

Decision No. C18-0761

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF COLORADO**

PROCEEDING NO. 16A-0396E

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IN THE MATTER OF THE APPLICATION OF PUBLIC SERVICE COMPANY OF  
COLORADO FOR APPROVAL OF ITS 2016 ELECTRIC RESOURCE PLAN.

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**PHASE II DECISION APPROVING RETIREMENT  
OF COMANCHE UNITS 1 AND 2; APPROVING  
RESOURCE SELECTION IN COLORADO  
ENERGY PLAN PORTFOLIO; SETTING  
REQUIREMENTS FOR APPLICATIONS FOR  
CERTIFICATES OF PUBLIC CONVENIENCE AND  
NECESSITY; AND SETTING REQUIREMENTS  
FOR THE NEXT ELECTRIC RESOURCE PLAN FILING**

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Mailed Date: September 10, 2018  
Adopted Date: August 27, 2018

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**I. BY THE COMMISSION**

**A. Statement**

1. On June 6, 2018, Public Service Company of Colorado (Public Service or Company) filed its bid evaluation and selection report (120-Day Report) for its 2016 Electric Resource Plan (ERP). Public Service filed the report in accordance with the Commission’s ERP Rules set forth at 4 *Code of Colorado Regulations* (CCR) 723-3-3600 *et seq.*

2. By this Phase II Decision, we approve the Colorado Energy Plan (CEP) Portfolio. The CEP Portfolio represents a cost-effective resource plan that meets Public Service’s need for

additional electric resources resulting from its forecasted peak demands and energy sales as well as from the early retirement of two coal-fired generation plants.

3. The CEP Portfolio results in a balanced mix of utility resources acquired through a highly competitive solicitation process that garnered an exceptional number of diverse and low-cost bids. As discussed in detail below, the CEP Portfolio includes Public Service's acquisition of existing gas-fired generation resources, as well as the development of new wind resources, new photovoltaic (PV) solar resources, and, for the first time in Colorado, utility-scale battery storage. While the CEP Portfolio entails the early retirement of Public Service's coal units 1 and 2 at its Comanche generation station in Pueblo, Colorado, it also entails the proposed expansion of the Company's generation fleet with additional PV solar and storage resources and the proposed development of new transmission infrastructure in the Pueblo area.

4. Based on the record in this 2016 ERP proceeding and all required considerations, including those in §§ 40-2-123, 40-2-124, 40-2-129, and 40-3.2-104, C.R.S., we conclude that the CEP Portfolio can be acquired at a reasonable cost and rate impact due to the abundant competitively priced bids for new utility resources available to Public Service and due to the ratepayer protections we adopt for the new wind resources that the Company proposes to own.

## **B. Discussion**

### **1. Electric Resource Planning**

5. As discussed in Decision No. C17-0316 (Phase I Decision) issued April 28, 2017,<sup>1</sup> the ERP Rules serve two primary functions. First, the rules require a regular, periodic

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<sup>1</sup> The Commission explained the function and implementation of its ERP Rules in the Phase I Decision. The discussion merits repeating in this Phase II Decision, since our review of the 120-Day Report and our consideration of the CEP Portfolio have been governed by these same rules.

examination of an electric utility's energy sales and demand forecasts, as compared to an assessment of its existing resources, to ensure that sufficient generation will be available to meet customer needs in the future. Second, the Commission's review and approval of an ERP ensures that the utility acquires a cost-effective mix of additional resources consistent with the state's public policy objectives, such as giving the fullest possible consideration to cost-effective implementation of new, clean energy technologies, pursuant to § 40-2-123, C.R.S., and the Renewable Energy Standard at § 40-2-124, C.R.S.

6. As established in the ERP Rules, it is the Commission's preference that electric utilities use competitive bidding to procure additional resources to meet identified future resource needs. An ERP thus describes in detail how the utility will evaluate the bids and proposals submitted in response to Requests for Proposals (RFPs), including the inputs and assumptions to its bid evaluation models (*e.g.*, natural gas prices, coal prices, carbon dioxide emissions costs, discount rates, and integration costs for intermittent resources), and how it will apply resource selection criteria.

7. The ERP process includes two phases. In Phase I, the Commission reviews and may approve, or approve with modifications, the utility's plan to acquire new utility resources. In Phase II, the Commission determines whether the utility should be granted a presumption of prudence for pursuing the acquisition of particular resources.

8. Rule 4 CCR 723-3-3617(c) describes the contents of the Commission's Phase I decision:

The Commission decision approving or denying the plan shall address the contents of the utility's plan filed in accordance with rule 3604. If the record contains sufficient evidence, the Commission shall specifically approve or modify: the utility's assessment of need for additional resources in the resource acquisition period; the utility's plans for acquiring additional resources through an

all-source competitive acquisition process or through an alternative acquisition process; components of the utility's proposed RFP, such as the model contracts and the proposed evaluation criteria; and, the alternate scenarios for assessing the costs and benefits from the potential acquisition of increasing amounts of renewable energy resources, demand-side resources, or Section 123 resources.

9. Phase II begins after the Commission issues its Phase I decision. In Phase II, the utility issues its RFPs, receives competitive bids and utility-owned proposals, and files a report 120 days after the bids are received in accordance with Rule 4 CCR 723-3-3613(d) (*i.e.*, the 120-Day Report). The report presents an evaluation of all proposed resources, based on the criteria established in the Phase I decision (*e.g.*, the modeling inputs and assumptions to be used in developing optimized resource portfolios and the sensitivities that “re-price” optimized portfolios using alternative values for selected inputs and assumptions).

10. The Commission issues a final decision at the end of Phase II that approves, conditions, modifies, or rejects the utility's preferred cost-effective resource plan. Rule 4 CCR 723-3-3613(h) describes the contents of a Phase II decision. The rule describes, in detail, timing and considerations in Phase II, culminating in a “written decision approving, conditioning, modifying, or rejecting the utility's preferred cost-effective resource plan....” The rule further sets out specific statutory criteria for Commission consideration in Phase II and lists various items to be examined, such as the acquisition of additional renewable and energy-efficient energy resources, environmental impacts, employment and other economic opportunities, and protection from fuel price increases.

11. Accordingly, as it considers a Phase II decision, the Commission weighs the public interest benefits set forth in statutory criteria while at the same time minimizing the net present value of revenue requirements in accordance with § 40-3.2-104, C.R.S.

12. Pursuant to § 40-2-123(1), C.R.S., the Commission gives the fullest possible consideration to cost-effective implementation of new clean energy and energy-efficient technologies in its consideration of generation acquisition for electric utilities. Resources are solicited specifically to advance the goals of § 40-2-123(1), C.R.S., and the Commission determines whether bids satisfy the statutory criteria as “Section 123” resources. Paragraph 161 of the Commission’s Phase I Decision addresses the approach to be used in this proceeding to evaluate Section 123 Resources in Phase II.<sup>2</sup>

13. Pursuant to § 40-2-129, C.R.S., and Rule 3102(e) and (f), the Commission also considers, on a qualitative basis and in the context of Phase II of an ERP, factors that affect employment and the “long-term economic viability of Colorado communities.” The Commission requires utilities to request information from bidders through the RFP process, which information includes, without limitation, training programs, employment of Colorado workers, and long-term career opportunities. This information is collectively referred to as “Best Value Employment Metrics” (BVEM).

14. In sum, the Commission considers all relevant information to determine whether a resource portfolio comes at a reasonable rate and cost impact, such that it is prudent for the utility to pursue. The utility is then permitted to pursue the final cost-effective resource plan in accordance with the Phase II decision, either with due diligence reviews and contract negotiations, or with applications for Certificates of Public Convenience and Necessity (CPCNs), as necessary, in accordance with Rule 4 CCR 723-3-3613(h).

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<sup>2</sup> Through the Commission’s Rule 4 CCR 723-3-3602(q), “Section 123 resources” are defined as “...new energy technology or demonstration projects...” As discussed in the Phase I Decision, Section 123 resources contain the attributes of being both “clean” and “new.” The responses to the RFP in this ERP yielded numerous bids of “clean” resources, a subset of which were both “clean” and “new.”

15. The Commission has previously issued two Phase II decisions for Public Service pursuant to the ERP Rules: Decision No. C09-1257, issued November 6, 2009, in Proceeding No. 07A-447E and Decision No. C13-1566, issued December 20, 2013, in consolidated Proceeding Nos. 11A-869E, 12A-782E, and 12A-785E. Likewise, this Phase II Decision establishes a final cost-effective resource plan consistent with the policies and procedures set forth in the ERP Rules.

## 2. Procedural Background

16. On May 27, 2016, Public Service filed an application for approval of its 2016 ERP (Application). The Application filing initiated Phase I of this ERP proceeding. Public Service requested that the Commission approve its 2016 ERP and the accompanying assumptions and studies incorporated in the 2016 ERP. The Company submitted Direct Testimony of five witnesses in support of the Application.

17. On July 15, 2016, the Commission set the Application for hearing and addressed interventions.<sup>3</sup> The following parties were allowed to intervene: Public Service; Staff of the Colorado Public Utilities Commission (Staff); the Colorado Office of Consumer Counsel (OCC); the Colorado Energy Office (CEO); the City of Boulder (Boulder); the Colorado Energy Consumers Group (CEC); Climax Molybdenum Company (Climax); Colorado Independent Energy Association (CIEA); Interwest Energy Alliance (Interwest); Colorado Solar Energy Industries Association (CoSEIA); the International Brotherhood of Electrical Workers, Local No. 111 (IBEW 111); Rocky Mountain Environmental Labor Coalition and Colorado Building and Construction Trades Council, AFL-CIO (jointly, RMELC/CBCTC); Holy Cross Electric Association, Inc.; Yampa Valley Electric Association, Inc. (YVEA); Intermountain Rural Electric

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<sup>3</sup> Decision No. C16-0663-I, issued July 15, 2016, Proceeding No. 16A-0396E.

Association (IREA); Grand Valley Rural Power Lines, Inc. (GVRPL); Invenergy Wind Development North America, LLC (Invenergy); Sustainable Power Group, LLC (sPower); Southwest Generation Operating Company, LLC (SWGen); Western Resource Advocates (WRA); and Vote Solar. The Commission also granted the Air Pollution Control Division of the Colorado Department of Public Health and Environment (CDPHE) leave to participate as an *amicus* in this Proceeding.

18. On September 23, 2016, the Commission established a procedural schedule for Phase I of the proceeding.<sup>4</sup>

19. On December 9, 2016, Staff, the OCC, CIEA, WRA, SWGen, sPower, CoSEIA, and Interwest filed Answer Testimony.<sup>5</sup>

20. On January 17, 2017, Public Service filed its Rebuttal Testimony, and the OCC, sPower, and WRA filed Cross-Answer Testimony.

21. On January 20, 2017, we established procedures for the evidentiary hearing before the Commission *en banc* and scheduled a public comment hearing on February 1, 2017.<sup>6</sup>

22. On January 26, 2017, we granted Staff's motion to allow parties to submit written Surrebuttal Testimony regarding the Company's proposal in its Rebuttal Testimony to address three levels of resource need in the Company's Phase II bid evaluation and selection report.<sup>7</sup>

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<sup>4</sup> Decision No. C16-0867-I, issued September 23, 2016, Proceeding No. 16A-0396E.

<sup>5</sup> On October 14, 2016, sPower filed a Motion for Waiver of Commission Rule 3902(c), requesting that the Commission waive the rule indefinitely, claiming it does not comply with the requirements of the Federal Public Utility Regulatory Policies Act of 1978 (PURPA) and the regulations promulgated by the Federal Energy Regulatory Commission to implement PURPA. Intervenor sPower also requested that the Commission establish an alternative methodology to calculate avoided costs for the purchase of electricity from Qualifying Facilities within this Proceeding. On December 19, 2016, the Commission denied sPower's Motion for Waiver, finding that the motion was procedurally improper and the relief, as requested, is beyond the scope of this Proceeding. *See*, Decision No. C16-1156-I, issued December 19, 2016, Proceeding No. 16A-0396E.

<sup>6</sup> Decision No. C17-0053-I, issued January 20, 2017, Proceeding No. 16A-0396E.

<sup>7</sup> Decision No. C17-0082-I, issued January 26, 2017, Proceeding No. 16A-0396E.



23. On January 30, 2017, Staff and the OCC filed Surrebuttal Testimony.

24. The Commission conducted the first public comment hearing in this ERP on February 1, 2017. Nearly 40 speakers provided oral comment on several issues, including the acquisition of renewable energy resources, the development of energy storage, fossil fuel consumption and its associated emissions, and electricity market design.

25. An evidentiary hearing on Phase I considerations was conducted February 1, 2017 through February 6, 2017. Hearing Exhibits 1 through 33 correspond to the pre-filed Direct Testimony, Answer Testimony, Rebuttal Testimony, Cross-Answer Testimony, and Surrebuttal Testimony. Hearing Exhibits 1 through 33 were offered and admitted into the evidentiary record in this Proceeding. Hearing Exhibits 34 through 75 were offered during direct examination, cross-examination, and redirect examination of witnesses. Hearing Exhibits 34 through 65 and 67 through 75 were admitted. Hearing Exhibit 66 was marked for identification, offered, but not admitted.

26. Parties filed post-hearing Statements of Position (SOPs) on February 24, 2017, including Public Service, Staff, the OCC, CIEA, WRA, CEC, SWGen, Vote Solar, sPower, CoSEIA, Interwest, RMELC/CBCTC, and Boulder. CDPHE also filed an SOP.

27. The Commission issued its Phase I Decision on April 28, 2017. The Phase I Decision approved, with modifications, Public Service's plan to implement a competitive bidding process for acquiring resources to meet its projected resource need during an eight-year Resource Acquisition Period extending from 2016 through 2023. The Phase I Decision also approved the process for evaluating bids in the competitive solicitation and established the modeling parameters, including inputs and assumptions for the presentation and consideration of potential resource portfolios in Phase II. The Phase I Decision required Public Service to present

in Phase II a resource portfolio that addresses the scenario where the Company experiences no resource need during the Resource Acquisition Period (0 MW need) and another resource portfolio based on the Company's updated demand forecast (later determined to be approximately 450 MW).

28. On June 15, 2017, the Commission issued Decision No. C17-0494 that addressed the applications filed by Public Service and OCC for rehearing, reargument, or reconsideration (RRR) to the Phase I Decision. The Commission granted, in part, and denied, in part, the Application for RRR filed by Public Service and denied the Application for RRR filed by OCC. In Decision No. C17-0494, the Commission also approved Accion Group, LLC (Accion) as the Independent Evaluator (IE) for the Phase II competitive solicitation and approved the contract between Accion and Public Service for IE services.

29. On August 29, 2017, Public Service filed a stipulation seeking an order permitting, for Commission consideration, presentation of a CEP Portfolio during the Phase II bid evaluation process (Stipulation). As proposed, the CEP Portfolio would be presented in addition to the 0 MW need and the updated demand forecast resource need (approximately 450 MW) portfolios as required by the Phase I Decision. The CEP Portfolio as presented in the Stipulation would address an altered resource need caused by the retirements of two coal-fired generation units at the Comanche station, Comanche 1 in 2022 (325 MW) and Comanche 2 in 2025 (335 MW). The Stipulating Parties, in addition to Public Service, include: Staff; OCC; CEO; Boulder; CEC; Climax; CIEA; Interwest; COSEIA; RMELC/CBCTC; Invenergy; SWGen; WRA; and Vote Solar.

30. On August 30, 2017, Public Service issued the RFPs for its competitive solicitation as approved in the Phase I Decision.

31. By Decision No. C17-0730-I, issued September 6, 2017, the Commission established an additional notice and intervention period in this proceeding in response to the filing of the Stipulation. The Commission also further extended the response time for parties opposing the Stipulation.<sup>8</sup>

32. By Decision Nos. C17-0796-I, C17-0823-I, and C17-1086-I, we granted additional interventions, including: Tri-State Generation and Transmission Association, Inc. (Tri-State); CF&I Steel, L.P., doing business as Evraz Rocky Mountain Steel (EVRAZ); Pueblo County; Board of Water Works of Pueblo, Colorado; City and County of Denver; Aspen Skiing Company, Protect Our Winters, and Intrawest Resort Holdings (collectively, Ski Resorts); Sierra Club; Environmental Defense Fund (EDF); Coalition of Ratepayers (Ratepayer Coalition or Coalition); and Pueblo's Energy Future (PEF).

33. By Decision No. C17-0796-I, issued September 28, 2017, we established the scope for the additional proceedings related to the Commission's consideration of the Stipulation and required Public Service to submit Supplemental Direct Testimony. We explained that the purpose of requiring the Company to provide additional information on costs, modeling assumptions, and calculation methods was to allow the parties in this Proceeding to investigate and potentially challenge this information at hearing, and to allow the Commission to be in a position to make its determinations on these issues prior to the Phase II modeling and the eventual filing of the 120-Day Report.

34. By Decision No. C17-0823-I, issued October 11, 2017, we adopted a procedural schedule for the consideration of the Stipulation, including a November 28, 2017, filing deadline for the Supplemental Direct Testimony from Public Service, and related discovery procedures.

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<sup>8</sup> Decision No. C17-0730-I at ¶¶ 9-11.

35. On November 28, 2017, Public Service received bids to its competitive solicitation.

36. Also on November 28, 2017, Public Service filed, in accordance with the terms of the Stipulation, an application in Proceeding No. 17A-0797E: (1) to modify the depreciation schedules for the early retirement of Comanche units 1 and 2; (2) to establish a regulatory asset to collect incremental depreciation costs; (3) to reduce the Renewable Energy Standard Adjustment (RESA) collection to 1 percent; and (4) to implement a rate adjustment equivalent to the RESA reduction, each contingent on the approval of the CEP Portfolio in this proceeding.

37. We conducted a public comment hearing on the Stipulation on December 7, 2017, in Pueblo, Colorado, where the Comanche 1 and Comanche 2 coal units that Public Service would retire as part of the CEP Portfolio are located.

38. By Decision No. C17-1086-I, issued December 28, 2017, we set February 7, 8, and 9, 2018 as the dates for the evidentiary hearing on the Stipulation.

39. On December 28, 2017, Public Service filed its “30-Day Report” describing bids received in response to its competitive bid solicitation.

40. By Decision No. C18-0051-I, issued January 19, 2018, we granted Public Service’s request for authorization to allow a “bid affirmation and refresh process” that required all bidders to either affirm or update bid prices based on federal actions, which included the Federal Tax Cut and Jobs Act of 2017 (TCJA) and the Suniva/SolarWorld trade case.

41. On February 1, 2018, we conducted a second public comment hearing on the Stipulation in Denver, Colorado.

42. We conducted the evidentiary hearing on the Stipulation on February 7, 8, and 9, 2018, as scheduled. Hearing Exhibits 76 through 97, 99E through 126, 128, 129, and 131 were

offered and admitted into the evidentiary record. Hearing Exhibit 127 was admitted into the record for administrative notice. Hearing Exhibits 98 and 130 were neither offered nor admitted.

43. Post-hearing SOPs were filed on February 21, 2018 by: Public Service; Staff; EVRAZ; Vote Solar; CEC; the Coalition; CEO; Tri-State; WRA; IREA; Holy Cross, YVEA, and GVRPL, jointly (Joint Co-ops); Interwest; CDPHE; Boulder; OCC; Sierra Club; EDF; CIEA; and Climax.

44. On March 1, 2018, Public Service filed an update to its 30-Day Report describing the “refreshed bids” authorized by Decision No. C18-0051.

45. Through Decision No. C18-0191 (CEP Presentation Decision), issued March 22, 2018, we permitted the presentation of the CEP Portfolio in Public Service’s Phase II 120-Day Report. We also required Public Service to present additional resource portfolios in the 120-Day Report beyond those set forth in the Stipulation for the purpose of our consideration of the relative costs and benefits of the CEP Portfolio.

46. Through Decision No. C18-0253-I, issued April 13, 2018, we granted Public Service’s Unopposed Motion for Extension of Time to File its 120-Day Report and Associated Filing Dates, extending the 120-Day Report filing date through May 7, 2018.

47. On April 30, 2018, Public Service filed a Second Motion for Partial Waiver of Rules 3613(d) – (h) to Provide an Extension of Time to File its 120-Day Report (Second Motion for Extension). The Company requested an additional 30-day extension until June 6, 2018, for the Company to file its 120-Day Report, sought an amended procedural schedule, and related partial rule waivers. The Company stated that, due to unexpected complexities encountered in developing the portfolios, the Company would not be able to complete the 120-Day Report by May 7, 2018. Through a separate motion filed April 30, 2018, Public Service proposed revisions

to procedural schedules in Proceeding No. 17A-0797E, the proceeding regarding accelerated depreciation and related requests, contingent on the Commission approving the CEP Portfolio. Staff and the Coalition noted concern with the further extension of the 120-Day Report given the Company's request that timelines in the two proceedings coincide.

48. Through Decision No. C18-0325-I, issued May 9, 2018, the Commission granted the Second Motion for Extension in this proceeding, noting that, through separate order in Proceeding No. 17A-0797E, the Commission also extended the unopposed schedule revisions in the proceeding regarding accelerated depreciation and related requests. The 120-Day Report required in this proceeding was therefore rescheduled for submission no later than June 6, 2018, with the IE and party comments following. The Commission anticipated this timeline could still meet a Phase II decision deadline in mid-September of 2018.

49. By Decision No. C18-0327-I, issued May 10, 2018, the Commission upheld its CEP Presentation Decision and denied the Coalition's request for RRR.

50. On June 6, 2018, Public Service filed its 120-Day Report pursuant to Rule 4 CCR 723-3-3613(d). Public Service presented in the 120-Day Report the CEP Portfolio and related portfolios required by the CEP Presentation Decision, as well as the resource portfolios required by the Phase I Decision.

51. Through Decision No. C18-0552-I, issued July 12, 2018, the Commission denied the late-filed intervention of Primary Energy Recycling Corporation. We also permitted a brief extension of time that was requested for the IE to file its report, and allowed supplemental party comments on August 2, 2018. Because of the additional request for extension of the schedule requested for the IE report, the Commission also found it necessary to waive the deadline in Rule 4 CCR 723-3-3613(h) for the Commission to issue its Phase II decision.

52. On July 16, 2018, the IE filed its report regarding the 120-Day Report (IE Report). The IE concluded that the Phase II competitive solicitation process was conducted fairly, without bias towards or against any acceptable technology or any bidder and that the results were appropriate. The IE also concluded that the modeling assumptions used by Public Service were consistent with those approved by the Commission and that the bid evaluation process developed by the Company with the IE's assistance was adequate. The IE stated that the resource portfolios presented by Public Service in the 120-Day Report accurately present options for meeting the goals of the competitive solicitation. The IE stated that these portfolios "represent the best combination of resources and accurately identify the benefits and results of adoption of each."<sup>9</sup>

53. By Decision No. C18-0572-I, issued July 20, 2018, we required a technical addendum to the 120-Day Report to provide the Commission with limited, highly confidential information related to certain portfolios. The information in the technical addendum was provided through discovery to parties in Proceeding No. 17A-0797E, pursuant to an order protecting the information as highly confidential. Parties were permitted to file supplemental comments on this limited filing by August 2, 2018.

54. The following parties filed comments regarding the Company's 120-Day Report: Boulder; the Coalition; the Joint Co-ops; IBEW 111; CEO; Staff; CEC; RMELC/CBCTC; OCC; EDF; CIEA; CoSEIA; Pueblo County; Interwest; SWGen; Sierra Club; WRA; PEF; and IREA.<sup>10</sup>

55. On July 23, 2018, Public Service filed the supplemental technical addendum to the 120-Day Report as required by Decision No. C18-0572-I.

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<sup>9</sup> IE Report at p. 43.

<sup>10</sup> By Decision No. C18-0643-I, issued August 7, 2018, the Commission granted IREA's motion filed July 24, 2018, requesting the Commission accept its comments, which were late-filed due to technical difficulties.

56. Supplemental party comments on the IE Report and technical addendum were filed August 2, 2018, by Vote Solar, the Coalition, CoSEIA, Interwest, and CIEA.

57. On August 9, 2018, Public Service provided its response comments on the 120-Day Report.

58. Throughout this ERP proceeding, the Commission received numerous written public comments, which were reviewed by the Commission and retained in the administrative record.

### **3. Stipulation and Presentation of the Colorado Energy Plan Portfolio**

59. In the Phase I Decision, the Commission directed Public Service to develop two resource need scenarios for the purpose of presenting portfolios in its 120-Day Report in Phase II. The first scenario was a zero-need case (*i.e.*, 0 MW) and the second was based on an updated demand forecast (a 450 MW case). The Commission also permitted Public Service to present in its 120-Day Report an alternative portfolio that may include additional resources in excess of the calculated resource need, conditioned on a showing that the portfolio provided benefits to customers over the planning period extending from 2016 through 2054.

60. In response to the opportunity offered in the Phase I Decision to present an alternative resource portfolio, the Stipulation sought to allow Public Service to present the CEP Portfolio in its 120-Day Report. The CEP Portfolio would include sufficient new renewable energy resources and other resources, including natural gas-fired electric generation, to meet a future resource need created by the early retirement of Comanche units 1 and 2, if so ordered by the Commission.

61. As explained in the CEP Presentation Decision, the Stipulation did not seek Commission approval of the CEP Portfolio prior to the issuance of the Phase II decision. Rather,



if the Commission allowed the CEP Portfolio to be considered, then the Company, based on bids received in the competitive bidding process, would seek to construct a portfolio of generation resources that would keep customers neutral or result in savings for customers on a present value basis. If the Company could meet this burden, the Stipulation would allow Public Service to present the CEP Portfolio, with the early retirement of Comanche units 1 and 2, for approval as part of the Phase II analysis in this ERP proceeding. As a proposed component of the CEP Portfolio, Public Service would propose to retire Comanche 1 no later than the end of 2022 (325 MW) and Comanche 2 no later than the end of 2025 (335 MW). The overall system need presented in the CEP Portfolio(s) would be: (1) 775 MW to include replacing the capacity of Comanche 1; and (2) 1,110 MW to include replacing the capacity of Comanche 1 and 2. The Stipulation required Public Service to present the 775 MW need portfolio, but left it to Public Service's discretion whether to present the 1,110 MW need portfolio.

62. Under the terms of the Stipulation, Public Service would model the CEP Portfolio, based on bids received in the ERP competitive bidding process. The Company would compare the costs of the CEP Portfolio against a baseline portfolio,<sup>11</sup> where Comanche 1 and 2 are not retired early, to determine the cost-effectiveness of the CEP Portfolio. If the CEP Portfolio keeps customers "neutral" or results in savings for customers on a present value basis, the Stipulation proposed that Public Service would present the CEP Portfolio(s) in its ERP Phase II 120-Day Report.

63. As part of any CEP Portfolio approved in Phase II of this ERP, the Stipulation included provisions specifying that the Company would own a proportion of the new utility

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<sup>11</sup> The baseline portfolio is the approximate 450 MW need case as established in the Phase I Decision. In accordance with Public Service's Modeling Assumptions Update filed on August 30, 2017, the updated forecast resource need is 454 MW in 2023.

resources acquired to fill the resource need. Of the resources included in the CEP, Public Service would own a target of 50 percent of the nameplate capacity of all eligible energy (*i.e.*, renewable) resources. The Company would also own a target of 75 percent of the nameplate capacity of all dispatchable resources, such as natural gas-fired generation, and semi-dispatchable resources, such as storage, acquired to fill the resource need.

#### **4. CEP Presentation Decision**

64. The Commission granted the request in the Stipulation to model and to present the CEP Portfolio in Phase II under the terms of the Stipulation. However, through the CEP Presentation Decision, we also ordered that Public Service present additional portfolios in the 120-Day Report to ensure that the CEP Portfolio is cost-effective as required by the ERP Rules. The CEP Presentation Decision reiterated that the ERP process is designed to provide the Commission with full information on the costs of acquiring new utility resources, including the costs of least-cost portfolios, so that the Commission can make an informed decision on the most cost-effective combinations of resources. Specifically, the Commission found that the presentation of a least-cost portfolio in Phase II is essential for our analysis of the cost-effectiveness of the CEP Portfolio, and was necessary to determine whether the early retirement of Comanche 1 and 2 is in the public interest.

65. The CEP Presentation Decision further acknowledged the value of maintaining both utility ownership of generation resources and ownership by Independent Power Producers (IPPs) in the resource portfolios developed for presentation in Phase II. The Commission recognized the particular importance of utility ownership in the voluntary proposal to retire Comanche units 1 and 2 and in the other concessions from Public Service such as restricted utility-builds, deferral of utility construction under Rule 4 CCR 723-3-3660(h), a requirement for

cost neutrality or savings of the CEP Portfolio, and the presenting of the CEP Portfolio within an ERP proceeding.

66. The CEP Presentation Decision approved the methodologies and assumptions as presented in the Stipulation to model the various portfolios in Phase II, with modifications. For instance, the Commission found it reasonable for Public Service to model the CEP Portfolio excluding the accelerated depreciation cost as proposed in the Stipulation. However, based on the advocacy of the Ratepayers Coalition and IREA, the Commission also determined that it was reasonable for Public Service to model the CEP Portfolio including the accelerated depreciation cost. The Commission directed Public Service to present the accelerated depreciation costs in the 120-Day Report in a manner that would allow the Commissioners to understand the accelerated depreciation impact on the CEP Portfolios as well as on the least-cost portfolios. The Commission also agreed with the Ratepayers Coalition that the timing of any increased or decreased costs that customers may experience should be presented in the 120-Day Report. We therefore directed Public Service to present annual cost impacts, including any deferred tax assets (DTAs) for the portfolios. In addition, we required Public Service to address the creation of DTAs with respect to the resource portfolios presented in the 120-Day Report for the purpose of assessing whether DTA impacts are material or pose any utility-ownership “risk.”

### **C. Colorado Energy Plan Portfolio**

67. The CEP Portfolio that Public Service presents in its 120-Day Report (Portfolio 6) was developed in accordance with the terms of the Stipulation. Public Service identifies the CEP Portfolio as the Company’s preferred cost-effective resource plan as required by Rule 4 CCR 723-3-3613(d).

68. The CEP Portfolio retires Comanche units 1 and 2 when contemplated in the Stipulation, as permitted and allowed with modification by the CEP Presentation Decision, *i.e.*, in 2022 and 2025, respectively. The utility resources in the CEP Portfolio include: Public Service's purchase of two existing natural gas-fired combustion turbine (CT) plants (383 MW total) previously under contract; the acquisition of 1,131 MW of new wind resources, 500 MW of which would be owned by Public Service; the procurement of 707 MW of new PV solar resources; and the development of 275 MW of new battery storage. Public Service explains that the low-bid prices for the wind resources reflect, in part, the qualification of these resources for 100 percent of the federal Production Tax Credit (PTC). Likewise, the solar bids benefit from the full federal Investment Tax Credit (ITC) of 30 percent.

69. The proposed mix of resources in the CEP Portfolio would result in 58 percent of the dispatchable and semi-dispatchable resources being owned by Public Service and 27 percent of the renewable resources being owned by the Company. As explained in the 120-Day Report, Public Service chose to present a CEP Portfolio with less ownership than contemplated in the Stipulation in consideration of the impact upon the modeled costs of the portfolio.

70. Public Service also presents several other portfolios for comparison to the CEP Portfolio in the 120-Day Report, including: the "Preferred ERP Portfolio" (Portfolio 3), which is intended to correspond to the 450 MW case as required by the Phase I decision and which the Company uses as the baseline for calculating the savings of the CEP Portfolio; the "zero need case" as required by the Phase I Decision (Portfolio 1); and a least-cost portfolio for the evaluation of whether the CEP Portfolio is cost-effective and whether the voluntary early retirement of Comanche 1 and Comanche 2 is in the public interest (Portfolio 5).

71. Public Service claims that the CEP Portfolio will save customers \$213 million on a net present value basis as compared to Portfolio 3. Public Service also explains that the CEP Portfolio is \$114 million more expensive on a net present value basis than the comparable least-cost portfolio (Portfolio 5). Public Service states that the DTA associated with the Company-owned wind for unused PTCs and its revenue requirement comprise \$82 million of the \$114 million difference.

72. Public Service states in the 120-Day Report that the CEP Portfolio “represents a unique and transformative opportunity that will set Colorado on a course that will benefit Public Service customers, local communities, and the State of Colorado as a whole.”<sup>12</sup> Specifically, the Company states that: (1) the utility ownership of generation resources in the CEP Portfolio “financially positions the Company to move forward with the EVRAZ contract<sup>13</sup> and amendment to the Property Tax Incentive Agreement in Pueblo”;<sup>14</sup> (2) the CEP Portfolio “keeps an anchor employer in Pueblo while simultaneously plotting a new energy and economic future for that community;” and (3) the CEP Portfolio encourages companies in Colorado to come forward with “innovative ways to transform their environmental performance.”<sup>15</sup>

73. In the Appendix F to the 120-Day Report, Public Service provides its analysis of the bids claiming “Section 123 status,” with levelized costs for each bid, along with a discussion

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<sup>12</sup> 120-Day Report at 28.

<sup>13</sup> On August 16, 2018, Public Service filed for approval of a contract with EVRAZ pursuant to § 40-3-104.3, C.R.S., in Proceeding No. 18A-0569E. Public Service and EVRAZ intend to enter into agreements and contracts based on the terms and conditions set forth in an Energy Services Agreement Memorandum of Understanding (ESA MOU) that entail the development of a 240 MW solar facility on land owned or leased by EVRAZ in Pueblo, Colorado. Public Service states that EVRAZ, which operates a steel manufacturing and fabrication plant, is the Company’s largest retail electric customer. Public Service also states that EVRAZ has indicated that if Public Service cannot stabilize its energy costs through terms of the ESA MOU, it will relocate its Pueblo steel facilities outside of Colorado.

<sup>14</sup> 120-Day Report at 28

<sup>15</sup> *Id.*

of the bids and specific Section 123 claims from each bidder.<sup>16</sup> Public Service recommends that many of the bids do not qualify for Section 123 status as “new or clean.” In any event, the CEP Portfolio, while including “clean” resources, includes no resource requiring Section 123 “new and clean” status.

74. Public Service further states in the 120-Day Report that, if the Commission wants to defer the procurement of 250 MW of solar with storage, (the project proposed to be located in Southern Colorado), to the Company’s next ERP, such an “alternative” CEP Portfolio would also be a cost-effective resource plan. Public Service argues that this “more measured” portfolio prevents the stranding of any similar-sized existing natural gas-fired generation facility and retains geographic and supplier diversity in the generation mix. The Company further explains that this alternative version of the CEP Portfolio would fill the entirety of the 450 MW resource need and Comanche 1 replacement capacity, while effectively deferring the Comanche 2 replacement capacity to the next ERP. Public Service asserts that bidders in the Company’s next ERP can benefit from the full federal ITC for PV solar, such that the deferral of the acquisition could achieve approximately \$20 million in additional savings on a net present value basis.

#### **D. Overview of Party Comments**

75. Several parties filed comments on Public Service’s 120-Day Report in accordance with Rule 4 CCR 723-3-3613(f). Public Service also filed responsive comments in accordance with Rule 4 CCR 723-3-3613(g). We have carefully considered all of these filings and summarize the principle themes of the parties’ advocacy below.

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<sup>16</sup> As explained in the Phase I Decision, the Commission defines projects as “Section 123 Resources” in an ERP context as set forth in Rule 4 CCR 723-3-3602(q) that states: “Section 123 resources” means new energy technology or demonstration projects, including new clean energy or energy-efficient technologies under § 40-2-123(1)(a), C.R.S. and § 40-2-123(1)(c), C.R.S., and Integrated Gasification Combined Cycle projects under § 40-2-123(2), C.R.S.”

**1. Staff**

76. Staff concludes that the CEP Portfolio (Portfolio 6), its alternative form, and the Preferred ERP Portfolio (Portfolio 3), are all viable options for the Commission to consider for approval. However, Staff states that it is unable to conclude that the CEP Portfolio is more likely than not to produce savings relative to Portfolio 3 and that the Company's claimed savings of \$213 million from the pursuit of the CEP Portfolio are likely overstated.

77. Staff notes that most of the modeled savings occur after 2034, when Comanche 1 is currently set to retire, and is replaced by a natural gas-fired Combined Cycle (CC) unit in Portfolio 3. Staff claims that the use of a CC plant to replace the retired Comanche units is unrealistic and that the "cost premium" of Portfolio 3 is largely driven by this replacement CC.

78. Staff further notes that a specific replacement CT in 2026 of 190 MW also skews the results of the modeling, overstating the savings by \$17 to \$58 million. Staff further argues that Public Service improperly modified generic CT costs as established in the Phase I Decision, without Commission approval. While Staff agrees with Public Service that a modeling problem occurred and needed to be addressed with respect to the CT costs, Staff does not agree with Public Service's course of action, which Staff alleges overstates savings by \$6.5 million.

79. According to Staff, the earlier years in the CEP Portfolio have increased costs as compared to the Portfolio 3. Staff also notes that the proposed ownership of new wind resources in the CEP Portfolio results in a cost premium as well as added risk. Staff suggests that if the Commission relies on the Company's DTA cost estimates, the Commission also should mitigate or insulate ratepayers from the associated risks that the DTA estimates are understated.

## 2. Ratepayer Coalition

80. The Coalition recommends against the approval of early retirement of Comanche units 1 and 2. The Coalition asserts that ratepayers will be better off on a net present value basis by \$255 million in 2033 and \$223 million in 2035 with their continued operation.

81. The Coalition argues that Public Service has made a series of biased assumptions that inflate the revenue requirement of the replacement unit for Comanche 1 and 2 in the ERP portfolio, including: (1) not including the costs of the accelerated depreciation directly in the modeling; (2) using a CC unit to replace the retiring Comanche 1 and 2 units while using an inexpensive CT unit in the early retirement case; (3) not including all necessary TCJA impacts; (4) using lower natural gas commodity prices for the CTs than authorized in the Phase I Decision; (5) using lower CT prices than authorized in the Phase I Decision; (6) applying excessive transmission cost to CC units; and (7) not applying the wind degradation sensitivity as suggested earlier in this Proceeding by Staff.

## 3. Rural Electric Co-Ops

82. The Joint Co-ops assert that the CEP Portfolio will be much more costly to Public Service's ratepayers than the Preferred ERP Portfolio primarily due to DTA impacts. Specially, the Joint Co-ops dispute the Company's quantifications of its tax liabilities associated with the PTCs generated by its utility-owned wind projects. The Joint Co-ops estimate, for example, that the proposed acquisition of the utility-owned 500 MW wind facility will entail carrying costs that could be in excess of Public Service's savings estimate. The Joint Co-ops also assert that DTA mitigation associated with the PTCs must be applied now in this ERP proceeding rather than waiting for the CPCN proceedings as Public Service proposes. The contemplated mitigation could take several forms, such as limiting the carrying cost of the DTA to the cost of ten-year



short term debt and requiring the elimination of the DTA after ten years. According to the Joint Co-Ops, it will be too late to consider other cheaper options, such as purchased power agreements (PPAs), in those follow-on CPCN proceedings.

83. IREA advocates for the approval of the Preferred ERP Portfolio (Portfolio 3), instead of the CEP Portfolio. IREA agrees with some of the Coalition's criticisms, including those directed at the treatment of accelerated depreciation costs in the portfolio modeling. IREA posits that Public Service would be better positioned to take advantage of declining renewable generation pricing if it retired Comanche Units 1 and 2 as scheduled.

#### **4. CEC and OCC**

84. CEC recommends that the Commission pursue a mechanism to track "actual" versus "promised" savings for ratepayers. The mechanism could include: (1) biennial reports; (2) comprehensive testimony in the follow-on CPCN applications and future rate proceedings; and (3) off ramps in future ERP proceedings, if such modifications could lead to further customer savings. CEC also recommends that the Commission approve the alternate form of the CEP Portfolio, citing Public Service's prediction that solar with battery storage projects will have lower prices in the Company's next ERP.

85. OCC also recommends that the Commission approve the alternative form of the CEP Portfolio. The OCC agrees that deferring some of the new generation capacity procurements to the Company's next ERP presents a better opportunity for customers to capture the benefits of renewable energy and early Comanche retirement while avoiding near-term "over-acquisition." OCC also raises concerns with the modeling of storage resources.

## 5. CIEA, Interwest, and SWGen

86. CIEA recommends that the Commission approve the acquisition of the CEP Portfolio, noting that the reduced ownership levels demonstrate the Company's commitment to both ratepayers and environmental leadership.

87. Interwest similarly supports the acquisition of the CEP Portfolio. Interwest argues that the new generation resources will provide substantial and compelling public health benefits from emission reductions and the avoidance of new gas plants. Interwest also argues that the CEP Portfolio is cost-effective as required by the ERP Rules, as it provides customer savings, jobs and economic development, and growth in Pueblo. Interwest further argues that the CEP Portfolio provides balanced ownership percentages, geographic diversity, and diversity of generation. If the Commission defers the solar with storage project and approves the alternative form of the CEP Portfolio, Interwest requests that the Commission establish a solar with storage placeholder or similar target resource in the Company's next ERP.

88. SWGen recommends approving the CEP Portfolio, which includes its bid.

## 6. COSEIA and Vote Solar

89. COSEIA recommends that the Commission approve the CEP Portfolio and warns that the PTC and the ITC may not be fully available in the next ERP. COSEIA therefore advocates against the alternative form of the CEP Portfolio. COSEIA also disagrees with the Ratepayer Coalitions' assertion that accelerated depreciation costs should be included in modeling, arguing that such costs are covered when the RESA is reduced to 1 percent from 2 percent as proposed in Proceeding No. 17A-0797E. COSIEA further notes that the Comanche generation station is the largest consumptive user of water in the Company's generation portfolio and thus supports the early retirement of units 1 and 2.

90. Vote Solar asserts that Public Service can reliably integrate large amounts of renewable energy on its system in the future and additional gas generation will not be necessary.

**7. WRA, Sierra Club, and EDF**

91. WRA recommends that the Commission approve the CEP Portfolio. With respect to environmental benefits, WRA states that the acquisition of Portfolio 6 will provide a 60 percent reduction in carbon dioxide emissions, contributing 18 million short tons of emissions reduction for the state reduction goal of 25 million tons by 2025. According to WRA, the CEP Portfolio also reduces SO<sub>2</sub> and NO<sub>x</sub> emissions by 90 percent. In terms of economic benefits, WRA agrees with Public Service that the CEP Portfolio will provide savings exceeding \$200 million on a net present value basis and notes that more savings is shown in certain sensitivity runs highlighted in the 120-Day Report. WRA warns that approval of the alternative form of the CEP Portfolio poses additional risks, because the full investment tax credit may not be available in the next ERP if legislation changes.

92. Sierra Club also supports approval of the CEP Portfolio. While Sierra Club states that it is generally concerned that investments in natural gas-fired generation resources could put ratepayers at risk of additional stranded assets, such risks are reduced in the CEP Portfolio because it entails the acquisition of existing CT units.

93. EDF joins in recommending the approval of the CEP Portfolio. EDF highlights that the CEP Portfolio will significantly reduce emissions of mercury, SO<sub>2</sub> and NO<sub>x</sub> emissions, particulate matter, and carbon dioxide emissions. EDF argues that since Comanche 1 and 2 lack selective catalytic reduction (SCR) controls, they would likely rise to the highest priority for retrofit in a state emission strategy to comply with the next phase of the Environmental Protection Agency's regional haze rule. EDF notes that Public Service estimates the cost of SCR

controls would be approximately \$190 million, and if the units were required to be retired early, the current tax credits for wind and solar would not likely be available. EDF also argues that the alternative form of the CEP Portfolio has higher emissions than produced by Portfolio 6. EDF argues that further delaying acquisitions to replace Comanche 2 capacity to the next ERP will fail to take advantage of the incredibly low bids in the current ERP.

## **8. Labor Groups**

94. RMELC/CBCTC and IBEW 111 assert that the BVEM information contained in the 120-Day Report is inadequate. They argue that the 120-Day Report fails to provide sufficient information on training programs, importation of out-of-state workers, long-term opportunities, and industry standard wages, healthcare, and pension benefits. Accordingly, they conclude that the Commission lacks adequate information to determine the cost effectiveness of the CEP.

## **9. Pueblo's Energy Future and Pueblo County**

95. PEF recommends that the Commission approve the CEP Portfolio to reduce harmful emissions and improve public health benefits for its disadvantaged communities. PEF argues that the CEP Portfolio offers positive economic benefits to the Pueblo area and reduces water demand. PEF advocates for approval of the unmodified CEP Portfolio, arguing that the alternative form substantially diminishes benefits for Pueblo.

96. Pueblo County likewise recommends that the Commission approve the CEP Portfolio. While Pueblo County is concerned about job losses at the Comanche station, it appreciates Public Service's work to transition work into other jobs and is encouraged by the potential economic development opportunities of the CEP Portfolio as well as its associated environmental improvements and "identity transition" for the community. According to Pueblo County, the CEP Portfolio as set forth in Portfolio 6 will benefit Pueblo County more than the

alternative form discussed in the 120-Day Report because it offers more certainty regarding the location of replacement generation for the Comanche unit 2.

## **10. Boulder**

97. Boulder recommends that the Commission adopt Portfolio 9 as set forth in the 120-Day report. This portfolio defers acquisition of replacement capacity for Comanche 2 to the next ERP. Boulder argues that Public Service's future need remains uncertain, which is exacerbated by Boulder's municipalization efforts. Boulder also recommends requiring short-term PPAs with IPPs for natural gas-fired resources instead of utility ownership. Boulder also encourages increasing amounts of battery storage on Public Service's system.

## **11. Public Service's Response**

98. Public Service reasserts that its modeling for bid evaluation and selection was performed as required by the Phase I Decision and the CEP Presentation Decision. In general, Public Service disagrees with the Joint Co-ops concerning DTA impacts and with the Coalition regarding its modeling issues.

### **E. Portfolio Selection**

99. We have fully reviewed the criticisms raised by all parties in this proceeding, including the Ratepayer Coalition, the Joint Co-Ops, and Staff with respect to the expected costs and savings associated with the CEP Portfolio. We have also reviewed the 120-Day Report filing in light of the concerns raised by RMELC/CBCTC and IBEW 111.

100. We agree with the Ratepayer Coalition and Staff regarding the flaws in the portfolio modeling in the later years of the Resource Planning Period. We therefore focus primarily on the period before 2034, prior to the years relied upon to derive the \$213 million estimate of customer savings from the CEP Portfolio. However, we conclude that it is

appropriate to model the portfolios without the accelerated depreciation costs of Comanche units 1 and 2 and uphold the related findings in the CEP Presentation Decision. Likewise, we are not inclined to reverse any of the other modeling-related decisions set forth in the Phase I Decision and the CEP Presentation Decision.

101. Public Service appropriately required all bidders to the competitive solicitation to provide the required BVEM information. The information the Commission required included the metrics set forth in § 40-2-129, C.R.S., including but not limited to, the availability of training programs; employment of Colorado workers as compared to importation of out-of-state workers; long-term career opportunities; and industry-standard wages, health care, and pension benefits. The Company provided the Commission all of the BVEM information from bidders in its 120-Day Report filing. Although we recognize that depth and quality of the information varies across the bidders, we find that all bidders provided a reasonable range of information adequate for the Commission to comport with § 40-2-129, C.R.S. We find that the Commission received sufficient information to consider, on a qualitative basis, factors that affect employment and the long-term economic viability of Colorado communities.<sup>17</sup>

102. Based on our review of the 120-Day Report and the related comments on bid evaluation and modeling, we determine that the costs are comparable of the CEP Portfolio, which embodies the early retirement of Comanche units 1 and 2, and the costs of the Preferred ERP Portfolio, which assumes the continued operation of the Comanche units through their expected retirement dates. Given the comparability of the costs of these two portfolios, we focus on the relative benefits of the two options.

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<sup>17</sup> In the future, Public Service should make it clear in the RFP that bids will be disqualified if they do not comply with § 40-2-129, C.R.S., and Rule 3102 (e) and (f).

103. We find that the early retirement of Comanche units 1 and 2 is in the public interest because it allows Public Service to take advantage of the exceptionally low bid prices from its competitive solicitation in this ERP. The competitive response to the RFP far exceeded all previous ERP solicitations and provides a rare opportunity to capture some of the lowest resource bids ever experienced in Colorado. We note that the wind bids are exceptionally low as compared to the pricing information provided in Public Service's previous wind resource proceedings. Because the wind PTC is set to expire, the competitive solicitation that concluded late last year may be the only opportunity for Public Service to procure wind resources at this low level of pricing. Similarly, the natural gas-fired CT bids are far lower than expected for that technology, likely because they are existing plants coming off of contract. Because the bidders have risen to the occasion and provided extremely low bid prices, Public Service can take advantage of exceptional prices for new resources without risking that such cost-competitive resource alternatives are unavailable in another ten years.

104. There is no dispute that Comanche units 1 and 2 plants are currently in compliance with emissions regulations and are fully operational. By retiring Comanche units 1 and 2 in 2022 and 2025, however, Public Service will have essentially mitigated its coal plant emissions across its generation fleet. We are persuaded of the environmental benefits of achieving a 90 percent Company-wide reduction in SO<sub>2</sub> and NO<sub>x</sub> emissions as compared to 2005 levels. We likewise recognize the significant strides Public Service can make in reducing its carbon dioxide emissions. Further, the costs of compliance with future increases in emissions requirements are mitigated through early retirement.

105. The CEP Portfolio also offers a reasonable mix of utility and IPP ownership. Consistent with the CEP Presentation Decision, it is in the public interest for Public Service's

generation fleet to achieve a reasonable balance of the utility-owned and IPP-owned generation resources.

106. We concur with Public Service that the CEP Portfolio will enable the Company to take “a large step into the utilization of battery storage.”<sup>18</sup> We also agree with WRA that the competitive pricing of battery storage in response to the competitive solicitation was one of the most surprising and welcome results. The proposed acquisitions will offer a learning opportunity to examine how solar paired with storage can enhance system reliability and flexibility.<sup>19</sup>

107. The particular bids selected for the CEP Portfolio present certain opportunities for new jobs in Pueblo as well as other areas in Colorado. While there is no guarantee that job losses caused by the retirement of the Comanche units will be remedied with new jobs associated with the selected resources proposed to be built in the Pueblo area, the \$670 million of investment associated with 525 MW of new PV solar and 225 MW of storage is considerable. The CEP Portfolio further allows us to consider the special contract developed for EVRAZ in Proceeding No. 18A-0569E.

108. We note that the gas generation units in the CEP Portfolio are existing facilities. Public Service is not pursuing the development of any new gas plants, and a substantial portion of the expected life of these existing plants has already passed. While Public Service’s proposed ownership term for these plants is not in the public information filed in conjunction with the 120-Day Report, we are satisfied that the ownership term used in the bid evaluation modeling is consistent with terms bid for IPP contracts. The expected used and useful lives of the gas

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<sup>18</sup> 120-Day Report at p. 7.

<sup>19</sup> Because these solar with storage bids were cost-effective for purposes of portfolio modeling, they do not need to be identified as “Section 123” projects in order to be considered for acquisition. Thus through the CEP Portfolio we gain the benefits of “Section 123” type resources without incurring any additional cost historically associated with including such projects.



generation to be acquired by Public Service will be fully addressed in follow-on CPCN proceedings. We therefore conclude that the concerns of certain parties about potentially stranded gas plants have been and will be addressed.

109. We also reviewed all bids claiming Section 123 status in Appendix F to the 120-Day Report. We agree with Public Service that none of these resources should be acquired in this ERP.

110. Finally, we find it appropriate to grant Public Service's proposal to acquire 500 MW of new utility-owned wind resources. But, we share the concerns of several parties regarding customer risk associated with the DTAs for this Company-owned wind. Public Service can only utilize the value of PTCs if they eliminate a tax liability. If the Company has no tax liability, or has other deductions or credits that eliminate tax liability before the PTCs can be used, the PTCs can be carried forward in a DTA and used at a later time when tax liability exists.

111. As stated in the 120-Day Report, Public Service included an \$82 million offset on a net present value basis in modeling to account for this DTA carrying cost. Staff responds that it worked with Public Service to develop alternate cost calculations for DTA impacts and states that its "best estimate" of the DTA costs is \$98 million on a net present value basis. Staff states that if the Commission relies on these DTA cost estimates, it should mitigate or insulate customers from such risks. Staff suggests that necessary DTA mitigation should be developed as a part of the CPCN proceeding.

112. We agree with Staff and the Joint Co-ops that one of the biggest risks to customers of the CEP Portfolio is the potential for actual Company-owned wind costs, including DTA impacts, to be significantly higher than Public Service forecast in its modeling. We also agree with Staff that the CPCN proceeding is where customer protection from these risks should

be addressed. In the CEP Presentation Decision, we concluded that it would be premature and beyond the scope of this ERP proceeding to address any specific ratemaking provisions. When rendering that decision, we denied CEC's first request to require Public Service to implement a mechanism to track savings from the CEP. We continue to agree with Public Service that it is not feasible to compare the CEP Portfolio against "a road not taken," particularly with the complexity and dynamics of the generation portfolios and the continuous changes in the utility rates and regulatory issues. Nevertheless, we shall instruct Public Service to devise a ratepayer protection mechanism based on a comparison of IPP bids to the utility-owned wind costs, including DTA impacts as developed for the portfolio modeling, now that bids for actual alternative wind projects are available. We set forth the requirements for this mechanism in the filing requirements for the CPCN application for the 500 MW wind project below.

113. We therefore conclude that the acquisition of the CEP Portfolio can be achieved at a reasonable cost and rate impact in consideration of its associated benefits. The composition of the CEP Portfolio further satisfies the requirement in this ERP that we give the fullest possible consideration to the cost-effective implementation of new clean energy and energy-efficient technologies, as required by § 40-2-123(1), C.R.S.<sup>20</sup>

## **F. Applications for Certificates of Public Convenience and Necessity**

### **1. Comanche Units 1 and 2**

114. Rule 4 CCR 723-3-3103 of the Commission's Rules Regulating Electric Utilities requires an electric utility to file applications for authority from the Commission to amend a

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<sup>20</sup> Commissioner Wendy M. Moser approves the early retirement of Comanche units 1 and 2 and agrees with the approval of the CEP Portfolio. Commissioner Moser voted in favor of the alternative form of the CEP Portfolio, due to the impact of the proposed acquisition of the 250 MW solar with storage project on the Company's reserve margin in 2023 (Public Service 120-Day Report, Table 7, p. 41) and based on the representation by Public Service that the Company is not opposed to its adoption by the Commission.

CPCN in the event that the utility seeks to “discontinue without equivalent replacement” any facility not in the ordinary course of business.

115. Notwithstanding Rule 4 CCR 723-3-3103, the parties that entered into the Stipulation agreed that no additional CPCN is required to authorize the retirement of Comanche units 1 and 2 if the Commission approves the CEP Portfolio. They recognized, however, that the Commission may not agree with them and may require the Company to file CPCN applications after approving the retirements in this ERP proceeding.

116. We find it necessary to require Public Service to file a CPCN application for the retirement of Comanche units 1 and 2. The early retirement of the generation plants does not constitute the Company’s “ordinary course of business.” The Joint Co-ops and Staff also have raised sufficient questions in this proceeding to support further examination of the decommissioning of the facilities and the treatment of the site given that the units share the Comanche generation station with unit 3 that will remain in operation for several additional years.

117. Because we approve the early retirement of Comanche units 1 and 2 by this Decision, finding that it is necessary and in the public interest, and because the Commission has successfully reviewed CPCNs for plant retirements following Proceeding No. 10M-245E, we will not require Public Service to satisfy all of the usual CPCN filing requirements set forth in Rule 4 CCR 723-3-3103.

118. Consistent with Decision No. C10-1328,<sup>21</sup> a modified application proceeding limited to Commission review and approval of detailed cost estimates and schedules associated

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<sup>21</sup> Decision No. C10-1328 was issued in Proceeding No. 10M-245E on December 15, 2010.

with the closure and decommissioning of the units will suffice. We therefore waive certain provisions under Rule 4 CCR 723-3-3103, such that Public Service will be required to provide in the application only the following elements:

- a) the information required in Commission Rules 4 CCR 723-3-3002(b) and 3002(c), consistent with conventional application filings;
- b) a description of the proposed facilities to be decommissioned and/or removed;
- c) estimated costs of the decommissioning and/or removal of these facilities; and
- d) the anticipated start date of the decommissioning and/or removal work, a schedule for these activities, and a completion date.

## **2. Natural Gas-Fired Resources**

119. Rule 4 CCR 723-3-3102 requires an electric utility to file applications for a CPCN for all new electric generation facilities.

120. In the 120-Day Report, Public Service acknowledges that CPCN application filings are required for the purchase of existing generation assets. Public Service also states that in a CPCN proceeding for Company-owned gas generators, the Commission can also address cost recovery at that time. Public Service states that it will bring forward a formal cost recovery request for the two generators in the CPCN application proceedings.

121. We agree with the approach proposed by Public Service and direct the Company to address cost recovery requests in the required CPCN application filings.

## **3. Utility-Owned Wind**

122. Public Service also must file an application for a CPCN for the proposed 500 MW utility-owned wind project included in the CEP Portfolio.

123. Public Service states in the 120-Day Report that cost recovery issues for the proposed 500 MW wind project can be adjudicated through the CPCN proceeding. For example, the proceeding could address the cost recovery treatment contemplated in the Stipulation and modeled as part of the bid evaluation process, where costs are recovered from the commercial operation date of the facility through a combination of the RESA and the Electric Commodity Adjustment (ECA) until it is placed in base rates. Public Service states that the Commission could also address the treatment of the DTA associated with the wind facility.

124. We agree with Public Service that the potential DTA impacts and other cost recovery issues should be addressed in the follow-on CPCN application proceeding for the 500 MW wind project. The ratepayer protections we find necessary to ensure that customers receive the value of the acquisition of this utility-owned wind shall be developed in the context of the CPCN application.

125. As part of the CPCN application, we direct Public Service to propose a ratepayer protection mechanism associated with the proposed wind facility.<sup>22</sup> The purpose of the mechanism is to ensure Public Service's customers receive the value from the proposed wind resources at the level of costs Public Service put forth in this Phase II bid evaluation and selection modeling. We expect that the proposed mechanism will address the risks to customers associated with wind energy production levels, DTA carrying costs, and other operations and maintenance (O&M) costs.<sup>23</sup>

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<sup>22</sup> The terms of the Stipulation prevented any of the Stipulating Parties to advocate for any additional performance-based or cost recovery conditions on the CPCN for a utility-owned wind project. Stipulation, p. 14.

<sup>23</sup> In the Phase I Decision, the Commission declined to adopt a point cost requirement for O&M, but required Public Service to provide, as a part of any utility proposal, detailed information on its O&M estimates, consistent with the types of information the Company requires for IPP bids. We also required Public Service to track the actual O&M costs for a utility facility acquired pursuant to this ERP and explain any differences between actual and estimated costs in any rate recovery proceeding where the facility is at issue, within ten years of the date the facility commences operation. *See* Paragraph 118.

126. The required ratepayer protection mechanism shall be based on a detailed analysis of the modeled costs of the proposed Company-owned wind facility translated into a \$/MWh figure that is comparable to an IPP bid. The levelized bid costs in Highly Confidential Appendix H to the 120-Day Report<sup>24</sup> confirm the availability of lower IPP bid prices for use in the proposed ratepayer protection mechanism.

127. The \$/MWh figure must be shown to include no greater “cost premium”<sup>25</sup> than the \$82 million calculated by the Company in its comparison CEP Portfolio to Portfolio 5.<sup>26</sup> The rebuttable presumption of prudence granted by this Decision would apply to all costs within that \$/MWh threshold in future rate recovery proceedings. For any costs above that threshold, Public Service will have the burden to prove the prudence of such costs, and why it is reasonable that such costs are in excess of the levels used to evaluate the resource in the modeling.

128. We expect Public Service to perform a thorough assessment of its ability to implement the proposed 500 MW wind project and to evaluate its risks within the period when it is negotiating final contracts with bidders under the Commission approved portfolio. We will allow Public Service to substitute a similar IPP bid in place of the utility ownership, at its discretion, if Public Service determines that it will be unable to produce the required level of energy or limit costs to the levels it used in modeling.

129. We recognize that Public Service also has included the performance metrics advocated by Staff with respect to the Stipulation. In accordance with those terms of the Stipulation, we direct Public Service to propose in the CPCN filing an additional performance

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<sup>24</sup> We note that the bid prices in Highly Confidential Appendix H reflect TCJA impacts on bid prices, as bidders were allowed to refresh their bids after the TCJA was passed.

<sup>25</sup> Staff’s Comments on the 120-Day Report, pp. 3, 28, and 32.

<sup>26</sup> Public Service 120-Day Report, p. 28.

metric that is substantially similar to, but no more stringent than, the performance metric for the Rush Creek Wind Project.

130. We further agree with Public Service that other cost recovery issues for the proposed 500 MW wind project, including the provisions addressed in the Stipulation, can be adjudicated in the CPCN proceeding, such as the proposal to recover costs for utility-owned wind through the RESA and ECA to the facility being placed in base rates and the Company's agreement not to pursue recovery of Construction Work in Progress through the RESA during the construction of the wind facility.

#### **4. Badger Hills Switching Station**

131. The Stipulation states that Public Service will bring forward a separate CPCN application seeking authority to construct a new switching station on its southern transmission system in order to facilitate interconnection access of wind and solar generation in Energy Resource Zone-5. Public Service states that the approximate location of this switching station would be provided in the RFP documents for the competitive solicitation.

132. In the 120-Day Report, Public Service identifies the Badger Hills Station and states that it will prepare and file a CPCN application for its construction. The Badger Hills Station is listed as a transmission project required for the development of the CEP Portfolio at an estimated cost of \$12 million.

133. We direct Public Service to file a CPCN application for the proposed Badger Hills Station and the additional transmission investment identified in the 120-Day Report for the Pueblo area that is part of the \$204 million total transmission investment associated with the CEP Portfolio. The application for the CPCNs shall be filed pursuant to Rule 4 CCR 723-3-3102.

**G. Future ERP Issues****1. Rule 4 CCR 723-3-3660(h)**

134. The approval of the CEP Portfolio by this Phase II Decision offers Public Service greater utility ownership of both natural gas-fired generation and renewable energy resources. Public Service estimates in the 120-Day Report that it will make \$1 billion of investments in the development of the CEP Portfolio. Staff quantifies the significant expected earnings Public Service will receive on this investment during the Resource Planning Period net of any foregone earnings on Comanche units 1 and 2 in its comments. In light of the significant financial benefits that will accrue to Public Service from the approval of the CEP Portfolio, we expect the Company to adhere to the terms related to Rule 4 CCR 723-3-3660(h) that it agreed to in the Stipulation with respect to the Company's next ERP.

135. First, Public Service shall include the utility-owned wind in the CEP Portfolio in both the numerator and denominator for purposes of calculating utility ownership levels in the application of Rule 4 CCR 723-3-3660(h). All eligible energy resource acquisitions shall count in the denominator, consistent with the terms of the Stipulation.

136. Second, Public Service shall not propose to acquire any eligible energy projects through applications filed pursuant to Rule 4 CCR 723-3-3660(h) prior to the filing of the Company's next ERP.

137. Third, Public Service shall use the bids received in response to the RFPs for resources in its next ERP in evaluating whether any similar resources proposed to be acquired by Public Service pursuant to Rule 4 CCR 723-3-3660(h)(I) "can be constructed at reasonable cost compared to the cost of similar eligible energy resources available in the market," as required by § 40-2-124(1)(f)(I), C.R.S.



## 2. Updates and Studies

138. In its comments on Public Service's 120-Day Report, Staff suggests certain studies and updates intended to keep Staff and the Commission "in the loop" during the next ERP proceeding. Most of the recommended studies relate to the bid evaluation and selection modeling that the Commission and parties rely upon Public Service to complete and then present in Phase II 120-day reports.

139. Staff suggests the following:

- a) An updated study of storage credits and operation. Staff states that storage studies should identify: the preferred storage type(s), expected system benefits (transmission and distribution levels), and the "storage value stack;"
- b) An updated flex reserve study. This study would be similar to the study previously ordered in Decision No. C17-0316;
- c) An updated wind integration study incorporating the Rush Creek Wind Project;
- d) An updated solar integration study if additional operational experience has been acquired; and
- e) Updated Effective Load Carrying Capability studies, as necessary.

140. We agree with Staff that the studies listed above are essential to the Company's next ERP. We therefore direct Public Service to file the updated studies as recommended by Staff.

### H. Requests Not Explicitly Addressed

141. To the extent other specific requests made by Public Service or an intervening party are not addressed in this Decision, they are denied.

## II. ORDER

### A. The Commission Orders That:

1. The proposed early retirement of units 1 and 2 at the Comanche generation station, owned and operated by Public Service Company of Colorado (Public Service), is approved as part of its 2016 Electric Resource Plan (ERP), consistent with the discussion above.

2. Public Service shall file an application to amend the Certificates of Public Convenience and Necessity (CPCNs) for Comanche units 1 and 2, pursuant to 4 *Code of Colorado Regulations* (CCR) 723-3-3103 of the Commission's Rules Regulating Electric Utilities, as modified by this Decision, consistent with the discussion above.

3. The selected resources in the Colorado Energy Plan (CEP) Portfolio (Portfolio 6) as presented in the "120-Day Report" filed by Public Service on June 6, 2018, are approved, consistent with the discussion above. Public Service shall pursue this cost-effective resource plan with further due diligence and contract negotiations. Public Service's actions, consistent with this Decision, shall be presumed to be prudent at the time of cost recovery.

4. Public Service shall file applications for CPCNs to acquire the existing natural gas-fired generation resources included in the CEP Portfolio, pursuant to 4 CCR 723-3-3102, consistent with the discussion above.

5. Public Service shall file an application for a CPCN to acquire the 500 MW utility-owned wind generation facility included in the CEP Portfolio, pursuant to 4 CCR 723-3-3102. As a part of its application file for the CPCN, Public Service shall propose a ratepayer protection mechanism to ensure customers receive the value from the proposed wind resources at the level of costs Public Service put forth in the 120-Day Report. The required ratepayer protection mechanism shall be based on a detailed analysis of the modeled costs of the proposed Company-

owned wind facility translated into a \$/MWh figure that is comparable to the competitive bids for wind resources received in this 2016 ERP, consistent with the above discussion.

6. Public Service shall file an application for a CPCN to develop the Badger Hill Switching station pursuant to Rule 4 CCR 723-3-3102, consistent with the discussion above.

7. With respect to its next ERP filing, Public Service shall implement Rule 4 CCR 723-3-3660(h) consistent with the discussion above.

8. In its next ERP filing, Public Service shall provide the updated studies recommended by the Staff of the Colorado Public Utilities Commission, consistent with the above discussion.

9. To the extent requests made by intervening parties are not addressed in this Decision, they are denied.

10. The 20-day period provided for in § 40-6-114, C.R.S., within which to file applications for rehearing, reargument, or reconsideration, begins on the first day following the effective date of this Decision.

11. This Decision is effective upon its Mailed Date.

**B. ADOPTED IN COMMISSIONERS' DELIBERATIONS MEETING  
August 27, 2018.**

(S E A L)



ATTEST: A TRUE COPY

A handwritten signature in cursive script that reads "Doug Dean".

Doug Dean,  
Director

THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF COLORADO

JEFFREY P. ACKERMANN

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FRANCES A. KONCILJA

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WENDY M. MOSER

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Commissioners