

WASHINGTON  
2023  
Clean Energy  
Implementation Plan  
— BIENNIAL REPORT —

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 **PACIFIC POWER**



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## INTRODUCTION

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Washington’s Clean Energy Transformation Act (CETA) requires utilities to eliminate coal-fired resources from its allocation of electricity to Washington retail electric customers by 2026; ensure all retail sales of electricity to Washington electric customers are greenhouse gas neutral by 2030; and ensure that non-emitting electric generation and electricity from renewable resources supply one hundred percent of all retail sales of electricity to Washington electric customers by 2045.<sup>1</sup>

Prior to 2045, CETA allows for up to 20 percent of the greenhouse gas neutral standard to be met with alternative compliance in the form of alternative compliance payments, unbundled RECs, energy transformation projects, or energy recovery from a municipal solid waste facility.<sup>2</sup> To achieve the 2045 target, the clean energy standard must be met with 100 percent non-emitting generation or electricity from renewable energy resources. Furthermore, Washington utilities must demonstrate that it “has made progress toward and has met the standards in this section at the lowest reasonable cost.”<sup>3</sup>

Consistent with these requirements and WAC 480-100-640, PacifiCorp d/b/a Pacific Power & Light Company (PacifiCorp or Company) submits this 2023 Draft Biennial Clean Energy Implementation Plan Update (CEIP Update) for the Washington Utilities and Transportation Commission’s consideration (Commission).

The Company’s Integrated Resource Plan (IRP) provides the foundation for the Company’s CEIP Update. The IRP is a comprehensive decision support tool and creates a roadmap for meeting the Company’s objective of providing reliable and least-cost electric service to its customers. The plan is developed through open, transparent, and extensive public involvement from state utility commission staff, state agencies, customer and industry advocacy groups, project developers, and other stakeholders. The key elements of the IRP include: an assessment of resource need, focusing on the first 10 years of a 20-year planning period; the preferred portfolio of supply-side and demand-side resources to meet this need; transmission projects; and an action plan that identifies the steps that will be taken over the next two-to-four years to implement the plan.

The IRP then informs the Company’s Clean Energy Action Plan (CEAP). The CEAP is a ten-year planning document that is derived from and included as an appendix to the IRP and provides a Washington-specific view of how PacifiCorp is planning for a clean and equitable energy future that complies with CETA.

Based on the CEAP, every four years beginning in 2021, the Company develops a Clean Energy Implementation Plan (CEIP), and every two years thereafter when not filing a CEIP, considers whether to propose any updates to the CEIP to incorporate then-relevant information. This

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<sup>1</sup> WAC 480-100-610(1-3).

<sup>2</sup> RCW 19.405.040(1)(b).

<sup>3</sup> WAC 480-100-610(5).

ensures that CEIPs reflect then-relevant facts, circumstances, and planning environments. This CEIP Update reflects the Company’s current assumptions and strategies to comply with CETA.

Prior to filing this CEIP Update, PacifiCorp provided a draft CEIP Update to all members of PacifiCorp’s advisory groups, and invited each to two virtual public meetings. Meeting information was emailed and shared with each advisory group leading up to the meetings, as well as on PacifiCorp’s CEIP webpage and on social media, to inform each advisory group of the opportunities to participate. Specifically: on August 31, 2023, PacifiCorp shared an update on its CEIP Update in a virtual public meeting, which included invites to each member of its advisory groups; on October 2, 2023, PacifiCorp’s provided a draft CEIP Update requesting feedback and questions from members of its advisory groups; and on October 10, 2023, PacifiCorp hosted a virtual public meeting, which included invites to each member of its advisory groups to provide an opportunity to discuss any feedback and respond to questions on PacifiCorp’s CEIP Update. The feedback received from this engagement is reflected in Appendix D.

This inaugural CEIP Update includes several changes to the Company’s initial CEIP that was filed with the Commission on March 13, 2023,<sup>4</sup> and approved by the Commission on October 25, 2023.<sup>5</sup> These include:

- Lowered near-term interim targets for renewable energy;
- Lowered near-term specific targets for renewable energy and energy efficiency;
- Adding directionality to our community benefit indicators, clarifying metrics where necessary, and adding three additional metrics;
- Discussing incremental energy efficiency and public participation specific actions, as well as providing an update on the Company’s initially proposed demand response specific actions from the initial CEIP;
- A revised incremental cost analysis that incorporates the updated interim and specific targets and actions, resulting in an average \$1.35 million annual cost to implement the Company’s CETA strategies.
- Responses to stakeholder comment received on the Company’s Draft CEIP Update.

As discussed below, despite these near-term lowered interim and specific targets, the Company anticipates its overall CETA strategies will achieve Washington’s clean energy targets nearly a decade in advance, while continuing to serve its six-state service territory with reliable, least-risk, least-cost resources. And the incremental cost to comply with CETA will not require alternative compliance mechanisms in the first CETA compliance period, and it will be accomplished at an overall minimal cost to customers.

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<sup>4</sup> *In re PacifiCorp’s 2021 CEIP*, Docket UE-210829, Revised CEIP (Mar. 13, 2023) (available here: <https://apiproxy.utc.wa.gov/cases/GetDocument?docID=277&year=2021&docketNumber=210829>).

<sup>5</sup> *In re PacifiCorp’s 2021 CEIP*, Docket UE-210829, Order 06 (Oct. 25, 2023).

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# CHAPTER 1 – INTERIM AND SPECIFIC TARGETS

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## Chapter Summary

Consistent with a settlement agreement approved in a separate docket, PacifiCorp re-filed its 2021 CEIP with the Commission on March 13, 2023.<sup>6</sup> This filing updated the Company’s interim clean energy targets based on a portfolio developed under the social cost of greenhouse gas cost adder (SC), that was specifically designed to comply with CETA, and that was based on the Company’s 2021 IRP. As a result, the Company’s proposed interim targets for the first CEIP action period, 2022-2025, forecasted that the Company would serve 60 percent of Washington retail sales with renewable and non-emitting energy by the end of 2025.

Consistent with the Commission’s recent approval of the Company’s 2021 CEIP, this CEIP Update includes an updated forecast for interim targets averaged over a four-year period.<sup>7</sup> As shown in PacifiCorp’s 2021 IRP Two-Year Progress Report (Amended Final), Volume II, Appendix O, the Company forecasts that 33 percent of Washington retail sales will be met with renewable and non-emitting energy<sup>8</sup> by the end of 2025.

These updated interim targets reflect updates from the Company’s portfolio results, as well as updated resource allocation assumptions, including: a range of input data and information including the load forecast, demand-side resource assessment, a new conservation potential assessment, resource costs, relevant state and federal policy updates, changes to economic or market forced and relevant portfolio analyses. Importantly, increases in system load, changes in price curves and fuel inputs, and development in federal regulation like the Ozone Transport Rule have driven significant growth in system renewable resources across the planning horizon. However, ongoing wholesale energy market volatility has forced the Company to consider options to mitigate increasing net power costs that adversely affect PacifiCorp’s near-term CETA targets. As a result, the CEIP Update now longer assumes an early departure of Washington customers from participation in coal, but rather aligns the exit from these resources with CETA’s statutory timelines.<sup>9</sup> Similarly, ongoing negotiations with the Company’s multi-state protocol (MSP), updated renewable energy credit (REC) assumptions, and a realignment of assumptions about uncertain future Washington resource allocations have all led to a lower percentage of system renewable energy for Washington customers in the near-term as compared to the 2021 CEIP.

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<sup>6</sup> *In re Commission CEIP Complaint*, Docket No. UE-220376, Order 06 Granting Motion to Withdraw (Feb. 10, 2023).

<sup>7</sup> *In re PacifiCorp’s 2021 CEIP*, Docket UE-210829, Order 06, ¶ 30 (Oct. 25, 2023) (“The Settlement Agreement recognizes, however, that PacifiCorp will update its interim and specific targets in the Biennial Update coming due this November 2023.”).

<sup>8</sup> Demand response in this context is considered a capacity-based resource in retail sales accounting: it is a dispatchable resource available to the model to meet loads, and therefore it does not impact load forecasts. Its inclusion in the preferred portfolio is a critical complement to variable non emitting energy resources.

<sup>9</sup> The 2021 CEIP contemplated that Washington customers would exit coal-fired plants by the end of 2023. In the updated analysis, the assumptions have been re-aligned with CETA requirements and assumes Washington customers will continue to receive electricity from coal resources until December 31, 2025.

While the updates result in lower interim targets in the first CEIP planning window, the long-term trajectory at both the systemwide-level and for Washington customers includes significantly more growth in renewable resources and storage, relative to the 2021 IRP and the original CEIP. Compliance with CETA continues to be supported by the IRP with the addition of non-emitting system resource, and the Company projects being able to meet at least 100 percent of Washington retail sales with renewable and non-emitting energy by 2032, 8 years earlier than was projected in the refiled CEIP. Despite lower projections in the near-term, the Company continues a path towards decarbonization largely aligned with CETA goals. These issues are discussed below.

## Interim Targets

This section includes PacifiCorp’s updated interim compliance targets for the first CEIP action period (2022-2025). Table 1.1 below compares the Company’s annual targets from the initial 2021 CEIP (as well as a simple 4-year average of the annual targets), to the 2023 CEIP Update Targets (also with a simple-4-year average).

**Table 1.1 – Comparison of Annual and 4-Year Average 2021 CEIP and 2023 CEIP Update Interim Targets**

Interim Targets	2022 Projected	2023 Projected	2024 Projected	2025 Projected	Average Projected
2021 CEIP	31%	31%	40%	60%	41%
2023 CEIP Update	31%	26%	25%	33%*	29%

Updates to the interim targets, particularly in the near-term, reflect several key developments:

- Delay in reaching agreement on a new multi-state cost-allocation methodology;
- New resources may not be constructed and online in 2025;
- Short-term contract options in 2025 are uncertain with growing demand for CETA qualifying resources;
- Rate impacts of continuing high energy market prices; and
- Resource repricing during procurement.

Each of these developments—including increasing load forecasted throughout the compliance period, and various assumptions regarding the Company’s REC practices—resulted in lower interim targets for the first CEIP action period. The Company would like to highlight three.

First, the original CEIP assumed that PacifiCorp would have a new multi-jurisdictional cost-allocation methodology for all its six states by 2024. Given that expectation, the Company applied the then-current assumed allocation methodology to Washington’s share of all portfolio resources beginning in 2024. This methodology differed from the current assumed methodology, and it resulted in a higher allocation of renewable resource capacity and energy to Washington in the original CEIP. This approach is contrasted with the analysis in the Two-Year Progress Report, where the Company analyzed the Washington-allocated portfolio of resources and energy outcomes based on the current Washington Inter-Jurisdictional Allocation Methodology

(WIJAM).<sup>10</sup> This resulted in a smaller allocation of system-shared renewable and non-emitting resources for Washington customers relative to the original CEIP.

Second, continuing high energy market prices have led the Company to revise several thermal unit assumptions in the updated assessment of Washington targets. The Company has observed continuously high energy market prices since the original CEIP was contemplated. As a result, PacifiCorp's Two-Year Progress Report includes the continued use of Jim Bridger and Colstrip coal plants generation until the end of 2025. While this is a material change to the baseline resource decisions that will serve Washington customers, these resources result in forecasted savings of \$72 million. Due to discussion through the MSP process, the Company also changed the assumption that Washington customers are assigned 100 percent of the Chehalis natural gas-fired plant, and instead maintains the current state of the system where Washington customers participate in a system-share of both Chehalis and Hermiston natural gas-fired plants. Each of these thermal unit assumptions resulted in lowered interim clean energy targets.

Third, there have been significant impacts on near-term resource availability given repricing that occurred during the latest procurement process. For example, several changes to federal regulations (e.g., Ozone Transport Rule, Inflation Reduction Act), delays during the 2020 All-Source Request for Proposal (RFP), and additional supply chain issues (e.g., solar equipment availability as a result of US import restrictions from China; steel availability and pricing impacts on both the wind and solar industry as a result of eastern European instability (Ukraine)) resulted in both bid repricing as well as fewer new resources for 2024 and 2025 than what was originally included in the 2021 IRP and CEIP. These factors lead to a decrease in the available supply of renewable resource capacity that the Company could procure to meet its interim clean energy targets.

These three factors are the primary, though not exclusive, reasons for the lowered clean energy interim targets between PacifiCorp's initial CEIP and this Biennial Update. For more detail, please refer to PacifiCorp's 2023 Integrated Resource Plan Volume II Appendix O: Washington 2021 IRP Two-Year Progress Report Additional Elements. Figure 1.1 below illustrates PacifiCorp's updated interim targets. These are derived from the portfolio denoted W-10 CETA in the Two-Year Progress Report.<sup>11</sup> This portfolio was developed to meet CETA's 2030 and 2045 decarbonization targets under the SC price policy assumption. In the figure, interim targets are divided into two forecast ranges: the first focuses on meeting CETA's 100 percent GHG neutrality standard by 2030, and the second focuses on meeting the 100 percent non-emitting and renewable energy target by 2045. As shown in the figure, the Company expects to have achieved CETA's ambitious decarbonization targets well over a decade in advance of the 2045 deadline.

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<sup>10</sup> The WIJAM and the 2020 PacifiCorp Inter-Jurisdictional Allocation Protocol (2020 Protocol) define how resources and costs are allocated to Washington customers through December 21, 2023. The Washington Utilities and Transportation Commission approved the WIJAM and 2020 Protocol in its Final Order 09/07/12 in docket UE-191024 et. al., effective January 1, 2021. The company is in the process of negotiating its MSP cost allocation methodology with the commissions and stakeholders in the six states it serves. More information can be found in Volume I, Chapter 3.

<sup>11</sup> Several portfolios were developed to analyze the impacts of CETA in various planning scenarios, and are defined in the Two-Year Progress Report, Volume I, Chapter 8 (Modeling and Portfolio Evaluation).



Post-2030, the last three years to reach the 2045 objective are beyond the Company’s current 20-year study period. Rather than creating extrapolated and imprecise forecasts for every data point underlying the analysis to extend into 2045, the Company has extrapolated the last three years of data based on the already optimized and established trajectory. However, this exercise was unnecessary given that the portfolio shows 100 percent clean energy as a percentage of Washington retail sales by 2032.

**Figure 1.1 – Interim Targets**

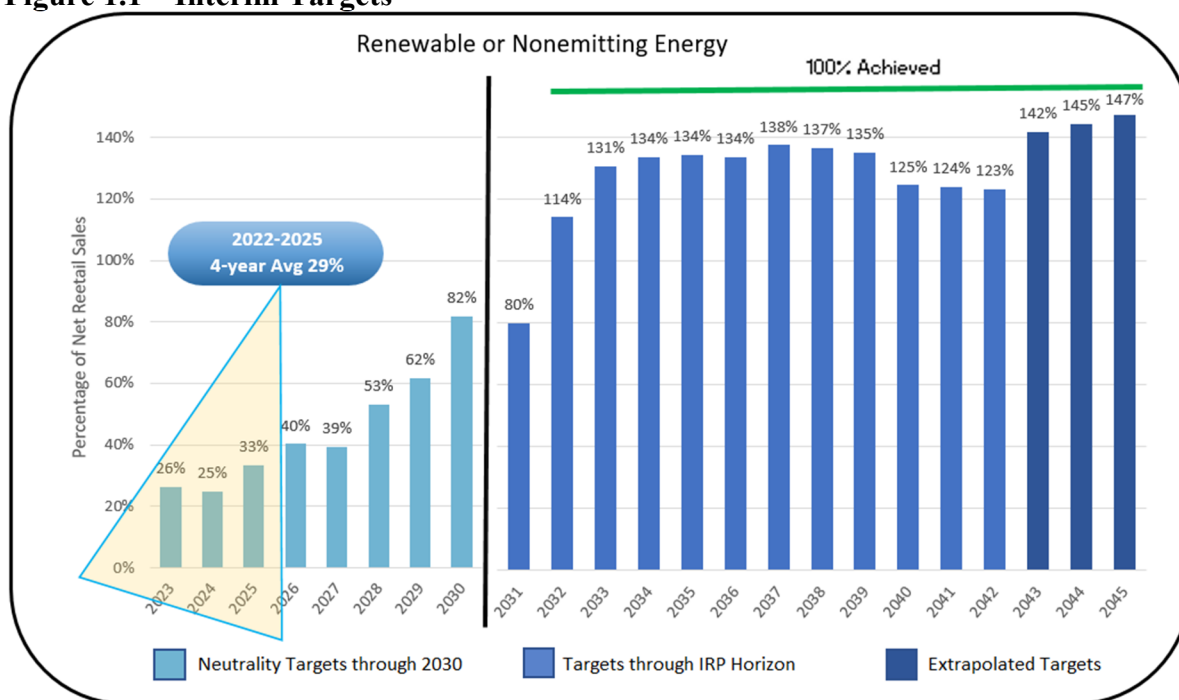


Table 1. below reports these updated interim targets for the first CEIP action period in annual megawatt hours of energy. Since this two-year IRP progress report is forward-looking, portfolio inputs, outputs, and interim targets begin from year 2023. However, given the Company’s current CEIP focuses on the CEIP compliance period from 2022 to 2025, this same compliance period is reflected below. The values for 2022 are from the Company’s March 13, 2023, Refined CEIP and have not been updated, and are informed by the Company’s historical performance under median water conditions, a factor in developing expected resource behaviors and Washington retail sales. The values for 2022 are shown as the projections to keep the values consistent with the values for the remaining years and avoid any inconsistencies with values in the actual amounts that are not reflected in the projections.<sup>12</sup> In addition, this avoids any double counting of values that are in actual values and projections.

**Table 1.2 - Interim Compliance Targets (MWh)**

	2022 <sup>1</sup>	2023	2024	2025	Total
Retail Electric Sales	4,051,128	4,128,704	4,141,064	4,106,333	16,427,229

<sup>12</sup> For 2022 actuals, please refer to PacifiCorp’s CEIP 2023 Progress Report filed in WUTC Docket No. 210829 on July 03, 2023.

Projected Renewable and Non-emitting Energy	1,262,111	1,081,277	1,028,236	1,367,667	4,739,291
<b>Net Retail Sales</b>	2,789,017	3,047,474	3,112,871	2,738,719	11,688,081
Target Percentage	31%	26%	25%	33%	
<b>Interim Compliance Target</b>	1,262,111	1,081,277	1,028,236	1,367,667	4,739,291

<sup>1</sup> Originally estimated target for 2022 based on Refiled 2021 CEIP, March 13, 2023

Given these updates, the Company estimates by 2025 that 33 percent of Washington retail sales will be served by renewable and non-emitting energy. During the current four-year CEIP compliance period, including 2022, PacifiCorp achieves a simple average interim target of nearly 30 percent (depicted at left in Figure 1.1). As discussed above, the Company will substantially decarbonize its system and achieve CETA’s 2045 requirements almost a decade early.

## Target Development

The development of these updated interim targets is consistent with PacifiCorp’s Refiled 2021 CEIP, Chapter 1, where the Company’s Washington allocation of the updated CEIP-compliant portfolio of resources was analyzed based on an updated forecast of retail electric sales to Washington. This section discusses the assumptions that informed these updated interim targets.

To estimate the amount and mix of energy forecasted to serve Washington customers for the 2023-2045 period, PacifiCorp summed annual generation from its qualifying resources allocated to Washington customers under the WIJAM for existing resources and generally assumed that these assumptions hold into the future, in the absence of an agreed upon future allocation methodology. The allocations assumed for Washington in this update are the Company’s best estimate of future allocations at this time and are best aligned with other ongoing filings in Washington.

To calculate the energy and the total amount of renewable and carbon non-emitting energy allocated to Washington customers, the Company made the assumptions set forth below. Generally, where a resource is assumed to generate RECs, where one REC is generated for one megawatt-hour of renewable energy, the resource was assumed to generate CETA-compliant energy. In addition to REC-generating resources, it was assumed that all Washington-allocated energy from non-emitting resources was also CETA compliant, namely hydroelectric, nuclear and hydrogen non-emitting peaking plants. In summary, the resource allocation assumptions are:

1. Allocation of energy for all system renewable resources, existing and proxy, are allocated according to system-generation (SG) factors, consistent with the WIJAM.
2. Allocation of energy for new non-emitting proxy resources are allocated on SG factors, consistent with the WIJAM.
3. Allocation of energy for all Washington qualifying-facilities (QFs) are assumed to be situs to Washington. No energy is allocated from QFs not originating in Washington, consistent with Washington Utilities and Transportation Commission policy.
4. Washington customers are assumed to participate in a limited set of emitting resources as defined under the West Control Area Inter-Jurisdictional Allocation Methodology (WCA):

- a. Washington customers receive costs and benefits from PacifiCorp’s interest in the Colstrip Unit 4 and Jim Bridger Unites 1-4 thermal resources, subject to elimination of all costs and benefits from coal-fueled Colstrip 4 and Jim Bridger Units 3 and 4 until by the end of 2025. It is assumed that in the event a coal-fueled resource converts to gas before 2026, that Washington customers can participate until the end 2029.
- b. Washington customers participate in two gas-fired units, Chehalis and Hermiston, through the end-of-life.

Given the assumed allocations of resource energy and costs to Washington, CETA-compliant energy is determined given the following:

1. For REC-generating resources, generation of CETA-compliant energy is consistent with the Company’s REC entitlement start and end date.
2. Customer preference and voluntary renewable resources were not assumed to generate RECs for the system or the state of Washington and thus are not included in the allocation of renewable energy.
3. All renewable and non-emitting resources were assumed to be CETA compliant, including wind, solar, geothermal, hydro, nuclear and hydrogen non-emitting peaking plants. For renewable resources co-located with battery storage, RECs were assumed to be generated pre-storage; no RECs are generated at battery discharge.
4. Emitting generation (coal or gas-fueled resources) can be utilized prior to 2026 for coal resources, and prior to 2045 for natural gas resources.

Washington retail electric sales were defined as total energy served to customers annually, net of distributed generation, existing and optimized energy efficiency, and demand-side management (DSM) resources. Retail electric load does not include MWh delivered from Washington qualifying facilities under the federal Public Utilities Regulatory Policies Act of 1978 (PURPA).<sup>13</sup> CETA compliance targets were calculated annually as a percentage of Washington retail electric sales. Annual targets for CETA’s 2030 and 2045 requirements were calculated as a percentage of Washington retail electric sales to be the total renewable and carbon non-emitting energy the Company estimates will be provided to Washington customers.

For purposes of this CEIP, consistent with CETA’s alternative compliance mechanisms, PacifiCorp relies on the use of unbundled RECs to satisfy the alternative compliance component of the 2030 and 2031 greenhouse gas neutral standard.

For further discussion specific to development of the CETA-compliant portfolio and interim targets, please see the subsection in Chapter 4 below discussing the Company’s Interim Target Shortfall Resolution.

## Specific Targets

PacifiCorp’s Biennial Update has updated its specific targets for renewable energy and energy efficiency. These specific targets are informed by interrelated analysis and public processes

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<sup>13</sup> RCW 19.405.020(36)(a)

including the 2020 and 2022 All-Source Request for Proposals (2020AS RFP and 2022AS RFP, respectively), the 2021 demand response RFP, demand response program filings and the 2023 Conservation Potential Assessment (CPA). The results of these focused efforts were incorporated into the Two-Year Progress Report and the CEIP portfolio as part of the process of determining the optimal portfolio for Washington compliance. Both updates are discussed below.

### Renewable Energy Targets

Consistent with the Company’s updated interim targets, the Company has updated its renewable energy targets in this Biennial Update for the years 2023 – 2025.

Additionally, by the end of 2025, the CEIP systemwide portfolio includes resources from the 2020 AS RFP shortlist resources and additional proxy resource selections. These Washington-eligible projects include 1,867.8 MW of wind, 1,468.9 MW of solar and solar with storage, and 200 MW of battery storage. During this time the portfolios also include the acquisition and repowering of Rock River I (49 MW) and Foote Creek II-IV (43 MW) wind projects located in Wyoming. The CEIP renewable energy targets are directly represented by the IRP outcomes described above, resulting from the modeling strategies described earlier in this chapter. Additional details regarding these individual projects is given in Two-Year Progress Report, Volume I, Chapter 3 – Specific Actions. Table 1.2 includes the Company’s updated renewable energy targets for 2023 through 2025.

Regarding the suspension of the 2022AS RFP, the timing and cadence of the action plan established in the Two-year Progress Report is altered, but the trajectory toward meeting CETA standards remains. PacifiCorp anticipates that the next major update to its portfolio, due for filing on April 1, 2024, as part of the 2023 IRP Update, will tend to support the assessment made in the Two-year Progress Report. The updates that will be used in that 2024 filing were not available at the time this CEIP Update was prepared.

**Table 1.3 Renewable Energy Targets**

	2022 <sup>1</sup>	2023	2024	2025	Total
Retail Electric Sales	4,051,128	4,128,704	4,141,064	4,106,333	16,427,229
Projected Renewable Energy	1,262,111	1,081,277	1,028,236	1,367,667	4,739,291
<b>Net Retail Sales</b>	<b>2,789,017</b>	<b>3,047,473</b>	<b>3,112,871</b>	<b>2,738,719</b>	<b>11,688,080</b>
Target Percentage	31%	26%	25%	33%	
<b>Interim Compliance Target</b>	<b>1,262,111</b>	<b>1,081,277</b>	<b>1,028,236</b>	<b>1,367,667</b>	<b>4,739,291</b>

<sup>1</sup> Originally estimated target for 2022 based on Refiled 2021 CEIP, March 13, 2023

### Energy Efficiency and Demand Response Targets

CETA requires a four-year conservation target (2022-2025). The 2021 and 2023 IRP preferred portfolios with Washington adjustments identified cost-effective, reliable, and feasible resources

for establishing Washington’s Energy Independence Act (EIA) conservation target. PacifiCorp uses the same conservation targets for the CEIP as follows:<sup>14</sup>

- 2022-2023 target as provided with 2022-2023 Biennial Conservation Plan (BCP) filed on November 1, 2021.
- 2024-2025 target as provided with 2024-2025 BCP filed on November 1, 2023.

The conservation forecast for end-use efficiency, behavioral programs and market transformation (collectively referred to in this document as energy efficiency) is developed using the following data sources, assumptions, and methodology;

- Completion of the 2021 and 2023 Conservation Potential Assessment (CPA).<sup>15</sup>
- Economic screening/selection of resources through the 2021 and 2023 IRP development process.
- Addition of projected savings from the existing Home Energy Reports (behavioral) program.
- Identification of adjustments to the IRP preferred portfolios conservation resource selections based on updates from Regional Technical Forum (RTF) Unit Energy Savings (UES) values.
- Comparison of the annual conservation forecast with the pro-rata share of the ten-year forecast. The target is the larger of the two consistent with the methodology used in the EIA process.<sup>16</sup>
- Accounting for other forms of conservation including distribution efficiency, production efficiency, and High-efficiency cogeneration consistent with the EIA target setting process.<sup>17</sup>

Since the 2021 CEIP, the Company has made three changes to its specific energy efficiency targets:

- The energy efficiency target for 2022-2025 is now characterized as MWH at site instead of MWH at the generator, consistent with the characterization of energy efficiency targets used to comply with the EIA.
- The energy efficiency target for 2024-2025 reflects the 2024-2025 BCP. Previously, the Company relied on the prior 2022-2023 BCP for 2024-2025 targets.
- The energy efficiency target now includes distribution efficiency and production efficiency, consistent with the characterization of energy efficiency targets used to comply with the EIA.

The impacts from these three changes are reflected in Table 1.3 below.

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<sup>14</sup> At the time of filing, PacifiCorp relied on the draft target filed in the biennial conservation plan as part of UE – 210830. The Company continues to target conservation savings in alignment with the biennial conservation plan in accordance with the Energy Independence Act in Washington.

<sup>15</sup> Available online at <https://www.pacificorp.com/energy/integrated-resource-plan/support.html>

<sup>16</sup> Table 1.3 can be found in workpaper ”210829-PAC-WP-WA 2022-2023 EIA target development and adjustments 12-31-21 (C)”.

<sup>17</sup> See WAC 480-109-100.

**Table 1.3 – Energy Efficiency Specific Targets (2022-2025)**

Category MWh at Site	2022	2023	2024	2025
Washington - first year Energy Efficiency from the IRP Preferred Portfolio	31,871	34,651	37,517	43,803
Behavioral Programs (HER)	4,100	(169)	4,212	3,742
RTF adjustments (total)	313	378	(2,223)	(2,331)
Adjusted Energy Efficiency Forecast - annual	36,284	34,860	39,506	45,214
Adjusted Energy Efficiency Forecast - Pro-rata	47,089	47,089	40,613	40,613
Co-Generation	-	-	12	12
Distribution Efficiency	76	77	-	227
Production Efficiency	-	-	1	1
Decoupling commitment - five percent	1,818	1,747	1,976	2,273
Annual Target	48,983	48,913	41,494	47,726
<b>2022-2025 target</b>				<b>187,115</b>

Regarding demand response, the Company will continue to rely on the targets in the 2021 CEIP. The 2021 CEIP demand response target is based primarily on bids from the Company’s 2021 demand response RFP. PacifiCorp has since contracted and launched programs from successful bids in the 2021 demand response RFP. PacifiCorp’s demand response target for the 2022-2025 CETA implementation period is 37.4 MW of demand response through 2025.<sup>18</sup> When evaluating this target, the Company noted that total demand response volumes were uncertain given the lack of maturation for effective programs, which have been in place for less than a year, and the timing and expectations of potential new programs during the implementation period. PacifiCorp is pleased with the progress made towards its demand response targets and intends to focus on continued expansion of participation and program offerings in the remainder of the implementation period. If participation and expansion is greater than the original CEIP target of 37.4 MW, the Company will continue to pursue demand response volumes beyond the target.

<sup>18</sup> This target approximates 34.7 MW of capacity during the summer peak period and 22.7 MW of capacity during winter peak period. Capacity savings estimates do include line losses. As noted in the 2021 CEIP, demand response targets account for overlapping demand response resources modeled in the 2021 IRP and 2021 demand response RFP.

## CHAPTER 2 – DEVELOPMENT OF CUSTOMER BENEFIT INDICATORS

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PacifiCorp led a stakeholder-oriented process to develop the nine customer benefit indicators (CBIs) and 17 associated metrics included in the original 2021 CEIP. Where available, baselines for each metric were also reported in the original 2021 filing. In PacifiCorp’s 2023 CEIP Progress Report, the Company provided a second incremental measurement for each metric, as well as its initial analysis of trends and the impact of PacifiCorp’s fulfillment to date of its CEIP utility actions. PacifiCorp has presented the CBIs, metrics, and both waves of metric valuation in numerous public engagement sessions.

Since the original CEIP filing, PacifiCorp has made the following modifications to the original CBI and metric summary table to improve the clarity and function of the language:

- **Adding directionality to CBIs:** PacifiCorp intended each CBI to represent a specific improved outcome for customers, which in most cases implies a change over time. To clarify the nature of the change PacifiCorp hopes to observe, the Company added a directional descriptor to each CBI, e.g., improve, reduce, increase, etc.
- **Clarifying metric units:** Where necessary, PacifiCorp has revised its original metrics by clarifying the unit being measures (number, percentage, dollar value, etc.)
- **Added metrics:** PacifiCorp added three metrics not previously listed in this summary table. First, PacifiCorp added a metric for ***CBI 1. Increase culturally and linguistically responsive outreach and program communication***. In the 2021 CIEP draft and the 2023 progress report, PacifiCorp included a table showing the number of impressions for energy efficiency communications in English and Spanish, but inadvertently left this metric out of the summary table of CBIs and metrics. To correct this oversight, and make the metric more relevant to the CBI, PacifiCorp added ***Metric 1b. Number of impressions from non-English outreach***. This revised metric better reflects PacifiCorp’s efforts to make our communications more linguistically diverse by focusing only on non-English communication. It also includes all communications, instead of measuring only communication related to energy efficiency programs. In future progress reports, PacifiCorp will provide a baseline and incremental values for the new metrics 1b. The second and third added metrics, 3b and 3e, refer to expenditures for energy efficiency and demand response/behavioral programs. PacifiCorp had reported this information in previous filings, but not formally listed these metrics for the CBI in the summary table. There is no change in the baseline or incremental values previously presented. There is no change to valuation for 3b and 3e, since these were previously reported, and are only new to the summary table.

Table 1.1 shows the changes made to PacifiCorp’s CBIs and metrics, with additions in bold blue type.

**Table 1.1 PacifiCorp CBIs and Metrics, Revised**

No.	CBI	Metric(s)
1	Increase culturally and linguistically responsive outreach and program communication	a. <b>Number of topics addressed in</b> outreach in non-English languages
		b. <b>Number of impressions from non-English outreach</b>
		c. Percentage of responses to surveys in Spanish
2	Increase community-focused efforts and investments	a. <b>Number of</b> workshops on energy related programs
		b. Headcount of staff supporting program delivery in Washington who are women, minorities, and/or can show disadvantage <sup>a</sup>
		c. <b>Number of</b> public charging stations in named communities
3	Increase participation in Company energy and efficiency programs and billing assistance programs	a. Number of households/businesses, including named communities, who participate in Company energy/efficiency programs
		b. <b>Dollar value of energy efficiency expenditures<sup>b</sup></b>
		c. <b>Number and</b> percent of <b>eligible</b> households that participate in billing assistance programs
		d. Number of households/businesses who participate/enroll in demand response, load management, and behavioral programs
		e. <b>Dollar value of demand response, load management, and behavioral programs expenditures<sup>b</sup></b>
4	Increase efficiency of housing stock and small businesses, including low-income housing	a. Number of households and small businesses that participate in Company energy/efficiency programs
		b. <b>Dollar value of</b> energy efficiency expenditures <sup>b</sup>
5	Increase renewable energy resources and reduce emissions	a. Amount of renewables/non-emitting resources serving Washington
		b. <b>Amount of</b> Washington allocated greenhouse gas emission from Washington allocated resources
6	Decrease households experiencing high energy burden	a. Number <b>and percent</b> of customers experiencing high energy burden by: highly impacted communities, vulnerable populations, low-income bill assistance (LIBA) and Low-Income Weatherization (LIWX) participants, and other residential customers
7	Improve indoor air quality	a. Number <b>and percent</b> of households using wood as primary or secondary heating
		b. <b>Number and percent of</b> non-electric to electric conversions for Low-Income Weatherization program



8	<b>Reduce</b> frequency and duration of energy outages	a. SAIDI, SAIFI, and CAIDI scores ( <b>rolling 7-year average</b> ) at area level including and excluding major events <sup>c</sup>
9	<b>Reduce</b> residential customer disconnections	a. Number <b>and percent</b> of residential customer disconnections including disconnections within named communities

<sup>a</sup> In this metric, program delivery is defined as related to energy efficiency programs, with exception to the LIWX program

<sup>b</sup> Energy efficiency expenditures include customer, partner, and direct install incentive payments and exclude all other administrative or program costs

<sup>c</sup> SAIDI stands for System Average Interruption Duration Index, SAIFI stands for System Average Interruption Frequency Index, and CAIDI stands for Customer Average Interruption Duration Index

PacifiCorp considers that the changes to CBIs and metrics presented in this 2023 Biennial Update do not materially alter the intent of the CBIs and metrics that PacifiCorp included in the Company’s draft CEIP filed in 2021, which were developed with the input of PacifiCorp’s Equity Advisory Group. PacifiCorp will continue to track these CBIs, through incremental valuations of each metric, in future progress reports. PacifiCorp also expects to revisit the current CBIs and metrics with its Equity Advisory Group in preparation for the 2025 CEIP to assess whether more substantial changes to this set of CBIs and metrics is warranted, based on the information collected over the four-year period, and any changes in external factors.

## CHAPTER 3 – SPECIFIC ACTIONS

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### Chapter Summary

CETA requires utilities to pursue all cost-effective, reliable, and feasible conservation and efficiency resources, and demand response; maintain and protect the safety, reliable operation, and balancing of the electric system; and ensure that all customers are benefiting from the transition to clean energy through the equitable distribution of energy and nonenergy benefits and reduction of burdens to vulnerable populations and highly impacted communities; long-term and short-term public health and environmental benefits and reduction of costs and risks; and energy security and resiliency.<sup>19</sup>

At the time the Company filed its original 2021 CEIP, the Company had five existing demand-side resource programs (including both energy efficiency and demand-side programs). These included:

- **Low-income Weatherization Program.** Provides energy efficiency services through a partnership between the Company and local non-profit agencies to low-income eligible households residing in single family homes, manufactured homes, and multi-unit residential housing. Services are provided at no cost to participants.
- **Project Help – Fuel Fund.** provides energy assistance to customers in need with funds donated by customers and employees which PacifiCorp matches 2 to 1 - up to \$34k annually in Washington. Donated funds are provided to Project Help in Washington, a non-profit program providing energy assistance with donated funds.
- **Low Income Bill Assistance (LIBA) Program.** Provides a bill discount to income eligible households year-round. A three-tiered bill discount based on the income and monthly billing include a discount on each kWh usage in excess of 600 kWh. The program is administered through partner Low Income Home Energy Assistance Program (LIHEAP) agencies for income certification services.
- **Time-of-Use Pilot Program.** Provides a time of use pilot program which can lower bills for participating customers who can shift usage to off-peak periods of time. Beginning in May 2021, PacifiCorp launched residential (Schedule 19) and non-residential (Schedule 29) service time of use pilots.<sup>20</sup> This pilot program is limited to the first 500 residential customers and 100 nonresidential customers that enroll. Once concluded, evaluations will be conducted, and results can be used to inform future plans and targets for time-of-use offerings.
- **Energy Efficiency Programs.** These programs are available regardless of income For residential customers, the Home Energy Savings program provides cash incentives for

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<sup>19</sup> WAC 480-100-610 (2)–(3).

<sup>20</sup> Available online: <https://www.pacificpower.net/about/rates-regulation/washington-rates-tariffs.html>

qualifying home energy efficiency improvements and appliance upgrades. Approximately half of the residential customers receive a Home Energy Report that provides information on energy use within the home and comparisons with similar homes. For business customers (including small businesses), the Wattsmart Business program provides cash incentives and technical expertise for upgrades to efficient lighting, heating, and cooling and more. Enhanced incentives are available for small businesses. Both Home Energy Savings and Wattsmart Business provide support and training for participating retailers, suppliers and contractors so these trade allies can help bring the program to customers.

This CEIP Update discusses the Company’s incremental energy efficiency actions for 2024-2025 that are consistent with PacifiCorp’s 2024-2025 DSM Business Plan. Additionally, the Company does not propose any incremental demand response specific actions, however this CEIP Update provides an update on the demand response efforts that were initially proposed in the 2021 CEIP. Finally, the Company provides an update on its public participation efforts.

### **Incremental Energy Efficiency Actions**

In this CEIP Update, PacifiCorp uses the energy efficiency programs listed in the table below, and more fully described in the 2024-2025 DSM Business Plan, to achieve the CEIP Update 2024-2025 energy efficiency targets.<sup>21</sup> These programs, in combination with market transformation savings delivered by the Northwest Energy Efficiency Alliance, are projected to deliver 91,123 MWH at site in 2024-2025, which exceeds the 2024-2025 Total Utility Conservation Goal of 89,220 MWH at site.

These programs also include three changes to the energy efficiency program estimated savings that were initially included in the 2021 CEIP. These changes to energy efficiency forecast savings are summarized below:

- Savings for 2022-2025 are now characterized as MWH/year at site instead of MWH/year at the generator, consistent with the characterization of energy efficiency targets used to comply with the EIA.
- Savings for 2024-2025 reflects the 2024-2025 BCP. Previously, the Company relied on the prior 2022-2023 BCP for 2024-2025 forecast savings.
- Savings for 2022-2025 now includes distribution efficiency and production efficiency, consistent with the characterization of energy efficiency targets used to comply with the EIA.

The Company has not updated the 2022-2023 estimated savings in this CEIP Update to reflect 2022 actuals or the current forecast for 2023. The values for 2022 are shown as projections to keep the values consistent with the values for the remaining years and avoid any inconsistencies with values in the actual amounts that are not reflected in the projections. In addition, this avoids any double counting of values that are in actual values and projections.

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<sup>21</sup> Appendix to the 2024-2025 Biennial Conservation Plan (Nov. 1, 2023).

**Table 3.1 – Energy Efficiency Programs and Estimated Savings (2022-2025)**

Program or Initiative	MWH/yr at site				
	2022	2023	2024	2025	2022-2025
Low Income Weatherization (114)	169	169	180	180	
Home Energy Savings (118)	9,611	10,203	4,411	5,026	
Home Energy Reports	4,100	(169)	4,212	3,741	
<b>Total Residential Programs</b>	<b>13,879</b>	<b>10,203</b>	<b>8,803</b>	<b>8,947</b>	
Wattsmart Business (140) - Commercial	21,045	21,613	23,629	24,777	
Wattsmart Business (140) - Industrial	13,047	12,897	6,761	6,481	
Wattsmart Business (140) - Irrigation	868	868	672	692	
<b>Total Business Programs</b>	<b>34,960</b>	<b>35,378</b>	<b>31,063</b>	<b>31,950</b>	
Northwest Energy Efficiency Alliance	3,078	3,696	4,471	5,661	
Distribution Efficiency	76	77	-	227	
Production Efficiency	-	-	1	1	
<b>Total Other Conservation Initiatives</b>	<b>3,154</b>	<b>3,773</b>	<b>4,472</b>	<b>5,888</b>	
<b>Total Conservation</b>	<b>51,994</b>	<b>49,354</b>	<b>44,337</b>	<b>46,785</b>	<b>192,470</b>

The energy efficiency utility actions are intended to increase focus and delivery of program services to Named Communities, increase participation for customers located in Highly Impacted Communities and improve participation for Vulnerable Populations.<sup>22</sup> Utility Actions for 2022-2023 remain as stated from the 2021 CEIP. The Company updated the utility actions for 2024-2025 to clarify the tie from the utility actions to the CBI metrics and/or Vulnerable Population participation, and to make adaptive management improvements. The Company shared the updated 2024-2025 utility actions with the DSM Advisory Group and the Equity Advisory Group in 2023 to seek input prior to finalizing. The estimated 2024-2025 CETA Incremental Costs associated with these utility actions are provided in Chapter 4.

Details are available in PacifiCorp’s 2024-2025 DSM Business Plan, and are also included below for reference. These include details regarding the Company’s communications plan; residential programs (including Home Energy Savings and Low-Income Weatherization programs); non-residential programs (Wattsmart Business); and discusses participant tracking and reporting efforts.

Regarding Communications, the Company plans to continue supporting programs with an increased equity focus using effective communication strategies to reach Named Communities. This includes continuing to increase culturally and linguistically responsive outreach and marketing to increase awareness of energy and conservation programs, and expand in-language services across written, spoken, and visual communications. As appropriate, the Company will include Spanish versions of material at community events that Pacific Power is sponsoring, and have interpreters and translated materials at public meetings. The Company will also promote energy efficiency programs on appropriate Spanish-language media, directing customers to Spanish-language web pages, and where possible, will use local, trusted messengers.

<sup>22</sup> The results will be reflected in the energy efficiency Customer Benefit Indicator Metrics.

Regarding residential programs, the Company has several planned utility actions for its Home Energy Savings and Low-Income Weatherization programs.

Home Energy Savings program implementation and delivery will focus on increasing CBI metrics through enhanced incentives, new and continuing program offerings, and support to increase participation in energy efficiency options for customers living in Highly Impacted Communities. Actions to serve Highly Impacted Communities include:

- Expand and focus on direct-install duct sealing, smart thermostats, and lighting with focused effort on single family homes in Highly Impacted Communities.
- Increase the smart thermostat per unit cost paid to direct install contractors to address higher labor and product costs so they remain motivated to install as many units as possible.
- Introduce Low-E storm windows with an emphasis on promoting to customers in Highly Impacted Communities during direct install visits.
- Continue enhanced incentives for customers in Highly Impacted Communities for all heat pumps.
- Launch a Community Based Distribution offering that provides LED bulbs to Highly Impacted Community Tribal customers at no cost. This program offering replaces the “value retailer” bulb buy-down.
- Customers in Highly Impacted Communities and contractors are able to confirm HIC status and eligibility for an enhanced incentives through a web-based confirmation screening application.

In addition, Home Energy Savings will continue to provide services and support for customers in Vulnerable Populations. Actions to serve Vulnerable Populations (renters, language) include:

- Continue to offer enhanced incentives for windows in multi-family units on residential rate schedules.
- Continue to provide no-cost direct install residential lighting to renters living in multi-family units.
- Continue direct-install lighting and introduce direct install smart thermostats for multi-family homes. Increase the smart thermostat per unit cost paid to direct install contractors to address higher labor and product costs so they remain motivated to install as many multi-family units as possible.
- Launch a Community Based Distribution offering that provides LED bulbs to Vulnerable Population customers at no cost. This program offering replaces the “value retailer” bulb buy-down.
- Continue efforts to reach Spanish speaking customers through all aspects of program delivery including customer facing staff fluent in Spanish; Pacific Power representation at cultural events, associations, community groups, and media; and providing communications, marketing, web, and program materials in Spanish.

Similarly, Low Income Weatherization will include actions to serve Vulnerable Populations (low income). For example, PacifiCorp will:

- Continue to allow reimbursement for repairs up to 30 percent of the annual reimbursement on energy efficient measures received (increased from 15% in 2022).
- Continue to allow installation of electric heat to replace permanently installed electric heat, space heaters or any fuel source except natural gas with adequate combustion air as determined by the Agency. This is designed to promote the installation of electric heat and minimize use of wood heat, solid fuels or natural draft equipment in specific applications where combustion safety (and indoor air quality) cannot be maintained.

Regarding the Company’s non-residential Wattsmart Business energy efficiency program, the Company plans to:

- Continue to increase the number of businesses in Highly Impacted Communities and small businesses participating; 2024-2025 results will be reflected in the energy efficiency Customer Benefit Indicator metrics.
  - Enhanced customer incentives for Small Businesses in Highly Impacted Communities and Very Small Businesses
    - Continue the small business enhanced incentive lighting and non-lighting offers targeting Named Community Small Businesses (located in Highly Impacted Communities) and the smallest businesses using less than 30,000 kilowatt-hours per year (very small businesses) on Schedule 24.
    - Continue to offer higher incentives than the regular small business offers with incentives capped at 100% of project costs for lighting to reduce the customer out-of-pocket cost barrier.
  - Enhanced vendor incentives - Continue to offer approved small business lighting vendors a higher vendor incentive for completed lighting retrofit projects with Small Businesses in Highly Impacted Communities and Very Small Businesses.
  - Targeted outreach
    - Continue to target a portion of Company initiated proactive outreach to Small Businesses in Highly Impacted Communities and Very Small Businesses; continue to tie proactive outreach to approved small business vendor capacity to respond to customer inquiries.
    - Target a portion of Company initiated proactive outreach to business customers located on Tribal land.
- Continue development of program materials in Spanish; continue and increase outreach to Latine business customers, vendors, and community groups.

Finally, regarding participant tracking and reporting, the Company plans to continue to track program participation for the following and include in annual reports and refine questions starting in 2024 related to language spoken and rent/lease to better align with data needed on these Vulnerable Populations for Clean Energy Implementation Plan progress reporting. These include the following categories of information for each program:

- Low Income Weatherization: Participants located in a Highly Impacted Community; Vulnerable Populations (including Language - Participants where the primary language spoken in the household is other than English; Renters - Participants who rent or lease

rather than own (home is a rental); and Low income – all participants); and Participants living in a manufactured home.

- Home Energy Savings: Participants located in a Highly Impacted Community; Vulnerable Populations (including Language – Participants where the primary language spoken in the household is other than English; Renters - Participants who rent or lease rather than own (identify and track participation for rental properties)); and Participants living in a manufactured home.
- Wattsmart Business (except midstream): Participants located in a Highly Impacted Community; Participants where the primary language spoken at the project site is other than English; Participants who rent or lease rather than own; and Participants who are smaller businesses (e.g., account associated with project receives electric service on Schedule 24).

### Energy Efficiency Measurement & Verification Protocols

Appendix 3 of the 2024-2025 DSM Business Plan provides the EM&V framework for energy efficiency. A summary of the proposed cost of the Company’s energy efficiency programs are provided in the table below.

**Table 3.2 – Proposed Cost (millions) of Energy Efficiency programs**

Year	Incentives/direct benefits to customers \$(million)	General implementation \$(million)	Total \$(million)
2022	\$ 14.72	\$ 8.09	\$ 22.81
2023	\$ 14.72	\$ 8.31	\$ 23.03
2024	\$ 14.19	\$ 9.76	\$ 23.95
2025	\$ 14.90	\$ 10.47	\$ 25.37
Total	\$ 58.52	\$ 36.63	\$ 95.15

For 2022-2023, this table reflects the total estimated costs of the energy efficiency portfolio, consistent with the 2022-2023 DSM Business Plan (filed in November 2021) and 2021 CEIP (filed in 2021 and revised March 2023). This table also reflects the following changes to the energy efficiency program estimated costs for 2024-2025 that were initially included in the 2021 CEIP:

- The energy efficiency forecast costs for 2024-2025 reflect the estimates provided in the 2024-2025 BCP. Previously, the Company relied on the prior 2022-2023 BCP for 2024-2025 forecast costs.
- The energy efficiency forecast direct benefits for 2024-2025 reflect the estimates provided in the 2024-2025 BCP. Previously, the Company relied on the prior 2022-2023 BCP for 2024-2025 forecast direct benefits.

Estimated costs of the energy efficiency programs align with the forecasts and the calculation of direct customer benefits in the DSM Business Plans for 2022-2023 (filed in 2021) and 2024-2025 (filed November 2023). Costs include funding for NEEA, and only the estimated portion of incremental costs attributable to CETA are included in the incremental cost analysis in Section 4.

### **Energy Efficiency Energy and Non-Energy Impacts (NEIs)**

Regarding energy impacts, updated energy impacts by program (except for low-income weatherization which is not required to be cost effective and is not included in the analysis) for 2024-2025 are available in the cost effectiveness analysis from AEG provided as an appendix to the 2024-2025 DSM Business Plan provided in the 2024-2025 BCP.

Regarding NEIs, as part of the 2022-2023 biennial planning process, PacifiCorp in conjunction with other investor-owned utilities contracted with DNV to assess and quantify additional non-energy impacts. The DNV analysis identified NEIs from the existing literature and assigns those NEIs to relevant PacifiCorp programs and measures. DNV's NEI Database contains 50 separate residential and C&I NEIs from 46 publicly available studies.

As part of the 2023-2024 biennial planning process and adhering to PacifiCorp's condition 11a in the 2022-2023 biennial conservation plan order, the Company further refined adjustment factors for valuation of non-energy impacts in the DNV study and developed a resiliency benefit for residential building shell measures. Each of these updates were done in consultation with the Company's DSM and Equity advisory groups.

After assigning the NEI to PacifiCorp programs and measures, DNV adjusted the estimates based on plausibility, confidence, and economic adjustment factors. The adjustments improve transferability of the research to PacifiCorp territory. They also adjust the NEI values to account for uncertainty stemming from extremely high or low values, the quality of the methods used in the original study, the age of the original study, and differences in economic conditions between the area covered by the original study and PacifiCorp service territory. The end result is a single matched value as the final recommended NEI for each measure-by-NEI combination.

The final DNV report documenting the analysis is included as Appendix 4 (NEI Report) in the BCP. The matched values by measure are included in same appendix in the same docket (NEI values).

The table and figure below provide an initial estimate of how the measure specific NEIs from the DNV analysis are distributed by customer programs for the 2022-2025 period (utilizing the assumption that each year of non-energy impact is calculated consistent with the biennial conservation plan covering that year). These estimates are calculated using the measure-NEI mapping found in the NEI values spreadsheet referenced above. The values presented below represent the net present value of NEI's over the lifetime of measures installed during the 2022-2025 period.<sup>23</sup>

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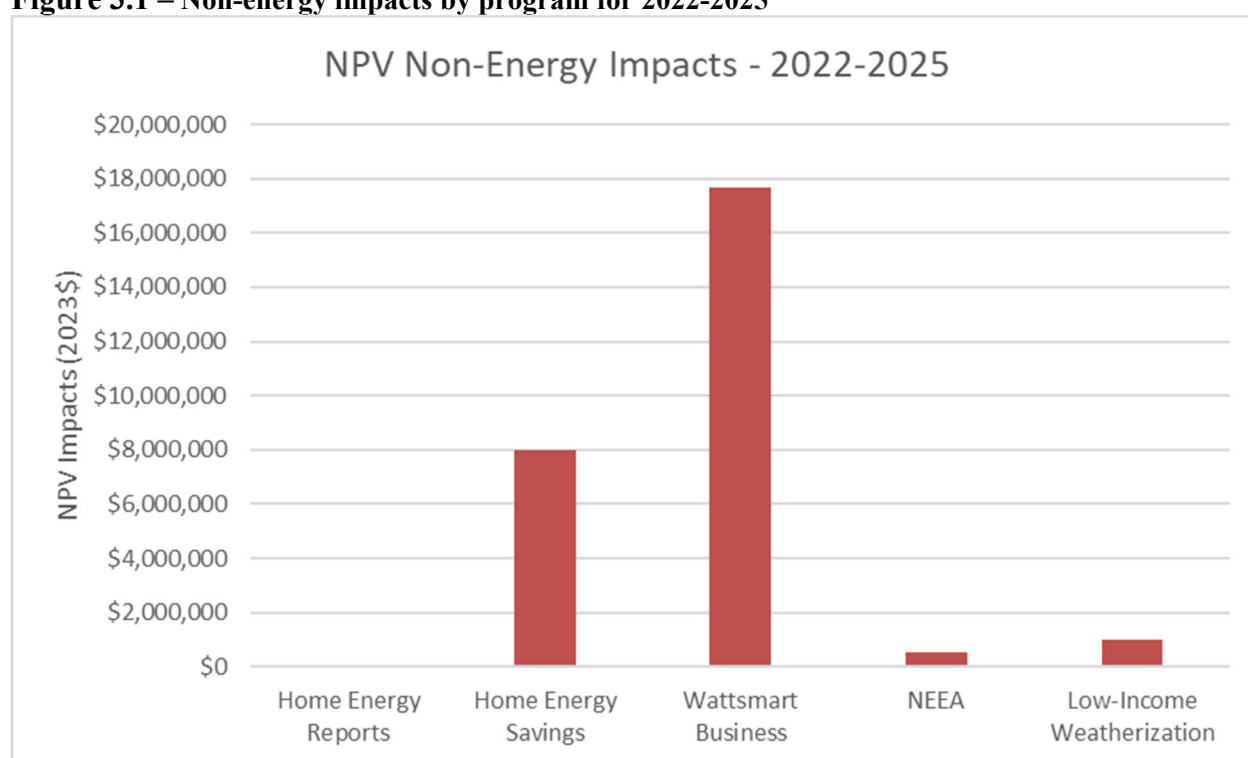
<sup>23</sup> Information Table 3.7 and Figure 3.1 can be found in workpaper "210829-PAC-WP-BenCost PY2022-25 12.31.21 (C).xlsx".



**Table 3.3 – Non-energy impacts by program for 2022-2025**

Program	NEI (2023\$)
Low Income Weatherization	\$1,004,851
Home Energy Savings	\$8,008,328
Home Energy Reports	\$0
Wattsmart Business	\$17,646,618
Northwest Energy Efficiency Alliance	\$556,857
<b>Total Conservation</b>	<b>\$27,216,654</b>

**Figure 3.1 – Non-energy impacts by program for 2022-2025**



## Update on Demand Response Actions

PacifiCorp’s Demand Response Utility Actions for 2022-2025 described in the 2021 CEIP remain unchanged. In this section, PacifiCorp offers an update on the status of the proposed actions.

For the 2022-2025 period, PacifiCorp identified several demand response programs it expected to launch to achieve its interim DR targets. Since that time, PacifiCorp received approval for Schedule 106, which is an enabling demand response tariff that supports multiple market driven programs. Schedule 106 provides a regulatory framework that includes a fast and flexible change process while at the same time enabling transparent customer information for the benefit of all

stakeholders. Each new demand response program will use Schedule 106 for enablement, communication, and tracking. The Company has launched the following demand response programs:

### **Irrigation Load Control**

This program was approved and became effective in August 2022. It focuses on enrolling agricultural irrigation pumps with the highest connected loads during the available dispatch hours in the summer during the irrigation season with incentives differentiated based on dispatch notification option. The program relies on field-installed direct load control (DLC) devices to send signals to pumping equipment for reduction of irrigation loads for participating customers. Incentives are available on a \$/kilowatt (kW) per year basis and vary by Dispatch Notification. The program is actively enrolling customers.

Program details, including incentive levels are available in Appendix A.

### **Commercial and Industrial Curtailment**

The WUTC approved the Commercial and Industrial (C&I) Demand Response program in January 2023. The program focuses on enrolling connected end use loads available during various dispatch periods. Event communication and control occurs through a Program Administrator-provided, two-way communications device (communicating via cellular signals) installed at the customer site. The program is actively enrolling customers.

Program details including incentive levels are available in Appendix B.

### **Optimal Time Rewards (Residential Thermostats and Water Heaters)**

This program for residential customers was approved in June 2023. It focuses on delivering curtailable end-use loads from residential HVAC equipment communicating through customers' web-enabled thermostats and electric water heaters via a program-provided Wi-Fi enabled communication device. Customers will start enrolling in Q4 2023.

Program details including incentive levels are available in Appendix C.

In addition to expanding participation in the Company's existing demand response programs listed above, PacifiCorp is also continuing to develop new program offerings for demand response:

### **Residential Managed Charging**

PacifiCorp filed a Managed Charging Pilot Application with the Commission on July 14, 2023. In August 2023, the Company issued an RFP soliciting bids to implement a residential electric vehicle managed charging program for Pacific Power. The Company anticipates launching the pilot program in 2024. The pilot will initially shift at-home EV charging load to off PacifiCorp's peak via routine, active load management. Through the pilot, PacifiCorp will also collect data and conduct analysis to assess the feasibility and potential impact of layering in demand response capabilities and integrating with PacifiCorp's DERMS.

### **Batteries**

This program is currently under consideration and in the preliminary stages of planning. The program would potentially target residential—and possibly commercial—customers who have WiFi connection to incentivize the use of individual batteries for system wide-integration in support of overall grid management.

**Program Budgets for approved programs**

The best available information for approved program budgets is estimates from program filings with the WUTC. Actual costs for PacifiCorp’s demand response programs are subject to change based on program ramping and participation over time. For the 2022-2025 implementation period, budgets for the demand response programs described above are shown in Table 2.

**Table 2 – Estimated Demand Response Program Budgets 2022-2025**

Program	Incentives/Direct Customer Benefit	General Implementation Expense	Total Spending (2022-2025)
Irrigation Load Control	\$676,262	\$2,248,714	\$2,924,976
Commercial & Industrial Curtailment	\$5,224,077	\$3,088,775	\$8,312,852
Optimal Time Rewards (Residential)	\$76,350	\$282,598	\$358,948
<b>Total</b>	<b>\$5,976,689</b>	<b>\$5,620,087</b>	<b>\$11,596,776</b>

The approved programs are still ramping up and there is some uncertainty around customer acceptance and participation in any given year. Initial customer uptake for the two non-residential programs has been encouraging. Given program ramp up coincident with the initial CEIP, the Company believes the most useful metric is to focus on available MW at the end of 2025, the same basis used for the demand response target. The impacts in the table above include, relative the 2025 cumulative value provided with each filing, a slight upward adjustment in the irrigation program and a slight downward adjustment in the C&I program.

**Table 3 – Estimated Demand Response Impacts From Approved Programs**

Program	Cumulative MW (2022-2025) (@gen)
Irrigation Load Control	12.9
Commercial & Industrial Curtailment	24.0
Optimal Time Rewards (Residential)	0.7
<b>Total</b>	<b>37.6</b>

## Update on Public Participation Actions

PacifiCorp filed its most recent Public Participation Plan on May 1, 2023. This CEIP Update extends from the initial PPP and provides information on the various pathways that the Company has developed, or is in the process of developing, for its public engagement spaces, and utilizes feedback captured through its various public channels. This includes both outreach, language, and communications efforts, as well as energy equity efforts.

### Outreach, Language, and Communications

The Company proposes three discrete outreach, language, and communications actions in this CEIP Update:

- *Energy Resource Center – Webpage Hub Adaptation.* PacifiCorp created an Energy Resource Center on its website (PacificPower.net/Resources) in 2022 where customers can go to learn more about energy-savings rebates and watch videos pertaining to energy efficiency, renewable energy, electric vehicles, energy assistance and time of use rates. The idea behind building the Energy Resource Center came from the Washington Equity Advisory Group to provide a better user-friendly experience where customers can find resources and information. The Company will continue to promote the Energy Resource Center to increase awareness of these resources and to increase the number of customers that visit the webpage. In 2024, the Company will be working on revamping the webpage so that it serves as a Washington specific engagement hub that will include the meeting materials for public engagement opportunities, include key updates and communications, as well as an expanded menu of program information and resources available to customers. PacifiCorp is also exploring showcasing advisory group and/or member features as a way to recognize community members for the time and feedback they have provided in our engagement processes.
- *Communications – Multicultural Campaigns.* PacifiCorp is working to address cultural barriers and embrace cultural differences by obtaining a deeper understanding of its communities in Washington. As a way to refine and enhance mechanisms for outreach and communication, the Company is exploring new advertising and outreach channels to reach Spanish-speaking customers more directly in their communities. PacifiCorp launched two pilot programs to increase awareness of and participation in Pacific Power’s Wattsmart® residential and business energy efficiency programs. For this initiative, the Company is working closely with a multicultural marketing agency to develop a Spanish-language earned media plan that will help connect and resonate with customers and strengthen media and customer relationships to reach the Latine community through culturally relevant messaging and content. This plan envisions radio and television interviews with local networks, the publication of print and email articles, and partnerships with local community influencers to help disseminate messages. The Company also identified one local field service representative and a diversity and community outreach coordinator from the Yakima community as trusted messengers to deliver messaging. Beyond these measures, through contacts with community

organizations and local chambers of commerce, PacifiCorp continually gains new skills and learns new information to accommodate and celebrate cultural differences while enhancing community engagement.

- *Feedback Tracker.* In order to increase transparency, PacifiCorp collects feedback and responses from its continued engagements with its EAG, CBIAG, and any PacifiCorp held public meetings that include invitees from all of PacifiCorp’s advisory groups. The Feedback tracker is posted on PacifiCorp’s Clean Energy Implementation Plan webpage, and will be regularly updated.<sup>24</sup>

## Energy Equity

PacifiCorp continues to seek to understand, adapt and develop an integrated approach by working with community and stakeholder groups comprised of frontline communities, Community Based Organizations, Regulators, Philanthropists, Government Agencies, and Policy Makers, to deliver an equitable clean energy future. We understand that to help surface elements of inequity in the clean energy transformation, key baseline metrics must be established. PacifiCorp acknowledges and seeks to surface actions and Energy Equity outcomes which are organized into four commonly considered energy equity and justice tenets: Recognition, Distributive, Procedural, and Restorative. Examples of actions organized under respective tenets are exemplified in Table 3.4 below.<sup>25</sup>

**Table 3.4 Four Components of Energy Equity**

Recognition	Distributive	Procedural	Restorative
<ul style="list-style-type: none"> <li>• Demographics</li> <li>• Program design</li> <li>• PUC hire or consultant</li> <li>• Supplier diversity</li> <li>• Workforce</li> </ul>	<ul style="list-style-type: none"> <li>• Access to innovative financing or technologies</li> <li>• Affordability</li> <li>• Customer reliability</li> <li>• Distribution investments</li> <li>• Rate design</li> <li>• Utility incentive</li> </ul>	<ul style="list-style-type: none"> <li>• Creating working groups</li> <li>• Education/outreach</li> <li>• Enhanced party representation</li> <li>• Enhanced engagement</li> </ul>	<ul style="list-style-type: none"> <li>• Environmental effects</li> <li>• Customer protection</li> <li>• Community resilience</li> <li>• Renewable energy siting</li> <li>• Imbalance for legacy customers</li> </ul>

Consistent with these four components of energy equity, PacifiCorp identifies the following proposed incremental public participation actions.

First, recognition justice requires an understanding of historic and ongoing inequalities and prescribes efforts that seek to reconcile these inequalities. PacifiCorp proposes the following incremental recognition justice actions, as well as updates to its previously proposed actions:

- **Residential Energy Usage Survey:** PacifiCorp developed a voluntary residential customer survey and distributed it to its Washington residential customers in the Spring of 2023. This survey’s intent was to track the progress of its first CEIP to help ensure that

<sup>24</sup> Available online at [Washington Clean Energy Transformation Act & Equitable Distribution of Benefits \(pacificcorp.com\)](https://www.pacificcorp.com)

<sup>25</sup> This table is an excerpt from a Lawrence Berkeley Lab and Pacific Northwest National Laboratory analysis on Energy Equity. Available [here](#).

the benefits of the transition to clean energy are broadly shared and equitably distributed among all customers, with a specific focus on named communities.

- **Modified the Low-Income Bill Assistance Program:** PacifiCorp’s LIBA program was established in 2003. LIBA provides tiered discount based on income levels. Previously, LIBA was designed to provide credit to income-eligible households on monthly usage over 600 kWh and included an annual enrollment cap. Consistent with the requirements in RCW 19.505.120 and consultations with the Low-Income Advisory Group, the Company proposed to (1) increase the maximum income thresholds for the program consistent with RCW 19.405.020(25), (2) modify the discount from a “per kWh above 600 kWh” to a “percentage discount of the net bill,” with the discount level based on household size and income; and (3) eliminate the annual enrollment cap. These changes were allowed to go into effect on August 1, 2021.
- **Energy Burden Assessment.** PacifiCorp hired Empower Dataworks to prepare a 2022 Energy Burden Assessment (EBA) for the Company’s residential customers in Washington. In the EBA, Empower Dataworks highlighted that the LIBA program design is very good at targeting benefits to higher burden customers and in its program administration. It also noted that the overhead costs are very efficient relative to other programs in the state and praised the great coordination between PacifiCorp and the local community action agencies on providing culturally appropriate marketing and program designs. PacifiCorp partners with three agencies to administer and deliver the program: Blue Mountain Action Council (BMAC) serves Columbia, Garfield, and Walla Walla counties, Opportunities Industrialization Center of Washington (OIC) serves Upper Yakima County, and Yakima Valley Farm Workers Clinic DbA Northwest Community Action Center (NCAC) serves Lower Yakima County.
- **Outside subject matter expertise and facilitation.** The Company has engaged E Source as its stakeholder facilitator and content support developer, who acts as an accountability partner in internal stakeholder development. This accountability allows a value chain that creates and strengthens our internal equity decision-making lens and ensures that it bears fruit in our deliverables and stakeholder engagement, and this consequently will help achieve equitable results in the communities the Company serves.
- **Building adaptive leadership skills.** The Company held an adaptive leadership in equity workshop for key PacifiCorp employees who work on external engagement and customer and community solutions. This workshop was held in December 2022 and focused on acknowledging and finding agreements on the value of building a safe and supportive space to grow individual’s adaptive leadership skills and provide tools, resources, and guidance in our shared experience. This workshop is important because developing an equity decision-making lens requires understanding and acceptance of the individual and corporate level of intercultural competency.

Second, Distributional justice refers to the distribution of benefits and burdens across populations. This objective aims to ensure that marginalized and vulnerable populations do not receive an inordinate share of the burdens or are denied access to benefits. PacifiCorp provides the following update on its distributional justice actions:

- **On-Bill Financing:** The Company’s residential customers have the option of obtaining a loan through Craft3 in partnership with Pacific Power for Home Energy Savings program-eligible projects. The purpose of this program is to address the upfront cost barriers that may exist for customers to participate in certain residential energy efficiency programs. Craft3, who administers the on-bill financing program, extended eligibility in 2022 to additional housing types, including manufactured homes on leased land, and homes in Tribal communities where a lien cannot secure loans. Additionally, Craft3 increased the maximum loan amount to accommodate the inclusion of financing for critical repairs such as asbestos remediation, roof repair, mold removal, electrical panel upgrades, etc. Essential maintenance may only be financed in conjunction with and preparation of a rebate-eligible project.
  
- **Residential Energy Efficiency:** Utility actions in 2022 and continuing in 2023 for the residential energy efficiency program (available to all customers regardless of income) include:
  - Continuing direct installation of duct sealing and lighting for manufactured homes, and direct installation of LED lighting for multi-family homes with a focus on named communities.
  - Buying down the cost of general-purpose LED lamps at value retailers such as Dollar Store and Goodwill stores located in named communities, which makes these lamps more affordable for consumers to lower their energy usage.
  - In 2022, the Company improved the offer for residential customers located in Highly Impacted Communities who use non-electric and non-natural gas fuel sources in their primary heating systems by offering an enhanced incentive to replace their system with efficient ductless heat pump(s). In 2023, the Company offered enhanced incentives for residential customers in Highly Impacted Communities for several additional HVAC measures.

Third, procedural justice focuses on inclusive decision-making processes and seeks to ensure that proceedings are fair, equitable, and inclusive for participants, recognizing that marginalized and vulnerable populations have been historically excluded from decision-making processes.

PacifiCorp provides the following update on its procedural justice actions:

- **Formed EAG:** The EAG was assembled in 2021 to help inform and advise the Company on the issues most important to the communities that PacifiCorp serves in Washington. The EAG is comprised of nine representatives from highly impacted communities and vulnerable populations within the Company’s Washington service area, including Yakima and Walla Walla areas. These members have expertise on equity-related topics, such as the health of vulnerable populations and programs for low-income customers.

The EAG meets regularly and provides significant input on the Company’s CBIs, metrics included in the CEIP, and how the Company plans and operates within its Washington service area.

- **Development of CBIs:** Consistent with CETA, the Company is committed to ensuring that the benefits from the transition to clean energy are broadly shared and equitably distributed among all customers, with a specific focus on named communities. PacifiCorp has partnered with stakeholders and advisory groups, including its EAG, to identify the highest priority benefits to customers and identify potential barriers and burdens that may prevent some customers from receiving those benefits. These efforts have resulted in nine CBIs and associated weighting factor to evaluate the equitable distribution of benefits. This allows the Company to assess and monitor the impacts of each proposed program, action, and investment. In addition, the CBIs were included in the Company's most recent CEIP filings to inform utility action, focusing on the named communities that were identified within the Company’s Washington service area.

Finally, restorative justice uses regulatory government organizations or other interventions to disrupt and address distributional, recognition, or procedural injustices, and to correct them through laws, rules, policies, orders, and practices. PacifiCorp provides the following update on its restorative justice actions.

- **Established Utility Actions within the CEIP:** PacifiCorp committed to and made several changes to residential and non-residential customer energy efficiency programs to increase the focus on delivery of benefits to named communities. These utility actions were informed by input received from its EAG and the CBIs. The same utility actions were included in the 2022-2023 Biennial Conservation Plan, with the 2023 Annual Conservation Plan comprising 2023 actions. These utility actions include modifications to the low-income weatherization program that the Company filed on December 21, 2021. These changes included, but were not limited to, expanding tariff applicability for the installation of energy efficiency improvements. Funds available for repairs were also increased from 15 percent to 30 percent of the annual reimbursement on energy efficient measures and income guidelines were updated to be consistent with RCW 19.405.020(25). The changes were approved by the Commission effective February 1, 2022. Before these changes, some income-qualified homes could not receive energy efficiency improvements due to the extent of critical maintenance needed before the energy efficiency improvements could be made.



## CHAPTER 4 – INCREMENTAL COST

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### Chapter Summary

WAC 480-100-660(1) states that to determine the “incremental cost of the actions to comply with RCW 19.405.040 and 19.405.050” the utility must compare its lowest reasonable cost portfolio (CEIP portfolio) to the Alternative Lowest Reasonable Cost Portfolio (Alternative Portfolio) that would have resulted in the absence of CETA. These incremental costs include items like CETA-driven impacts to electricity generation, energy efficiency, new programs to support customers, and program management, that can be measured for the current CEIP period. WAC 480-100-660(1) also states that the Company should use a portfolio optimization model consistent with the most recent IRP as the basis for calculation the lowest and alternative lowest reasonable cost portfolios. The utility must show the difference between portfolio choices and investment decisions between the two portfolios to demonstrate which investments and expenses are directly attributed to meet the requirements of RCW 19.405.040 and 19.405.050.

Based on the Company’s updated interim and specific targets discussed above, this CEIP Update includes an updated incremental cost calculation for the remaining years in the CEIP period, 2023 – 2025. Including updated modeled and non-modeled incremental costs, the estimated cost to comply with CETA in the current CEIP planning period is \$1.35 million on average per year.

Specifically, the forecasted incremental costs in the compliance years 2022 through 2025 reflect both IRP-derived incremental costs and non-modeled incremental costs. Having applied the outcome of the incremental cost calculation as laid out in rule, there is an estimated average cost of \$1.35 million per year. This \$1.35 million in increased revenue requirement per year would result in customer rates impact of approximately 0.4 percent, and is well below the annual threshold for alternative means of compliance per RCW 19.405.060(3). As such, the Company will not pursue alternative compliance in this initial CEIP four-year compliance window.

These updated costs are informed by PacifiCorp’s Two-Year Progress Report, filed May 2023, and the CEIP portfolio, W-10 CETA, that was optimally developed to meet CETA requirements. The CEIP portfolio was developed with the SC price policy included in both the long-term capacity expansion decision and in operations. The Alternative Portfolio, P-SC, demonstrates what the Company would have done in the absence of CETA, but is also developed under the SC price policy.<sup>26</sup> This methodology is generally consistent with the methods described in the refiled 2021 CEIP, and Chapter 1 above describes the modeling process that developed optimized portfolios under the SC scenario, leading to the development of both the Alternative portfolio and the CEIP portfolio.

### The Alternative Portfolio

PacifiCorp’s updated Alternative Portfolio, case P-SC, was developed during the Company’s Two-Year Progress Report modeling and portfolio development process, filed May 2023. This

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<sup>26</sup> Several portfolios were developed specific to Washington CETA legislation and are defined in PacifiCorp’s Two-Year Progress Report Volume I, Chapter 8.

portfolio best represents the actions the Company would have taken, but for CETA clean energy targets. Consistent with WAC 480-100-605, P-SC still includes the social cost of greenhouse gas cost adder in the resource acquisition decision.

Both the Alternative and CEIP portfolios were optimally developed for the PacifiCorp system as a whole; the PLEXOS modeling software remains agnostic about state-specific resource allocations. However, the only differences in resource additions between the two portfolios are specific to Washington customers. The Alternative Portfolio was assessed against CETA targets for Washington customers, as described in Chapter 1, and then incremental resources were added, and were assumed to be situs to Washington customers. Thus, the only modeled differences between the two portfolios are directly attributable to actions taken to comply with CETA targets. Any other differences in the operational impacts between the two portfolios, if not directly attributable to the incremental resource additions, are considered negligible impacts due to movements in dispatch.

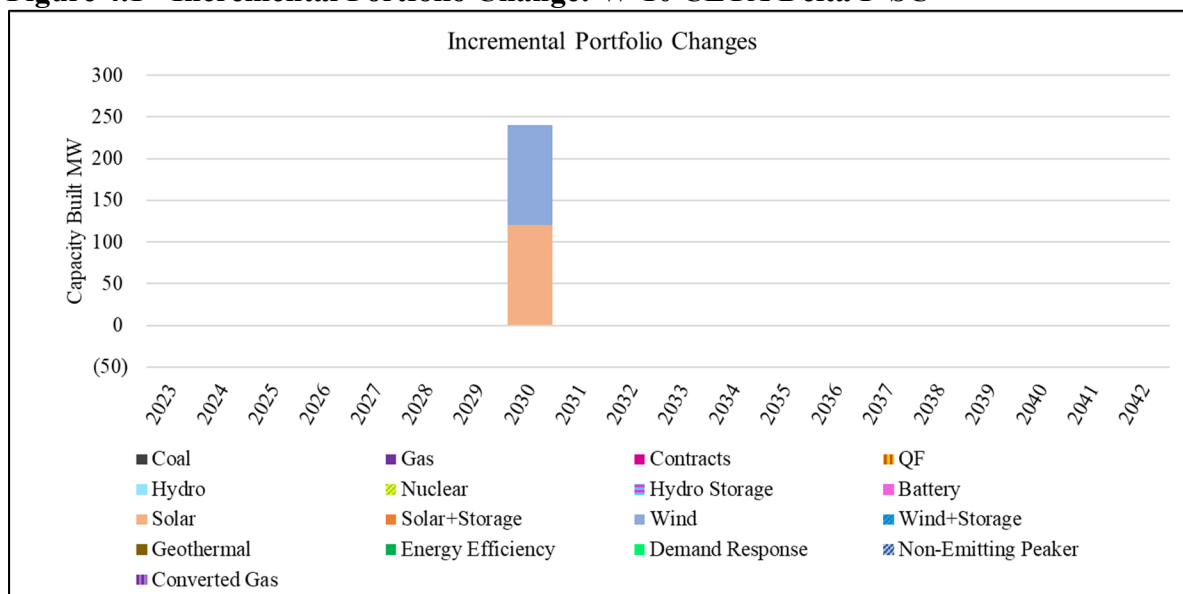
### **Interim Target Shortfall Resolution**

To develop the CEIP portfolio, the base portfolio P-SC was evaluated against CETA requirements that Washington-supplied energy would be 100 percent greenhouse gas neutral with up to 20 percent of this amount supplied by unbundled RECs beginning in 2030, and 100 percent clean and non-emitting by 2045.

Given the system optimized portfolio under the SC price policy and assumed resource allocations to Washington customers, the Company identified a small compliance shortfall in 2030 and 2031. In years 2032 and beyond, the portfolio resources generated enough renewable and non-emitting energy to Washington to meet 100 percent of need. These compliance shortfalls were identified by calculating the amount of additional renewable or non-emitting energy that would be needed to meet at least 80 percent of Washington retail sales. A compliance shortfall of 67 MW of average annual capacity was identified in 2030, and a slightly larger shortfall of 72 MW average annual capacity resulted for 2031.

To reach the target of at least 80 percent non-emitting energy in 2030-2031 at least-cost, and without the need for additional transmission lines, small-scale renewable capacity was added in Yakima, Washington. Specifically, 120 MW of installed capacity of small-scale solar and 120 MW of installed capacity of small-scale wind was added in Washington in 2030. The incremental small-scale resources were added only for CETA-compliance, on top of an optimized system portfolio developed under the SC price policy assumption, as shown in Figure 4.1. Thus, the incremental small-scale solar and wind was allocated situs to Washington and would represent an incremental cost in 2030 and 2031.

**Figure 4.1 - Incremental Portfolio Change: W-10 CETA Delta P-SC**



These incremental actions resulted in the CEIP-compliant portfolio, W-10 CETA, and the associated interim targets and incremental costs.

### Revenue Requirement Methodology

Incremental costs included for consideration in this CEIP can be broadly considered in two categories: IRP modeled incremental costs, and non-IRP modeled incremental costs. IRP modeled incremental costs were identified through the comparison of changes in investment costs between the CEIP portfolio and the Alternative Portfolio, described above, for the years 2023 - 2025. Per rule WAC 480-100-660(1), the only differences in investment decisions between the two portfolios described are a direct result of CETA requirements, determined to be met in a least-cost least-risk manner. Incremental investments and expenses were identified from the comparison of the two portfolios and summarized on an annual, nominal and levelized basis for the remaining compliance years in the CEIP. Given that no additional actions needed to be taken before 2030 to achieve CETA compliance for Washington customers, there are no differences in resource selections between the CEIP portfolio and the Alternative portfolio. Any numerical differences in variable costs in years 2023 – 2025 are a result of small arbitrary dispatch differences between any two ST model runs and are considered negligible. There are not any expected incremental resource additions or decisions due to CETA compliance in the current CEIP planning window.

Table 4.1 summarizes the resource-driven incremental expenses identified. However, note that the column for 2022 was not updated and is equivalent to the modeled incremental cost shown in the Company’s current CEIP. The values for 2022 are shown as the projections to keep the values consistent with the values for the remaining years and avoid any inconsistencies with values in the actual amounts that are not reflected in the projections. In addition, this avoids any double counting of values that are in actual values and projections.

**Table 4.1 Modeled Annual Incremental Costs of CETA 2022-2025**

<b>(Smillion)</b>	<b>Compliance Year</b>			
	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>
Fuel Costs	-	(0)	0	(1)
Other Variable	-	0	0	0
Energy Efficiency	-	-	0	-
Net Market Purchases	-	(0)	(0)	(3)
Emissions	-	1	0	2
Deficiency	-	-	(0)	(0)
Fixed Costs	-	-	(0)	0
<b>Total</b>	<b>-</b>	<b>0</b>	<b>(0)</b>	<b>(2)</b>

Proxy energy efficiency selections are the same between the Alternative portfolio and the CEIP portfolio, and are identified as optimal under the social cost of greenhouse gas price policy, and therefore do not result in a modeled incremental resource difference.

Moving to non-IRP modeled incremental costs, PacifiCorp workstreams evaluated and identified any costs that were not expected to be incurred but-for CETA requirements during the four-year period. The resulting non-IRP modeled costs reflected in this CEIP include administrative-type costs, such as EAG-resulted moderation and communication costs, incremental staffing requirements, and costs related to activities undertaken to enhance reach and equitable distribution of DSM programs. Table 4.2 summarizes the identified non-IRP modeled incremental costs by category.

**Table 4.2 Non-modeled Annual Incremental Costs**

<b>Category</b>	<b>Compliance Year (\$ Millions)</b>			
	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>
CEIP Management, Coordination & Communication	\$0.25	\$0.25	\$0.26	\$0.26
Enhanced Outreach & Communication	\$0.41	\$0.39	\$0.38	\$0.39
External Data Support	\$0.17	\$0.17	\$0.18	\$0.18
CETA-specific DSM Program Expenses	\$1.24	\$1.26	\$0.41	\$0.42
<b>Total</b>	<b>\$2.07</b>	<b>\$2.08</b>	<b>\$1.22</b>	<b>\$1.25</b>

These administrative costs, in addition to the costs identified through the comparison of the CEIP portfolio and Alternative portfolio, are included in the revenue requirement calculation described below.

## Revenue Requirement for 2022 – 2025

Taking the estimated incremental costs identified based on methodologies described in this report, the Company calculated an annual revenue requirement using the standard revenue requirement formula:

$$\text{Revenue Requirement} = \text{Rate of Return} \times (\text{Net Rate Base}) + \text{Operating Costs}$$

Using this formula, the estimated annual revenue requirement for each year in the compliance period is reflected in Table 4.3 below.

**Table 4.3 Revenue Requirement of Cost Estimates**

Revenue Requirement (\$-Millions)	Compliance Year			
	2022	2023	2024	2025
<b>Fixed Costs</b>	-	-	<b>(0.00)</b>	<b>0.00</b>
Variable Costs				
Fuel Costs	-	(0.03)	0.03	(0.68)
Variable O&M	-	0.00	0.01	0.04
Energy Efficiency	-	-	0.00	-
Net Market				
Purchase	-	(0.04)	(0.12)	(3.11)
Emissions	-	0.54	0.10	2.16
Deficiency	-	-	(0.07)	(0.06)
<b>Total Variable Costs</b>	-	<b>0.47</b>	<b>(0.04)</b>	<b>(1.64)</b>
Administrative & General Costs				
DSM Program	1.24	1.26	0.41	0.42
Outreach Costs	0.40	0.37	0.36	0.37
Materials	0.01	0.01	0.01	0.01
Staffing	0.25	0.25	0.26	0.26
Data Support	0.17	0.17	0.18	0.18
<b>Total Revenue Requirement 2</b>	2.07	2.54	1.18	(0.39)
<b>Average Revenue Requirement</b>	<b>1.35</b>			

The average incremental revenue requirement over the reporting period, including both the original forecasted costs and some updated forecasted costs, is \$1.35 million., would increase customer rates by approximately 0.4 percent.

## Annual Threshold for Alternative Compliance

Per WAC 480-100-660(2), a utility must calculate the average annual threshold amount for determining eligibility for reliance on RCW 19.405.050(3) as a means of alternative compliance with CETA. RCW 19.405.505(3) states that an investor-owned utility must be considered to be in compliance with the standards under RCW 19.405.040(1) and 19.405.050(1), if over the four-year compliance period, the average annual incremental costs of meeting the standards exceed such annual threshold as defined under WAC 480-100-660(2). For a compliance period consisting of four years, the mathematical formula for the Annual Threshold Amount is as follows:

$$\text{Annual Threshold Amount} = \frac{(\text{WASR}_0 \times 2\% \times 4) + (\text{WASR}_1 \times 2\% \times 3) + (\text{WASR}_2 \times 2\% \times 2) + (\text{WASR}_3 \times 2\%)}{4}$$

As seen in Table 4.4 below, applying the Company’s forecasted weather-adjusted sales revenues for the applicable years to this compounding formula, the Company’s four-year cost threshold is \$70,785 million. This translates to an Annual Threshold Amount of \$17,696 million. Forecasted, weather-adjusted sales revenues were developed by applying approved rates (\$/MWh) in Washington to weather-adjusted forecast sales (MWh) in Washington. As the Company’s average annual incremental cost to comply with CETA of \$1.35 million is well below the \$17,696 million alternative compliance threshold.

**Table. 4.4 – Annual Threshold Amount Calculation**

<b>Revenue Requirement (\$ million)</b>	<b>Compliance Year</b>			
	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
<i>Forecasted WA Revenues</i>	331,912	335,220	403,445	399,047
<i>2% of Revenues</i>	6,638	6,704	8,069	7,981
<i>Multiplier</i>	4	3	2	1
<i>Threshold Amount</i>	26,553	20,113	16,138	7,981
<i>Four-Year Threshold Amount</i>	70,785			
<b>Annual Threshold Amount</b>	<b>17,696</b>			

## CONCLUSION

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PacifiCorp respectfully requests the Commission approve the Company’s 2023 CEIP Biennial Update, including certain updates to the Company’s interim and specific targets, community benefit indicators, specific actions, and incremental cost calculations.

# APPENDICES A – D

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# **Appendix A**

## WASHINGTON IRRIGATION DEMAND RESPONSE

### This document includes the following sections:

- Definitions
- Program Description
- Participation Requirements and Procedures
- Dispatch Parameters and Incentives
- Additional Conditions

### DEFINITIONS

**Available Dispatch Hours:** Daily timeframe within which Pacific Power may dispatch its demand response control system.

**Criteria:** Additional requirements for participation beyond being an Eligible Customer. Criteria are set forth in Table 1 below.

**Dispatch Days:** The days upon which Pacific Power may or may not dispatch its demand response control system.

**Dispatch Duration:** The duration of time that demand response events may be dispatched for.

**Dispatch Event:** The period during which Participating Customers' electrical loads are shut off or controlled to minimize electrical consumption

**Dispatch Parameters:** The criteria within which Pacific Power may dispatch its load control system.

**Dispatch Notification:** The maximum time between a Participating Customer receiving a notice from the Program Administrator or Pacific Power and the beginning of the Dispatch Event. "Hour ahead" shall mean 60 minutes. "Day ahead" shall mean 24 hours.

**Dispatch Period:** The calendar year timeframe within which Pacific Power may dispatch its demand response control system.

**Eligible Customer:** Any party who has applied for, been accepted, and receives electric service at the real property, or is the electricity user at the real property.

**Incentive:** Payments of money or bill credits made by Program Administrator or Pacific Power to a Participating Customer for participation in a demand response offer. Incentives are specific to Dispatch Notification the Participating Customer elects for the season.

**Load Available for Curtailment:** average of all interval kilowatt measurements from installed switches (or meters in the case of pumps meeting the Criteria) across all Available Dispatch Hours across all Dispatch Days in the Dispatch Period which do not include a Dispatch Event.

**Maximum Dispatch Hours:** The maximum amount of time Pacific Power may dispatch its demand response control system annually.

**Maximum Dispatch Events:** The maximum number of events Pacific Power may utilize in dispatching its demand response control system annually.

**Opt-Out:** The process whereby a Participating Customer notifies the Program Administrator and/or the Pacific Power they don't want to be included in an upcoming event. Opt-Out notification must be received prior to the beginning of the event.

**Participating Customers:** Eligible Customers who meet the Criteria and agree to participate in the Irrigation Demand Response Program.

**Participation Factor:** equals (i) the number of Dispatch Events in which Participating Customer performed, divided by (ii) the number of Dispatch Events during the Dispatch Period. Non-performance during a Dispatch Event is considered to occur when Participating Customer either (i) informs Program Administrator of non-participation in a specific Dispatch Event, or (ii) does not reduce pump demand to zero (0) kilowatts for the duration of the Dispatch Event.

**Program Administrator:** A third-party entity selected by Pacific Power to engage with Eligible Customers about the irrigation demand response program, execute agreements with Participating Customers on behalf of Pacific Power and provide the systems to control Participating Customers irrigation loads during certain times.

**Targeted Area:** One or more geographic area within Pacific Power's Washington service territory that may have additional demand response requirements and/or value. Targeted Areas may be used by the Program Administrator do one or more of the following: focus marketing, differentiate participation requirements and/or Incentives.

## **PROGRAM DESCRIPTION**

The Irrigation Demand Response Program is a program offered by Pacific Power that provides Incentives to Participating Customers in exchange for granting Pacific Power the right to curtail Participating Customers' irrigation loads at certain times within the Dispatch Parameters and during the Dispatch Period. Pacific Power contracts with the Program Administrator to deliver the Irrigation Demand Response Program; the Program Administrator will oversee the enrollment of Participating Customers, deliver Dispatch Notifications, and call Dispatch Events on behalf of Pacific Power. The ability to curtail these loads provides Pacific Power with a summer energy or curtailment or regulation reserve product depending on the notification option selected.

### **1) Participation**

Eligible Customer and relevant load Criteria are included in the table in this document. Eligible Customers who meet the Criteria and agree to participate are Participating Customers. Participating Customers will be required to sign a standard agreement with the Program Administrator to initiate participation. The agreement is perpetual (unless terminated by either party) and does not need to be re-signed at the start of each year.

### **2) Incentives**

Incentives are available on a \$/kilowatt (kW) per year basis and vary by Dispatch Notification. Using data from the installed switches, Loads Available for Curtailment (kW) during the hours and days of each week of the Dispatch Period will be multiplied by the Incentive rate depending on the notification option selected. Loads opted out are removed from the Loads Available for Curtailment and reduce the Incentive payment to the Participating Customer. Incentives are paid after the end of the season by check or if requested a bill credit. Participating Customers receive Incentives based on the availability of load reduction, regardless of whether Pacific Power calls upon a load reduction during a Dispatch Event.

### **3) Dispatch Notification and Events**

Participating Customers may select from three different Dispatch Notification options—22.5 minute-ahead, hour-ahead or day-ahead notices—which define the time between when the customer is notified of an event and when the event starts. Participating Customers notify the Program Administrator with their preferred notification channel(s) for Dispatch Events and may select more than one, i.e., text and a phone call. Dispatch Events called with 22.5 minute-ahead notice are focused on providing the utility with regulating reserves. Dispatch Events called with an hour-ahead notice are focused primarily on providing additional curtailment capacity for the utility. Dispatch Events called with a day-ahead notice are focused primarily on providing additional energy or an energy price mitigation tool for the utility. The value of the curtailed

load to the utility system depends on the time between the notification and the start of the event. Available Incentives reflect the variability in the utility value.

#### **4) Equipment Operation**

Control occurs through a Pacific Power-provided switch (communicating via cellular signals) on the pump motor controller. Individual switches communicate with the software platform provided and installed by the Program Administrator which also provides secure access to Pacific Power to initiate Dispatch Events. Unless activated during an event, the switches do not affect normal control of the irrigation equipment, but they do convey information about the connected load back to the customer and Pacific Power.

#### **5) Opt Outs**

To provide Participating Customers with some operational certainty around the impacts of the demand response program on their operations, there are limits on hours in a day, the total number of events within a season, and total hours in a season when the loads may be curtailed. Recognizing that unforeseen operational issue may arise, Participating Customers on an hour ahead or day ahead notification may a) opt out a site or pump(s) controlled by a switch for future events or b) opt out a site once the Dispatch Notification has been sent by the Program Administrator. Opt-Out requests must be received before an event starts. In order maximize the load available for control and minimize program costs, loads that are available for control are strongly preferred. Loads that are opted out or unavailable on a regular basis may be removed from the program at the sole discretion of the Program Administrator.

#### **6) Quality Assurance, Change Process and Reporting**

Quality assurance review and techniques may be utilized during the delivery of the program. Periodic program impact and process evaluations will be conducted by a third party working for Pacific Power. Pacific Power will regularly review program performance, quality assurance and evaluation findings, and cost effectiveness results in combination with current Pacific Power resource planning results to evaluate potential program changes. Program changes may include changes to information in this document and will follow the process outlined in current version of Washington Schedule 106.

Annual reports on program performance are provided to the Washington Utilities and Transportation Commission annually.

## **PARTICIPATION REQUIREMENTS AND PROCEDURES**

### **Table 1 – Dispatch Parameters and Incentives**

Dispatch Parameters and Incentives	Description
Eligible Customer	<ul style="list-style-type: none"> <li>Customers receiving electric service from Pacific Power in Washington on Schedules 40</li> </ul>
Criteria	<ul style="list-style-type: none"> <li>Single pumps <math>\geq 25</math> HP running at least 200 hours in the Dispatch Period</li> <li>Single pumps larger than 500 HP running at least 200 hours in the Dispatch Period with service voltages higher than 480V may be controlled manually at the sole discretion of the Program Administrator</li> <li>Meters serving pumps may participate in only demand response or time of use pilot(s). They may not participate in both.</li> </ul>
Dispatch Period	Week including June 1 through week including September 15.
Targeted Areas	All areas served by Pacific Power in Washington
Dispatch Days	All days during Dispatch Period
Available Dispatch Hours	12:00 p.m. to 10:00 p.m. Pacific Time on all Dispatch Days
Maximum Dispatch Hours	52 hours per year
Maximum Dispatch Events	20 events per year.
Dispatch Duration	Up to 4 hours
Dispatch Notification	Day ahead, hour ahead and 22.5 minute ahead
Incentive	<ul style="list-style-type: none"> <li>Day ahead Dispatch Notification is paid at \$18/kW per year</li> <li>Hour ahead Dispatch Notification is paid at \$30/kW per year</li> <li>22.5 minute ahead Dispatch Notification is paid at \$45/kW per year</li> </ul> <p>The available Incentive per site is calculated at the end of the irrigation season and paid to each Participating Customer by either a check or (if requested) a bill credit in the Fall. Incentives will be determined by multiplying the Load Available for Curtailment (kW) a customer can reliably shut-off by the Incentive rate, adjusted for Opt-Outs.</p>
Opt-Out	<p>Participating Customers on an hour ahead or day ahead notification may Opt-Out of Dispatch Event(s). Opting out will lower the Participation Factor below 100% and be used to reduce Incentive payments by the same percentage.</p> <p>. Repeated opt outs may result in removal of the site from the program.</p>

**ADDITIONAL CONDITIONS**

**System Emergency Dispatch:** In the event of a system emergency, Pacific Power may, at its discretion, expand the Dispatch Parameters beyond the parameters listed. Emergency events may be used to satisfy requirements of the North American Electric Reliability Corporation standard

BAL-002-WECC-2 for Contingency Reserve Obligation and may be deployed when the utility is experiencing a qualifying event as defined by the Western Power Pool.

## **Appendix B**

## WASHINGTON COMMERCIAL AND INDUSTRIAL DEMAND RESPONSE

**This document includes the following sections:**

- Definitions
- Program Description
- Participation Requirements and Procedures
- Dispatch Parameters and Incentives
- Additional Conditions

### DEFINITIONS

**Available Dispatch Hours:** Daily timeframe within which Pacific Power may dispatch its demand response control system.

**Co- Participation:** electrical loads at a Participating Customer's location that agree to participate in one of the following Dispatch Notifications, (60-minute or 20-minute or 7-minute) AND Real Time Dispatch Notification.

**Criteria:** Additional requirements for participation beyond being an Eligible Customer. Criteria are set forth in Table 1 below.

**Data Pulse Equipment:** means a single pulse initiator providing a Form C contact closure (KYZ) and any equipment or appurtenances, including a load profile card, a KYZ pulse initiator, junction boxes, fuses and terminal strips.

**Dispatch Days:** The days upon which Pacific Power may or may not dispatch its demand response control system.

**Dispatch Duration:** The duration of time that demand response events may be dispatched for.

**Dispatch Event:** The period during which Participating Customers' electrical loads are shut off or controlled to minimize electrical consumption.

**Dispatch Parameters:** The criteria within which Pacific Power may dispatch its load control system.

**Dispatch Notification:** The approximate, time between a Participating Customer receiving a notice from the Program Administrator or Pacific Power and the beginning of the Dispatch Event. Participating Customers shall receive no less than this amount of notification (in minutes) for Dispatch Events. "Hour ahead" shall mean 60-minutes. "Real Time" shall mean no time between notice and beginning of event.

**Dispatch Period:** The calendar year timeframe within which Pacific Power may dispatch its demand response control system.

**Eligible Customer:** Any party who has applied for, been accepted, and receives electric service at the real property, or is the electricity user at the real property.

**Holiday:** means New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day.

**Incentive:** Payments of money or bill credits made by Program Administrator or Company to a Participating Customer for participation in a demand response offer. Incentives are specific to Dispatch Notification the Participating Customer elects for the season.



**Maximum Dispatch Hours:** The maximum amount of time Pacific Power may dispatch its demand response control system annually.

**Maximum Dispatch Events:** The maximum number of events Pacific Power may utilize in dispatching its demand response control system annually.

**Opt-Out:** The process whereby a Participating Customer notifies the Program Administrator and/or the Company they don't want to be included in an upcoming event. Opt-Out notification must be received prior to the beginning of the event.

**Participating Customers:** Eligible Customers who meet the Criteria and agree to participate in the Commercial and Industrial Demand Response Program.

**Program Administrator:** A third-party entity selected by Pacific Power to engage with Eligible Customers about the commercial and industrial demand response program, contract with Participating Customers on behalf of Pacific Power and provide the systems to control Participating Customers loads during certain times.

**Targeted Area:** One or more geographic area within Pacific Power's Washington area that may have additional demand response requirements and/or value. Targeted Areas may be used by the Program Administrator do one or more of the following: focus marketing, differentiate participation requirements and/or Incentives.

**Targeted Customers:** Eligible Customers with electrical equipment or energy use patterns that make them a preferred Participating Customer. These customers may be the focus of targeted enrollment or marketing efforts.

## **PROGRAM DESCRIPTION**

The Commercial and Industrial Demand Response Program is a program offered by Pacific Power that provides Incentives to Participating Customers in exchange for granting Pacific Power the right to curtail Participating Customers' loads at certain times within the Dispatch Parameters and during the Dispatch Period. Pacific Power contracts with the Program Administrator to deliver the Commercial and Industrial Demand Response Program; the Program Administrator will oversee the enrollment of Participating Customers, deliver Dispatch Notifications, and call Dispatch Events on behalf of Pacific Power. The ability to curtail these loads provides Pacific Power with curtailment, regulation reserve, contingency reserve, and frequency response grid services.

### **1) Participation**

Eligible Customer and relevant Criteria are included in the table in this document. Eligible Customers who meet the Criteria and agree to participate are Participating Customers. Participating Customers will be required to sign a standard agreement with the Program Administrator to initiate participation. The agreement is perpetual (unless terminated by either party) and does not need to be re-signed at the start of each year.

Participating customers may enroll specific electric loads in one of the following Dispatch Notifications, (60 minute or 20 minute or 7 minute) AND Real Time Dispatch Notification. In the case where there are Dispatch Events occurring at the same time, the loads must be curtailed at the beginning of the first Dispatch Event and remain curtailed through the end of the last

Dispatch Event. Loads that are enrolled in more than one Dispatch Option and perform during Dispatch Events will receive an incentive for each Dispatch Option.

## **2) Incentives**

Incentives are available on a \$/kilowatt (kW) per year basis and vary by Dispatch Notification. The \$/kW per year is further allocated by one or more of the following: months, time of day, annual hours. Using data from the Program Administrator installed equipment, loads available for curtailment (kW) during the hours, days and months of the Dispatch Period are averaged to arrive at an average available load which will be multiplied by the Incentive rate depending on the notification option selected. Loads opted out are removed from the connected load calculations and reduce the Incentive payment to the Participating Customer. Incentives are paid by check, electronic funds transfer, or if requested, a bill credit. For the 60-minute Dispatch Option, the incentive is paid after the seasons ends. For the other Dispatch Options, incentives are paid after each calendar quarter. Participating Customers receive Incentives based on the availability of load reduction, regardless of whether Pacific Power calls upon a load reduction during a Dispatch Event.

## **3) Dispatch Notification and Events**

Participating Customers may select from four different Dispatch Notification options; 60 minute-ahead, 20 minute-ahead, 7 minute-ahead, Real Time (or None) which define the time between when the customer is notified of an event and when the event starts. Participating Customers notify the Program Administrator with their preferred notification channel(s) for Dispatch Events and may select more than one notification channel, i.e., text and a phone call. Dispatch Events called with 60 minute- ahead notice are focused on providing the utility with curtailment. Dispatch Events called with 20 minute-ahead notice are focused primarily on providing regulation reserve for the utility. Dispatch Events called with 7 minute-ahead notice are focused primarily on providing a contingency reserve tool for the utility. Dispatch Events called in Real Time with no notice provide frequency response grid services for the utility. The value of the curtailed load to the utility system depends on the time between the notification and the start of the event. Available Incentives reflect the variability in the utility value.

## **4) Equipment Operation**

Event communication and control occurs through a Program Administrator -provided two-way communications device (communicating via cellular signals) installed at the customer site. Individual devices communicate with the software platform provided by the Program Administrator which also provides secure access to Pacific Power to initiate Dispatch Events. Unless activated during an event, the devices do not affect normal control of equipment, but they do convey information about the connected load back to the Program Administrator and Pacific Power. To enable the Program Administrator's event communication and control device, Pacific Power, at their expense may install data pulse equipment onto the utility meter after execution of an agreement between customer and Pacific Power.

## **5) Opt Outs**

To provide Participating Customers with some operational certainty around the impacts of the demand response program on their operations, there are limits on hours in a day, the total number of events, and total hours when the loads may be curtailed. Recognizing that unforeseen

operational issue may arise, Participating Customers in any Dispatch Notification may opt out of all Dispatch Events for specified times by contacting the program administrator. Participating Customers in 60-minute or 20-minute Dispatch Notification may Opt-Out of individual Dispatch Events dispatches by notifying the program administrator after Dispatch Notification is received and prior to the beginning of the Dispatch Event. Opting out will lower Incentive payments proportionally. In order maximize the load available for control and minimize program costs, loads that are available for control are strongly preferred. Loads that are opted out or unavailable on a regular basis may be removed from the program at the sole discretion of the Program Administrator.

### 6) Quality Assurance, Change Process and Reporting

Quality assurance review and techniques may be utilized during the delivery of the program. Periodic program impact and process evaluations will be conducted by a third party working for Pacific Power. Pacific Power will regularly review program performance, quality assurance and evaluation findings, and cost effectiveness results in combination with current Company resource planning results to evaluate potential program changes. Program changes may include changes to information in this document and will follow the process outlined in current version of Washington Schedule 106.

Reports on program performance are provided to the Washington Utilities and Transportation Commission annually.

## PARTICIPATION REQUIREMENTS AND PROCEDURES

**Table 1 – Dispatch Parameters and Incentives**

<b>Dispatch Parameters and Incentives</b>	<b>Description</b>
Eligible Customer	<ul style="list-style-type: none"> <li>All commercial and industrial customers in Washington on Schedules 24, 33, 36, 47T, and 48T.</li> </ul>
Criteria	<ul style="list-style-type: none"> <li>Interval meter installed</li> <li>Meters serving loads may participate in only demand response or time of use pilot(s). They may not participate in both.</li> </ul>
Targeted Customer	<ul style="list-style-type: none"> <li>More than 200 kW of curtailable load</li> </ul>
Dispatch Period	60 minute: <ul style="list-style-type: none"> <li>May 1 through September 30</li> </ul> 20 minute: <ul style="list-style-type: none"> <li>January 1 through Dec 31</li> </ul> 7 minute: <ul style="list-style-type: none"> <li>January 1 through Dec 31</li> </ul> Real Time: <ul style="list-style-type: none"> <li>January 1 through Dec 31</li> </ul>
Targeted Areas	All areas served by Pacific Power in Washington
Dispatch Days	60 minute: <ul style="list-style-type: none"> <li>Weekdays, non-Holidays during Dispatch Period</li> </ul>

	<p>20 minute:</p> <ul style="list-style-type: none"> <li>• Weekdays, non-Holidays during Dispatch Period</li> </ul> <p>7 minute:</p> <ul style="list-style-type: none"> <li>• Monday through Sunday during Dispatch Period</li> </ul> <p>Real Time:</p> <ul style="list-style-type: none"> <li>• Monday through Sunday during Dispatch Period</li> </ul>
Available Dispatch Hours	<p>60 minute:</p> <ul style="list-style-type: none"> <li>• 3:00 p.m. to 9:00 p.m. Pacific Time on all Dispatch Days</li> </ul> <p>20 minute:</p> <ul style="list-style-type: none"> <li>• 8:00 am to 9:00 p.m. Pacific Time on all Dispatch Days</li> </ul> <p>7 minute:</p> <ul style="list-style-type: none"> <li>• 24 hours/day on all Dispatch Days</li> </ul> <p>Real Time:</p> <ul style="list-style-type: none"> <li>• 24 hours/day on all Dispatch Days</li> </ul>
Maximum Dispatch Hours	<p>60 minute:</p> <ul style="list-style-type: none"> <li>• 40 hours per year</li> </ul> <p>20 minute:</p> <ul style="list-style-type: none"> <li>• 60 hours per year</li> </ul> <p>7 minute:</p> <ul style="list-style-type: none"> <li>• 60 hours per year</li> </ul> <p>Real Time:</p> <ul style="list-style-type: none"> <li>• 5 hours per year</li> </ul>
Maximum Dispatch Events	<p>60 minute:</p> <ul style="list-style-type: none"> <li>• 1 event per day</li> </ul> <p>20 minute:</p> <ul style="list-style-type: none"> <li>• 1 event per day</li> </ul> <p>7 minute:</p> <ul style="list-style-type: none"> <li>• 25 events per year</li> </ul> <p>Real Time:</p> <ul style="list-style-type: none"> <li>• 50 events per year</li> </ul>
Dispatch Duration	<p>60 minute:</p> <ul style="list-style-type: none"> <li>• Up to 3 hours</li> </ul> <p>20 minute:</p> <ul style="list-style-type: none"> <li>• Up to 4 hours</li> </ul> <p>7 minute:</p> <ul style="list-style-type: none"> <li>• Up to 4 hours</li> </ul> <p>Real Time:</p> <ul style="list-style-type: none"> <li>• Up to 15 minutes</li> </ul>
Dispatch Notification	<p>60 minute, 20 minute, 7 minute, Real Time (or None).</p>
Incentive	<ul style="list-style-type: none"> <li>• 60 minute Dispatch Notification is paid at \$30/kW per year allocated equally into the 5 Dispatch Period Months.</li> <li>• 20 minute Dispatch Notification is paid at \$55/kW per year using an allocation (% of total \$/kW per year ) by month. <ul style="list-style-type: none"> <li>○ 10% - January</li> <li>○ 7.5% - February</li> <li>○ 5% - March</li> <li>○ 5% - April</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ 5% - May</li> <li>○ 7.5% - June</li> <li>○ 15% - July</li> <li>○ 15% - August</li> <li>○ 10% - September</li> <li>○ 5% - October</li> <li>○ 5% - November</li> <li>○ 10% - December</li> </ul> <ul style="list-style-type: none"> <li>● 7 minute Dispatch Notification is paid at \$75/kW per year using all allocation (% of total \$/kW per year) by month. <ul style="list-style-type: none"> <li>○ 10% - January</li> <li>○ 7.5% - February</li> <li>○ 5% - March</li> <li>○ 5% - April</li> <li>○ 5% - May</li> <li>○ 7.5% - June</li> <li>○ 15% - July</li> <li>○ 15% - August</li> <li>○ 10% - September</li> <li>○ 5% - October</li> <li>○ 5% - November</li> <li>○ 10% - December</li> <li>○ The monthly incentive is further allocated by time of day. <ul style="list-style-type: none"> <li>▪ 9 AM to 9 PM – 75%</li> <li>▪ 9 PM to 9 AM – 25%</li> </ul> </li> </ul> </li> </ul> <ul style="list-style-type: none"> <li>● Real Time Dispatch Notification is paid at \$85/kW per year by allocating the \$/kW per year incentive equally into each hour of the year.</li> </ul> <p>For 60-minute Dispatch Notification, the available Incentive is calculated at the end of the season and paid to each participant by check, electronic funds transfer, or (if requested) a bill credit. For 20 minute, 7 minute and Real Time Dispatch Notification, the available incentive is calculated at the end of each calendar quarter and paid by check, electronic funds transfer or bill credit. Incentives will be determined by multiplying the average load (kW) a customer can reliably shut-off during Available Dispatch Hours on the Dispatch Days in the Dispatch Period by the Incentive rate (including the application of any allocations) and adjusted for Opt-Outs.</p>
Opt-Out	<p>Participating Customers in any Dispatch Notification may opt out of all Dispatch Events for specified times by contacting the program administrator. Participating Customers in 60-minute or 20-minute Dispatch Notification may Opt-Out of individual Dispatch Events dispatches by notifying the program administrator after Dispatch Notification is received and prior to the beginning of the Dispatch Event. Opting out will lower Incentive payments</p>

	proportionally. Repeated opt outs may result in removal of the site from the program.
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**ADDITIONAL CONDITIONS**

**System Emergency Dispatch:** In the event of a system emergency, Pacific Power may, at its discretion, expand the Dispatch Parameters beyond the parameters listed. Emergency events may be used to satisfy requirements of the North American Electric Reliability Corporation standard BAL-002-WECC-2 for Contingency Reserve Obligation and may be deployed when the utility is experiencing a qualifying event as defined by the Western Power Pool.

## Appendix C

## WASHINGTON RESIDENTIAL DEMAND RESPONSE

**This document includes the following sections:**

- ❖ Definitions
- ❖ Program Description
- ❖ Participation Requirements and Procedures
- ❖ Dispatch Parameters and Incentives
- ❖ Additional Conditions

### DEFINITIONS

**Available Dispatch Hours:** Daily timeframe within which Pacific Power may dispatch its demand response control system.

**Criteria:** Additional requirements for participation beyond being an Eligible Customer. Criteria are set forth in Table 1 below.

**Dispatch Days:** The days upon which Pacific Power may or may not dispatch its demand response control system.

**Dispatch Duration:** The duration of time that demand response events may be dispatched for.

**Dispatch Event:** The period during which Participating Customers' electrical loads are shut off or controlled to minimize electrical consumption.

**Dispatch Parameters:** The criteria within which Pacific Power may dispatch its load control system.

**Dispatch Notification:** The approximate time between a Participating Customer receiving a notice from the Program Administrator or Pacific Power and the beginning of the Dispatch Event. Participating Customers shall receive no less than this amount of notification (in minutes) for Dispatch Events. "Real Time" shall mean no time between notice and beginning of event. \*\*

**Dispatch Period:** The calendar year timeframe within which Pacific Power may dispatch its demand response control system.

**Eligible Customer:** Any party who has applied for, been accepted, and receives electric service at the real property, or is the electricity user at the real property.

**Equipment Type:** The type of electric using equipment a Participating Customer enrolls in the program. \*\*

**Incentive:** Payments of gift cards (e-gift cards), money, or bill credits made by Program Administrator or Company to a Participating Customer for participation in a demand response offer. Incentives are specific to Equipment Type the Participating Customer elects for the season. \*\*

**Maximum Dispatch Events:** The maximum number of events Pacific Power may utilize in dispatching its demand response control system annually.

**Opt-Out:** The process whereby a Participating Customer notifies the Program Administrator



and/or the Company they do not want to be included in an upcoming event or adjusts their thermostat set point to interrupt an event. For water heaters, the customer may opt-out of the program using the app to place the device into bypass mode or by contacting the Program Administrator at any time but will not receive a per event opt-out option.\*\*

**Participating Customers:** Eligible Customers who meet the Criteria and agree to participate in the Residential Demand Response Program.

**Program Administrator:** A third-party entity selected by Pacific Power to engage with Eligible Customers about the residential demand response program, contract with Participating Customers on behalf of Pacific Power and provide the systems to control Participating Customers loads during certain times.

**Targeted Area:** One or more geographic area within Pacific Power's Washington service area that may have additional demand response requirements and/or value. Targeted Areas may be used by the Program Administrator to do one or more of the following: focus marketing, differentiate participation requirements and/or Incentives.

**Targeted Customers:** Eligible Customers with electrical equipment or energy use patterns that make them a preferred Participating Customer. These customers may be the focus of targeted enrollment or marketing efforts.\*

\* Definition is unique to the residential and commercial and industrial program.

\*\* Definition is unique to the residential program.

All other definitions are the same as the definitions used in the Irrigation Load Control and commercial and industrial program.

## PROGRAM DESCRIPTION

The Residential Demand Response Program is a program offered by Pacific Power that provides Incentives to Participating Customers with specified equipment types enrolled in the program in exchange for granting Pacific Power the right to curtail Participating Customers' loads at certain times within the Dispatch Parameters and during the Dispatch Period. The program may utilize another name for marketing purposes. Pacific Power contracts with the Program Administrator to deliver the Residential Demand Response Program; the Program Administrator will oversee the enrollment of Participating Customers, deliver Dispatch Notifications, and call Dispatch Events on behalf of Pacific Power. The ability to curtail these loads provides Pacific Power with capacity, curtailment, and reserve grid services.

### 1) Participation

Eligible Customer and relevant Criteria are included in the table in this document. Eligible Customers who meet the Criteria and agree to participate are Participating Customers. Participating Customers will be required to enroll equipment using an on-line platform provided by the Program Administrator to initiate participation. For multifamily properties with individual Pacific Power accounts the water heater enrollment will be an opt in at lease signing and be completed upon move in through an on-line platform provided by the Program Administrator. For multifamily properties where the property owner or manager is the Pacific

Power account holder all the water heaters in the building will be enrolled by the program administrator using their software systems. Enrollment is perpetual (unless terminated by either party) and does not need to be repeated each year. Participating customers may enroll one or more specific equipment types in the program.

## **2) Incentives**

Incentives are available on a \$/equipment unit (thermostat or water heater) per year basis. Incentives will be made available one time for enrolling a piece of equipment in the program in addition to an annual incentive for continued program and event participation. Incentives are paid by e-gift card, check, or electronic funds transfer, or a bill credit. The form of the payment will be posted on the website. One-time incentives for enrollment will be paid within 60 days of a complete and verified enrollment. Annual incentives for participation will be paid in advance within 60 days of initial successful enrollment and every 12 months thereafter. Participation incentives paid in advance will not be “clawed back” if the tenant moves out before 12 months have elapsed. Multifamily property owner incentives may be paid in a more or less frequent cadence to align with new move in enrollments and aggregation of incentives into fewer payments.

## **3) Dispatch Notification and Events**

Participating Customers who enroll their thermostat will receive event notifications in the App associated with their equipment. Participating Customers who enroll a water heater will have access to the status of their water heater including power draw status and historical energy usage via the App associated with their equipment. Dispatch Events for thermostats are called with 20 minute-ahead notice and are focused primarily on providing capacity and curtailment for the utility. Dispatch Events for water heaters are called in Real Time with no notice and provide capacity and reserve grid services for the utility.

## **4) Equipment Operation**

Event communication and control occurs through a Program Administrator-provided, two-way communications device (communicating via Wi-Fi) installed at the customer site on the water heater or through a thermostat manufacturer’s aggregation software communicating with the Program Administrator’s software. Communication between the device at the customer site and the aggregation software occurs through the Wi-Fi system provided by the customer. Unless activated during an event, the devices or aggregation software do not affect normal control of equipment, but they do convey information about the connected load back to the Program Administrator and Pacific Power.

## **5) Opt-Outs**

To provide Participating Customers with some operational certainty around the impacts of the demand response program on their comfort, there are limits on hours in a day, the total number of events, and total hours when the loads may be curtailed. Recognizing that unforeseen operational issues may arise, Participating Customers in the water heater offer may opt out of the offer by calling or emailing the Program Administrator or by setting their device to bypass mode in the App if their water heater is enrolled. Participating Customers

will not receive an individual event opt-out option for water heater events. Participating Customers may opt out of a Dispatch Event by adjusting the temperature set point on their thermostat. In order to maximize the impact of the grid services and to minimize program costs, equipment that is consistently available for control is strongly preferred. Loads that are opted out or unavailable on a regular basis may be removed from the program at the sole discretion of the Program Administrator.

**6) Quality Assurance, Change Process and Reporting**

Quality assurance review and techniques may be utilized during the delivery of the program. Periodic program impact and process evaluations will be conducted by a third-party working for Pacific Power. Pacific Power will regularly review program performance, quality assurance and evaluation findings, and cost effectiveness results in combination with current Company resource planning results to evaluate potential program changes. Program changes may include changes to information in this document and will follow the process outlined in current version of Washington Schedule 106.

Reports on program performance are provided to the Washington Utilities and Transportation Commission annually.

**PARTICIPATION REQUIREMENTS AND PROCEDURES**

**Table 1 – Dispatch Parameters and Incentives**

<b>Dispatch Parameters and Incentives</b>	<b>Description</b>
Eligible Customer	<ul style="list-style-type: none"> <li>• All residential customers on Residential Schedules 16, 17, 18 and 19.</li> <li>• Master metered multifamily buildings served on General Service Schedules 24, 36 and 48.</li> </ul>
Criteria	<ul style="list-style-type: none"> <li>• Tank electric resistance water heater in good condition. Single phase up to 240V, 5500W.</li> <li>• Heat pump water heaters in good condition with CTA-2045 port.</li> <li>• Central air conditioning, heat pump or electric forced air furnace.</li> <li>• Wi-Fi.</li> <li>• Enrollment of equipment at residences participating in the time of use pilot (Schedule 19) is limited to 200 pieces of equipment in total through the end of 2025.</li> </ul>
Targeted Customer	<ul style="list-style-type: none"> <li>• Water heating - multi-family</li> <li>• Thermostats - single family and multi-family</li> </ul>
Dispatch Period	January 1 through Dec 31

Targeted Areas	All areas within Company's Washington's service area
Dispatch Days	Water Heaters <ul style="list-style-type: none"> <li>• Sunday – Saturday</li> </ul> Thermostats <ul style="list-style-type: none"> <li>• Monday – Friday</li> </ul>
Available Dispatch Hours	Water Heaters <ul style="list-style-type: none"> <li>• All hours</li> </ul> Thermostats <ul style="list-style-type: none"> <li>• 12:00 PM – 9 PM</li> </ul>
Maximum Dispatch Events	Water Heaters <ul style="list-style-type: none"> <li>• One per day</li> <li>• Two per week</li> </ul> Thermostats <ul style="list-style-type: none"> <li>• One per day</li> <li>• Three per week</li> <li>• Thirty per year</li> </ul>
Dispatch Duration	Water Heaters <ul style="list-style-type: none"> <li>• Up to 2 hours</li> </ul> Thermostats <ul style="list-style-type: none"> <li>• Up to 4 hours</li> </ul>

Dispatch Notification	Water heaters - Real Time (or None). Thermostats - 20 minutes
Incentive	Water heaters – single family <ul style="list-style-type: none"> <li>• Enrollment (one time) - \$25</li> <li>• On-going participation (annual) - \$25</li> </ul> Water heaters – multi-family separate meter <ul style="list-style-type: none"> <li>• Enrollment (one time – in advance) - \$25 (\$5 to property owner/manager, \$20 to tenant)</li> <li>• Ongoing participation by existing tenant (annual – in advance) - \$25 paid to tenant</li> <li>• New tenant (annual participation - in advance). \$5 to property owner/manager, \$20 to tenant</li> </ul> Water heaters – master meter <ul style="list-style-type: none"> <li>• Enrollment (one time – in advance) \$25 paid to owner/manager</li> <li>• Ongoing participation (annual – in advance) -\$25 paid to owner/manager</li> </ul> Thermostats – single family & multi-family

	<p>(paid in advance to account holder)</p> <ul style="list-style-type: none"><li>• Enrollment (one time) - \$50</li><li>• On-going participation (annual) - \$25</li></ul>
Opt-Out	<p>Water heaters:</p> <ul style="list-style-type: none"><li>• Participating Customers may opt out of the program at any time by contacting the Program Administrator or by setting their device to bypass mode in the App.</li></ul> <p>Thermostats:</p> <ul style="list-style-type: none"><li>• Participating Customers may opt out of a Dispatch Event by adjusting the set point on an enrolled thermostat when an event is in progress.</li></ul> <p>Repeat opt outs may result in removal of the equipment from the program.</p>

### ADDITIONAL CONDITIONS

**System Emergency Dispatch:** In the event of a system emergency, Pacific Power may, at its discretion, expand the Dispatch Parameters beyond the parameters listed. Emergency events may be used to satisfy requirements of the North American Electric Reliability Corporation standard BAL-002-WECC-2 for Contingency Reserve Obligation and may be deployed when the utility is experiencing a qualifying event as defined by the Western Power Pool.

## Appendix D

2023 CEIP Biennial Report Feedback				
Engagement	Date	Category	Feedback	Response
CEIP Engagement Series 2023	10/13/2023	Clean Energy Implementation Plan Biennial Report	WAC 480-100-655 (1) & (1)(i)- PacifiCorp met this requirement in the 2021 CEIP by including a comment matrix as an Appendix to the filing. Staff expects that the Company will do something similar to meet these requirements for this update. Staff notes that these requirements apply for all advisory groups, not only the EAG.	As reflected in the introduction of the CEIP Biennial Report, PacifiCorp hosted two virtual meetings, which members of the advisory groups were invited to attend. The meetings were recorded and shared online including the presentations and notes. The presentations and notes were offered in post English and Spanish. The live version of the presentation was offered in Spanish and ASL.
CEIP Engagement Series 2023	10/13/2023	Clean Energy Implementation Plan Biennial Report	WAC 480-100-655(1)(b)- Staff requests the Company explain in detail the utility's encouragement of participation of environmental justice and public health advocates, tribes, and representatives from highly impacted communities and vulnerable populations in addition to any other relevant groups. For example: How did the company encourage the mentioned groups/people? <b>What steps did the Company take?</b>	PacifiCorp utilized advertising for its virtual meetings for the CEIP Biennial Report through advisory groups' meetings, on their CEIP webpage, and through social media. Also see note above regarding recordings and language assessability.
CEIP Engagement Series 2023	10/13/2023	Clean Energy Implementation Plan Biennial Report	WAC 480-100-655 (1)(g)- Regarding the 10/10 CEIP meeting, the rule requires in subpart (g) that utility must make available completed presentation materials for each advisory group meeting at least three business days prior to the meeting. Staff does not believe the Company complied with this requirement. Staff notes it is easier to verify compliance with the requirement if the Company circulates slides via email as well as posting to the website.	The meeting held on October 10, 2023 was to have an opportunity to hear feedback and answer questions. This was following the draft send out of the CEIP Biennial Report and was focused on the report. The presentation for the meeting was only to assist with discussions. In addition this meeting was open to the public and not set as an advisory meeting. The Company will provide these type of slides in the future in the same timing as the advisory groups.
CEIP Engagement Series 2023	10/13/2023	Clean Energy Implementation Plan Biennial Report	WAC 480-100-655 (1)(c)- Has PacifiCorp considered more flexible meeting times in its CEIP advisory group meeting process? In terms of equity and transparency, are evening, weekend, or other times being considered?	Yes, PacifiCorp has considered more flexible meeting times for the CEIP advisory Group meetings. This is something we have offered in the past. For the meetings that were held for the CEIP Biennial Report, PacifiCorp took the approach of offering these virtual and recorded. The recording of the meetings are posted PacifiCorp's CEIP webpage, so anyone can go back and review the recording as well as printout the presentation and notes, both of which are offered in English and Spanish.
CEIP Engagement Series 2023	10/13/2023	Clean Energy Implementation Plan Biennial Report	The CEIP Multi-party settlement agreement and testimony was filed on September 22, 2023, and the company had to submit a CEIP update draft on October 2, 2023. Staff wonders how these conditions are being addressed in the current update, for example: Has the company, and will the company, be doing any work in the next two weeks to consider conditions from settlement in the update? Examples: CBI condition 11, or interim target condition 2	Consistent with Interim Target Condition 1, the Company has provided revised interim targets in this CEIP Update, and the Company will continue working to implement the remaining conditions in future filings, consistent with the Settlement Agreement and Order 06.

2023 CEIP Biennial Report Feedback			
CEIP Engagement Series 2023	10/13/2023	Clean Energy Implementation Plan Biennial Report	<p>On pages 13 through 14, in the draft CEIP, pertaining to demand response: Staff request that PacifiCorp include more details than are currently in the "Update on Demand Response Actions" section for the planned and existing demand response programs in this filing (in either the body or an appendix). Where available, details should include incentive levels, program details, timeline for program development/enrollment/deployment, expected contribution to CEIP Demand Response Specific Target by program by year, any budget updates, and any other program details relevant to specific programs. Staff is open to discussing whether some of these details could be included instead (or additionally) in its biennial conservation plan, rather than the CEIP update.</p> <p>PacifiCorp has addressed this by providing an update on the Demand Response Actions starting on page 24 of the CEIP Biennial Report and in Appendix A.</p>
CEIP Engagement Series 2023	10/13/2023	Clean Energy Implementation Plan Biennial Report	<p>Additional Comments provided in CEIP Biennial Update Draft</p> <p>Comments were addressed in the update to the CEIP Biennial Report.</p>