreement;
- Renewable*Connect Community Program Agreement;
- Solar*Rewards Battery*Connect Agreement;
- Solar*Rewards Large RFP;
- Solar*Rewards Community RFP; and
- Host Acknowledgement;

The Company has made several changes to its existing program contracts and supporting documents and has developed new program contracts. The major changes can be summarized in three broad categories:

- 1) Make updates to address legislative and regulatory changes;
- 2) Incorporate programmatic changes; and
- 3) Revise and restructure contracts to be responsive to issues raised by customers in the application and agreement execution process, most notably eliminating three-way agreements and instead substituting a Host Acknowledgement, which is an ancillary agreement signed by the host retail customer in lieu of the customer signing three-way agreements with a third-party owner/operator and the Company.

The Company considers most of its agreements in Volume 3 to be standard contracts associated with its RE plan offerings, and it is simply good practice to be responsive to concerns raised by customers and to update standard contracts from time to time. In addition, the Company has made efforts to align certain program terms across different offerings, such as standardized deposits, due dates and extension policies that need to be captured in updated form agreements. For the 2022-25 RE Plan, several legislative and regulatory changes also needed to be addressed, including the changes under Senate Bill 21-261, rule changes allowing community solar garden subscribers to retain

RECs and make certain commitments as to the mix of subscribers, and insurance requirements under the interconnection agreement. The Company's new form agreements reflect new program offerings designed to give more choices to customers, including incentives for installing solar projects and storage together, subscriptions for the Company's new Renewable*Connect® offering and an opportunity for local governments to meet their sustainability and carbon reduction goals through RECs sourced from Colorado projects.

The Solar*Rewards, Solar*Rewards Community, Renewable*Connect®, and interconnection agreements reflect current Commission rules.

Section 11 – Conclusion

As set forth in this Plan and its associated filing with the Commission, Public Service has presented a comprehensive 2022-25 RE Plan for the Commission's consideration. Public Service respectfully requests that the Commission approve this 2022-25 RE Plan as presented for the 2022-2025 Compliance Years, including specific approvals of the following, without limitation:

- The Company's proposed acquisition/capacity levels, incentive levels, and programming proposals for its Solar*Rewards, Solar*Rewards Community, and Solar*Rewards Residential IQ On-Site Solar programs, including the Company's proposal to transition the Solar*Rewards Small offering to a Solar*Rewards Battery Connect offering;
- The Company's proposal to develop and own an additional 40 MW of Company-owned CSG capacity using a PLA;
- The Company's proposed Off-Site Solar capacity and programming proposals, including the Company's proposed methodology for calculating the net metering credit minus a reasonable charge for delivery;
- The Company's proposed Renewable*Connect capacity and programming proposals, including its Renewable*Connect 1.0, Renewable*Connect 2.0, Renewable*Connect Month-to-Month (formerly known as Windsource), Renewable*Connect Community, and Renewable*Connect Natural Gas proposals, inclusive of the Company's proposed acquisition plan;
- The Company's request to maintain RESA collections at the current rate of one percent;
- The Company's request to defer expenses associated with preparing and litigating this proceeding;
- All requests for waivers and variances set forth in the contemporaneously-filed Motion for Waivers and Variances, along with any other waivers or variances to the extent the Commission deems them necessary to implement the Company's proposed and/or ultimately approved Plan, as set forth in the Company's contemporaneously-filed Motion for Waivers and Variances;

- The Company's request for alternative forms of notice for the 2022-25 RE Plan, as set forth in the Company's contemporaneously-filed Motion for Alternative Forms of Notice; and,
- All other requested approvals and proposals set forth in the Company's Direct Case, in addition to any other approvals or relief necessary to implement the Company's proposed 2022-25 RE Plan.