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EXECUTIVE SUMMARY

Clean Energy Implementation Plan Refile

PacifiCorp filed its initial Clean Energy Implementation Plan (CEIP) on December 30, 2021, with the Washington Utilities and Transportation Commission (Commission). In a subsequent Commission Complaint proceeding, the Company agreed to a limited revision and refiling of the 2021 CEIP.¹ Consistent with the Complaint proceeding, this Revised CEIP leaves the majority of the Company’s 2021 CEIP intact as originally filed (and related 2021 IRP assumptions and methodologies), but includes several amendments regarding resource planning model assumptions, and the calculation of interim and compliance targets.²

Two additional Appendices are included for reference in this refiled CEIP:

- Appendix E – Refiling Plan, that provides a high-level overview of all changes to the initial CEIP; and
- Appendix F – Original and Refiled Resource Selection and Evaluation Steps, that provides a detailed explanation how the P02-SCGHG portfolio was incorporated into the P02-MM-CETA portfolio.

PacifiCorp’s Vision

PacifiCorp’s first Clean Energy Implementation Plan (CEIP) fulfills provisions of Washington State’s Clean Energy Transformation Act (CETA),³ passed in May 2019 by the Washington State Legislature and signed into law by Governor Jay Inslee. The legislation combines directives for utilities to pursue a clean energy future with assurances that benefits from a transformation to clean power are equitably distributed among all Washingtonians, all at a reasonable cost.

For many years, PacifiCorp has been on an independent trajectory to economically develop clean energy, powering jobs and innovation. This trajectory is manifest in the company’s 2021 Integrated Resource Plan (IRP), which serves as the basis for this CEIP and plans for the bulk of renewable and non-emitting resource acquisitions that will be necessary to comply with CETA directives.

This CEIP details the specific actions PacifiCorp will take over the next four years (2022-2025) to move toward CETA’s clean energy goals. Specifically, utilities must show that by December 31, 2025, all coal-fired generation has been removed from Washington’s allocation of electricity. By January 1, 2030, utilities must be greenhouse gas (GHG) neutral, and by 2045, 100 percent of Washington’s electricity supply must come from non-emitting and renewable resources.

¹ *In re WUTC Complaint*, Dkt. No. UE-220376, Order 06 (Feb. 10, 2023).

² This 2021 Revised CEIP will have material differences from the methods and assumptions in the Company’s 2023 IRP.

³ RCW 19.405.

This first CEIP draws new and vital voices into the process of achieving Washington’s clean energy future and outlines an expectation that this future can be achieved safely, securely and reliably, and in a way that reduces burdens on our most vulnerable communities.

Meeting CETA directives can be achieved at moderate cost to Washington customers, largely because PacifiCorp’s 2021 IRP advances the company’s ongoing commitment to clean energy with significant investments in energy efficiency, renewable resources and transmission laid out in the 2017 IRP and 2019 IRPs. Based on the 2021 preferred portfolio,⁴ including incremental actions specifically intended to meet CETA’s requirements, PacifiCorp currently forecasts that it is on track to meet each CETA objective.

Setting Targets

The CEIP is filed on a four-year cycle and sets interim targets for non-emitting and renewable energy contributions to meet retail electricity sales,⁵ and also sets specific targets for energy efficiency, demand response, and renewable energy.

The interim target is the percentage of forecast retail energy sales that PacifiCorp forecasts meeting with renewable and non-emitting generation in each year. Actual percentages are likely to vary from forecasts. As PacifiCorp continues to expand its non-emitting and renewable resources on its system this target is expected to trend upward until achieving GHG neutrality by 2030 and 100 percent renewable and non-emitting energy for Washington customers by 2045.

In 2020, the ratio of Washington retail sales served by renewable and non-emitting energy resources was 21.9 percent. Based on additional analysis based in the company’s 2021 IRP, the interim target for this CEIP is 60 percent, to be achieved by 2025, increasing to 84 percent by 2030 and 101 percent by 2040, which is the last year of the 2021 IRP’s 20-year planning horizon. Beyond 2040, the company will continue its trajectory to 100 percent clean energy for Washington customers by 2045.

Providing Benefits

Aligned with CETA objectives, Chapter 2 – Development of Customer Benefit Indicators, describes how PacifiCorp has worked in partnership with stakeholders and advisory groups to identify the highest priority benefits for customers, and to identify potential barriers and burdens that may prevent some customers from gaining those benefits.

These efforts have resulted in nine customer benefit indicators (CBIs) and associated weighting factors to evaluate the equitable distribution of these benefits, allowing the company to assess and monitor the impacts of each specific proposed program, action, and investment. The CBIs are attributable to and inform utility actions and tactics described in Chapter 3 – Specific Actions.

In addition, CETA requires that certain benefits target communities facing particularly challenging circumstances. These communities are referred to as highly impacted communities and vulnerable populations, which are collectively referred to as named communities.

⁴ PacifiCorp’s 2021 IRP is publicly available at <https://www.pacificorp.com/energy/integrated-resource-plan.html>.

⁵ Calculated as retail load to Washington customers net of distributed generation, private generation and DSM.

Taking Action

PacifiCorp is taking action to meet CETA targets identified in Chapter 1 - Interim and Specific Targets. In this CEIP, specific actions to achieve targets in the years 2022 through 2025 are grouped into four key areas:

1. Supply-Side Resources
2. Energy Efficiency
3. Demand Response
4. Community Outreach and Engagement

In the longer term, company actions are forecast to be consistent with the 2021 IRP, and include the addition of renewable and non-emitting resources, retirement of renewable energy credits (RECs) associated with renewable generation, and the ongoing pursuit of both energy efficiency and demand response.

Assessing Costs

The incremental cost of the CETA-compliant resource portfolio was assessed in the company's 2021 IRP and refined for the CEIP covering the years 2022 through 2025, as defined in rule, resulting in an estimated modeled incremental cost of roughly \$163 thousand annually on a present-value revenue requirement (PVRR) basis. In addition to the IRP-modeled resource portfolio costs, there are non-modeled costs including increased energy efficiency implementation costs and Equity Advisory Group (EAG) and public engagement costs amounting to approximately \$2.4 million annually. Together, costs in the years 2022-2025 amount to roughly a cost of \$2.59 million annually.

These values are calculated by comparing the Washington portfolio of CETA-compliant resource costs plus the additional non-modeled costs, to the costs of a hypothetical future in which CETA legislation did not exist. This exercise is indicative of, but separate from rate-making.

Engaging the Public

PacifiCorp is grateful to participants in its advisory groups and the EAG, technical workshops and public meetings, each of which serves to illuminate equity challenges and public interest as well as ground the CEIP in the pressing concerns of Washington named communities. Their engagement was essential to the development of this CEIP. Input and comments that were received through the public participation process are outlined in Appendix A of this document. Appendix A also documents PacifiCorp's responses to these comments.

CHAPTER 1 – INTERIM AND SPECIFIC TARGETS

Chapter Summary

The Washington State Legislature passed CETA in May 2019, which is being implemented through a series of rules developed by the Washington Utilities and Transportation Commission (Commission). These rules direct large electric utilities to create long-term planning documents to describe how the utility will:

- Eliminate coal-fired resources from Washington’s allocation of energy by the end of 2025;
- Ensure all retail electricity sales in Washington are greenhouse gas-neutral by 2030; and
- Ensure all retail electricity sales in Washington are sourced from 100 percent renewable or non-emitting energy sources by 2045.

To support these objectives, PacifiCorp must set interim targets within the CEIP, which document the company’s path to the 2045 requirement on an annual basis to meet compliance with each milestone set in the legislation.

A summary of the proposed interim targets is available in Figure 1.1, based on data and methodologies used in PacifiCorp’s 2021 IRP. The analysis summarizes the long-term planning and modeling for Washington’s resource needs over the next 20 years, including how to achieve CETA’s requirements at the least risk and lowest reasonable cost.

PacifiCorp’s 2021 IRP demonstrated a system-level need for supply-side and demand projects and programs across the twenty-year study horizon. As a participant in the company’s six-state planning, Washington shares in the benefits provided by resources for which it has an allocated share. Washington’s supply-side resources, whether shared or situs to the state, increase the amount of clean energy provided to Washington customers through generation. In the 2021 IRP, all proposed resource addition were non-emitting, supporting significant projected emissions reductions. In addition to supply-side resources, demand-side resources reduce or shift electricity use and/or generation of electricity by consumers, which can impact the overall proportion of clean energy resources. Highlights of 2021 IRP system planning include:

- New utility-scale wind, solar, and storage projects
- Increase in distributed and small-scale energy projects
- A new advanced nuclear Sodium™ demonstration project
- 14 transmission projects to support deployment of clean energy generation resources
- Removal of coal from Washington retail allocation by 2023⁶
- Retirement of 14 coal units across the Company’s system by 2030 and 19 by the end of 2040

To support the interim targets, CETA requires utilities to set specific targets for renewable energy, energy efficiency, and demand response within each CEIP. The measurement of these targets includes results from a 2020 solicitation for resources consisting of 1,792 MW of wind

⁶ This refiling maintains the original filings’ assumptions regarding coal-to-gas conversions and the timing of coal removal from Washington rates

generation, 95 MW of solar generation, 1,211 MW of solar generation co-located storage and 200 MW of stand-alone battery storage. 590 MW of wind generation is being contracted as a build and transfer to PacifiCorp with the balance of the generation contracted through long-term power purchase agreements. These bids were collected on a system-wide basis with Washington as an eligible participant, giving the state a presumed share in upcoming procurements, as illustrated in Chapter 3 – Specific Actions, Table 3.2. Further resources will be identified in ongoing and future requests for proposals (RFPs).

Proposed demand-side specific targets for Washington include 212,431 MWh of energy efficiency over the next four years and 37.4 MW of demand response capacity through 2025.

While interim targets are not measured by system-wide results, PacifiCorp estimates that by the end of this CEIP period in 2026 overall emissions will be down by 28 percent from 2021 for the state. Washington’s share of the system-wide portfolio and upcoming state-specific supply and demand-side actions are all well-aligned with CETA’s ambitious, but achievable goal of 100 percent clean energy by 2045.

Introduction

CETA was passed by the Washington State Legislature and signed into law by Governor Jay Inslee in May 2019. The legislation combines directives for utilities to pursue a clean energy future with assurances that benefits from a transformation to clean power are equitably distributed among all Washingtonians, at a reasonable cost.

The Commission began rulemakings to implement CETA in June 2019, and the first phase concluded in December 2020. As directed by the legislation and the new CETA rules, Washington electric utilities must file the following long-term planning documents:

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

Integrated Resource Plan: The IRP is a comprehensive decision support tool and 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.

Clean Energy Implementation Plan: This document, the CEIP, is a plan that lists the specific actions PacifiCorp will take over the next four years to move toward the 2030 and 2045 clean energy directives.

The CEAP included in the 2021 IRP (Appendix O – Washington Clean Energy Action Plan) provides a Washington-specific roadmap of how PacifiCorp is planning for a clean and equitable energy future relative to the requirements of CETA.

Overview of PacifiCorp d/b/a Pacific Power & Light Company (PacifiCorp)

PacifiCorp is a multi-jurisdictional, vertically integrated utility that serves nearly two million customers in six western states: California, Idaho, Oregon, Utah, Washington, and Wyoming. In Washington, PacifiCorp serves approximately 137,000 customers throughout Yakima, Walla Walla, Columbia, Benton, Cowlitz, and Garfield Counties. The company’s generation and transmission systems span the west and connect customers to safe, reliable, affordable, and increasingly renewable electricity. PacifiCorp’s integrated transmission system connects thermal, hydroelectric, wind, solar, and geothermal generating facilities with markets and loads. The diversity of this integrated system benefits all of PacifiCorp’s customers in all six states. PacifiCorp owns approximately 11,500 megawatts (MW) of generating capacity and about 16,500 miles of transmission lines.

PacifiCorp’s large regional footprint enables delivery of low-cost generation from some of the best wind and solar sites in the country. PacifiCorp is proud to operate one of the lowest-cost systems in the country, and we remain actively engaged in finding ways to leverage the benefits of geographic diversity for its customers as it develops and implements plans to deliver the targets set forth in CETA.

Over the past 13 years, PacifiCorp has successfully reduced its greenhouse gas emissions and improved reliability while simultaneously delivering energy cost savings to our customers. The company has achieved these results by collaborating with others, and through the visionary and collaborative efforts of our own generation, transmission, information technology and energy supply management teams, PacifiCorp has been a key player in the creation of an open and connected Western grid. All of these factors have brought PacifiCorp into a very favorable position to achieve CETA objectives in the years to come.

Interim Targets

Overview

The first three directives of CETA’s clean energy transformation standards⁷ are as follows:

- (1) On or before December 31, 2025, each utility must eliminate coal-fired resources from its allocation of electricity to Washington retail electric customers.
- (2) By January 1, 2030, each utility must ensure all retail sales of electricity to Washington electric customers are greenhouse gas neutral.
- (3) By January 1, 2045, each utility must 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.

Furthermore, “each utility must demonstrate that it has made progress toward and has met the standards in this section at the lowest reasonable cost”.⁸ Consistent with WAC 480-100-640, the

⁷ WAC 480-100-610(1-3).

⁸ WAC 480-100-610(5).

company proposes interim targets to demonstrate its trajectory toward meeting (2) and (3), above. Interim targets for this CEIP are based on data and methodologies consistent with the selection of PacifiCorp’s 2021 IRP preferred portfolio with certain CEIP-specific exceptions. Whereas the 2021 IRP preferred portfolio is a least-cost, least-risk portfolio of resources optimized to meet all system-wide requirements⁹, additional requirements for this filing include a mandate to analyze all Washington resource decisions through the lens of societal costs in a particular manner measured here through the social cost of greenhouse gases (SCGHG).¹⁰

Interim Target Outcomes

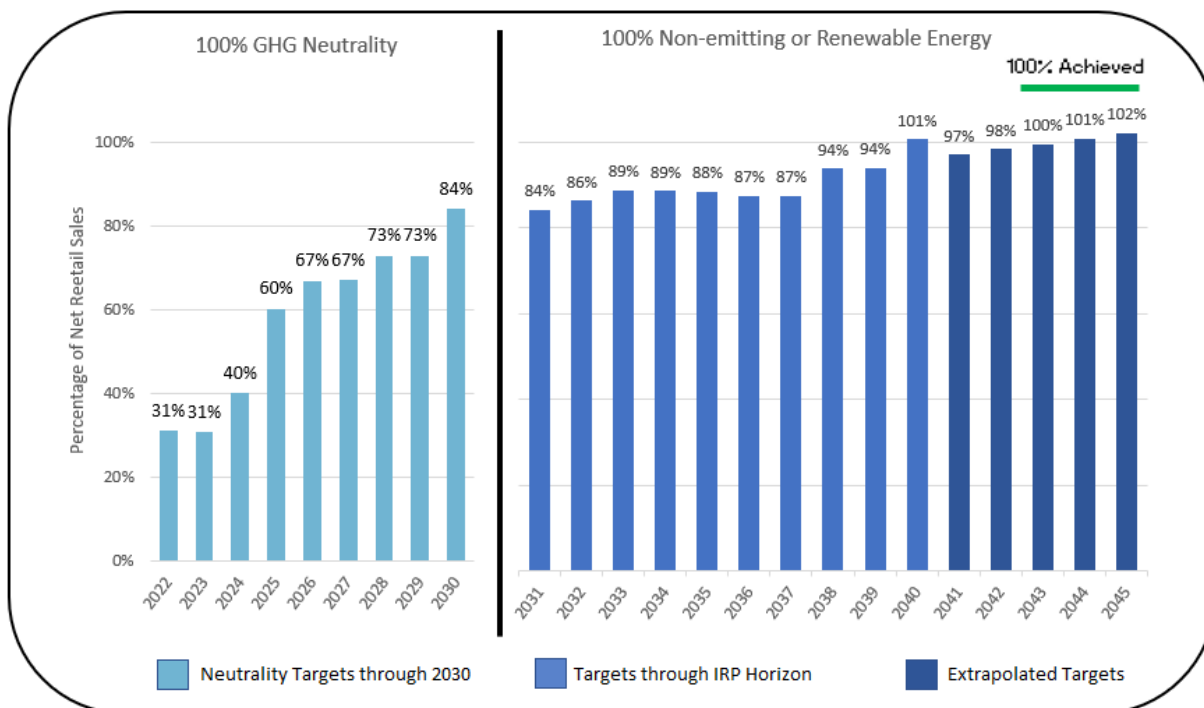
Figure 1.1 reports PacifiCorp’s interim targets derived from its P02-SC-CETA, denoted CEIP portfolio, consistent with the requirements of clean energy transformation standards (2) and (3), above.¹¹ The figure divides interim targets into two forecast ranges aligned with the objectives for year 2030 (100 percent GHG neutrality) and year 2045 (100 percent non-emitting and renewable energy). In the post-2030 period, the last five years to reach the 2045 objective are beyond the 2021 IRP’s 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 based the last five years on its IRP data by extrapolating the already optimized and established trajectory. Extrapolation of the last five years is not necessary however, as 100 percent renewable energy has already been achieved by 2040. The apparent drop in the percentage of renewable energy in years 2041 and 2042 is merely an artifact of the calculation based on optimized outcomes.

⁹ PacifiCorp’s 2021 IRP is publicly available at: <https://www.pacificorp.com/energy/integrated-resource-plan.html>

¹⁰ *In re WUTC Complaint*, Dkt. No. UE-220376, Order 06 (Feb. 10, 2023); *See also* Appendix F – Original and Refiled Expanded Explanation and Resource Evaluation Steps .

¹¹ Source data and calculations for interim target development can be found in confidential workpaper “210829-PAC-WP-P02-SC-CETA WA Allocation Target Development 03-13-2023 (C).xlsx” and the annual summary data and the figure can be found in workpaper “210829-PAC-WP-P02-SC-CETA 2022-2045 Interim Targets 3-13-2023.xlsx”.

Figure 1.1 - Interim Targets



Up 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.¹² To achieve the 2045 target, the clean energy standard must be met with 100 percent non-emitting generation or electricity from renewable energy resources.

The interim targets are informed by the company’s historical performance under median water conditions, a factor in developing expected resource behaviors and Washington retail sales.

Table 1.1 reports CEIP-period interim targets for Washington in annual megawatt hours of energy rather than as percentages, yielding annual interim compliance targets from 2022 through 2025.¹³ These values are subject to change and will be re-evaluated in the IRP two-year progress report and biennial CEIP updates.

¹² RCW 19.405.040 (1)(b).

¹³ Source data and calculations for interim target development can be found in confidential workpaper “210829-PAC-WP-P02-SC-CETA WA Allocation Target Development 03-13-2023 (C).xlsx” and the table can be found in workpaper “210829-PAC-WP-P02-SC-CETA 2022-2045 Interim Targets 3-13-2023.xlsx”.

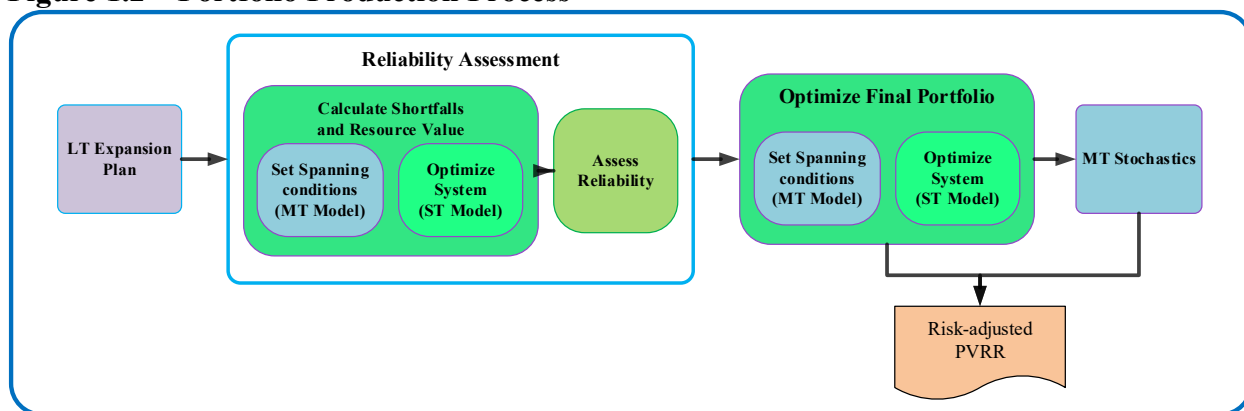
Table 1.1 - Interim Targets (MWh)

	2022	2023	2024	2025	Total
Retail Electric Sales	4,051,128	4,076,594	4,091,630	4,069,088	16,288,439
Projected Renewable and Nonemitting Energy	1,262,111	1,251,114	1,637,433	2,450,430	6,601,088
Net Retail Sales	2,789,017	2,825,480	2,454,196	1,618,658	9,687,352
Target Percentage	31%	31%	40%	60%	
Interim Compliance Target	1,262,111	1,251,114	1,637,433	2,450,430	6,601,088

Modeling

In developing a portfolio that demonstrates progress toward achieving CETA requirements, and specifically the interim targets, PacifiCorp employs Energy Exemplar’s proprietary PLEXOS optimization software. The IRP modeling approach is used to assess the comparative cost, risk, emissions and reliability attributes of resource portfolios. Figure 1.2 provides a high-level overview of the portfolio production process used in the 2021 IRP followed by a description of each production step and of each model’s function in that process¹⁴.

Figure 1.2 – Portfolio Production Process



Production Process Steps

Resource Portfolio Development

All IRP models are configured and loaded with the best available information at the time a model run is produced. This information is fed into the PLEXOS Long-Term planning model (LT model), which is used to produce resource portfolios with sufficient capacity to be reliable on a 20-year aggregated granularity basis.

Reliability Assessment

Resource portfolios developed by the LT model are simulated in the Short-Term model (ST model) to quantify reliability shortfalls at an hourly level. The ST model also supports the assessment of each resource’s net system value, inclusive of resources that are not part of the specific portfolio being examined. This allows for the refinement of each portfolio according to a highly granular view of its needs and at the same time provides the data necessary to optimally select additional resources when needed to resolve shortfalls. The reliability-adjusted portfolio is then rerun through the ST model to create an optimal dispatch which considers all resource

¹⁴ Additional detail regarding analytical steps is provided in Appendix F - Original and Refiled Expanded Explanation and Resource Evaluation Steps

availability and system requirements at an hourly level, inclusive of individual resource operations and market purchases.

Cost and Risk Analysis

Resource portfolios developed by the LT model and adjusted for reliability by the ST model are simulated in the Medium-Term schedule (MT model) to produce metrics that support comparative cost and risk analysis among the different resource portfolio alternatives. Stochastic risk modeling of resource portfolio alternatives is performed using Monte Carlo sampling of stochastic variables across the 20-year study horizon, which include load, natural gas and wholesale electricity prices, hydro generation, and unplanned thermal outages. The MT results are used to calculate a risk adjustment which is combined with ST model system costs to achieve a risk-adjusted PVRR to guide portfolio selection.

Portfolio Selection

The portfolio selection process is based on modeling results from the resource portfolio development and cost and risk analysis steps. The screening criteria are based on the PVRR of system costs, assessed across a range of price-policy scenarios on a deterministic basis and on an upper-tail stochastic risk basis. Portfolios are ranked using a risk-adjusted PVRR metric, a metric that combines the deterministic PVRR with upper-tail stochastic risk PVRR. The final selection process considers cost-risk rankings, robustness of performance across pricing scenarios and other supplemental modeling results, including reliability and carbon dioxide (CO₂) emissions data as an indicator of risks associated with greenhouse gas emissions.

Model Functions

Long-term planning model (LT)

PacifiCorp used the LT model to produce unique resource portfolios across a range of different planning cases. Informed by the public-input process, PacifiCorp identified case assumptions that were used to produce optimized resource portfolios, each one unique regarding the type, timing, location, and amount of new resources that could be pursued to serve customers over the next 20 years.

Medium-Term schedule (MT model)

PacifiCorp used the PLEXOS MT model to perform stochastic risk analysis of the portfolios. Each portfolio was evaluated for cost and risk among three natural gas price scenarios (low, medium, and high) and three CO₂ price scenarios (zero, medium, high). An additional CO₂ policy scenario was developed to evaluate performance assuming a price signal that aligns with the social cost of greenhouse gas (SCGHG). Taken together, there are five distinct price-policy scenarios (medium gas/medium CO₂, medium gas/zero CO₂, high gas/high CO₂, low gas/zero CO₂, and SCGHG).

A primary function of the MT model is to calculate an optimized risk-adjustment, representing the relative risk of a portfolio under unfavorable stochastic conditions for that portfolio.

Short-Term model (ST model)

Each portfolio was evaluated in the ST model to establish system costs for each portfolio over the entire 20-year planning period. The ST model accounts for resource availability and system requirements at an hourly level, producing reliability and resource value outcomes as well as a PVRR, which serves as the basis for selecting least-cost least-risk portfolios.

The MT model risk-adjustment was added to the system cost determined by the ST model to calculate a final “risk-adjusted” PVRR measure of system cost.

A selection of portfolios was analyzed using the other four price-policy scenarios in the ST and MT models to evaluate how each portfolio performs under differing market/policy conditions.

Taking into consideration stakeholder comments and regulatory requirements, PacifiCorp produced additional studies that examine the potential impact of portfolio options on the system.

Final CEIP Portfolio Selection

The CETA-compliant portfolio created from the 2021 IRP in this refiling is identified as “P02-SC-CETA”, referred to more generally as the “CEIP portfolio”. Under the conditions imposed by SCGHG dispatch costs, this portfolio represents the least-cost, least-risk portfolio meeting all requirements, inclusive of achieving the requirements of CETA.

Target Development

To develop interim targets in accordance with the 2030 and 2045 clean energy targets¹⁵ the Washington allocation of CEIP portfolio resources was determined and analyzed based on forecasted retail electric sales to Washington.

To estimate the amount and mix of energy forecasted to serve Washington customers for the 2022-2045 period, PacifiCorp summed annual generation from its qualifying resources allocated to Washington customers under the Washington Inter-Jurisdictional Allocation Methodology (WIJAM) for existing resources, and under a tentative proposed future allocation methodology for resources added in 2024 and beyond.¹⁶

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.¹⁷ In summary, the resource allocation assumptions are:

1. For REC-generating resources, generation of CETA-compliant energy is consistent with the company’s REC entitlement start and end date.

¹⁵ WAC 480-100-610(2)(3)

¹⁶ 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 Multi-State Process (MSP) cost allocation methodology with the commissions and stakeholders in the six states it serves.

¹⁷ WAC 480-100-610(3) states that by January 1, 2045, each utility must 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”.

2. Allocation of energy for new proxy resources added before the end of 2023 was allocated as defined by the 2020 Protocol and WIJAM, using system generation factors.
3. Allocation of energy for new proxy resources added in 2024 and beyond was assumed to be allocated according to proposed assigned production (AP) factors that represent Washington's share of system need.¹⁸
4. 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.
5. 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.
6. Thermal resources were assumed to not be CETA compliant and did not count towards the clean energy total. Coal resources were removed from Washington rate base in 2024 and beyond.

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. CETA compliance targets were calculated annually as a percentage of Washington retail electric sales. The clean energy transformation standards WAC 480-100-610(2) specify that for each year 2030 and beyond, each utility must ensure all retail sales of electricity to Washington are greenhouse gas neutral. By 2045 each utility must ensure that non-emitting electric generation and electricity from renewable resources supply one hundred percent of all retail sales of electricity to Washington customers. Annual targets were calculated as a percentage of Washington retail electric sales to be the total energy of renewable and carbon non-emitting energy the Company estimates will be provided to Washington customers to meet the clean energy transformation standards.

For purposes of this CEIP, PacifiCorp relies on the use of unbundled RECs to satisfy the alternative compliance component of the 2030 greenhouse gas neutral standard. PacifiCorp may meet up to 20 percent of its aggregate retail electric sales over the four-year compliance period with alternative compliance from January 1, 2030, through December 31, 2044.

PacifiCorp does not contemplate the use of energy transformation projects as a compliance mechanism in this CEIP due to uncertainty regarding their application to the clean energy requirements. The company will continue to monitor stakeholder and agency developments at the Department of Ecology and leverage opportunities for energy transformation projects that may provide verifiable and sustained benefits to Washington customers and will include its analysis of potential projects in future CEIPs.

¹⁸ The allocation methodology that may be used in 2024 is currently being negotiated through the Multi-State Process (MSP). In the absence of an agreed-upon formulaic methodology to calculate annual assigned production (AP) factors, assumptions about the future of cost allocation were made. The AP factors are assumed to be assigned to new proxy resources the year a resource is added and is assumed fixed over the life of the resource. AP factors are calculated based on relative state positions within the system.

System-Wide Contributions to Targets

The upward trajectory of interim targets flows mainly from PacifiCorp’s ongoing investment in its non-emitting and renewable fleet. In 2020, the ratio of Washington retail load served by renewable and non-emitting energy resources was 21.9 percent. Based on the CEIP portfolio, the interim target for this CEIP is 60 percent, to be achieved by 2025, increasing to 84 percent by 2030, 101 percent by 2040, and 102 percent by 2045. Given that over 100 percent clean energy is projected in 2040 and represents a robust trend, the trajectory towards a 100 percent clean energy target by 2045 is fully expected.

CETA rules direct utilities to make CEIP actions consistent with their most recent IRP and CEAP, included as Appendix O of the 2021 IRP.^{19,20}

Supply-Side Resources

Over the 20-year planning horizon, the CEIP portfolio includes 3,564 MW of new wind and 6,033 MW of new solar co-located with storage. PacifiCorp’s resources serving Washington currently include generation from 35 hydroelectric facilities throughout the region. The CEIP portfolio adds to the fleet of non-emitting resources with the 500 MW advanced nuclear Natrium™ demonstration project, assumed to come online by summer 2030²¹. Through 2040, the CEIP Portfolio includes 1,000 MW of additional advanced nuclear resources and 1,422 MW of non-emitting peaking resources. Table 1.2 illustrates Washington’s allocated share of these additions.²²

Table 1.2 - Washington Non-emitting Resource Additions

Category	Installed Capacity (MW)	
	System	WA-allocated
New Hydro Storage	500	25
New Non-emitting Peaking	1422	67
New Nuclear	1500	60
New Solar, Solar + Storage	6033	448
New Wind, Wind + Storage	3564	430

These renewable and non-emitting resources form the foundation of the calculation of interim targets in the CEIP, calculated based on Washington’s energy allocations to meet retail sales.

¹⁹ WAC 480-100-640(6)(b)(ii).

²⁰ PacifiCorp’s 2021 preferred portfolio includes substantial new renewables, building upon the company’s trajectory established over past IRPs. Increased renewable supply-side resources are facilitated by incremental transmission projects, DSM resources, significant storage resources, and for the first time, advanced non-emitting nuclear energy.

²¹ The expected online date for the Natrium Demonstration Project has been moved from 2028 in the original CEIP filing to 2030 in this refile.

²² The source data and table can be found in workpaper “210829-PAC-WP-P02-SC-CETA Installed Capacity 3-13-2023.xlsx”.

Transmission

To facilitate the delivery of new renewable energy resources to PacifiCorp customers across the West, the preferred portfolio includes additional transmission investment. Specifically, the 2021 IRP preferred portfolio includes the Energy Gateway South transmission line—a new 416-mile high-voltage 500-kilovolt transmission line and associated infrastructure running from the new Aeolus substation near Medicine Bow, Wyoming, to the Clover substation near Mona, Utah. The CEIP portfolio also includes the Energy Gateway West Subsegment D.1 project—a new 59-mile, high-voltage (230-kilovolt) transmission line from the Shirley Basin substation in southeastern Wyoming to the Windstar substation near Glenrock, Wyoming. Both transmission lines will come online by the end of 2024.

The CEIP portfolio also includes a 290-mile high-voltage 500-kilovolt transmission line known as Boardman-to-Hemingway, which connects those respective substations in Oregon and Idaho, which will come online in 2026. Further, the CEIP portfolio also includes near-term and long-term transmission upgrades across the system that will facilitate continued and long-term growth in new resources needed to serve our customers. Table 1. summarizes the incremental transmission projects in the CEIP portfolio, supporting renewable and non-emitting resources in which Washington participates.²³

²³ Table 1.3 can be found in the PacifiCorp 2021 Integrated Resource Plan Volume I, page 10, <https://www.pacificorp.com/energy/integrated-resource-plan.html>.

Table 1.3 – Transmission Projects Included in the CEIP Portfolio^{1,2,*}

Year	Resource(s)	From	To	Description
2025	1,641 MW RFP Wind (2025)	Aeolus WY	Clover	Enables 1,930 MW of interconnection with 1700 MW of TTC: Energy Gateway South
2026	615 MW Wind (2026)	Within Willamette Valley OR Transmission Area		Enables 615 MW of interconnection: Albany OR area reinforcement
2026	130 MW Wind (2026) 450 MW Wind (2032) 650 MW Battery (2037)	Portland North Coast	Willamette Valley	Enables 2080 MW of interconnection with 1950 MW TTC; Portland Coast area reinforcement, Willamette Valley and Southern Oregon
			Southern Oregon	
2026	600 MW Solar+Storage (2026)	Borah-Populous	Hemingway	Enables 600 MW of interconnection with 600 MW of TTC: B2H Boardman-Hemingway
2028	41 MW Solar+Storage (2028) 377 MW Solar+Storage (2030)	Within Southern OR Transmission Area		Enables 460 MW of interconnection: Medford area reinforcement
2030	160 MW Solar+Wind+Storage (2030) 20 MW Solar+Storage (2030)	Yakima WA Transmission Area		Enables 180 MW of interconnection: Yakima local area reinforcement
2031	820 MW Solar+Storage (2031) 206 MW Non-Emitting Peaker (2033)	Northern UT Transmission Area		Enables 1040 MW of interconnection: Northern UT 345 kV reinforcement
2033	400 MW Non-Emitting Peaker (2033) 1100 MW Solar+Storage (2033)	Southern UT	Northern UT	Enables 1500 MW of interconnection with 800 MW TTC: Spanish Fork - Mercer 345 kV; New Emery – Clover 345 kV
2040	156 MW Solar+Storage (2040) 500 MW Pumped Storage (2040)	Central OR	Willamette Valley	Enables 980 MW of interconnection with 1500 MW of TTC
2028*	500 MW Adv Nuclear (2028)	Southwest Wyoming Transmission Area		Reclaimed transmission upon retirement of Naughton 1 & 2
2029*	549 MW Battery (2029)	Eastern Wyoming Transmission Area		Reclaimed transmission upon retirement of Dave Johnston Plant
2037	909 MW Solar+Storage (2037)	Southern Utah Transmission Area		Reclaimed transmission upon retirement of Huntington 1 & 2
2038	412 MW Non-Emitting Peaker (2038) 1000 MW Adv Nuclear (2038)	Bridger WY Transmission Area		Reclaimed transmission upon retirement of Jim Bridger Plant
2040	206 MW Non-Emitting Peaker (2040) 60 MW Wind (2040)	Eastern Wyoming Transmission Area		Reclaimed transmission upon retirement of Wyodak

1 - TTC = total transfer capability. The scope and cost of transmission upgrades are planning estimates. Actual scope and costs will vary depending upon the interconnection queue, the transmission service queue, the specific location of any given generating resource and the type of equipment proposed for any given generating resource.
 2 - Energy Gateway South is modeled in the 2021 IRP and the CEIP as a contingent option with bids in the 2020 All-Source Request for Proposals (2020AS RFP). Other transmission options prior to 2026 are not modeled as transmission requirements and costs are accounted for in the 2020 All-Source Request for Proposals transmission cluster study for all other resource bids.

* - Reclaimed transmission is committed with resources with a commercial operation date later than the date of retirement.

These transmission investments have allowed PacifiCorp to economically incorporate new renewable resources. In the CEIP there is one projected transmission investment located in the Yakima, Washington transmission area in 2030, which supports incremental renewable resources.

Carbon Dioxide Emissions

The CEIP portfolio reflects PacifiCorp’s on-going efforts to provide cost-effective clean-energy solutions for our customers and accordingly reflects a continued trajectory of declining CO₂ emissions. PacifiCorp’s emissions have been declining and continue to decline due to several factors including PacifiCorp’s participation in the Energy Imbalance Market (EIM), which reduces customer costs and maximizes use of clean energy; PacifiCorp’s on-going transition to clean-energy resources including new renewable resources, new advanced nuclear resources, new non-emitting resources, storage, transmission, and Regional Haze compliance that capitalizes on flexibility.

Washington is currently served by two coal-fired facilities within PacifiCorp’s resource portfolio: Colstrip Unit 4 in Colstrip, Montana, and Jim Bridger Units 1-4 in Point of Rocks, Wyoming. The allocation of resources to Washington, in accordance with WAC 480-100-610(1), will no longer include these resources by December 31, 2023.

Following the removal of these resources from Washington’s allocation of energy, PacifiCorp will pursue the retirement or divestiture of Colstrip from the company’s portfolio by the end of 2025²⁴. The company will begin steps to convert Jim Bridger Units 1 and 2 from coal-fired to natural gas-fired.

Other Thermal Resources

PacifiCorp’s Washington allocation of energy currently includes generation from the Chehalis Generating Station (Chehalis)—a natural-gas fired resource in Chehalis, Washington—and from the Hermiston Generating Station (Hermiston)—a natural-gas fired resource in Hermiston, Oregon. On an energy basis, Hermiston currently generates approximately one-third of the gas-fired power serving PacifiCorp’s Washington customers, while Chehalis generates the remaining two-thirds. Hermiston is anticipated to be removed from Washington’s allocation of electricity by the end of 2023.

Chehalis is currently forecast to serve Washington customers through the end of the IRP study period, retiring upon technical end-of-life in 2043.

Specific Targets

Consistent with CETA legislation, PacifiCorp proposes specific targets for renewable energy, energy efficiency, and demand response to describe how CETA objectives are being met. Specific targets are informed by interrelated analysis and public processes including the 2020 all source request for proposal (2020AS RFP), the 2021 demand response RFP and the 2021 Conservation Potential Assessment (CPA). The results of these focused efforts were incorporated into the 2021 IRP and specifically the CEIP portfolio as a part of the process of determining the optimal portfolio for Washington compliance.

²⁴ This refiling maintains the original filings’ assumptions regarding coal-to-gas conversions and the timing of thermal removal from Washington rates.

Renewable Energy Targets

By the end of 2024 (and within the CEIP period covering 2022-2025), both the CEIP portfolio and the 2021 IRP preferred portfolio include the 2020 all-source RFP final shortlist resources. These Washington-eligible projects include 1,792 MW of wind, 1,302 MW of solar additions, and 697 MW of battery storage capacity—497 MW paired with solar and a 200 MW standalone battery.²⁵

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 stated above, resulting from the modeling strategies described earlier in this chapter. Additional detail regarding these individual projects is given in Chapter 3 – Specific Actions.

The renewable energy targets are shown in Table 1.4.²⁶ In the CEIP planning window the renewable energy targets are identical to the interim non-emitting and clean energy targets shown in Table 1.1. All non-emitting energy resources available in this period are considered renewable resources (including hydroelectric generation). 2028 is the first year in the portfolio when a non-renewable non-emitting resource is added and the first year in which the interim non-emitting and clean energy targets would specifically diverge from the renewable energy targets.

Table 1.4 Renewable Energy Targets

	2022	2023	2024	2025	Total
Retail Electric Sales	4,051,128	4,076,594	4,091,630	4,069,088	16,288,439
Projected Renewable Energy*	1,262,111	1,251,114	1,637,433	2,450,430	6,601,088
Net Retail Sales	2,789,017	2,825,480	2,454,196	1,618,658	9,687,352
Target Percentage	31%	31%	40%	60%	
Interim Compliance Target	1,249,704	1,257,341	1,247,437	1,586,482	5,340,963

*includes REC-generating renewables and hydro generation

To facilitate the delivery of new renewable energy resources to PacifiCorp customers across the West, the CEIP portfolio includes significant transmission investments. Specifically, the CEIP portfolio includes the Energy Gateway South transmission line—a new 416-mile, high-voltage 500-kilovolt transmission line and associated infrastructure running from the new Aeolus substation near Medicine Bow, Wyoming, to the Clover substation near Mona, Utah. The 2021 CEIP portfolio also includes the Energy Gateway West Subsegment D.1 project (D.1)—a new 59-mile high-voltage 230-kilovolt transmission line from the Shirley Basin substation in southeastern Wyoming to the Windstar substation near Glenrock, Wyoming. Both transmission lines come online by the end of 2024.

Energy Efficiency and Demand Response Targets

²⁵ The reported capacity for RFP solar resources reflects their expected maximum output after degradation in their first full year of operation. The maximum solar capacity prior to degradation is 1,306 MW.

²⁶ Source data and calculations for interim target development can be found in confidential workpaper “210829-PAC-WP-P02-SCGHG-CETA WA Allocation Target Development 03-13-2023 (C).xlsx” and the table can be found in workpaper “210829-PAC-WP-P02-SC-CETA 2022-2045 Interim Targets 3-13-2023.xlsx”.

CETA requires a four-year conservation target (2022-2025) and an intermediate target (2022-2023). The IRP preferred portfolio with Washington adjustments identified cost-effective, reliable, and feasible conservation from 2022 through 2031 for the Energy Independence Act (EIA) target. PacifiCorp proposes²⁷ to use the same forecast to draft specific targets for the CEIP, as follows:

- 2022-2023, draft target is provided with Biennial Conservation Plan (BCP) filed on November 1, 2021.
- 2024-2025, use additional two years of conservation pro-rata share, plus adders for decoupling. Update through 2023 BCP process.

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 CPA.²⁸
- Economic screening/selection of resources through the 2021 IRP development process.
- Addition of projected savings from the existing Home Energy Reports (behavioral) program.
- Identification of adjustments to the 2021 IRP preferred portfolio 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.²⁹

²⁷ 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.

²⁸ Available online at https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/integrated-resource-plan/2021-irp/2021-irp-support-and-studies/cpa-final-report-and-appendices/PacifiCorp%20DSM%20Potential%20Report%20-%20Vol%201%20-%20FINAL_2-26-2021.pdf

²⁹ Table 1.3 can be found in workpaper "210829-PAC-WP-WA 2022-2023 EIA target development and adjustments 12-31-21 (C)".

Table 1.5 – Energy Efficiency Targets (2022-2025)

MWh at Generation	2022	2023	2024	2025
Washington - first year Energy Efficiency from the 2021 IRP Preferred Portfolio	34,003	37,231	39,530	45,254
Behavioral Programs (HER)	4,414	(182)	4,414	(182)
RTF adjustments (total)	335	407	486	558
Adjusted Energy Efficiency Forecast - annual	38,752	37,456	44,431	45,631
Adjusted Energy Efficiency Forecast - pro-rata	50,579	50,579	50,579	50,579
Decoupling commitment - five percent	2,529	2,529	2,529	2,529
Annual Target - pro-rata basis	53,108	53,108	53,108	53,108
2022-2025 target				212,431

Demand Response Targets and Calculations

The company identified demand response resources from two sources—the 2021 CPA and bids solicited through the 2021 demand response RFP. The 2021 IRP included approximately 26 different resource options for selection compared to only 13 resources available for selection in the 2019 IRP. The majority of demand resources included in the near term 2021 modeling were derived from competitive bids in the 2021 demand response RFP. The company plans to use those competitive RFP bids as the basis for targets during the implementation period. PacifiCorp’s demand response target for the 2022 through 2025 CETA implementation period is 37.4 MW³⁰ of demand response through 2025. Total demand response volume is subject to change based on timing of programs and contract negotiations.

When reviewing demand response resources in the 2021 IRP for target setting, several important considerations were taken into account. Those considerations include:

1. The 2021 IRP tested the upper limit of possibility with respect to demand response resources, exploring cost-effectiveness thresholds of the resource by modeling numerous program designs and accelerated acquisition in the near term. As a result, the company is taking steps to procure initial demand response resources from competitive 2021 RFP bids. Moving forward, the company will continue to explore that upper limit and maximize potential volume from vendors.
2. Demand response offerings, characterized by sector, rely on a subset of electrical end uses that are understood to have the potential to provide demand response services. While program design offerings for demand response differ in IRP modeling, the capacity derived from a given end use in the RFP has some interaction with other resources and programs characterized in the CPA. For example, a smart thermostat demand response

³⁰ The calculations can be found in the confidential workpaper “210829-PAC-WP-Demand Response Targets 12.31.21 (C).xlsx”.

program and a residential HVAC direct load control (DLC) program are different programs with different pricing and performance characteristics, however, both rely on similar electric end-uses for demand response services.

3. The IRP examined two separate RFP vendors with different program design characteristics that had a portion of overlapping commercial and industrial customer segments, to compete within the model. The company anticipates contracting with one vendor for demand response targeting the commercial and industrial customer base.
4. Initiation, facilitation, and expansion of demand response programs requires on-going evaluation of program design and strategies to deliver and maintain positive customer experience and minimize program attrition over time. IRP modeling may not fully account for how programs may evolve over time and how customers interact with different programs or offerings. PacifiCorp plans to be deliberative and meticulous in launching and growing demand response programs to prevent customer fatigue and to maintain and grow participation in programs over time.
5. IRP modeling examines capacity impacts from both a summer and winter standpoint. IRP results reflect the summation of seasons, it's possible that there will be divergences in how capacity impacts are reported from demand response programs (average annual impacts) and how they are modeled (sum of seasonal impacts).

Accounting for these considerations PacifiCorp developed an actionable target of 37.4 MW³¹ for demand response programs during the implementation period. The company did not include time-of-use pilots in the 2021 CEIP demand response target calculation. PacifiCorp is currently implementing a time-of-use pilot to identify these savings; this action is described in more detail in Chapter 3, Specific Actions. Once the pilot concludes and more is known about the impacts and customer response to specific rate designs, adjustments can be made to targets incorporating projected impacts from actions related to rate design.

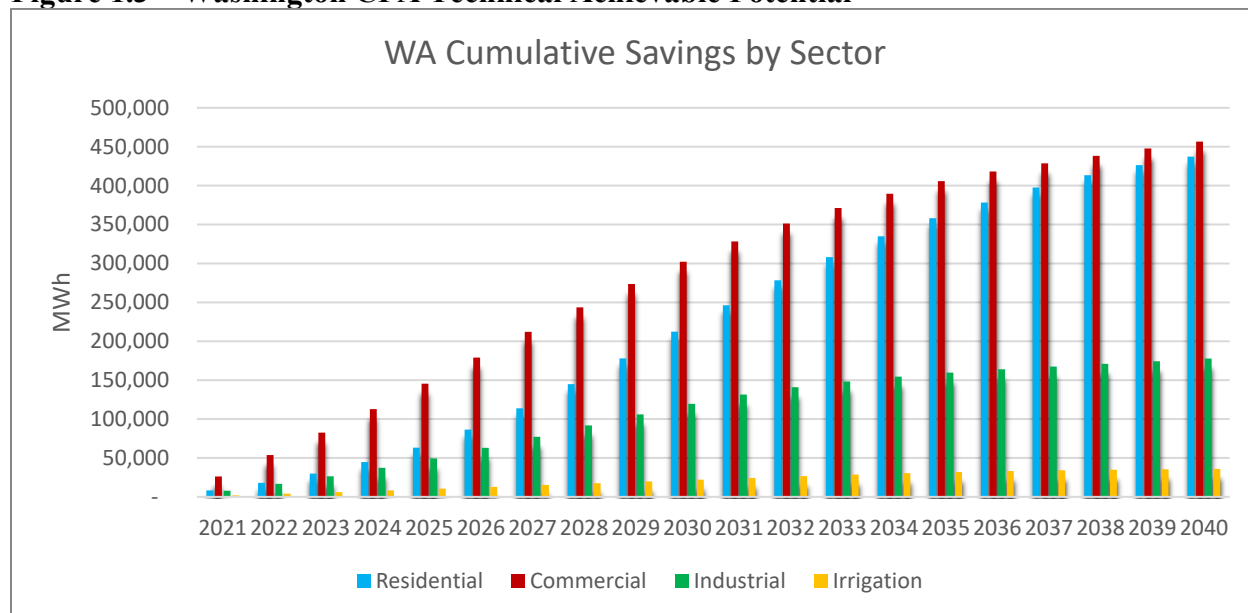
Conservation Potential

New cost-effective energy efficiency measures and programs are among the new resource selections that are present in every portfolio described in the process above. These resources are first identified through the development of a CPA, which identifies the magnitude and cost of all technically achievable energy savings opportunities in PacifiCorp's service territory over the next 20 years. Several measures include quantified non energy impacts netted against measure cost. Examples include health benefits from avoided woodsmoke with installation of ductless heat pumps, operations and maintenance cost savings with new lighting, and water savings for measures which conserve water use as well as electricity use. For the past several IRP cycles, PacifiCorp has contracted with Applied Energy Group (AEG) to conduct this assessment. A comprehensive description of the study methodology, underlying assumptions, and results can be found on PacifiCorp's website.³² Figure 1.3 shows cumulative technical achievable potential results from the CPA for the Washington service territory.

³¹ 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 not include line losses.

³² Available online at <https://www.pacificorp.com/energy/integrated-resource-plan/support.html>

Figure 1.3 – Washington CPA Technical Achievable Potential



The study results in over 3,000 individual efficiency measures which are then bundled into 27 groups for each of PacifiCorp’s six states. The output from the CPA serves as an input to the PLEXOS model which selects the optimal mix of resources from the defined bundles to provide system adequacy in a least cost least risk manner. The conservation resources which are selected in the CEIP portfolio become the cost-effective conservation potential, informing acquisition of energy efficiency.

Demand Response and Load Management Programs

Cost-effective demand response and load management resources are identified with resources from the CPA as well as the 2021 demand response RFP and are selected in a manner similar to conservation resources. The scope of the CPA includes identification of the technical potential for DLC demand response opportunities and for potential new pricing programs. The methodology and all underlying assumptions and results for CPA resources can also be found on PacifiCorp’s website.

DLC resources are differentiated by customer, technology, and duration. Sustained duration resources are available for more than 20 minutes while short duration reflects load which can be curtailed in greater quantity but for shorter duration such as for frequency response over 5-minute increments where the customer is less likely to be impacted by the disruption.

The amount and cost of load curtailment or shift is characterized by customer type and type of end use that is being controlled. The technical achievable potential is input to the IRP model as a resource option to be selected to meet system adequacy. The demand response selections in the preferred portfolio become the cost-effective demand response potential informing future acquisition.

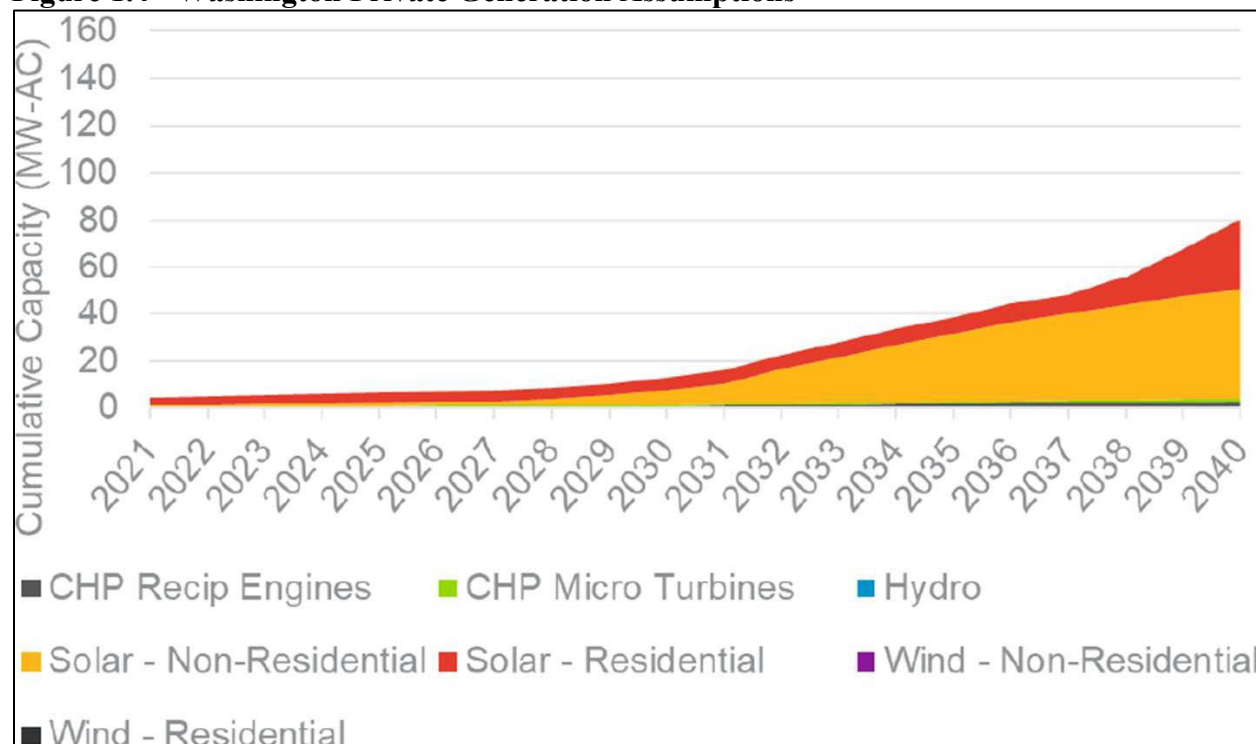
Pricing programs include time-of-use rates, critical-peak pricing and other behavioral pricing tools. The third focus of the CPA is to quantify the technical potential and magnitude of demand impacts possible through these pricing designs. The results are used to inform future rate design

concepts that are proposed with rate cases, but the IRP model is not used to determine the type and amount of pricing programs. This is because all pricing programs are designed to be cost effective to the system but may not be cost effective for the individual customer to select. Therefore, setting targets for programs that only benefit the utility system but not customers is not appropriate for the IRP but is analyzed and designed through other stakeholder and regulatory processes.

Distributed Energy Resources

Distributed energy resources include energy conservation, demand response and load management, and distributed generation. Energy conservation and demand response and load management are characterized in the CPA and 2021 demand response RFP as described above. New customer-sited generation is forecasted within the Private Generation Long Term Resource Assessment, included as an appendix to the 2021 IRP.³³ This assessment was conducted by Guidehouse Consulting for all states and for each distributed generation resource type including solar PV, small scale wind, small scale hydro, reciprocating engines and micro-turbines. The resource costs and state specific policies and incentives are integrated in the forecast of customer adoption of these resources across low, base, and high case scenarios. The base case results are netted against each state’s load forecast. Washington private generation assumptions are shown in Figure 1.4.

Figure 1.4 - Washington Private Generation Assumptions



³³ Available online at https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/integrated-resource-plan/2021-irp/2021-irp-support-and-studies/PacifiCorp_2021_IRP_PG_Resource_Assessment.pdf

CHAPTER 2 – DEVELOPMENT OF CUSTOMER BENEFIT INDICATORS

Chapter Summary

The transition to a clean electricity system for the state of Washington will require systemic change for large utilities and individual households. These changes will bring about both changes and benefits for Washingtonians. In order to realize these benefits equitably, PacifiCorp co-created a process with members of the public and community leaders (like the Equity Advisory Group, EAG) to (1) identify communities who are experiencing disproportionate challenges, (2) pinpoint challenges that can be reduced or improved by the utility and clean energy resources, and (3) develop metrics to track progress on those challenges and benefits.

Those three components are the basis of this chapter, as follows:

1. *Identify key communities who are experiencing disproportionate challenges.* In this chapter, these communities are referred to as “named communities.” The benefits of new clean energy programs and projects included in this CEIP will be directed to these “named communities”, while some will be directed toward all PacifiCorp customers. The label “named communities” is made up of two distinct groups: (1) “highly impacted communities (HICs)”, which were determined by the Washington Department of Health using specific indicators, and (2) “vulnerable populations”, which were determined using the lived experiences of community leaders through our Equity Advisory Group, EAG.
2. *Pinpoint challenges that can be reduced or improved by the utility and clean energy resources.* These opportunities to help support communities and the challenges they experience are known in this chapter as CBIs. There are nine CBIs included in this CEIP (Table 2.3), all of which are intended to reduce burdens, reduce costs, increase environmental benefits, boost public health, support energy resiliency and security, and/or reduce risks.
3. *Develop metrics to track progress relative to those challenges and benefits.* To evaluate progress along those nine indicators, PacifiCorp developed a list of 17 metrics. The section entitled Baseline Analysis of Customer Benefit Indicators demonstrates the current state of those metrics within PacifiCorp’s service territory (i.e., the area they serve). Using this baseline, PacifiCorp will be able to measure how their actions are influencing those metrics over time. The full list of CBI metrics is reported in Table 2.3. The link between utility actions and these CBIs and metrics is discussed in both Chapter 2 and Chapter 3, as well as Appendix C.

Introduction

One goal of CETA is to ensure that all Washingtonians benefit from clean energy transformation. To achieve this, PacifiCorp, in partnership with stakeholders and advisory groups, identified the highest priority benefits for customers. These teams also identified possible barriers and burdens that may prevent some customers from gaining those benefits.

PacifiCorp developed nine CBIs to evaluate the equitable distribution of these benefits. CBIs are designed to demonstrate the impact of proposed programs, actions, and investments. Each CBI has associated benefits it aims to achieve and CBI metrics that PacifiCorp will monitor. The indicators are attributable to and inform the utility actions and tactics described in Chapter 3. For example, decisions on supply-side resources will seek to improve the CBIs and attain the 2030 and 2045 clean energy targets.

In addition, CETA requires that certain benefits target communities facing particularly challenging circumstances. These communities are referred to as highly impacted communities and vulnerable populations, which are collectively called named communities.

A summary of CETA’s benefit categories and associated community target are given in Table 2.1.

Table 2.1 – CETA Benefit Categories and Communities

Benefiting Communities	Benefit Category	Description
Named Communities	Reduction of Burdens	Benefits from customer programs that result in lower energy prices
Named Communities	Non-Energy Benefits	Benefits that are not related to energy or cost, but are still otherwise attributable to utility actions
Named Communities	Energy Benefits	Benefits related to having a higher amount of renewable energy that combats climate change
All Communities	Environment	Benefits that result in a sustainable environment
All Communities	Cost Reduction	Benefits related to reducing customer energy bills
All Communities	Public Health	Benefits that result in healthier communities
All Communities	Energy Security	Benefits related to having uninterrupted access to energy
All Communities	Resiliency	Benefits that reduce the frequency and duration of outages

Regulatory Compliance

As identified in 480-100-640(4) each utility’s CEIP must include proposed or updated CBIs and associated weighting factors related to WAC 480-100-610(4)(c) including at a minimum, one or more CBIs associated with energy benefits, nonenergy benefits, reduction of burdens, public health, environment, reduction in cost, energy security, and resiliency. CBIs and weighting factors must be developed consistent with the advisory group process and public participation plan described in WAC 480-100-655. The utility should describe and explain any changes in CBIs or weighting factors from its most recently approved CEIP.

Named Communities

PacifiCorp conducted a multi-step stakeholder engagement process with public participation and community input to define named communities. This included surveys, the establishment of an EAG, and comparison of available data with perspectives on lived experiences in PacifiCorp’s service territory.

Highly Impacted Communities

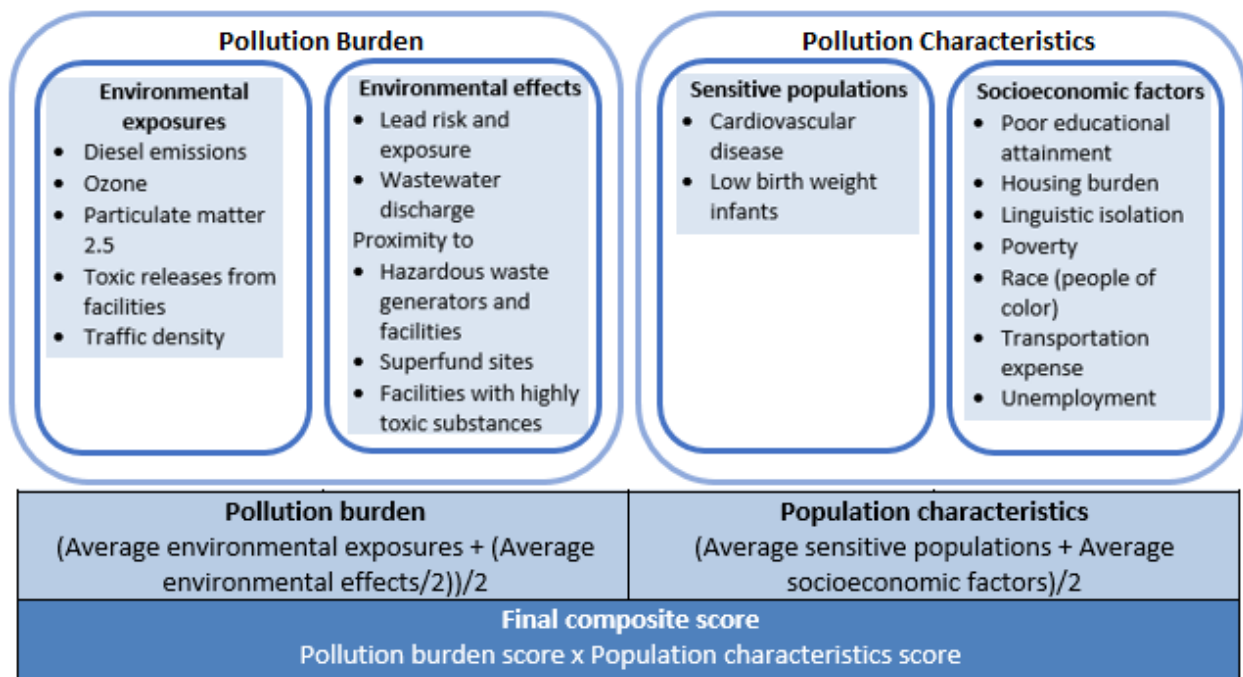
At year-end 2020, PacifiCorp’s service territory included 112,000 residential customers and 22,317 non-residential customers. PacifiCorp’s service area in Washington has two primary regions: Yakima County and Walla Walla County. In total, PacifiCorp’s Washington service area covers or partially covers sixty-one census tracts. Yakima and the surrounding area covers or partially covers 47 separate census tracts, while Walla Walla and the surrounding area covers or partially covers 14 census tracts.

The Washington Department of Health (DOH) defines a highly impacted community as a census tract that meets at least one of the following criteria:

- The census tract is covered or partially covered by “Indian Country” as defined and designated by statute (RCW 19.405.020), or
- The census tract ranks a nine or ten on the Washington Tracking Network (WTN) Environmental Health Disparities Map, as designated by the Washington DOH.

Through a collaborative effort, the DOH developed a ranking of environmental, health, and socioeconomic themes and measures for each census tract throughout the state using deciles (1 decile = 10 percent). Each decile represents 10 percent of the values in the data set. As an example of how to interpret the rankings, a census tract with a rank of nine for poverty would mean that 10 percent of other census tracts throughout the state have a higher proportion of their population living below the poverty level, while 80 percent of census tracts throughout the state have a lower proportion of their population living below the poverty level.

Figure 2.1 – Calculation Methodology of Washington's Environmental Health Disparities Index³⁴



To determine the presence of highly impacted communities, PacifiCorp relied on analysis of data for tribal lands, environmental health disparities (EHD), environmental exposures, environmental effects, socioeconomic factors and sensitive populations. Additional detail on these themes and measures are provided below.

- Indian country:**³⁵ Except as otherwise provided in sections 1154 and 1156 of 18 US Code, the term “Indian country”, as used in 18 US Code Section 1151 and RCW 19.405.020, means (a) all land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation, (b) all dependent Indian communities within the borders of the United States whether within the original or subsequently acquired territory thereof, and whether within or without the limits of a state, and (c) all Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same.
- Environmental health disparities:** The DOH uses the EHD data to designate highly impacted communities under the CETA-Cumulative Impact Analysis (CIA). It is the overall ranking of each of the nineteen WTN measures within the EHD, which are grouped into four categories:
 - Environmental exposures** includes Nitrous-Oxide diesel emissions (annual tons/Km²), ozone concentration, particulate matter (PM) 2.5 concentration, populations near heavy-traffic roadways, and toxic releases from facilities.
 - Environmental effects** includes lead risk from housing, proximity to hazardous waste treatment and disposal facilities, proximity to national priorities list

³⁴ Adapted from University of Washington Department of Environmental & Occupational Health Sciences. Washington Environmental Health Disparities Map: technical report. Seattle; 2019.

https://deohs.washington.edu/sites/default/files/images/Washington_Environmental_Health_Disparities_Map.pdf

³⁵ For this document, PacifiCorp will use the term Tribal Lands.

- facilities (superfund sites), proximity to risk management plan facilities, and wastewater discharge.
- **Socioeconomic factors** includes limited English, no high school diploma, race/ethnicity, population living in poverty, transportation expense, unaffordable housing, and unemployed.
- **Sensitive populations** includes deaths from cardiovascular disease and low birthweight.

PacifiCorp Service Area Specific Mapping of Washington Department of Health Data by Census Tract

This section shows maps of PacifiCorp’s Washington service area with DOH rankings for communities. Overall, there are an estimated 30,365 PacifiCorp customers within highly impacted communities in the Washington service area, which is 27.1 percent of the total customer base.

As shown in Figure 2.2, for the Overall EHD ranking of 9 or 10, the Yakima area has 19 census tracts and the Walla Walla area has none.

Figure 2.2 – Overall Environmental Health Disparities in PacifiCorp Service Area

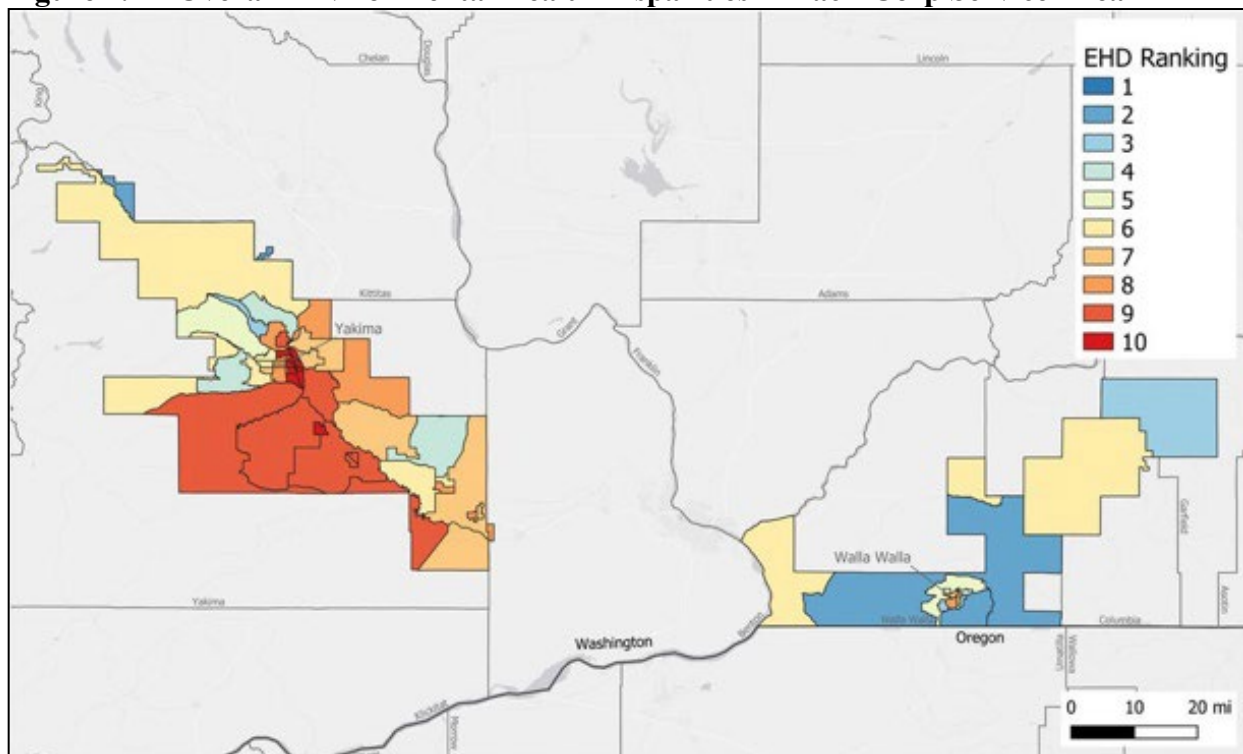
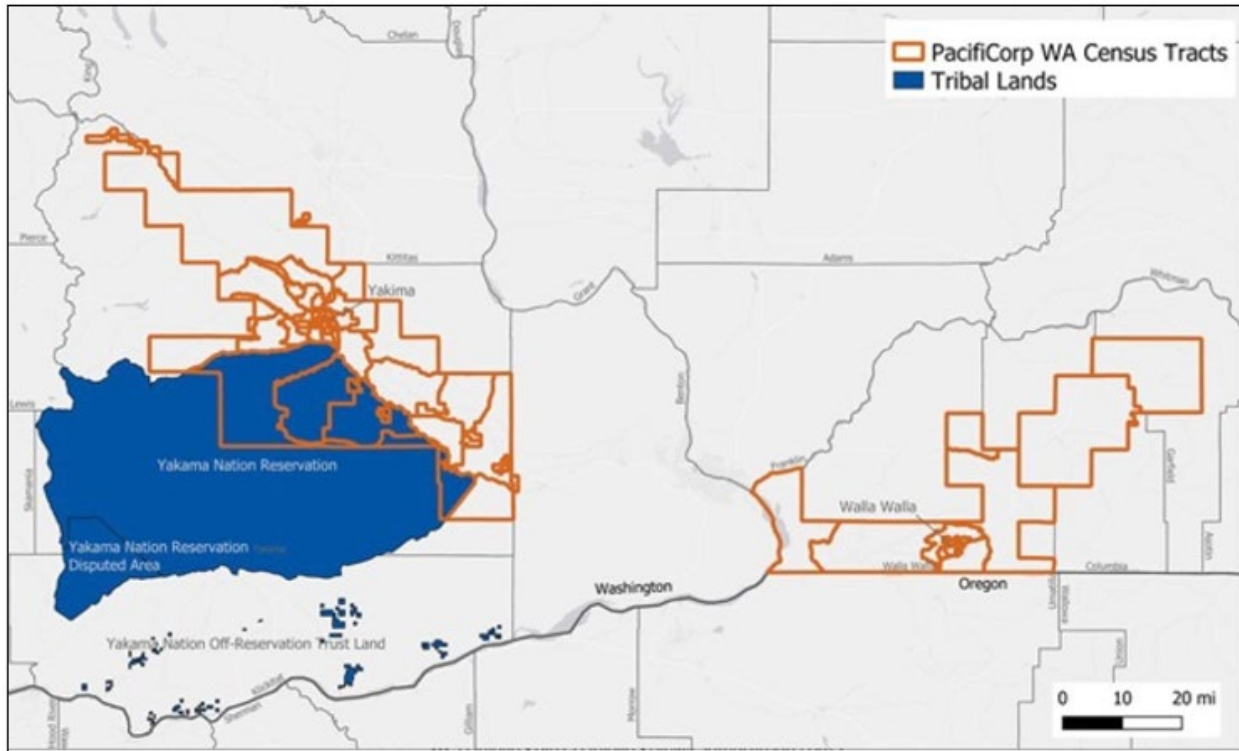


Figure 2.3 shows the census tracts that are located on Tribal Lands: the Yakima area has six (Yakama Nation Reservation) and the Walla Walla area has none.

Figure 2.3 – Tribal Land and PacifiCorp Service Area



Vulnerable Populations

PacifiCorp sought input from its stakeholders—primarily the EAG—for the designation of vulnerable populations. The list of 22 vulnerable populations includes:

1. People with lower education attainment
2. Adults 65 years old and above
3. Young children
4. People with a hearing impairment
5. People with a disability
6. People with medical equipment at home
7. Diverse supplier business owners
8. Energy burdened
9. Asset Limited, Income Constrained, Employed (ALICE)
10. Low-income migrants
11. Low income
12. Immigration status (outside of US citizen)
13. People who speak limited English
14. Renters
15. Multi-generational households
16. Multi-family households
17. People experiencing homelessness
18. People living in rural areas
19. People living in different land statuses (such as land trust vs. fee patent that have different regulatory requirements)
20. Agricultural and/or farm workers
21. Gas-heated homes
22. Single parents

The EAG also shared perspectives on the challenges and barriers that these vulnerable populations face. From the input, it was evident that many communities deal with the same or similar challenges, although some are unique to certain groups. PacifiCorp and Rocky Mountain Institute (RMI) categorized the challenges into nine primary categories: technology, employment, finances, transportation, education, health, housing, language, and discrimination. The full list of challenges identified by the EAG is in Figure 2.4 below.

Figure 2.4 – Challenges & Barriers Faced by Named Communities, Identified by the EAG

• Access to broadband	• Housing	• Mental health stigmas
• Access to education	• Immigration status	• Monetary resources
• Access to information	• Information on energy use	• Multi-family housing
• Access to transportation	• Lack of education	• Rural challenges
• Affordable housing	• Land management	• Seasonal work
• Cost of living	• Language barriers	• Technology barriers
• Discrimination	• Limited income	• Trust building
• Employment	• Low barrier access	• Utility consistency
• Federal versus state standards	• Mental health needs	• Zoning
• Financial barriers		

PacifiCorp then used available data at the appropriate granularity to determine the number of, or percentage of, the service area that might be considered part of a vulnerable population. This analysis was compared to statewide numbers or percentages of these populations. The results of this analysis are in Table 2.2.³⁶

In some cases, it was not possible to find an appropriate dataset for vulnerable populations at the needed level of granularity. Vulnerable populations for which PacifiCorp was unable to locate adequate data include people living in different land statuses (#19) within PacifiCorp’s Washington service territory, as well as some statewide proportions including people with a hearing impairment (#4), households that use in-home medical equipment at least 3 hours per week (#6), low-income migrants (#10), and people experiencing homelessness (#17).

Table 2.2 – Proportion or Count of Vulnerable Populations within PacifiCorp Service Area Compared to Statewide

#	Vulnerable Population	PacifiCorp Service Area Proportions	Washington Statewide Proportions
1	Educational Attainment: Population 25 years and over with high school diploma (or equivalent) or below ^a	48.2%	30.3%
2	Total population 65 years and over ^b	14.6%	15.1%
3	Total population under 5 years ^b	7.6%	6.1%
4	People with a hearing impairment ^c	14.9%	No data
5	Total civilian noninstitutionalized population with a disability ^a	13.7%	12.7%
6	Households that use in-home medical equipment at least 3 hours per week ^c	15.7%	No data
7	Minority & Women’s Business Enterprises ^d (<i>total certified</i>)	26	2,363
8	Energy Burdened Households ^{c,e}	13.2%	15.1%
9	Asset Limited, Income Constrained, Employed ^f	30.8%	24.7%
10	Low-income migrants ^c	2.0%	No data

³⁶ The source data and table can be found in confidential workpaper “210829-PAC-WP-VulnerablePopulations 12.31.21 (C).xlsx”.

11	Percentage of families and people whose income in the past 12 months is below the poverty level ^b	12.1%	7.2%
12	Total population foreign born ^a	16.9%	14.3%
13	Language spoken at home by population 5 years and over: Language other than English ^a	32.8%	19.1%
14	Occupied housing units that are renter-occupied ^h	36.1%	37.0%
15	Number of grandparents living with own grandchildren under 18 years ^a	2.8%	1.8%
16	Population in households living with other nonrelatives ^a	2.9%	4.8%
17	People experiencing homelessness and/or do not have permanent housing ^c	0.6%	No data
18	Households located in rural areas ⁱ	3.3%	5.2%
19	People living in different land statuses	No data	No data
20	Civilian employed population 16 years and over: Agriculture, forestry, fishing and hunting, and mining ^g	15.1%	2.9%
21	Occupied housing units using utility gas for house heating fuel ^j	25.5%	34.5%
22	Total households: male or female householder, no spouse/partner present, living alone with own children ^a	17.0%	15.9%

^a US Census Bureau, ACS, 2019, Table DP02

^b US Census Bureau, ACS, 2019, Table DP05

^c PacifiCorp Residential Customer Survey, 2021

^d Washington Office of Minority & Women’s Business Enterprises, Directory of Certified Firms. Note: this figure represents the *total* counts of certified MWBEs, as opposed to *percentages*.

^e Washington Department of Commerce, Utility Energy Program Assistance Survey Tool

^f United Way Washington: ALICE Project

^g US Census Bureau, ACS, 2019, Table DP03

^h US Census Bureau, ACS, 2019, Table DP04

ⁱ US Department of Agriculture, 2010, Rural-Urban Commuting Areas

^j US Census Bureau, ACS, 2019, Table S2504

Summary of Customer Benefit Indicators

For this CEIP, PacifiCorp developed CBIs to evaluate the equitable distribution of benefits in partnership with stakeholders and the EAG. Table 2.3 summarizes these nine CBIs, their associated CETA benefit categories, and the metrics that will be used to measure and track them.

Table 2.3 – CBI, Benefit Categories, and Metrics

CBI	Benefit Categories	Metric(s)
Culturally and linguistically responsive outreach and program communication	<ul style="list-style-type: none"> Reduction of burdens Non-energy benefit 	<ul style="list-style-type: none"> Outreach in non-English languages Percentage of responses to surveys in Spanish
Community-focused efforts and investments	<ul style="list-style-type: none"> Non-energy benefit Reduction of burden Public health 	<ul style="list-style-type: none"> Workshops on energy related programs Headcount of staff supporting program

		<p>delivery in Washington who are women, minorities, and/or can show disadvantage³⁷</p> <ul style="list-style-type: none"> • Number of public charging stations in named communities
Participation in company energy and efficiency programs and billing assistance programs	<ul style="list-style-type: none"> • Cost reduction • Reduction of burden • Non-energy benefit • Energy benefit 	<ul style="list-style-type: none"> • Number of households/businesses, including named communities, who participate in company energy/efficiency programs • Percentage of households that participate in billing assistance programs • Number of households/businesses who participate/enroll in demand response, load management, and behavioral programs
Efficiency of housing stock and small businesses, including low-income housing	<ul style="list-style-type: none"> • Energy benefit 	<ul style="list-style-type: none"> • Number of households and small businesses that participate in company energy/efficiency programs • Energy efficiency expenditures³⁸
Renewable energy resources and emissions	<ul style="list-style-type: none"> • Environmental 	<ul style="list-style-type: none"> • Amount of renewables/non-emitting resources serving Washington • Washington allocated greenhouse gas emission from Washington allocated resources
Households experiencing high energy burden	<ul style="list-style-type: none"> • Cost Reduction • Reduction of burden 	<ul style="list-style-type: none"> • Number of customers experiencing high energy burden by: highly impacted communities, vulnerable populations, low-income bill assistance (LIBA) and Low-Income Weatherization participants, and other residential customers
Indoor air quality	<ul style="list-style-type: none"> • Public health • Non-energy benefit 	<ul style="list-style-type: none"> • Number of households using wood as primary or secondary heating • Non-electric to electric conversions for Low-Income Weatherization program
Frequency and duration of energy outages	<ul style="list-style-type: none"> • Energy resiliency • Risk reduction • Energy benefit 	<ul style="list-style-type: none"> • SAIDI, SAIFI, and CAIDI* at area level including and excluding major events

³⁷ In this metric, program delivery is defined as related to energy efficiency programs, with exception to the low income weatherization program.

³⁸ Energy efficiency expenditures include customer, partner, and direct install incentive payments and exclude all other administrative or program costs.

Residential customer disconnections	<ul style="list-style-type: none"> • Energy security 	<ul style="list-style-type: none"> • Number of residential customer disconnections including disconnections within named communities
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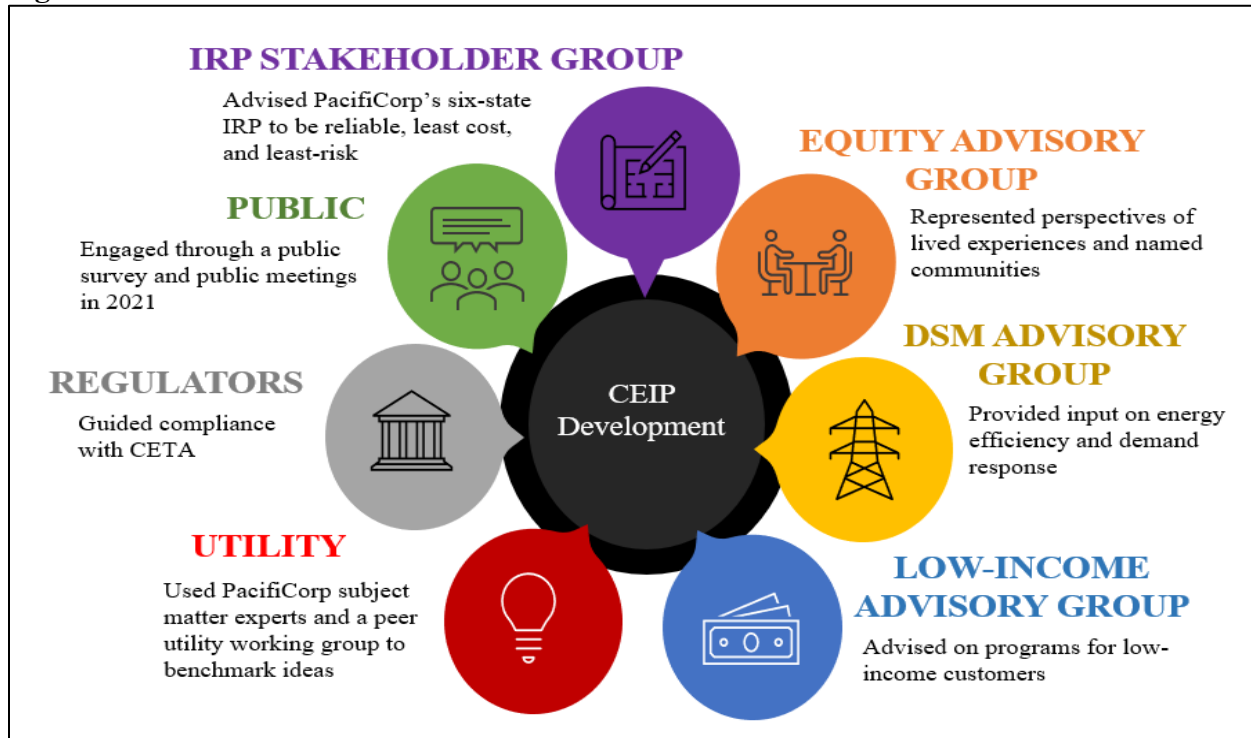
*System Average Interruption Duration Index (SAIDI), System Average Interruption Frequency Index (SAIFI), Customer Average Interruption Duration Index (CAIDI)

Customer Benefit Indicator Development for the CEIP

PacifiCorp developed and refined the list of CBIs through an iterative process leveraging the voices, perspectives, expertise, and creativity of internal subject matter experts and external stakeholders, including:

- Equity Advisory Group
- Low-Income Advisory Group
- Demand-Side Management Advisory Group
- IRP Stakeholders Group
- Washington Utilities and Transportation Commission Staff
- Washington Attorney General’s Office of Public Counsel
- Public stakeholders
- Public surveys

Figure 2.5 – Stakeholder Involvement



To create CBIs, PacifiCorp used an outcome-oriented approach, and designed actions to mitigate the challenges that Washington customers face. This section describes the steps of this process.

1. **Identify named communities and the challenges they face:** To monitor the equitable distribution of benefits, PacifiCorp took input from stakeholders and the EAG using an

iterative process to identify named communities and consider the challenges and barriers that they face. See Figure 2.4 for the full list of challenges the EAG identified.

2. **Match challenges to corresponding benefit categories:** CETA specified benefit categories for customers in named communities and for all customers including named communities. PacifiCorp reviewed these categories and matched them to the challenges that named communities face. This effort was shared with the EAG and compared with peer utility methodologies for validation.
3. **Determine the challenges that PacifiCorp can influence:** PacifiCorp then focused on the challenges that utility actions could impact. These challenges were assigned to benefit categories and PacifiCorp proposed draft CBIs that could address these challenges. The EAG and stakeholders provided feedback on the draft CBIs through an iterative process, which helped develop the CBIs in this document.
4. **Align CBIs with regulation:** CETA and Commission Staff guidance provided a framework for utilities to consider, create, and refine CBIs. PacifiCorp presented draft CBIs to Commission Staff for regulatory review and feedback.
5. **Weigh CBIs to understand the significance and prioritization of each:** PacifiCorp used data from an EAG activity and the public survey to weigh each benefit category based on priority. The results of this work are in Table 2.4. The EAG was also asked to individually prioritize the draft CBIs during the same activity. The results of this exercise are in Table 2.5. Based on the prioritization exercise, the highest-scored CBIs in each benefit category were selected as the initial set of CBIs for the 2022 CEIP. Stakeholders and the EAG reviewed the revised list of CBIs during public meetings.

PacifiCorp conducted a series of surveys from July 2, 2021, through August 10, 2021. The objective of the survey effort was to gather public feedback on PacifiCorp’s CBIs, soliciting customers’ thoughts, preferences, and input, to better inform PacifiCorp’s planning efforts.

PacifiCorp distributed surveys to residential and non-residential customers by:

- Publicly posting the survey links to PacifiCorp CEIP web page.
- Emailing the survey link to all customers with an email address (48,124 residential and 2,861 non-residential customers).
- Providing the survey in both Spanish and English.
- Distributing bill inserts to approximately 132,380 customers directing them to the CEIP web page to take survey.

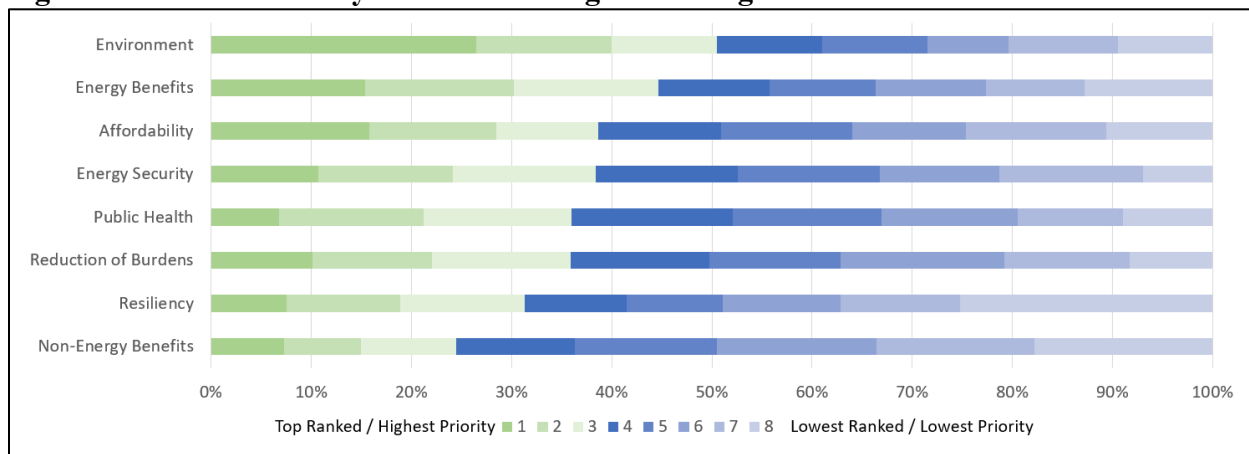
Some EAG members distributed paper copies for hard-to-reach customers. Surveys were also distributed to the DSM Advisory Group, Low-Income Advisory Group, and Washington IRP stakeholders. PacifiCorp sent reminder emails to all groups.

The primary research goals of the survey included understanding customers’ preferences and priorities for the CBIs and determining the main concerns and challenges faced by customers in the clean energy transition. As provided in Figure 2.6 below, respondents ranked CBI categories in order of highest to lowest priority, from 1 to 8.³⁹ The benefit categories of environment, energy benefit and affordability were ranked highest by the public. Survey responses from the public, DSM Advisory Group, Low-Income Advisory Group, and Washington IRP stakeholders

³⁹ The source data and figure can be found in confidential workpaper “210829-PAC-WP-CBIWeights 12.31.21 (C).xlsx”.

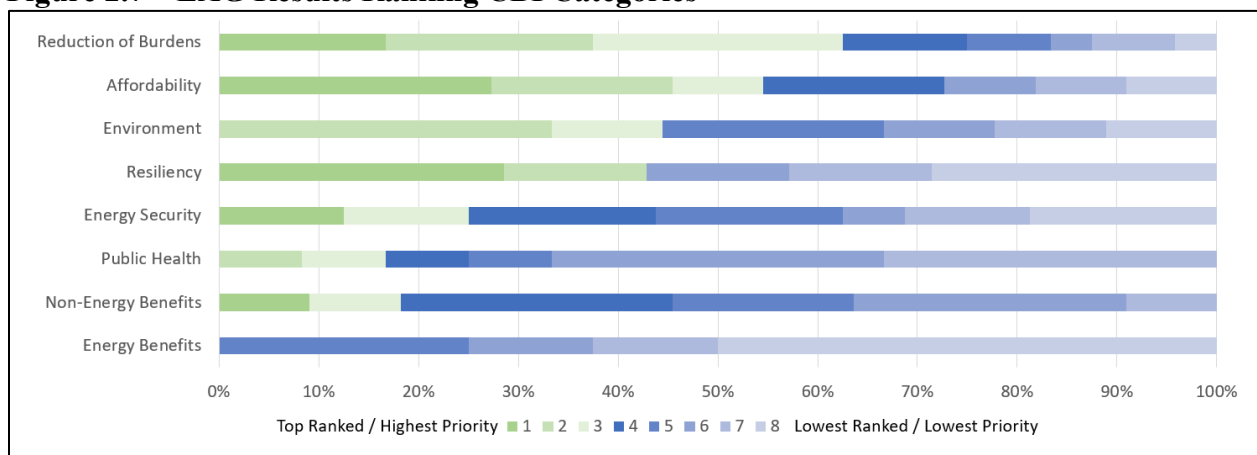
are informing the total public survey results illustrated in Figure 2.6 and the ranked CBI categories provided in Table 2.4.

Figure 2.6 – Public Survey Results Ranking CBI Categories



In addition to soliciting the preferences and priorities for CBIs from the public, PacifiCorp also asked the EAG to provide a ranking of their benefit priorities. As provided in Figure 2.7 below, the benefit categories of reduction of burdens, affordability and environment were ranked highest by the EAG.⁴⁰

Figure 2.7 – EAG Results Ranking CBI Categories



PacifiCorp then averaged the public and EAG rankings to produce a “Combined” ranking, assigning a 50 percent weight to each stakeholder group. See Table 2.4.⁴¹

⁴⁰ The source data and figure can be found in confidential workpaper “210829-PAC-WP-CBIWeights 12.31.21 (C).xlsx”.

⁴¹ The source data and table can be found in confidential workpaper “210829-PAC-WP-CBIWeights 12.31.21 (C).xlsx”.

Table 2.4 – Ranked CBI Categories

EAG	Rank/ Weight	Public	Rank/ Weight	Combined	Rank/ Weight
Reduction of Burdens	8.0	Environment	8.0	Environment	7.0
Affordability	7.0	Energy Benefits	7.0	Affordability	6.5
Environment	6.0	Affordability	6.0	Reduction of Burdens	6.0
Resiliency	5.0	Energy Security	5.0	Energy Security	4.0
Energy Security	3.0	Reduction of Burdens	4.0	Energy Benefits	4.0
Public Health	3.0	Public Health	3.0	Resiliency	3.5
Non-Energy Benefits	3.0	Resiliency	2.0	Public Health	3.0
Energy Benefits	1.0	Non-Energy Benefits	1.0	Non-Energy Benefits	2.0

As described in PacifiCorp’s 2022 Public Participation Plan, PacifiCorp developed the weighting factors provided in Table 2.4 above based on feedback and input from its EAG, its other advisory groups and the public, and feedback from its customer base through the Clean Energy Benefit survey.

Given the CBI category rankings, provided in Table 2.4 above, the EAG subsequently scored each of PacifiCorp’s specific draft CBIs in terms of criticality and impact potential. The prioritizations from the 12 EAG members were combined into a “weighted score” prioritization. The draft CBIs bolded within Table 2.5 received the highest weighted scores within each primary benefit category were selected as the move-forward CBIs.⁴² In some instances, multiple CBIs were highly rated within categories. This was the case for the CBI of reduced number of households experiencing high energy burden, which received the second highest score within the primary benefit category. And so, PacifiCorp carried forward this CBI and recognized the significance of this outcome within the CEIP. Another example was the draft CBI of “greenhouse gas emissions” within the Environmental category. PacifiCorp adopted this as one of the metrics to measure the adopted CBI of “renewable energy resources and emissions.”

⁴² The source data and table can be found in confidential workpaper “210829-PAC-WP-CBIWeightsEAG 12.31.21 (C).xlsx”.

Table 2.5 – EAG Draft CBI Prioritization

Primary Benefit Category	Outcome	Draft CBI	Weighted Score
Reduction of Burdens	Improved education and awareness	Increase efforts to support clean energy education	10.2
		Improve culturally and linguistically responsive outreach and marketing to increase awareness of energy and conservation programs	10.3
	Reduced barriers for program participation	Increase participation in bill assistance, weatherization and energy efficiency programs and grant opportunities	8.8
		Expand in-language services across written, spoken and visual services	9.2
Non-Energy Benefit	Increased economic / community engagement	Increase participation in community-focused efforts and investments	9.3
		Provide support for job training programs	6.8
		Track and support increased diversity in local program delivery	7.8
Energy Benefit	Increased amount of clean energy	Expand electrification opportunities	7.8
		Increase participation in company energy and efficiency programs*	9.3
Environmental	Reduced greenhouse gas emissions	Increase in renewable energy resources	9.8
		Lower Greenhouse Gas emissions	9.5
Cost Reduction	Minimize the cost of clean energy transition	Reduce number of households experiencing high energy burden	8.8
		Increase participation in company energy and efficiency programs	9.3
		Increase awareness of and participation in billing assistance programs	8.3
		Reduce number of customers in arrearages	8.0
Public Health	Improved health and well-being	Decrease wood use for home heating*	9.3
		Improve home comfort	7.0
Energy Resiliency / Risk Reduction	Low frequency and duration of outages	Reduce frequency and duration of energy outages	8.0
		Optimize grid investments	7.7
		Support customer programs related to community resiliency	7.8
Energy Security	Improved local energy systems	Develop local/regional infrastructure to promote long-term reliable service	9.0
	Reduced residential disconnections	Reduce number of residential customer disconnections	9.5

*CBIs listed were further refined based on input received from the Joint Advocates. Bolded CBIs were carried forward as PacifiCorp’s final CBIs within the CEIP.

Per WAC 480-100-655(2)(a)(ii), the company is required to obtain input from the public regarding CBI weighting factors. Considering timing requirements for filing PacifiCorp's Draft CEIP (November 1, 2021), it was necessary to develop an approach to obtain input from all customers regarding their prioritization of benefits from CETA without having well-defined

CBIs at the time of survey implementation. However, at the time of survey implementation the company did have access to the statutory elements that would be incorporated with forthcoming EAG input. PacifiCorp's public survey was made available in English and Spanish and was active over the July 2, 2021 to August 10, 2021 timeframe. Given these considerations, the prioritization of statutory elements from the public, the EAG, the low-income advisory group, the DSM advisory group and the Washington IRP stakeholder group were used to develop the weighted CBIs.⁴³

Furthermore, using the prioritization of statutory elements allows for a more straightforward development of weights for CBIs developed throughout the CEIP process.

The weights for statutory elements as provided in Table 2.4, were applied to the final CBIs as presented in Table 2.5 to develop the weighted CBIs presented in Table 2.6 below.

Table 2.6 – Connecting Advisory Group & Public Scoring to Final CBIs

CBI #	CBI	Associated Benefit Category	EAG & Public Scoring	Average Weight
1	Culturally and linguistically responsive outreach and program communication	Reduction of Burdens	6	4.0
		Non-Energy Benefits	2	
2	Community-focused efforts and investments	Non-Energy Benefits	2	3.7
		Reduction of Burdens	6	
		Public Health	3	
3	Participation in company energy and efficiency programs and billing assistance programs	Cost Reduction	6.5	4.6
		Reduction of Burdens	6	
		Non-Energy Benefits	2	
		Energy Benefits	4	
4	Efficiency of housing stock and small businesses, including low-income housing	Energy Benefits	4	4.0
5	Renewable energy resources and emissions	Environment	7	7.0
6	Households experiencing high energy burden	Cost Reduction	6.5	6.3
		Reduction of Burdens	6	
7	Indoor air quality	Public Health	3	2.5
		Non-Energy Benefits	2	
8	Frequency and duration of energy outages	Resiliency	3.5	3.8
		Risk Reduction	4	
		Energy Benefits	4	
9	Residential customer disconnections	Energy Security	4	4.0

⁴³ The source data and table can be found in confidential workpaper “210829-PAC-WP-CBIWeights 12.31.21 (C).xlsx”.

6. **Incorporate stakeholder input on CBIs:** PacifiCorp completed a comprehensive review of the July 30, 2021 Joint Comments on CBIs on behalf of The Energy Project, Front and Centered, NW Energy Coalition, and the Washington State Office of the Attorney General, Public Counsel Unit (Joint Advocates). PacifiCorp compared the Joint Advocate CBIs and metrics to those being considered by PacifiCorp. This mapping exercise resulted in refinements to several of PacifiCorp’s CBIs and the adoption of additional metrics as reflected in Table 2.3 above. PacifiCorp’s comparative analysis was transmitted to the Joint Advocates on October 25, 2021. PacifiCorp initiated and participated in a conference call with the Joint Advocates on November 19, 2021 to respond to comments from the Joint Advocates on the draft CBIs contained in the November 1, 2021 draft CEIP as well as PacifiCorp’s mapping exercise. The Energy Project also completed a comparative analysis of the CBIs and metrics proposed by the Joint Advocates to those proposed by PacifiCorp. Copies of the CBI comparative analyses prepared by PacifiCorp and The Energy Project are found in Appendix B of the final CEIP.

Additionally, PacifiCorp reviewed CEIP documents produced by other peer utilities in Washington: Avista and Puget Sound Energy. One update PacifiCorp adopted as a result was to change from a one-CBI-for-one-benefit category mapping, as shown in Table 2.5, to a one-to-many CBI benefit category mapping, as shown in the final version in Table 2.3. This means that each CBI can be associated with one *or more* benefit categories, which more comprehensively reflects the interweaving impacts that CBIs can have. As seen in Table 2.7, on average each benefit category is associated with more than two CBIs and leverages more than four metrics for measurement.⁴⁴

Table 2.7 – CBI to Benefit Category Mapping

Benefit Category / Statutory Element	Customer Group to Which Benefit Category Flows	Number of Associated CBIs	Number of Associated Metrics
Reduction of Burdens	Named communities	4	9
Cost Reduction	All customers ¹	2	4
Environment	All customers	1	2
Resiliency	All customers	1	1
Non-Energy Benefits	Named communities	4	10
Energy Security	All customers	1	1
Public Health	All customers	2	5
Energy Benefits	Named communities	3	6
Average Number of CBIs per Category		2.3	4.8

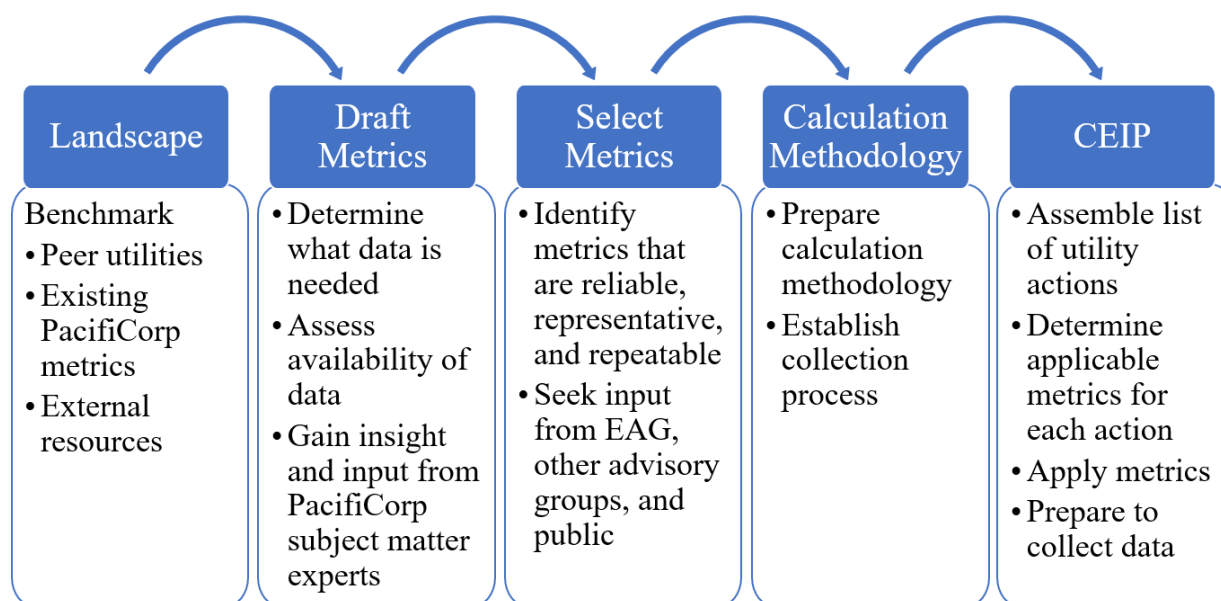
¹ Note that benefit categories which flow to all customers also include customers in named communities.

Another update PacifiCorp adopted after reviewing peer utilities’ draft CEIPs was to remove directionality from the move-forward CBIs and metrics, to allow tracking and measurement to be more objective and easier to interpret.

⁴⁴ The source data and table can be found in confidential workpaper “210829-PAC-WP-CBIWeights 12.31.21 (C).xlsx”.

7. **Define metrics to monitor and track CBIs:** PacifiCorp created 17 quantifiable metrics to measure the CBIs, at least one metric per CBI. PacifiCorp used internal and external data sources, stakeholders, peer utilities, advocates, and the EAG to refine and validate the proposed metrics. PacifiCorp prioritized metrics that were reliable, repeatable, and representative of the communities and objectives of the CBIs. Figure 2.8 illustrates the steps in this process.

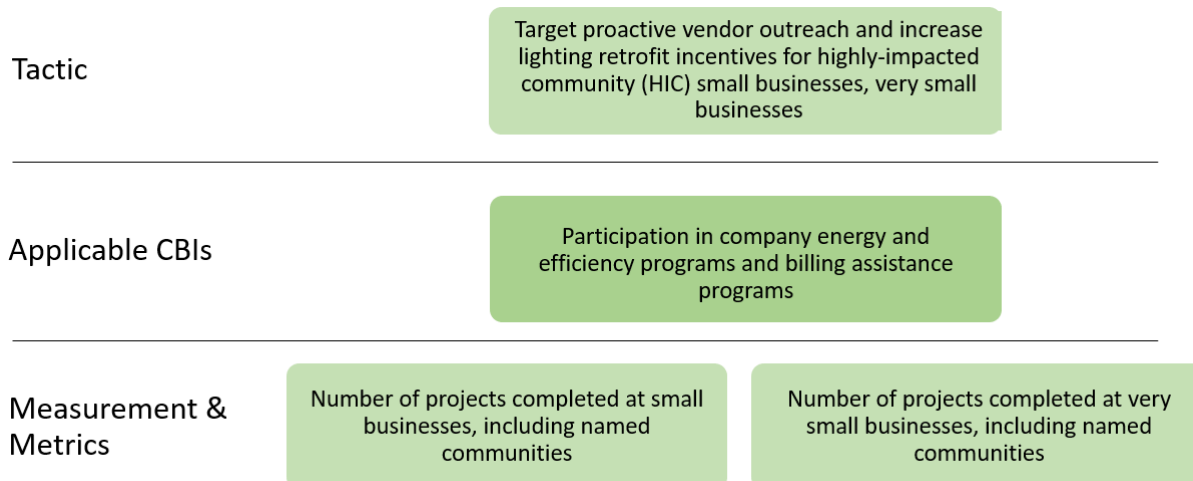
Figure 2.8 – Metric Creation Process



8. **Use CBIs to inform proposed actions:** In this final step in the process, PacifiCorp aimed to “put it all together” and apply the CBIs to specific actions, in accordance with WAC 480-100-640(5). Leveraging outputs leading up to this phase of the process, PacifiCorp conducted several internal stakeholder meetings with subject matter experts across departments to brainstorm and document possible tangible actions the company could implement to positively impact each CBI. This led to a more formal and exhaustive exercise of action-to-CBI mapping, of which PacifiCorp shared flowchart examples in public and EAG meetings in October 2021.⁴⁵ These mappings included for each specific action:
- a. Action type
 - b. Proposed implementation tactic(s)
 - c. Applicable CBI(s)
 - d. Measurement & metrics

⁴⁵ See slides from EAG Meeting 6A Oct 20, 2021 available online here: https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/ceip/EAG_Meeting_6A_Slides_final.pdf

Figure 2.9 – Example Action-to-CBI Mapping



Some of the supply-side resources and energy efficiency actions in this inaugural CEIP were identified from processes that were already underway or completed at the time of this CBI-action mapping exercise, namely the 2020AS RFP and the BCP. There are other actions, like those in the categories of community outreach and demand response, that are new. It is important to note that some CBIs are associated with actions that PacifiCorp is taking in accordance with other Washington regulations. Accordingly, they are not identified as CETA “specific actions” in this CEIP. PacifiCorp will evaluate and adjust CBIs and associated actions in future reports and CEIP processes, in conjunction with the key stakeholders listed above.

The final output led to the creation of Appendix C. For further details on the individual actions and the specific ways each ties to CBIs, see Chapter 3.

Baseline Analysis of Customer Benefit Indicators

To assess the progress on CBIs, PacifiCorp developed a baseline to understand the current state of these measurements. Future measurements will be compared to the baseline to track the change over time. Generally, baseline CBI metric data is provided for 2020, with exception to disconnections. The 2020 disconnection data was not used as the baseline due to the COVID-19 pandemic and disconnection moratorium.⁴⁶ Therefore, it was determined that 2019 to be a more representative disconnection baseline.

Culturally and Linguistically Responsive Outreach and Program Communication

Stakeholders and the EAG shared that the lack of awareness and accessibility of information are challenges for named communities. The purpose of this CBI is to more appropriately engage with customers to reduce burdens and increase non-energy benefits for Washington customers. PacifiCorp will track communications to customers in named communities and look for opportunities to expand outreach, using different media, different methods, and different languages.

⁴⁶ See Governor Inslee Proclamation 20-23.2, issued April 17, 2020; and *In the Matter of Response to the COVID-19 Pandemic*, Order 01 Extension of Disconnection of Energy Services for Nonpayment and Adopting Related Requirements, Docket No. U-200281 (Oct 20, 2020).

Table 2.8 – Washington Outreach in Languages Other than English, 2020

Description	Timing (2020)	Language(s)
Paid ad (TV/Video Ads): Energy efficiency messaging	April	Spanish
Paid ad (Radio): LIBA program information	August - October	Spanish
Paid ad (Print): Energy efficiency messaging	April, June, August, November	Spanish
Paid ad (Print): LIBA program information	August - October	Spanish
Paid ad (Digital display): LIBA program information	August - October	Spanish
Email: Energy efficiency email linked to Spanish translation	December	Spanish
Direct mail: Spanish translation of welcome letter sent to new residential customers	January - December	Spanish
Collateral: LIBA program flyers and posters for agency partners	As needed, sent upon request	Spanish
Collateral: Energy education program parent letter and home energy worksheet in Spanish	Fall	Spanish
Bill message: COVID-19 related service updates	March - December	Spanish
Email: Helping customers with payment arrangements and assistance	April-May	Spanish
Direct mail: Helping customers with payment arrangements and assistance	June	Spanish
Bill message: Wildfire safety messaging	May - November	Spanish
Bill insert & email: Energy assistance messaging	October - November	Spanish
Email: Helping customers with payment arrangements and assistance	Ongoing starting July	Spanish
Web: Update of Spanish webpage and materials on Pacific Power website	Ongoing	Spanish
Social media: Reminders about utility payment scams linked to information in Spanish	Ongoing starting in March	Spanish

Table 2.9 – Program Communications Impressions, 2020

Channel	Wattsmart	Wattsmart Business	Home Energy Savings
Social media (Facebook, Instagram, and/or Twitter)	2,779,118	1,237,035	426,244
Online advertising or digital display	2,992,631	4,386,104	N/A
Television	971,646	N/A	N/A
Radio	4,843,959	3,773,855	N/A
Newspaper/Magazine	367,956	486,356	N/A
Email	N/A	3,235	111,930
Direct mail	N/A	5,142	N/A
Total	11,955,310	9,891,727	538,174

In addition to tracking communications and outreach, PacifiCorp is committed to track engagement with Spanish language communities by tracking responses to Spanish versions of company surveys.^{47 48} Specifically, PacifiCorp will report responses to on-going residential surveys as well as CETA public participation meetings.

Table 2.10 – Percentage of Spanish Version Respondents to PacifiCorp Surveys

	HIC		All Customers	
	Count	Percent	Count	Percent
2019 Residential Survey, Spanish Version	18	2.9%	42	1.2%
2021 Residential Survey, Spanish Version	32	5.5%	68	1.9%
2021 CETA Public Survey, Spanish Version	Unknown	Unknown	133	6.2%

Community-Focused Efforts and Investment

The purpose of this CBI is to focus investments so that communities more equitably receive benefits. Impacts from these investments will have positive implications on non-energy benefits and will also reduce burdens for Washington customers. One metric for this CBI will focus on tracking workshops on energy-related programs.

Table 2.11 – Workshops on Energy Related Programs in Washington, 2020

Workshop	HIC	Non-HIC
Wattsmart Business vendor program training March 11, 2020 in Walla Walla	No	Yes
Wattsmart Business vendor program training March 12, 2020 in Yakima	Yes	No

In addition to tracking workshops, PacifiCorp will track the number of staff supporting program delivery for Home Energy Savings and Wattsmart Business energy efficiency programs in Washington. PacifiCorp obtained this information as of October 2021 from its program delivery vendors. The headcounts are based on third party program delivery staff who are customer and vendor/trade ally facing (either in person, via email/mail, web meeting or phone) and are focused on engaging customers in outreach, technical, and back-office functions. The total headcount for program delivery is 32.

⁴⁷ Based on the American Community Survey, 30.8% of PacifiCorp’s Washington service territory primarily speaks Spanish at home, whereas within highly impacted communities 48.2% of customers speak Spanish at home.

⁴⁸ The source data can be found in confidential workpaper “210829-PAC-WP-SpanishResponses 12.31.21 (C).xlsx”.

Table 2.12 – Headcount of Staff Supporting Program Delivery in Washington

	All Employees/Staff
Women	17
Minority	3
Can show disadvantage in some other way	1
Total	21

PacifiCorp will support the installation of public electric vehicle (EV) charging stations in the service area, with a focus on highly impacted communities. The installation of EV charging stations will promote fewer emissions from fossil fuel transportation alternatives.

Table 2.13 – Public Charging Stations in Washington Service Area⁴⁹

	HIC	Total Service Territory
	Count	Count
Public Charging Stations	5	41

Source: US. Department of Energy, Alternative Fuels Data Center, https://afdc.energy.gov/fuels/electricity_locations.html#/analyze?fuel=ELEC. October 2021.

Participation in Company Energy and Efficiency Programs and Billing Assistance Programs

PacifiCorp has existing programs designed to lower customer energy costs and reduce energy burden, and they also provide energy and non-energy benefits (see Chapter 3, Demand-Side Actions). Through CETA and this CEIP, PacifiCorp commits to increasing funding or expanding programs to address issues raised by the EAG, such as the availability of repair funding under the Low-Income Weatherization Program.

The success of these programs relies on customer participation. PacifiCorp will track the number of participants and participation rates of these programs. Program participation rates and energy efficiency expenditures from 2020 are included in Table 2.14 and Table 2.15.⁵⁰ Where possible, these metrics are split out for customers in highly impacted communities.

⁴⁹ The source data can be found in workpaper “210829-PAC-WP-PublicChargingStations 12.31.21.xlsx”.

⁵⁰ The source data can be found in workpaper “210829-PAC-WP-ProgramParticipationExpenditures 12.31.21 (C).xlsx”.

Table 2.14 – Number of Households and Businesses Who Participate in Energy / Efficiency Programs & Energy Efficiency Expenditures, 2020

Energy / Efficiency Program	HIC		All Customers	
	Count ^c	Expenditures ^d	Count ^c	Expenditures ^d
Low-income Weatherization	11	\$78,756	40	\$295,907
Home Energy Savings ^a	103	\$83,968	976	\$855,941
Wattsmart Business ^b	61	\$892,458	221	\$2,485,993
Small Business Lighting	22	\$105,182	43	\$228,158
“Very small”: <30,000 kWh annual usage	10	--	19	--
“Small”: 30,000+ kWh annual usage	12	--	24	--

^a Includes all installed measure categories except for energy kits and the lighting buy-down.

^b The Wattsmart Business program listed includes midstream lighting (Lighting Instant Incentive).

^c This number represents the count of unique participants at the site-level.

^d Energy efficiency expenditures include the sum of customer and partner incentives.

Table 2.15 – Number of Households and Businesses Who Participate in Demand Response, Load Management, and Behavioral Programs, 2020

Program	HIC		All Customers	
	Count	Expenditures	Count	Expenditures
Behavioral (Home Energy Reports) ^a	14,652	n/a	53,102	n/a
Demand Response / Load Management ^b	0	\$0	0	\$0

^a The Home Energy Reports program does not offer direct customer incentives.

^b Note that as of 2020, PacifiCorp was not offering Demand Response or Load Management programs within Washington.

In Table 2.16, the percent of eligible household’s represents the count of participating households divided by the count of households eligible for Low-Income Bill Assistance (LIBA) (i.e. those households who are at or below 200 percent of the federal poverty level or 80 percent of area median income), across all census tracts within PacifiCorp Washington service territory.⁵¹

Table 2.16 – Percentage of Households Who Participate in Low-Income Bill Assistance Programs, 2020

	HIC		All Customers	
	Count	Percent of Eligible	Count	Percent of Eligible
Total Active Participating Households	2,538	20.4%	5,954	20.2%

Table 2.17 shows the percent of customers within each vulnerable population who participated in an energy efficiency or bill assistance program in 2020, including Home Energy Savings, Low-Income Weatherization, Behavioral (Home Energy Reports), and LIBA.⁵² Impacts vary by program type. Home Energy Savings and Low-Income Weatherization participation results in

⁵¹ The source data can be found in workpaper “210829-PAC-WP-ProgramParticipationExpenditures 12.31.21 (C).xlsx”.

⁵² The source data can be found in workpaper “210829-PAC-WP-SurveyOutputs 12.31.21 (C).xlsx”.

upgraded systems that last for multiple years. These systems are not candidates for replacement again until the end of their life. Home Energy Reports and LIBA participation is ongoing and the same customer often participates each year.

Table 2.17 – Percentage of Vulnerable Populations Who Participated in Energy Efficiency Programs, 2020

Vulnerable Population		Percent of Customers in Each Vulnerable Population Who Participated in Energy / Efficiency Programs, 2020			
		Home Energy Savings	Low-Income Weatherization	Home Energy Reports	Low-Income Bill Assistance
1	Households with high school diploma or lower educational attainment	1.1%	0.2%	43.1%	9.8%
2	Older Adults (65+ yrs)	2.1%	0.1%	45.3%	2.0%
3	Young Children (5 yrs or under)	2.1%	0.0%	38.8%	5.4%
4	People who have a hearing impairment	2.3%	0.0%	40.4%	3.1%
5	People with a disability	1.7%	0.0%	41.7%	6.2%
6	People with medical equipment at home	2.7%	0.0%	44.8%	4.4%
7	Diverse supplier business owners	3.5%	0.0%	47.9%	1.2%
8	Energy burdened	2.3%	0.0%	38.2%	14.2%
9	Asset Limited, Income Constrained, Employed (ALICE)	0.7%	0.0%	41.3%	9.3%
10	Low-income migrants	0.0%	0.0%	42.4%	8.3%
11	Low income	1.0%	0.1%	40.9%	12.1%
12	Immigration status (outside of US citizen)	0.0%	0.0%	42.4%	3.6%
13	People who speak limited English	1.1%	0.0%	41.9%	11.0%
14	Renters	0.5%	0.0%	37.0%	9.2%
15	Multi-generational households	2.8%	0.0%	42.7%	2.0%
16	Multi-family households	1.7%	0.0%	40.8%	0.9%
17	People experiencing homelessness and/or without permanent housing	0.0%	0.0%	33.5%	10.0%
18	People living in rural areas	0.0%	0.0%	49.7%	5.4%
19	People living in different land statuses (such as land trust vs. fee patent that have different regulatory requirements)	No data	No data	No data	No data
20	Agricultural and/or farm workers	0.9%	0.0%	38.6%	10.3%
21	Gas-heated homes	1.0%	0.0%	44.9%	1.9%
22	Single parents	0.6%	0.0%	39.8%	10.6%

Sources: PacifiCorp 2021 Residential Customer Survey, PacifiCorp DSM Participation Tracking Data

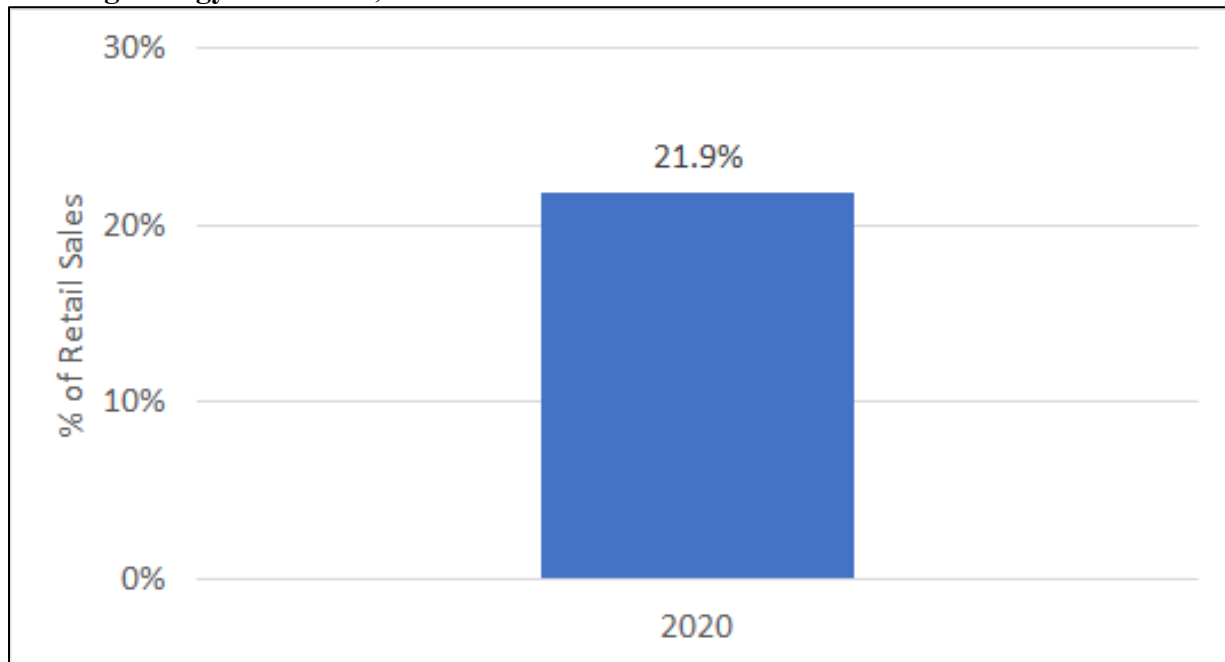
Efficiency of Housing Stock and Small Businesses, including Low-income Housing

Energy efficiency is an important non-emitting resource available to PacifiCorp, allowing customers to lower bills and gain non-energy benefits, such as a more comfortable home environment. In addition to increased participation rates, PacifiCorp will track expenditures on energy efficiency programs for qualified candidates in the programs listed in the “Participation in company energy and efficiency programs and billing assistance programs” CBI. See Table 2.14 and Table 2.15. above.

Renewable Energy Resources and Emissions

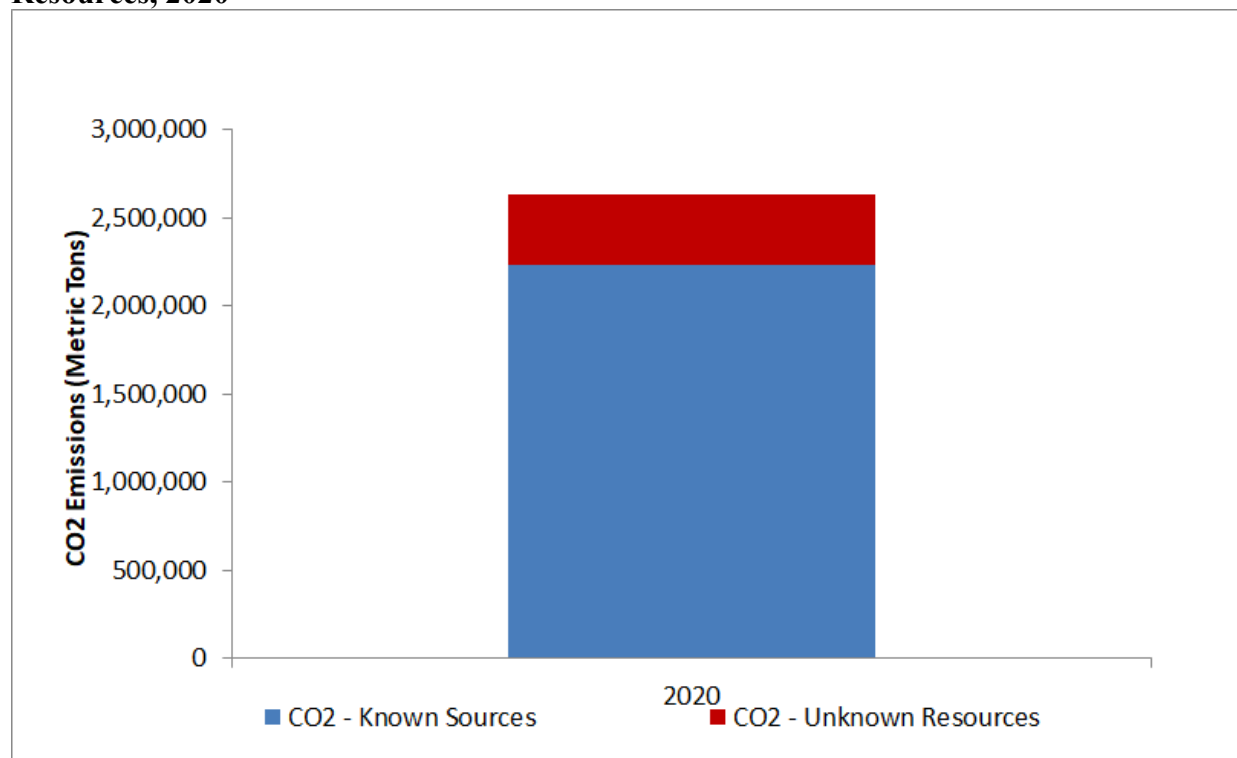
To achieve the renewable and non-emitting resource goals of CETA, PacifiCorp’s IRP adds approximately 3,294 MW of renewable and energy storage resources to the existing system over the next four years. These supply-side energy resources meet customer demand and offset fossil fuel resources that currently power Washington’s grid, leading to environmental benefits.

Figure 2.10 – Washington Percentage of Retail Sales served by Renewable and Non-emitting Energy Resources, 2020⁵³



⁵³ The source data can be found in workpaper “210829-PAC-WP-RenewableResources 12.31.21 (C).xlsx”.

Figure 2.11 – Washington Allocated Greenhouse Gas Emission from Washington Allocated Resources, 2020⁵⁴



Households Experiencing High Energy Burden

Energy burden is the average annual housing energy costs divided by the average annual household income.⁵⁵ Energy burdened households spend a disproportionate amount of their income on home energy costs. PacifiCorp will aim to mitigate and not disproportionately allocate costs to highly impacted communities and vulnerable populations.

PacifiCorp defines a customer as experiencing high energy burden when they spend 6 percent or more of their income on home energy costs. This threshold is based on the definition of “high” energy burden used by the American Council for an Energy-Efficient Economy (ACEEE)⁵⁶ and also matches the Washington Department of Commerce’s Utility Energy Program Assistance Survey Tool.⁵⁷ PacifiCorp used survey data, census data, and other data tools, such as the Department of Energy’s Low-Income Energy Affordability Data (LEAD) tool to estimate and cross-reference customers’ energy burden. In aggregating these results and aligning them with our service area, PacifiCorp excluded natural gas expenditures. Results for 2020 are shown in Table 2.18.⁵⁸

⁵⁴ The source data can be found in workpaper “210829-PAC-WP-Emissions 12.31.21 (C).xlsx”.

⁵⁵ Adapted from the LEAD Tool Methodology developed by the National Renewable Energy Lab.

⁵⁶ Drenhobl, Ariel, Ross, Lauren, and Ayala, Roxana. How High Are Household Energy Burdens?: An Assessment of National and Metropolitan Energy Burden across the United States. ACEEE: September 2020. Available online: <https://www.aceee.org/sites/default/files/pdfs/u2006.pdf>

⁵⁷ Washington Department of Commerce, Utility Energy Program Assistance Survey Tool. Available online: <https://www.commerce.wa.gov/growing-the-economy/energy/ceta-energy-assistance/>

⁵⁸ The source data can be found in workpaper “210829-PAC-WP-SurveyOutputs 12.31.21 (C).xlsx”.

Table 2.18 – Energy Burden for Washington Service Area, 2020

Population	Mean Energy Burden^a (%)	Number of Customers Experiencing High Energy Burden	Percent of Customers Experiencing High Energy Burden
Highly Impacted Communities	5.0%	6,671	22.0%
Low Income Bill Assistance ^b	5.7%	1,676	28.1%
Low-income Weatherization ^b	7.8%	20	51.2%
All Customers	3.7%	14,750	13.2%

^a Sources: PacifiCorp Residential Survey (2021) for self-reported 2020 household income; customer billing records from 2020.

^b Implementation agencies for LIWx and LIBA provided PacifiCorp with a sample of participants’ 2020 verified household income levels. PacifiCorp also used customer billing records from 2020.

In Table 2.19, the percent of customers within the vulnerable population experiencing high energy burden provided in the final column is expressed as the proportion of customers experiencing high energy burden within each respective vulnerable population.⁵⁹

⁵⁹ The source data can be found in workbook “210829-PAC-WP-SurveyOutputs 12.31.21 (C).xlsx”.

Table 2.19 – 2020 Energy Burden for Washington Service Area: Vulnerable Populations

Vulnerable Population		Mean Energy Burden (%) within the Vulnerable Population	Number of Customers within the Vulnerable Population Experiencing High Energy Burden	Percent of Customers within the Vulnerable Population Experiencing High Energy Burden
1	Households with high school diploma or lower educational attainment	6.3%	14,750	27.7%
2	Older Adults (65+ yrs)	3.4%	1,895	11.6%
3	Young Children (5 yrs or under)	5.2%	1,540	18.0%
4	People who have a hearing impairment	3.3%	2,040	12.2%
5	People with a disability	4.5%	2,939	19.1%
6	People with medical equipment at home	3.4%	2,513	14.3%
7	Diverse supplier business owners	2.3%	2	6.4%
8	Energy burdened	See table 2.18 above	See table 2.18 above	See table 2.18 above
9	Asset Limited, Income Constrained, Employed (ALICE)	7.1%	12,992	37.6%
10	Low-income migrants	4.0%	318	14.4%
11	Low income	7.3%	5,075	37.5%
12	Immigration status (outside of US citizen)	2.3%	983	5.2%
13	People who speak limited English	3.5%	5,131	14.0%
14	Renters	4.4%	7,420	18.4%
15	Multi-generational households	3.5%	521	16.6%
16	Multi-family households	4.4%	514	15.7%
17	People experiencing homelessness	3.1%	143	19.9%
18	People living in rural areas	5.3%	966	26.0%
19	People living in different land statuses (such as land trust vs. fee patent that have different regulatory requirements)	No data	No data	No data
20	Agricultural and/or farm workers	4.3%	2,391	14.1%
21	Gas-heated homes	1.9%	1,007	3.5%
22	Single parents	5.1%	2,188	24.5%

Source: PacifiCorp 2021 Residential Customer Survey

Indoor Air Quality

With input from the EAG, PacifiCorp identified wood heating, and its associated indoor air quality impacts, as a public health threat for vulnerable populations in the Washington service area. Table 2.20 illustrates that approximately 4.2 percent of households in PacifiCorp’s Washington service area use wood as a primary heating source and 20.3 percent use it as a

secondary source.⁶⁰ In highly impacted communities, primary and secondary wood use are lower, at 4.0 percent and 11.7 percent, respectively. PacifiCorp will track these values within the Washington service area over time.

Table 2.20 – Number of Households Using Wood as Primary or Secondary Heating Source

Population	Primary Heating System		Secondary Heating System	
	Count	Percent	Count	Percent
All Households	4,682	4.2%	22,691	20.3%
Households in HICs	1,221	4.0%	3,544	11.7%

Source: PacifiCorp 2021 Residential Survey

⁶⁰ The source data can be found in workpaper “210829-PAC-WP-SurveyOutputs 12.31.21 (C).xlsx”.

Table 2.21 – Number of Households Using Wood as Primary or Secondary Heating Source Among Customers within Vulnerable Populations⁶¹

Vulnerable Population		Primary Heating System		Secondary Heating System	
		Count	Percent	Count	Percent
1	Households with high school diploma or lower educational attainment	2,224	3.9%	6,118	10.7%
2	Older Adults (65+ yrs)	757	4.6%	3,622	22.1%
3	Young Children (5 yrs or under)	298	3.5%	1,725	20.2%
4	People who have a hearing impairment	828	5.0%	4,221	25.3%
5	People with a disability	794	5.2%	3,033	19.8%
6	People with medical equipment at home	386	3.7%	2,014	19.3%
7	Diverse supplier business owners	1	5.3%	8	30.9%
8	Energy burdened	2,010	7.4%	4,612	16.9%
9	Asset Limited, Income Constrained, Employed (ALICE)	2,109	6.1%	3,667	10.6%
10	Low-income migrants	39	1.7%	300	13.5%
11	Low income	623	4.6%	1,501	11.1%
12	Immigration status (outside of US citizen)	552	2.9%	4,466	23.6%
13	People who speak limited English	639	1.7%	4,719	12.8%
14	Renters	897	2.2%	2,202	5.5%
15	Multi-generational households	196	6.3%	617	19.7%
16	Multi-family households	216	6.6%	737	22.5%
17	People experiencing homelessness	0	0.0%	34	4.8%
18	People living in rural areas	299	8.1%	827	22.3%
19	People living in different land statuses (such as land trust vs. fee patent that have different regulatory requirements)	No data	No data	No data	No data
20	Agricultural and/or farm workers	1,041	6.2%	2,968	17.5%
21	Gas-heated homes	0	0.0%	5,874	20.6%
22	Single parents	241	2.7%	1,407	15.8%

Source: PacifiCorp 2021 Residential Survey

In addition to tracking wood heating sources, PacifiCorp will also track non-electric (including natural gas, propane, oil and solid fuels) to electric heating conversions in our Washington service area. At this time, customers with non-electric heating do not qualify for a heating system conversion under Schedule 114 and modifications to change the Schedule have been filed on December 21, 2021.

⁶¹ The source data can be found in workpaper “210829-PAC-WP-SurveyOutputs 12.31.21 (C).xlsx”.

Table 2.22 – Non-Electric to Electric Heating Conversion for Low-income Weatherization Program, 2020

	HIC		All Customers	
	Count	Percent	Count	Percent
Households Converted	0	0%	0	0%

Frequency and Duration of Energy Outages

The frequency and duration of energy outages can signify the resilience and quality of the electricity system. To measure this, PacifiCorp will use existing industry measurements:

- **System Average Interruption Duration Index (SAIDI):** The average outage duration for each customer served
- **System Average Interruption Frequency Index (SAIFI):** The average number of interruptions a customer may experience
- **Customer Average Interruption Duration Index (CAIDI):** The average outage duration any given customer would experience

By tracking these metrics for this CBI, PacifiCorp will monitor the frequency and duration of energy outages, including and excluding major events. Generally, total performance (including major events) can be an indicator of resilience, while data excluding major events is an indicator of reliability. These measures need to be assessed using a reasonable history, particularly for metrics including major events, since weather patterns that can result in substantial impacts to reliability happen randomly based on the particular weather experienced. Thus, an evaluation of several years is appropriate to discern some of the variations that occur with these patterns. PacifiCorp’s Washington service territory experiences weather cycles approximately every three years, and as a result a five-to-seven-year history is best-suited to judge performance.

As shown in Figure 2.12 through Figure 2.17 below, there is no persistent bias for HIC versus non-HIC reliability.⁶² The seven-year average SAIDI, SAIFI and CAIDI scores for HICs (shown with dotted red lines) are lower than non-HICs (shown with dotted blue lines) when excluding or including major events. On a yearly basis, deviations in scores are a function of the random nature of reliability and the period being considered. The 2020 reliability total performance for HICs were affected more so than non-HIC communities by two windstorms, which occurred in March and September. Further a transmission-level outage event impacted HICs more so than the broader service territory that same year. During the seven-year time period, however, the reliability scores of 85-86 minutes ranked PacifiCorp’s level of reliability delivered in the first quartile nationally.

⁶² The source data and figures can be found in workpaper “210829-PAC-WP-SAIDIScores 12.31.21 (C).xlsx”.

Figure 2.12 – SAIDI Scores Including Major Events for Washington Distribution Planning Areas

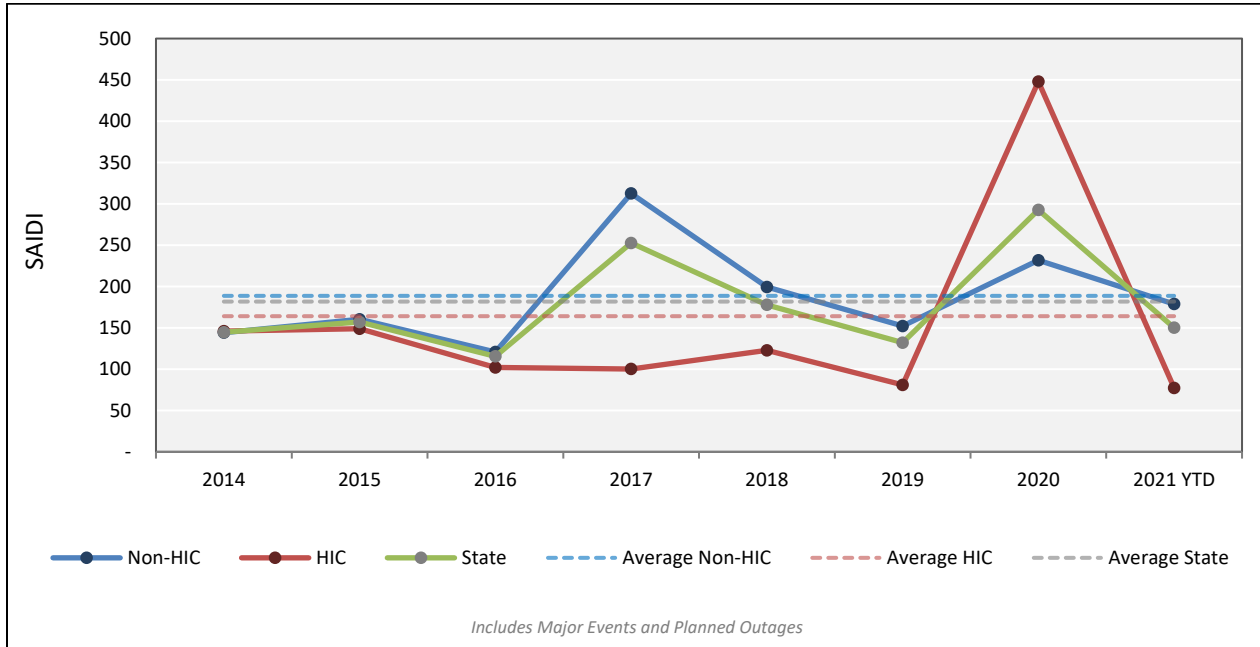


Figure 2.13 – SAIDI Scores Excluding Major Events for Washington Distribution Planning Areas

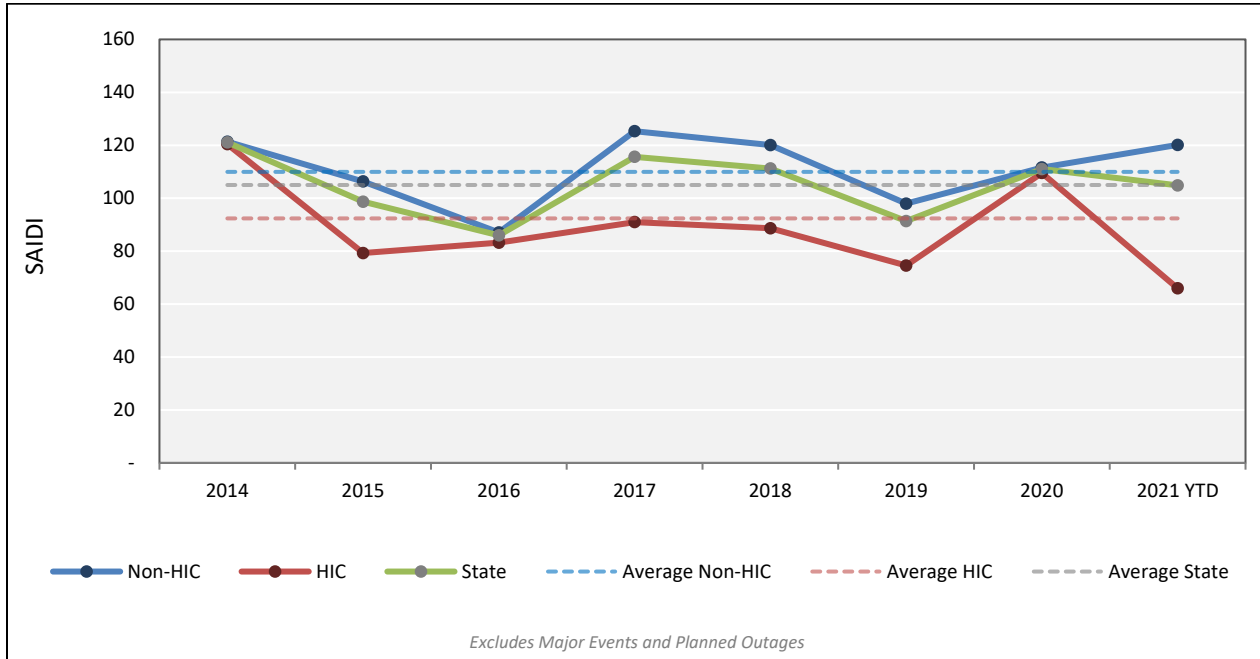


Figure 2.14 – SAIFI Scores Including Major Events for Washington Distribution Planning Areas

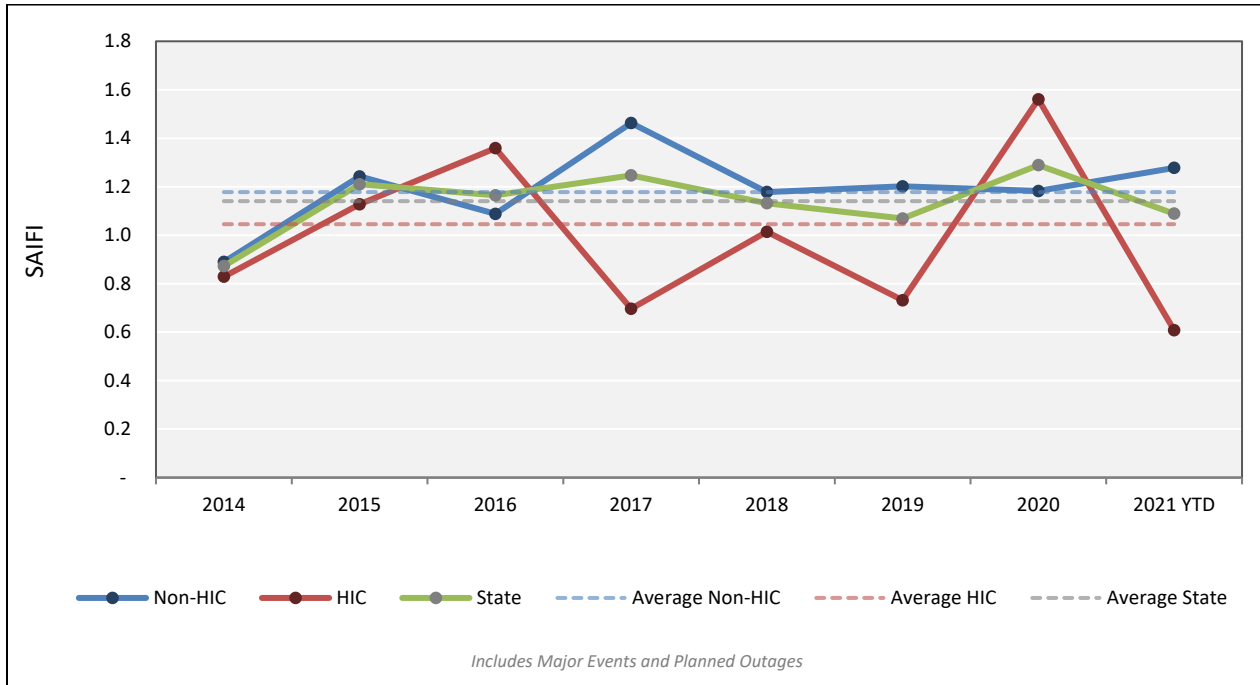


Figure 2.15 – SAIFI Scores Excluding Major Events for Washington Distribution Planning Areas

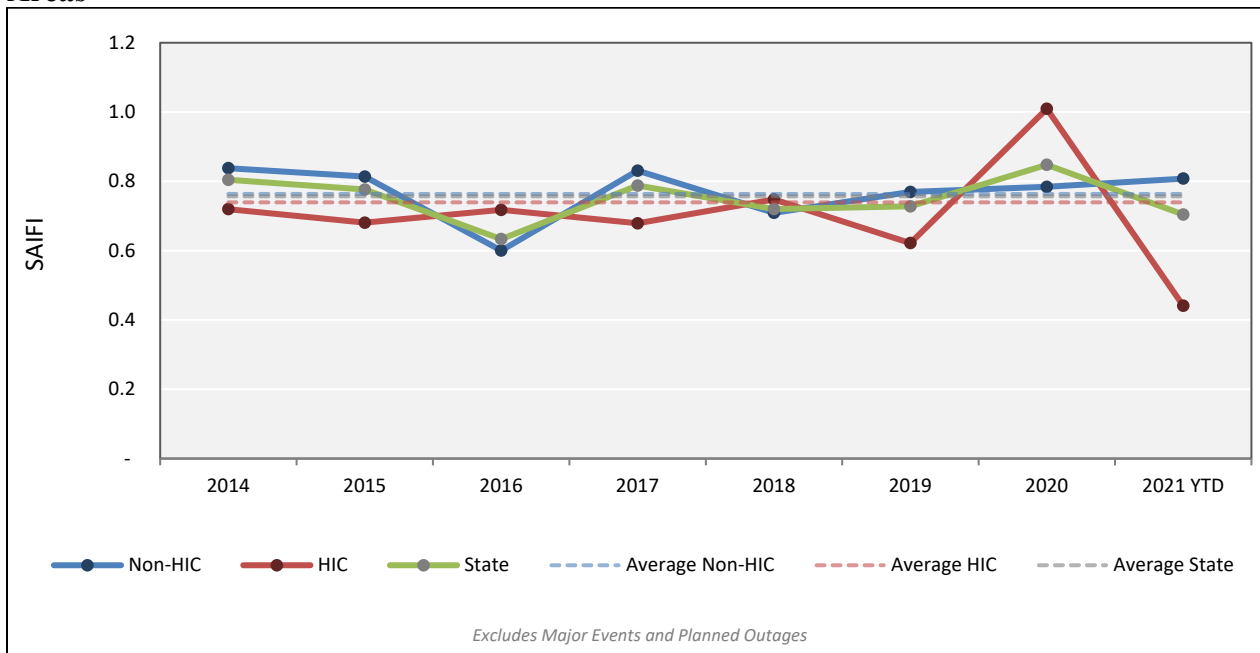


Figure 2.16 – CAIDI Scores Including Major Events for Washington Distribution Planning Areas

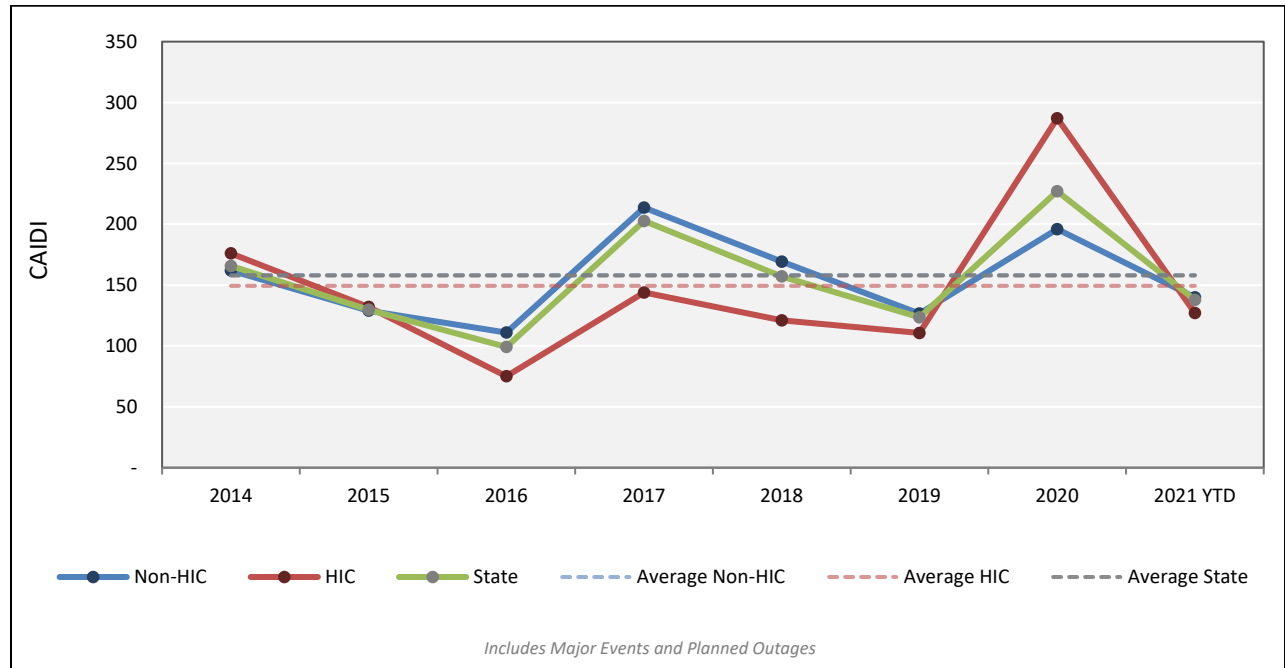
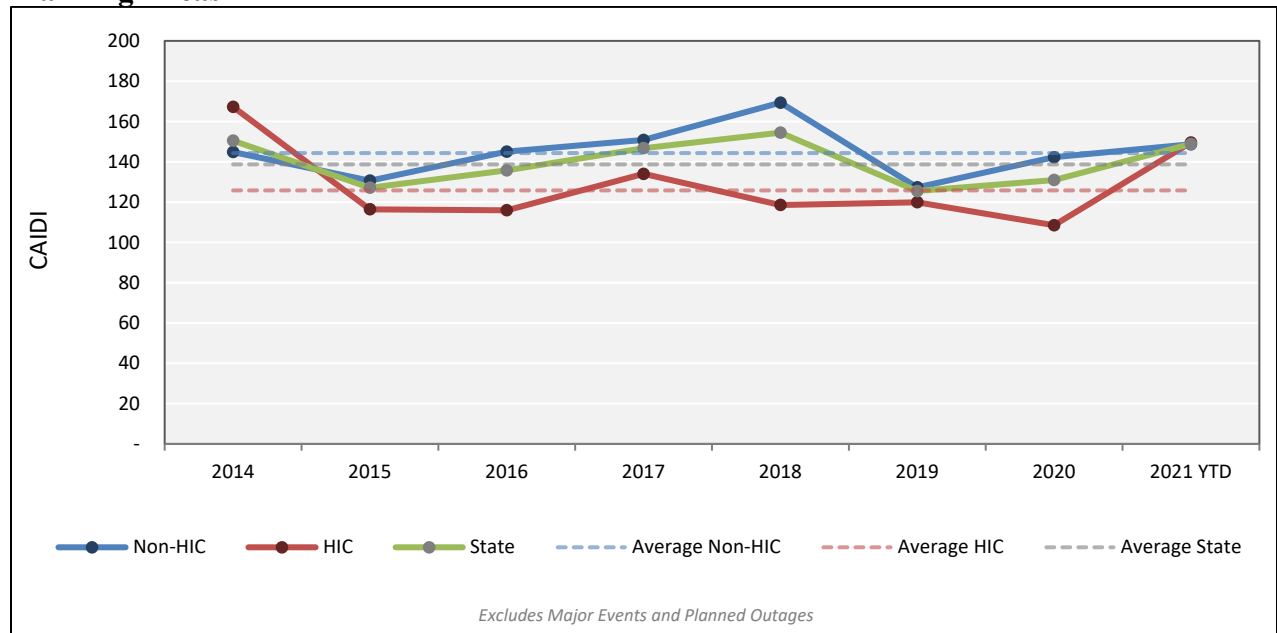


Figure 2.17 – CAIDI Scores Excluding Major Events for Washington Distribution Planning Areas



Residential Customer Disconnections

To understand the energy security of customers, especially within named communities, PacifiCorp will track the number of residential disconnections over time. A program could be established to decrease residential customer disconnections, especially to assist highly impacted

communities. Baseline disconnection data has been provided for 2019, which is attributable to PacifiCorp’s disconnection policy during 2020.⁶³

Table 2.23 – Washington Residential Customers Experiencing a Disconnection, 2019

	Highly Impacted Communities		All Customers	
	Count	Percent	Count	Percent
Number of Residential Disconnections	663	2.2%	1,375	1.2%

Relationship between Specific Actions, CBIs and Metrics

This section provides additional detail regarding the relationship between specific actions, CBIs and the metrics the company will track to measure progress for the CEIP.

PacifiCorp understands CBIs to be the outcomes resulting from actions taken by the company to address customer challenges. As a result of the actions put forth in the CEIP, it is expected that improvements in the CBI metrics will be evident over time. In this inaugural CEIP, PacifiCorp is assembling its baseline of data that will continue to be refined, measured, and tracked over time. PacifiCorp will analyze this track record of data to determine future targets for improvement.

Per WAC 480-100-640, each utility must explain the association of each action with at least one CBI. PacifiCorp offers a detailed review of that relationship in Chapter 3 and in Appendix C. In summary, there are 42 individual actions across four action categories with a total of 65 CBI “tags” or “associations.” On average, each CBI has seven CBI-action tags, meaning that there are on average seven actions designed to “move the needle” for every CBI.

As mentioned above, if a utility is required to offer a program or take an action by a different law, then that program or action is not identified in the CEIP as a utility action even if it is consistent with CETA. This is the case for actions associated with CBIs eight and nine; the actions support CETA objectives but are not included in the CEIP as a “utility action” because they are required by a different law.

⁶³ The source data can be found in workpaper “210829-PAC-WP-Disconnects 12.31.21 (C).xlsx”.

Table **2.24** shows the count of action tags for each CBI across the four action types and overall.

Table 2.24 – CBI-to-Action Mapping

CBIs		Supply-Side Action Tags	Energy Efficiency Action Tags	Demand Response Action Tags	Community Outreach Action Tags	Total Action Tags
1	Culturally and linguistically responsive outreach and program communication	0	0	0	4	4
2	Community-focused efforts and investments	0	11	0	1	12
3	Participation in company energy and efficiency programs and billing assistance programs	0	11	5	0	16
4	Efficiency of housing stock and small businesses, including low-income housing	0	3	0	0	3
5	Renewable energy resources and emissions	21	0	0	0	21
6	Households experiencing high energy burden	0	8	0	0	8
7	Indoor air quality	0	1	0	0	1
8	Frequency and duration of energy outages	0	0	0	0	0
9	Residential customer disconnections	0	0	0	0	0

Table 2.25 shows the CBI-action mapping in a different summary view, aggregated by each of the four action types. The count of total CBI tags represents how many times the CBIs were associated with actions within the action type. The 11 actions within the Energy Efficiency action type had the most CBI tags, at 34.

Table 2.25 – CBI Impacts by Action Type

Action Type	Total Actions	Total CBI Tags
Supply-Side Resources	21	21
Energy Efficiency	11	34
Demand Response	5	5
Community Outreach	5	5
Total	42	65

CHAPTER 3 – SPECIFIC ACTIONS

Chapter Summary

Specific Actions describes the steps that PacifiCorp will take to achieve the interim and specific targets described in Chapter 1 in a cost-effective way that supports reliability, safety, and equitable outcomes for Washington customers.

For the purposes of the CEIP, PacifiCorp has categorized specific actions into four categories:

- Supply-Side Resources
- Energy Efficiency
- Demand Response
- Community Outreach and Engagement

The supply-side resource actions describe the new generation that PacifiCorp will procure and come from the results of the most recent IRP. A 2020 solicitation for resources was recently finalized and consists of 20 different renewable energy projects. A new 2022 solicitation for resources is set to open during the implementation of this CEIP and will consist of approximately 1,345 MW of new generation and 600 MW of co-located energy storage.

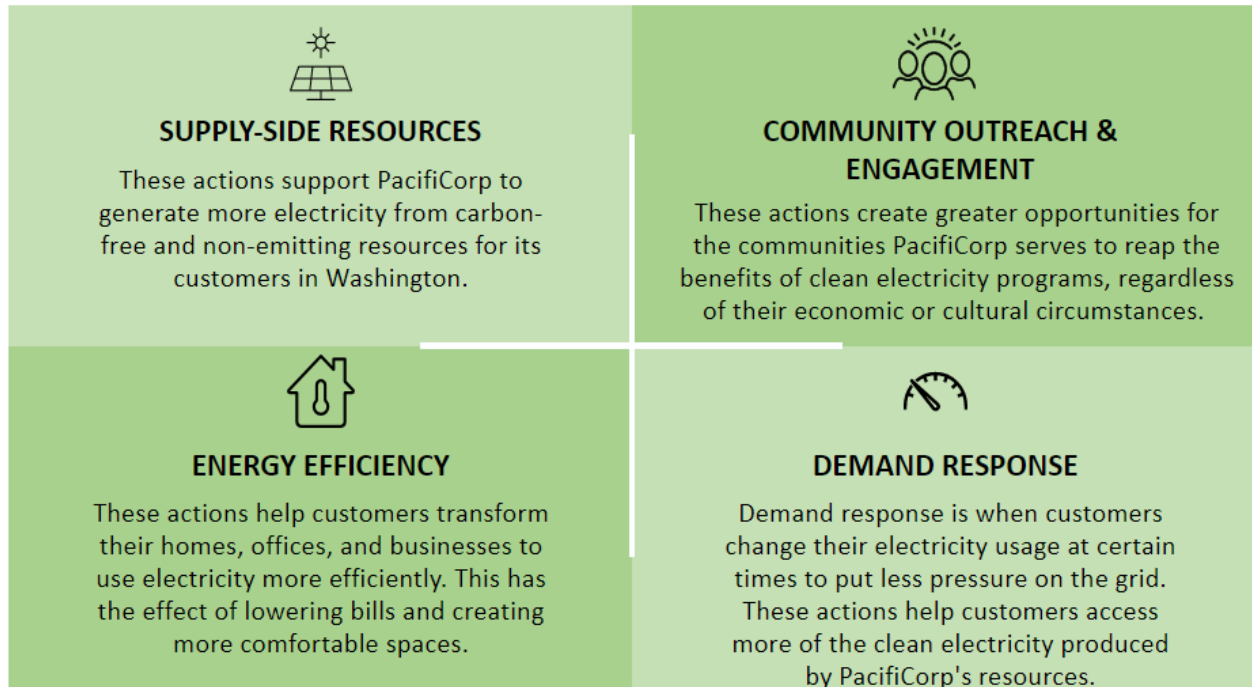
PacifiCorp’s existing energy efficiency programs will be maintained or expanded, including weatherization for low-income customers, and home and business programs designed to incentivize lower energy use by replacing energy consuming equipment with more efficient equipment including appliances, heating and cooling equipment and lighting. Through these programs, PacifiCorp anticipates not needing to generate 217,408 MWh of electricity due to energy efficiency savings during the four-year CEIP timeframe.

Demand response describes programs and actions that incentivize customers to provide grid services and/or reduce electric consumption at times when it is expensive for the utility to supply electricity. Currently, PacifiCorp does not have any demand response programs in Washington, but PacifiCorp intends to launch efforts to achieve around 37.4 MW of savings through a combination of commercial, industrial, residential, time-of-use rate pilots, and storage programs over the period of this CEIP.

To ensure that these actions provide benefits to all customers equitably, PacifiCorp is exploring ways to meaningfully engage with customers in their communities. PacifiCorp plans to develop educational materials, expand outreach programs, and establish an electric vehicle grant program, all of which will be designed to support communities equitably.

Overview of Specific Actions

The company is proposing actions that fall into four categories: supply-side resources, energy efficiency, demand response and community outreach and engagement.



All actions adhere to CEIP standards⁶⁴ to:

- (a) Pursue all cost-effective, reliable, and feasible conservation and efficiency resources, and demand response;
- (b) Maintain and protect the safety, reliable operation, and balancing of the electric system; and
- (c) Ensure that all customers are benefiting from the transition to clean energy through:
 - (i) The equitable distribution of energy and nonenergy benefits and reduction of burdens to vulnerable populations and highly impacted communities;
 - (ii) Long-term and short-term public health and environmental benefits and reduction of costs and risks; and
 - (iii) Energy security and resiliency.

Specific actions through the end of 2025 were determined by the 2021 IRP consistent with the interim clean energy targets and comprise the renewable energy specific targets. As a multistate utility serving six states, PacifiCorp engages in a biannual public participation process to develop an IRP and identify the optimal least-cost, least-risk portfolio of resources to serve its customers.

The 2020AS RFP and 2021 demand response RFP identified specific resources for procurement (“final shortlist”) that were confirmed in the 2021 IRP process as specific actions to pursue through the end of 2024. The 2021 IRP also identified additional potential to acquire additional proxy resources as specific actions through the end of 2026, and those resources able to come

⁶⁴ WAC 480-100-610 (2) and WAC 480-100-610 (3)

online prior to the end of 2025 are identified as specific actions. Inasmuch as the IRP preferred portfolio resources are comprised of well-researched and vetted assumptions (“proxy” resources), any resources identified in an RFP must be confirmed via a competitive market solicitation process. For that reason, consistent with WAC 480-107, a 2022 all source request for proposal (2022AS RFP) and concurrent targeted demand side RFP are planned as specific actions to solicit and evaluate specific energy supply resources through the end of 2026.

Washington customers account for approximately eight percent of PacifiCorp’s load. Each of the resources selected for the final shortlist in the 2020AS RFP and each of the resources to be selected in subsequent RFPs will be allocated according to MSP. All resources designated to be allocated to, and therefore, serve Washington customers will be evaluated against the community benefit indicators (CBIs) proposed in this CEIP as relevant.

The 2020AS RFP and 2021 IRP proxy resources included in the specific actions are renewable resources and therefore contribute to PacifiCorp’s interim and target goals and meet PacifiCorp’s CBIs related to Environmental Benefit.⁶⁵ Ongoing and future contract negotiations comply with Washington Electric Utilities – Procurement of Resources rules,⁶⁶ which require the firm awarded the contract to track and report to the utility its use of diverse businesses including, but not limited to, women, minority, disabled, and veteran-owned businesses and their subsequent eligibility for tax credits associated with certain supplier diversity.⁶⁷ PacifiCorp has provided a summary below for how nonenergy benefits are considered with respect to the supply side action items, including adding a requirement to the power purchase agreements to track and report on diversity spending and points allocated in the non-price scoring matrix for proving the equity questionnaire and benefiting highly impacted communities and vulnerable populations. The 2022AS RFP described below will be used to select specific resources in lieu of the generic proxy resources. Consistent with WAC 480-107-025 (2), the RFP will request information related to community benefit indicators approved as part of this CEIP.⁶⁸

The 2021 demand response resources included as a specific action will be procured using third party vendors that submitted competitive bids in the 2021 demand response RFP. Further description of the 2021 demand response RFP is provided below.

All future supply-side and demand-side solicitations, such as the 2022AS RFP will include informational requirements related to equity and the environment with which to evaluate and track nonenergy benefits.

⁶⁵ “Amount of renewables / non-emitting resources serving Washington” and “Washington allocated greenhouse gas emission from Washington allocated resources”

⁶⁶ WAC 480-107-075.

⁶⁷ RCW 82.08.962 and 82.12.962.

⁶⁸ (2) The RFP must request information identifying energy and nonenergy benefits or burdens to highly impacted communities and vulnerable populations, short-term and long-term public health impacts, environmental impacts, resiliency and energy security impacts, or other information that may be relevant to identifying the costs and benefits of each bid, such as a bidder's past performance utilizing diverse businesses and a bidder's intent to comply with the labor standards in RCW 82.08.962 and 82.12.962. After the commission has approved the utility's first clean energy implementation plan (CEIP), requested information must contain, at a minimum, information related to indicators approved in the utility's most recent CEIP, including customer benefit indicators, as well as descriptions of all indicators.

Supply-side Resource Actions

Table 3.1, Table 3.2, and Table 3.3 comprise a matrix of proposed specific actions, listing the specific actions for renewable energy resulting from qualifying facilities (QFs), the 2020AS RFP and 2021 IRP proxy resources to be confirmed by the 2022AS RFP. In addition to the resources procured as a result of IRPs and subsequent RFPs, PacifiCorp is procuring additional resources via request from qualifying facilities (QFs) under the Public Utilities Policies Act of 1978 (PURPA).⁶⁹

Table 3.1 – QF Specific Action Resources

Project Name	Owner	Type	Location	Resource Size (MW) ¹	Battery Size (MW)	Expected Online
Sunnyside Solar	One Energy	Solar	Yakima, WA	4.99	n/a	2023

¹ QF's originating in Washington are assumed 100% allocated to Washington customers

Table 3.2 – 2020AS RFP Specific Action Resources

Project Name	Bidder/Owner	Type	Location	Resource Size (MW) ¹	Battery Size (MW)	Expected Online
Anticline	NextEra	Wind	Wyoming East	12	n/a	2024
Cedar Springs IV	NextEra	Wind	Wyoming East	41	n/a	2024
Rock Creek I*	Invenergy	Wind	Wyoming East	22	n/a	2024
Rock Creek II*	Invenergy	Wind	Wyoming East	46	n/a	2024
Boswell Springs	Innergex	Wind	Wyoming East	37	n/a	2024
Two Rivers	Blue Earth & Clearway	Wind	Wyoming East	32	n/a	2024
Cedar Creek	rPlus Energies	Wind	Goshen ID	12	n/a	2023
Fremont	Longroad Energy	Solar with Battery	Utah South	15	7	2023
Rush Lake	Longroad Energy	Solar with Battery	Utah South	15	7	2023
Parowan	First Solar	Solar with Battery	Utah South	7	7	2024
Rocket Solar II	DESRI	Solar with Battery	Utah North	7	2	2023
Hornshadow I & II	enyo energy	Solar with Battery	Utah South	45	11	2023
Green River I & II	rPlus Energies	Solar with Battery	Utah South	60	23	2024
Hamaker	ecoplexus	Solar with Battery	Southern OR	7	2	2023
Hayden 2	ecoplexus	Solar with Battery	Southern OR	24	6	2023
Dominguez I	Able Grid	Battery Storage	Utah North	n/a	30	2024
Glen Canyon	sPower	Solar Photo-voltaic	Utah South	14	n/a	2023

¹ Resource size assumed allocated to Washington customers

⁶⁹ WAC 480-106

Table 3.3 – 2022AS RFP Specific Action Resources

Project Name	Bidder/Owner	Type	Location	Resource Size (MW) ¹	Battery Size (MW)	Expected Online
Portland/N. Coast	Proxy	Wind	NW Oregon	13	n/a	2025
Willamette	Proxy	Wind	NW Oregon	61	n/a	2025
Borah Hemingway	Proxy	Solar with Battery	Idaho	59	600	2025

¹ Resource size assumed allocated to Washington customers

PacifiCorp pursues resource procurement under circumstances where additional resources are warranted by expected system benefits and to meet customer need. Following the identification of resource need during an IRP, PacifiCorp engages in a Request for Proposal (RFP) process⁷⁰ to identify resources to fulfill the identified need. The outcomes of the 2019 IRP and 2021 IRP are examples of this cycle of identification and targeted procurement in that both of these most recent IRPs have prompted the need for and RFP to fulfill on the preferred portfolio of optimal resources. Both are highly relevant to meeting CETA targets as the renewable resources identified (or soon to be identified, in the case of the 2022AS RFP) contribute to meeting interim targets.

In addition to the resources procured via the IRP-RFP cycle, PacifiCorp contracts with eligible QF resources under the Pacific Power tariff WN U-76.⁷¹ At the time of this filing, one resource, Sunnyside Solar in Yakima, WA, has been contracted for and constitutes an additional supply-side action item to add new renewable energy to PacifiCorp’s Washington territory, as reported in Table 3.1, above.

Resource Adequacy in Supply-side Resource Selection

The resources indicated in Table 3.1 and Table 3.2 were analyzed in the 2021 IRP to meet all system requirements as part of PLEXOS core functionality.⁷² In the 2021 IRP, which confirmed the selection of 2020AS RFP resources, PacifiCorp established a 13 percent hourly capacity reserve margin requirement for each topology location containing load in the LT model. The 13 percent capacity reserve margin (CRM) includes operating reserve requirements for contingency reserves, which are calculated as 3 percent of load plus 3 percent of generation. The CRM applies in all periods and must be met by available resources within that area or imports from adjacent areas with excess resources available, subject to transmission constraints. This treatment is an improvement on a traditional planning reserve margin which accounts only for peak load capacity met by an estimated firm capacity contribution. Additionally, the 2021 IRP directly modeled operating reserve requirements such that resources selected to meet CRM requirements

⁷⁰ WAC 480-107-009(2)

⁷¹ https://www.pacificpower.net/content/dam/pcorp/documents/en/pacificpower/rates-regulation/washington/rates/QF_Avoided_Cost_Purchases_and_Procedures_for_Qualifying_Facilities.pdf

⁷² Additional discussion of reliability as modeled in PLEXOS can be found in Chapter 1. For additional detail regarding resource selection methodology and reliability requirements, please refer to the 2021 IRP, Chapter 8 – Modeling and Evaluation Approach, pages 220-223. Please also see the 2021 IRP, Chapter 5 - Reliability and Resiliency, for a discussion of regional challenges and the WECC Western Assessment of Resource Adequacy Report.

will also meet the specific operating contingency spin and non-spin reserve requirements⁷³. Taken together, these reliability requirements guide Plexos modeling to meet load with sufficient resources in all periods, recognizing uncertainties for load fluctuation and extreme weather conditions, fluctuation of variable generation resources, the possibility for unplanned resource outages, and reliability requirements to carry sufficient contingency and regulating reserves.

Supply-side Action Items - QFs: Equity and Customer Impacts

PacifiCorp will receive all the renewable energy credits for the contracted resources after the deficiency period, which begins January 1, 2028. While such resources will contribute to PacifiCorp’s renewable energy and greenhouse gas emissions goals, PacifiCorp will have no information related to or insight into nonenergy benefits.

Supply-side Action Items – 2020AS RFP Resources: Equity and Customer Impacts

The 2020AS RFP supply-side actions were determined before CETA rules were finalized or CBIs determined, and therefore, while they contribute to PacifiCorp’s renewable energy and greenhouse gas reduction goals, the company does not have any information related to the nonenergy indicators associated with the 2020AS RFP resources, nor are the nonenergy CBIs applicable to the resources sited outside of Washington state. The company is endeavoring to add a diversity contractor reporting requirement to all 2020AS RFP contracts, subject to ongoing negotiations, consistent with subsequently passed procurement of energy rules;⁷⁴ however, because of the timing of the 2020AS RFP issuance prior to the development of CETA rules and CBIs, and also because of the location of the supply-side action items outside of Washington state, the 2020AS RFP shortlist bidders are not obligated to meet any diversity targets or thresholds.

The 2020AS RFP resources shown in Table 3.2 are the culmination of system needs identified in the 2019 IRP, filed October 18, 2019. CETA became law in May 2019 and rulemaking did not complete until December 2020 after the 2020AS RFP had been issued, bids received and initial shortlist had been determined. CBI data and tracking were not available at the time of 2020AS RFP issuance, nor were they available when the final shortlist recommendation was complete and filed in June 2021. The resources selected by the 2020AS RFP, all of which are renewable, contribute significantly to the company’s ability to meet interim targets and are the subject of ongoing specific actions toward this purpose. However, 2020AS RFP resources are not considered for the purposes of incremental cost calculation as they were not driven by CETA legislation.

Supply-side Action Items – 2022AS RFP Action Items: Equity and Customer Impacts

Proposed supply-side action items resulting from the 2022AS RFP will consider equity and CBIs in the following ways:

1. Proxy resources selected in the 2019 IRP were renewable resources. While the 2022AS RFP is an “all resource” solicitation, it is anticipated that the least-cost, least risk supply-side resources will be renewable resources which can reach commercial operations by the

⁷³ Only up capacity available within ten minutes can be counted as contingency reserve.

In accordance with Requirement 2 of BAL-002-WECC-2a, at least half of a BAA’s requirement must be met with “spinning” resources that are online and immediately responsive to system frequency deviations, while the remainder can come from “non-spinning” resources that do not respond immediately, though they must still be fully deployed in ten minutes. More information is available online at: <https://www.wecc.org/Reliability/BAL-002-WECC-2a%20-%20Effective%201-24-2017.pdf>

⁷⁴ WAC 480-107-075(2)

end of the 2025 and therefore will contribute to PacifiCorp’s renewable energy and greenhouse gas emission goals.

2. All resources responding to the 2022AS RFP will be required to provide contractor diversity reporting consistent with Washington’s purchases of resources rules⁷⁵ and the pro forma contracts included in the solicitation.
3. Bidders will be allowed to provide one free bid alternative for a different diversity strategy. In other words, bidders may provide pricing with and without - or with differing levels of - supplier, contractor and/or labor diversity without having to pay an additional bid fee. PacifiCorp anticipates that bidders with Washington-sited resources may provide an initial bid, or free bid alternative, leveraging the tax credits available under RCW 82.08.962 and 82.12.962.
4. The 2022AS RFP will include an Equity Questionnaire, which will request certain information of bidders related to the proximity of proposed resources to local communities, the population characteristics of those communities, job creation, local impacts, and the expected environmental impacts associated with the proposed resources.
5. Washington-located resources are requested to grade themselves based on the CBIs proposed in this CEIP.
6. Washington-located resources are requested to provide the location ranking score for each of the criteria in Washington State Department of Health's Environmental Public Health Data website and Environmental Health Disparities V 1.1 tool (<https://fortress.wa.gov/doh/wtn/WTNIBL/>)
7. In the non-price scoring process, bidders with Washington-sited resources will receive points for the following items:
 - a. Completion of the Equity Questionnaire (Bid Submittal Completeness).
 - b. Agreement with the RFP pro forma contract term to track and report contractor diversity tracking and reporting. (Contracting Progress and Viability)
 - c. Proposal meets PacifiCorp's supplier diversity goals:
<https://www.pacificorp.com/suppliers/supplier-diversity.html> (Project Readiness and Deliverability)
 - d. Proposed resource is located in a highly impacted community or in proximity to a vulnerable population according to Washington State Department of Health's Environmental Public Health Data website and Environmental Health Disparities V 1.1 tool (<https://fortress.wa.gov/doh/wtn/WTNIBL/>) (Project Readiness and Deliverability)

2020AS RFP - Process for Selecting Supply-side Resource Action Items

PacifiCorp's 2020AS RFP was filed for approval with the Utah PSC and the Oregon PUC in April 2020. In July 2020, the Utah PSC and the Oregon PUC approved the 2020AS RFP, and PacifiCorp issued the 2020AS RFP to market. The 2020AS RFP sought bids for resources capable of coming online by the end of 2024 up to the level of resources identified in PacifiCorp's 2019 IRP. Bids were submitted in August 2020. An initial shortlist was identified in October 2020.

Upon selection to the initial shortlist, the resources entered into a six-month FERC-jurisdictional interconnection cluster study process during which resources were studied by PacifiCorp Transmission according to its Open Access Transmission Tariff to determine the cost and timing of interconnection to PacifiCorp’s transmission system. Those initial shortlist resources able to demonstrate interconnection prior to December 31, 2024 were asked to update their bid offerings

⁷⁵ WAC 480-107-075(2)

with the interconnection cost. The bids were evaluated with oversight by independent evaluators from Oregon and Utah, and a final selection of resources was determined using the same portfolio optimization models, scenarios and sensitivities as the IRP process.

The final shortlist of winning bids was identified by June 2021 and is comprised of 1,792 MW of wind generation, 95 MW of solar generation, 1,211 MW of solar generation collocated storage and 200 MW of stand-alone battery storage; 590 MW of wind generation is being contracted as a build and transfer to PacifiCorp with the balance of the generation contracted through long-term power purchase agreements.

PacifiCorp is currently negotiating final terms for the build transfer agreements and the power purchase agreements with each of the final shortlisted participants with a goal of finalizing agreements in Q1 2022. The final shortlist was acknowledged in October 2021 by the Public Utility Commission of Oregon. All other necessary final state regulatory approvals and proceedings are expected to be complete by Q2 2022.

2022AS RFP - Process for Selecting Supply-side Resource Action Items

On September 1, 2021, in docket UE-200420, PacifiCorp filed its 2021 Integrated Resource Plan (IRP). According to Washington’s Electric Companies – Purchases of Resources rules, “a utility must issue an all-source RFP if the IRP demonstrates that the utility has a resource need within four years.⁷⁶” PacifiCorp determined that a 2022AS RFP is required to pursue resource need identified in its 2021 IRP Action Plan; specifically, the 2021 IRP preferred portfolio includes the following incremental resources:

- 1,345 MW of new proxy supply-side generation resources and 600 MW of collocated energy storage resources with commercial operation date by December 31, 2026; and
- 274 MW of new proxy demand-side resources.

For the 2022AS RFP, PacifiCorp will consider proposals that can meet part of the resource need identified above and also bids from long lead resources requiring longer lead time to develop and construct that places the project completion beyond the required 2022AS RFP commercial operation date of December 31, 2026. PacifiCorp will consider proposals offering the following transaction structures: benchmark transaction whereby the utility proposes the project; build-transfer transaction; power purchase agreement transaction; tolling agreement transaction; and professional services contracts for demand-side bids.

Washington’s Purchases of Resources rules⁷⁷ require that “[a] utility must engage the services of an independent evaluator (“IE”) to assess and report on the [RFP] solicitation process if:

- a) The utility or its subsidiary or affiliate participates in the utility's RFP bidding process;
- b) The utility intends to retain the option to procure resources that will result in the utility owning or having a purchase option in the resource over its expected useful life; or
- c) The utility is considering repowering its existing resources to meet its resource need.”

Because PacifiCorp anticipates it will participate in the 2022AS RFP bidding process by considering build-transfer and benchmark transactions, PacifiCorp is required to engage an IE to provide oversight, assess and report on the solicitation process.

⁷⁶ WAC 480-107-009(2)

⁷⁷ WAC 480-107-023(1)

After consulting with Commission Staff and PacifiCorp’s Washington stakeholders, PacifiCorp issued a solicitation for a Washington IE. A timeline of actions related to the IE solicitation to support the 2022AS RFP are outlined below:

- On September 2, 2021, PacifiCorp consulted with Staff about the company’s plans to issue a solicitation for an IE.
- On September 2, 2021, PacifiCorp published on its public website⁷⁸ information explaining its independent evaluator selection process including the expected RFP timeframe, and the means by which interested parties could participate in the IE and RFP approval processes.
- On September 2, 2021, PacifiCorp sent an email notification to the interested parties on its Washington IRP list and CEIP service lists to notify them of the IE solicitation, the creation of the website where updates would be posted, and an email address where interested parties could provide comments regarding the IE solicitation process, submit questions, and inquire about participating in the IE RFP.
- PacifiCorp presented information about the IE solicitation and the website on three separate occasions in September 2021; first during a September 8, 2021 CEIP public participation meeting, second on September 14, 2021 at a CEIP technical conference, and finally on September 15, 2021, at the fifth EAG meeting.
- PacifiCorp issued the Washington IE RFP on September 10, 2021 when it directly emailed and solicited bids from 34 potential IE bidders.
- PacifiCorp received three IE bids prior to the IE RFP bid deadline on September 24, 2021. All three bids met the minimum qualifications.
- On October 7, 2021, PacifiCorp filed a petition with the Commission requesting approval of the recommended IE and on November 12, 2021, WUTC approved Bates White, LLC as the Washington IE to oversee PacifiCorp’s 2022AS RFP.
- PacifiCorp has posted information about the 2022AS RFP on its website⁷⁹ and continues to highlight the 2022AS RFP at public meetings including PacifiCorp’s October 6, 2021 and November 10, 2021 CETA public participation meetings, the October 19, 2021 and November 10, 2021 second and third CEIP technical conferences and the October 20, 2021 and November 17, 2021 sixth and seventh EAG meetings.

With the Washington IE engaged, PacifiCorp anticipates filing of a final draft 2022AS RFP by December 30, 2021, for approval by the Commission.

⁷⁸ <https://www.pacificorp.com/suppliers/rfps/wa-ie-rfp.html>

⁷⁹ <https://www.pacificorp.com/suppliers/rfps/2022-all-source-rfp.html>

Table 3.4 presents the current proposed 2022AS RFP is as follows:

Table 3.4 – 2022AS RFP Milestones

Milestone	Date
Washington IE RFP issued	09/10/2021
Washington IE bids due	09/24/2021
Commission open meeting and IE approval	11/12/2021
PacifiCorp files 2022AS RFP with Commission	12/30/2021
WA interested persons – deadline to file comments on 2022AS RFP	02/14/2022
Commission open meeting – seek approval of 2022AS RFP	03/17/2022
2022AS RFP issued to market	Early April 2022
Notice of intent to bid due	June 2022
Demand-side RFP Issued to Market	Q3 2022
2022AS RFP bids due	December 2022 & January 2023
Final Shortlist Recommendation	Q2 2023

Overview of the 2022AS RFP Evaluation Process

PacifiCorp’s all source RFP bid evaluation and selection process is designed to identify the combination and amount of new resources that will maximize customer benefits through the selection of bids that will satisfy projected capacity and energy needs while maintaining reliability. The same method is used to evaluate benchmark resources and market bids. The models that PacifiCorp will use to evaluate and select the best combination and amount of bids in the RFP are similar to the models that were used to evaluate proxy resources in PacifiCorp’s 2021 IRP. PacifiCorp uses the same portfolio optimization modeling software that was used in the IRP to serve as decision support tools that can guide prudent resource acquisition paths to maintain system reliability at a reasonable cost.

At a high level, the 2022AS RFP evaluation process involves four evaluation criteria:

1. Minimum criteria and bid eligibility
2. Non-price scores
3. Portfolio optimization (IRP) model to determine price scores and identify a preferred portfolio and recommend a final shortlist of bids to serve PacifiCorp’s six-state system
4. State specific resource consideration and selection. Specifically, CBI evaluation of resources allocated to Washington

Conformance to Minimum Requirements

Benchmark and market bids will initially be screened after receipt against minimum requirements to determine RFP conformance and eligibility. After IE review and consultation, non-conforming bids will be notified to correct their bid within two (2) business days or be removed from the RFP. Consistent with Oregon regulations, OAR 860-089-0400 (2), non-price score criteria that seek to identify minimum thresholds for a successful bid have been converted into minimum bidder requirements.

As a minimum requirement, all resources are required to complete the equity questionnaire included with the RFP. When considering resources located in Washington, PacifiCorp has a preference for projects that provide environmental and economic benefits to highly impacted communities and vulnerable populations. When considering resources to be allocated to

Washington customers, equity questionnaire responses will be used in Phase IV of the evaluation process to measure Washington community benefit indicators as part of CETA, to the extent relevant.

Non-Price Scoring

After PacifiCorp has screened for eligibility, conforming bids will be evaluated and given non-price scores. PacifiCorp's non-price scoring model evaluates whether bids are thorough and comprehensive, whether the proposed resource is viable, and whether the bidder is likely to achieve commercial operation by the required deadline. The non-price rubric is designed to be objective, intuitive, and self-scoring. As a bid requirement, bidders are required to score themselves based on the completeness of RFP bid requirements, the ability to contract with the project, and the maturity of the project and ability to deliver the project by the commercial operation deadline.

IRP Modeling to Determine Price Scores and Recommend a Final Shortlist

Prior to the final evaluation and selection of the final shortlist, the shortlist bidders from the demand-side RFP will be available for incorporation and inclusion to the IRP models. After inclusion of the demand-side resources, PacifiCorp will use PLEXOS (the same portfolio optimization model used by PacifiCorp to develop resource portfolios in the 2021 IRP) to develop an optimized resource portfolio by selecting from the demand-side RFP and supply-side resources. As was done in the 2021 IRP, PacifiCorp will perform a reliability assessment to ensure that the selected portfolio of resources can meet all hourly load and operating reserve requirements with sufficient cushion to account for other system uncertainties such as non-normal weather events. Should incremental flexible resource capacity be required to maintain system reliability, additional resources will be selected from the initial shortlist of bids that are capable of providing incremental flex capacity or remove resources to hit the targeted reliability requirements.

PacifiCorp evaluates portfolios under a range of different environmental policy and market price scenarios (policy-price scenarios). In this way, PacifiCorp uses PLEXOS to optimize its selection of bid resources to identify the lowest cost, reliable portfolio under multiple scenarios prior to undergoing additional stochastic risk analysis and further consideration as part of the final shortlist process.

PacifiCorp next uses PLEXOS to evaluate each portfolio and its ability to perform under dynamic weather and market conditions. PLEXOS measures the stochastic risk of each portfolio through its production cost estimates. By holding a resource portfolio fixed and using Monte Carlo simulations of stochastic variables, including load, wholesale electricity and natural gas prices, hydro generation, and thermal unit outages, PLEXOS can measure the expected cost of each portfolio in an uncertain future.

PacifiCorp then summarizes and analyzes the portfolios to identify the specific bid resources that are most consistently selected among the policy-price scenarios. Finally, PLEXOS will be used to calculate a price score for each bid. The price and non-price score will be used to recommend a final shortlist of system resources. In consideration of certain non-price scores and other qualitative criteria, and in consultation with the IE, PacifiCorp may perform further scenario risk analysis and use PLEXOS to evaluate changes to the recommended portfolio of resources prior to making its final shortlist determination.

Washington CETA and CBI Evaluation of Action Items

Following the final shortlist selection for system resources across its six-state service territory, PacifiCorp will consider resources additions and changes required for CETA compliance purposes. In consultation with the IE, PacifiCorp will evaluate the final shortlist bids designated in part to be allocated to and serve Washington customers. In accordance with Washington Electric Utilities – Procurement of Resources rules,⁸⁰ PacifiCorp will review the Equity Questionnaire for each resource and evaluate the associated risks and benefits to vulnerable populations and highly impacted communities associated with those bids. PacifiCorp, in consultation with the IE, may add or replace resources allocated to Washington customers in order to meet CETA goals with the understanding that the incremental cost associated with those resources would later be assigned to Washington customers. In the event a bidder has provided a free bid alternative associated with a different supplier, contractor or labor diversity strategy, PacifiCorp will evaluate the incremental cost compared with the incremental nonenergy benefit of the bid alternatives.

CBI/Action Mapping: Supply-Side Resources Specific Actions

The company’s CEIP proposes 21 specific supply-side specific actions (see Table 3.1, Table 3.2, Table 3.3 and Appendix C for a detailed listing of PacifiCorp’s supply-side specific actions).

The company proposes the CBI of renewable energy resources and emissions for supply-side actions. Supply-side actions will meet customer demand, which will offset fossil fuel resources and reduce emissions.

To document the company’s progress regarding the CBI of renewable energy resources and emissions, the company will track Washington’s percentage of retail sales served by renewable and non-emitting energy resources as well as Washington allocated greenhouse gas emission from Washington allocated resources. Chapter 6 of the CEIP outlines the information that will be included in PacifiCorp’s annual clean energy progress report that will be filed by July 1 of each year.

Demand-side Actions

Existing Customer Programs in Washington

PacifiCorp offers a variety of programs which can be beneficial to customers that are living in a highly impacted community or designated as a vulnerable population (referred to as ‘named communities’) such as providing low-cost electricity, which positively impacts housing expenditures and lessens the cost burden for impoverished households. Below are some additional details regarding a select number of PacifiCorp programs which beneficially impact Washington named communities.

- **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

⁸⁰ WAC 480-107-025(2) and WAC 480-107-035

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. This pilot program is limited to the first 500 residential customers and 100 nonresidential customers that enroll.
- **Energy Efficiency Programs** (available regardless of income): For residential customers, the Home Energy Savings program provides cash incentives for 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 for lighting retrofits. Both programs provide support and training for participating retailers, suppliers and contractors so these trade allies can help bring the program to customers.

2021 Demand Response RFP

PacifiCorp's 2019 IRP identified the addition of 178 MW of demand response system wide by 2029 as resource additions of a least cost least risk long term resource plan. To acquire the demand response resource needs identified in the 2019 IRP, the company issued a demand response RFP for cost-effective demand response resources. Successful initial short list bids from this demand response RFP joined final bids from the 2020AS RFP for a combined analysis in the 2021 IRP to determine the optimal acquisition of resources to meet system needs. On February 8, 2021, PacifiCorp issued an RFP soliciting proposals from implementation contractors for demand response resources. Although a variety of programs were eligible for consideration, of most interest to PacifiCorp were programs located in Oregon and/or Washington with the following focus:

- 1) Non-Residential Curtailment
- 2) Residential and/or Small Commercial Smart Thermostat or Water Heaters
- 3) Irrigation load control

The final shortlist of bids was identified in June 2021 and includes over 600 MW of capacity during the planning horizon. PacifiCorp is finalizing the procurement and negotiation of demand response resources following the completion of 2021 IRP. Contract negotiations and program filings are expected to conclude in Q4 of 2021. All necessary state regulatory approvals and proceedings are expected to be complete by the spring of 2022.

Incremental Energy Efficiency Program Utility Actions

PacifiCorp will use the energy efficiency programs listed below, and more fully described in the DSM Business Plan prepared for the 2022-2023 Energy Independence Act, to deliver the energy efficiency targets. PacifiCorp programs in combination with market transformation savings delivered by the Northwest Energy Efficiency Alliance are projected to deliver 217,408 MWh which exceeds the target of 212,431 MWh⁸¹.

Table 3.5 – Energy Efficiency Programs and Estimated Savings (2022-2025)

Program or Initiative (MWh/Yr)	2022	2023	2024	2025	2022-2025
Low Income Weatherization (114)	182	182	182	182	
Home Energy Savings (118)	10,349	10,986	10,349	10,986	
Home Energy Reports	4,414	(182)	4,414	(182)	
Total Residential Programs	14,945	10,986	14,945	10,986	
Wattsmart Business (140) - Commercial	22,645	23,256	22,645	23,256	
Wattsmart Business (140) - Industrial	13,936	13,776	13,936	13,776	
Wattsmart Business (140) - Irrigation	935	935	935	935	
Total Business Programs	37,516	37,967	37,516	37,967	
Northwest Energy Efficiency Alliance	3,314	3,977	3,314	3,977	
Total Conservation	55,774	52,930	55,774	52,930	217,408

*All savings values are at the generator

PacifiCorp will make changes to residential and non-residential customer energy efficiency programs and increase focus on delivery to named communities. These changes were informed in part based on input from the EAG and relate to the following CBI:

- Households experiencing high energy burden
- Participation in company energy and efficiency programs and billing assistance programs
- Indoor Air Quality
- Efficiency of housing stock and small businesses, including low-income housing

Details are available in PacifiCorp’s DSM 2022-2023 Business Plan. The changes related to Clean Energy Transformation Act incremental utility actions are described below.

Residential:

Home Energy Savings:

- Enhanced incentives for windows in multi-family units on residential rate schedules. Initial focus on buildings in highly impacted communities.

⁸¹ Table 3.5 can be found in workbook “210829-PAC-WP- WA WSB HES Portfolio CE Inputs 2022-2023 (C).xlsx”.

- Continue direct install residential lighting in multi-family units. Continue focus in highly impacted communities.
- Maintain and expand if possible general purpose lamp buy down in “dollar stores” in highly impacted communities. This will be the only retail lighting buy down offer.
- Continue manufactured home direct install duct sealing and lighting. Continue focus in highly impacted communities.
- Continue promoting new construction offerings for multifamily and single family units. Continue focus in highly impacted communities.
- Non-electric, non-natural gas upgrades in named communities.
- Serve named community residential customers who use non-electric and non-natural gas fuel sources in their primary heating systems by decommissioning these systems and installing ductless heat pumps. This measure will be offered at the same incentive rate as the typical ductless heat pumps measure, and will be available in single family, manufactured homes, and multifamily residences. Customers in highly impacted communities will be eligible for this incentive and customer eligibility criteria will be available on the program website. The standard ductless heat pump measure replacing electric forced air furnace or zonal electric primary heating systems is still available for all residential customers.
- The program will use RTF deemed values for ductless heat pump installations that assume a zonal electric resistance baseline since RTF does not have any measures for alternative fuel source replacement or conversions. highly impacted community determination will be included in customer data provided by PacifiCorp.

Low Income Weatherization:

- Increase funds available for repairs from 15 percent to 30 percent.
- Permit 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. The changes are 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.
- Changes to Schedule 114 are required to implement these changes. Amended tariff sheets will be filed with the Commission to enable these changes.

Non-residential:

Wattsmart Business:

Increase outreach and participation for small businesses and named community small businesses identified by census tract and rate schedule.

- Create a new offer within the [current small business enhanced incentive offer](#) targeting the smallest businesses using less than 30,000 kilowatt-hours per year and Named Community small businesses on Schedule 24.
 - o Offer a higher incentive and increase the incentive cap for this new offer from 90 percent to 100 percent of project costs to reduce the customer out-of-pocket cost barrier.
- Target a portion of company initiated proactive outreach to small businesses located in highly impacted communities. Continue to tie proactive outreach to approved small business vendor capacity to respond to customer inquiries.

- Offer approved small business lighting vendors a higher vendor incentive for completed lighting retrofit projects with small businesses located in highly impacted communities.

Participation Tracking and Reporting:

Track program participation for the following and include in annual reports starting in 2022 (noting 2022 will be a transition year as applications are revised to collect additional information).

- Low Income Weatherization
 - o Participants located in a highly impacted communities
 - o Participants whose primary language spoken is other than English (question asked of the contact person completing the incentive application)
 - o Participants who rent or lease rather than own
 - o Participants living in a manufactured home

- Home Energy Savings
 - o Participants located in a highly impacted communities
 - o Participants whose primary language spoken is other than English (question asked of the contact person completing the incentive application)
 - o Participants who rent or lease rather than own
 - o Participants living in a manufactured home
 - o Participants living in a multi-family unit

- Wattsmart Business (except midstream/Instant Incentive)
 - o Participants located in a highly impacted communities
 - o Participants whose primary language spoken is other than English (question asked of the contact person completing the incentive application)
 - o Participants who rent or lease rather than own
 - o Participants who are smaller businesses (e.g., account associated with project receives electric service on Schedule 24)

Measurement & Verification Protocols for Energy Efficiency

Appendix 3 of the 2022-2023 DSM Business Plan provides the EM&V framework for energy efficiency.

Table 3.6 – Proposed Cost (millions) of Energy Efficiency programs

Year	Incentives/direct benefits	General implementation	Total
2022	\$ 14.72	\$ 8.09	\$ 22.81
2023	\$ 14.72	\$ 8.31	\$ 23.03
2024	\$ 14.72	\$ 8.09	\$ 22.81
2025	\$ 14.72	\$ 8.31	\$ 23.03
Total	\$ 58.87	\$ 32.79	\$ 91.67

This table reflects the total estimated costs of the energy efficiency portfolio, consistent with the 2022-2023 DSM Business Plan. Only the estimated portion of incremental costs attributable to CETA are included in the incremental cost analysis in Section 4.

Costs of the energy efficiency programs align with the budgets and the calculation of direct benefits in the 2022-2023 DSM Business Plan. Costs include funding for NEEA. 2024 and 2025 are set equal to 2022 and 2023. 82

PacifiCorp in conjunction with the other investor-owned utilities contracted with DNV to assess and quantify additional non-energy impacts. Work scope, preliminary findings, their application to the 2022-2023 planning process were shared with the DSM Advisory Group. The final DNV report is included as Appendix 4 in the BCP.

Equity and Customer Impacts

Measurements of energy efficiency impacts go beyond kilowatt-hour reductions in an effort to adequately represent the impacts of energy efficiency among other customer types, particularly in named communities.

Energy impacts

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 2022-2023 are available in the cost effectiveness analysis from AEG provided as an Appendix to the DSM Business Plan provided in the BCP. Energy impacts for 2024-2025 have not been calculated yet, but are expected to be similar since the annual energy savings are comparable.

Non-energy impacts (NEIs)

As part of the 2022-2023 biennial planning process, PacifiCorp in conjunction with the 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. 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 the last two years are equal to the first two years). 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.⁸³

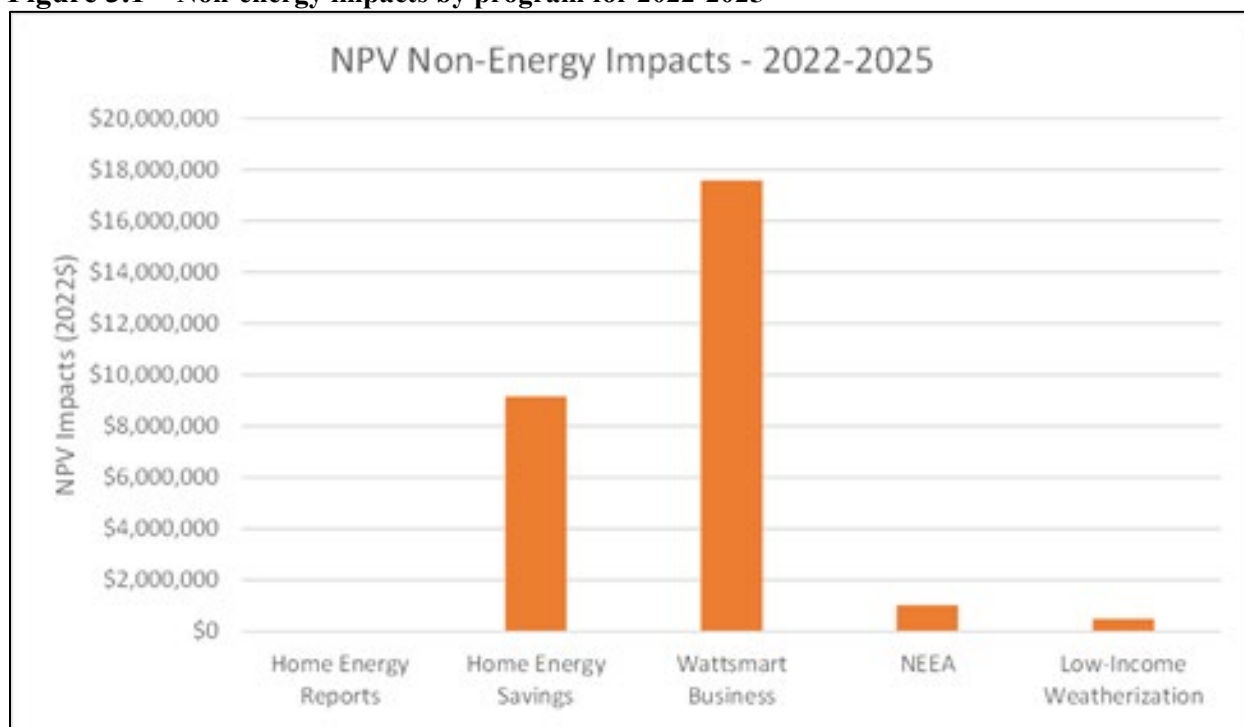
⁸² Table 3.6 can be found in workpaper "210829-PAC-WP- WA WSB HES Portfolio CE Inputs 2022-2023 (C).xlsx"

⁸³ Information Table 3.7 and Figure 3.1 can be found in workpaper "210829-PAC-WP-BenCost PY2022-25 12.31.21 (C).xlsm".

Table 3.7 – Non-energy impacts by program for 2022-2025

Program	NEI (\$)
Low Income Weatherization	\$495,672
Home Energy Savings	\$9,160,974
Home Energy Reports	\$0
Wattsmart Business	\$17,586,509
Northwest Energy Efficiency Alliance	\$1,021,151
Total Conservation	\$28,264,306

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



CBI/Action Mapping: Energy Efficiency Specific Actions

PacifiCorp proposes eleven specific energy efficiency actions (see Appendix C for a detailed listing of PacifiCorp’s energy efficiency specific actions). In total, there are five CBIs related to energy efficiency specific actions. These CBIs, the associated energy efficiency specific actions and related metrics are meant to address the challenges expressed by the EAG and other stakeholders regarding equitable distribution of benefits of PacifiCorp’s energy efficiency and billing assistance programs, as discussed below.

The company proposes five separate CBIs for energy efficiency actions – participation in company energy and efficiency programs and billing assistance programs, households experiencing high energy burden, community-focused efforts and investments, indoor air quality and efficiency of housing stock and small businesses, including low-income housing.

The CBI of participation in company energy and efficiency programs and billing assistance programs will help customers lower energy costs and reduce energy burden. Energy efficiency specific actions related to this CBI include Home Energy Saving program (HES) multifamily window incentives, HES multifamily and manufactured home direct install lighting, HES lamp buy-downs, HES manufactured home direct install duct sealing, HES new construction multifamily offerings, HES assistance for non-electric, non-gas heating, replacement with ductless heat pumps, Wattsmart Business program (WSB) higher lighting retrofit incentives for HIC small businesses and the smallest of the small businesses, WSB increased vendor incentives for completed lighting retrofit projects for the smallest of the small businesses and small businesses in highly impacted communities.

Specific to energy efficiency actions, the company will document its progress regarding the CBI of participation in company energy and efficiency programs and billing assistance programs, by tracking the number of energy efficiency program participants, the number of demand response program participants, and the number and percent of participants converting from gas to electric heating under the low-income weatherization program.

The CBI of “households experiencing high energy burden” is directly impacted by energy and efficiency programs and billing assistance program participation. Participation in these programs will help customers lower energy costs and reduce energy burden. Energy efficiency specific actions related to this CBI include Home Energy Saving program (HES) multifamily window incentives, HES multifamily and manufactured home direct install lighting, HES lamp buy-downs, HES manufactured home direct install duct sealing, HES new construction multifamily offerings, HES assistance for non-electric, non-gas heating, replacement with ductless heat pumps.

Specific to energy efficiency actions, the company will document its progress regarding the CBI of “households experiencing high energy burden,” by tracking energy burden for low-income bill assistance program participants, low-income weatherization program participants, HICs, vulnerable populations and for all customers.

Within the context of energy efficiency specific actions, the CBI of “community-focused efforts and investments” is intended to demonstrate the company’s increased focus on investment of energy efficiency programming so that communities more equitably receive energy efficiency program benefits. Energy efficiency specific actions related to this CBI include Home Energy Saving program (HES) multifamily window incentives, HES multifamily and manufactured home direct install lighting, HES lamp buy-downs, HES manufactured home direct install duct sealing, HES new construction multifamily offerings, HES assistance for non-electric, non-gas heating, replacement with ductless heat pumps, WSB higher lighting retrofit incentives for HIC small businesses and the smallest of the small businesses, WSB increased vendor incentives for completed lighting retrofit projects for the smallest of the small businesses and small businesses in highly impacted communities, Low Income Weatherization (LIW) repair funds increase, and LIW non-electric to electric heat installations.

Specific to energy efficiency actions, the company will document its progress regarding the CBI of “community-focused efforts and investments”, by tracking workshops on energy related programs and the headcount of minorities, women and other disadvantaged program delivery staff in Washington.

Within the context of energy efficiency specific actions, the CBI of “indoor air quality” aims to reflect the company’s efforts to improve air quality within the housing envelope. The energy efficiency action related to this CBI include the LIW program electric heat installation specific action.

Specific to energy efficiency actions, the company will document its progress regarding the CBI of “indoor air quality,” by tracking non-electric to electric conversions for the LIW program and the number of households using wood as a primary or secondary heating source.

Within the context of energy efficiency specific actions, the CBI of “efficiency of housing stock and small businesses, including low-income housing” aims to increase non-energy benefits, such as a more comfortable home environment. The energy efficiency action related to this CBI include the WSB higher lighting retrofit incentives for HIC small businesses and the smallest of the small businesses, WSB increased vendor incentives for completed lighting retrofit projects for the smallest of the small businesses and small businesses in highly impacted communities, LIW repair fund increase and LIW program electric heat installation specific action.

Specific to energy efficiency actions, the company will document its progress regarding the CBI of “efficiency of housing stock and small business, including low-income housing,” by tracking expenditures⁸⁴ on energy efficiency programs for qualified candidates in the programs listed in the “Participation in company energy and efficiency programs and billing assistance programs” CBI. In addition, PacifiCorp will track non-electric (including natural gas, propane, oil and solid fuels) to electric heating conversions in our Washington service area.

These metrics will be tracked annually with results made available each year as required by WAC-480-109-120(3). Additionally, Chapter 6 of the CEIP outlines the information that will be included in PacifiCorp’s annual clean energy progress report that will be filed by July 1 of each year.

Demand Response Resources

PacifiCorp presently does not offer any demand response programs in Washington. However, as a result of the 2021 demand response RFP, the company anticipates demand response and load management programs will be in place during the implementation plan period. The start period of programs is dependent on a number of variables; however, the company anticipates programs may begin enrolling customers as soon as 2022. Program details represented below are characterized based on current expectations and information available and are subject to change based on forthcoming contract negotiations and program filings. Anticipated programs during the implementation period may include:

- **Commercial and Industrial Curtailment:** This program is expected to target commercial and industrial customers with loads exceeding 100 kW in the prior year. PacifiCorp will contract with a third-party vendor to help administer the program to qualifying customers. The program is expected to start with a block resource that is

⁸⁴ Energy efficiency expenditures include customer, partner, and direct install incentive payments and exclude all other administrative or program costs.

dispatched in its entirety for each event. In later years dispatch flexibility around MW volume and location could potentially be utilized. Customers can participate through DLC and manual response with availability for dispatch year-round though events are expected to be during summer and winter months.

- **Irrigation Load Control:** This program will target agricultural irrigation loads from customers on Schedule 41 or 48, who are irrigating or soil drain pumping agricultural areas. PacifiCorp will contract with a third-party vendor to help administer the program to qualifying customers. The program will use billing demand data and gather customer information on pump size to target customers which meet the ideal operational profile and load factor for the program. The program will rely on field installed DLC devices to send signals to pumping equipment for reduction of irrigation loads. Once enrolled in the program, participants can set up notifications to be received via email or text. In addition, participants can view pump status, power usage, and event information for scheduled, running, and past events using their smart phone, tablet, or desktop computer. Expected dispatch for events are expected to be during summer during the hours from 6 AM – 8 PM.
- **Bring Your Own Thermostat:** The Bring Your Own Thermostat program will target residential customers with existing, Wi-Fi connected, customer-owned smart thermostats. PacifiCorp will contract with a third-party vendor to help administer the program to qualifying customers. The vendor will work with smart thermostat manufacturers to facilitate the relationship between PacifiCorp customers and manufacturers available resources and programs to locate, communicate with, and enroll participants. Participant enrollments entered through the manufacturer provided interfaces will then flow into the energy management system. The program will focus on homes with heat pumps, electric resistance heating, and central AC. Once enrolled customers will be notified prior to an event where they can elect to opt-out of a specific event. Availability for dispatch is year-round though events are expected to occur peak periods in summer and winter months.
- **Residential Grid Interactive Water Heaters:** This program will target residential customers with electric resistance water heaters and a Wi-Fi connection. PacifiCorp will contract with a third-party vendor to help administer the program to qualifying customers. The program will work to incorporate CTA-2045 compatible water heaters where possible and non-CTA-2045 compatible water heaters via a retrofit to existing heaters. The program intends to work with manufacturers to increase awareness and leverage software to aggregate water heater loads for responsive control. Availability for dispatch is year-round though events are expected to be during evening and morning hours during summer and winter months.
- **Batteries:** This program will target residential and commercial customers with a Wi-Fi connection to promote and incentivize the installation of individual batteries for system wide integration in support of overall grid management. The company plans to leverage and expand existing contracts with a third-party vendor supporting the Wattsmart Batteries Program for Rocky Mountain Power. The company anticipates that initially, participation will come from residential customers with solar, and will charge the batteries with excess generation. Customers may participate by installing eligible battery equipment and allowing the company to utilize the battery for grid management. While program design is not final, it is likely that a minimum commitment term will be required

in order to receive an enrollment incentive. Availability for dispatch is expected to be year-round in any hour with rapid response for traditional demand response, frequency reserve, contingency reserve, regulation reserves, regional grid management, backup power and other ancillary needs.

- **Time-of-Use Pilots:** Beginning in May 2021, PacifiCorp launched residential and non-residential service time of use pilots.⁸⁵ The residential pilot (Schedule 19) targeting single family residential customers. The residential pilot is available for up to 500 customers on a first-come, first-served basis. The non-residential time of use pilot (Schedule 29) targets non-residential customers with loads under 1,000 kW and is available for up to 100 customers on a first-come, first-served basis. Once concluded, evaluations will be conducted, and results can be used to inform future plans and targets for time-of-use offerings.

Proposed Program Development Strategy

Prior to filing demand response programs, PacifiCorp will share proposed program characteristics, budgets, implementation and evaluation strategies, and cost-effectiveness methodologies to facilitate feedback and guidance of stakeholders, in particular relying on the DSM Advisory Group. These meetings, in conjunction with email communications in which supporting information is shared, will be pivotal in helping the company develop programs and refine assumptions. Feedback will then be incorporated into a draft filing which will be shared with the DSM Advisory group to gather additional feedback. Once general agreement and understanding on programs has been achieved, the company will file programs. Programs will be filed independently to allow for flexibility and increase efficiency in the launch of programs.

A number of unknowns presently exist regarding demand response programs as the company is currently negotiating with vendors, finalizing several items including expected MW volume and costs for each program. The 2021 IRP included initial bids from vendors in response to the information put forth in the 2021 demand response RFP. While PacifiCorp anticipates programs will be cost-effective in subsequent calculations, there is a possibility that refined cost and benefit assumptions for a demand response program will not be found to be cost-effective. The company will work with stakeholders and commission staff as more outcomes are known and determine the best course of action for each demand response resource.

Proposed Program Budgets

PacifiCorp is still in the process of determining program costs, the values presented below are estimates based on information from the 2021 demand response RFP. Proposed costs for PacifiCorp's demand response programs are subject to change based on contract negotiations and program filings and timing. For the 2022-2025 implementation period a range of prospective budgets for the demand response programs described above are shown in Table 3.8⁸⁶.

⁸⁵ Available online: <https://www.pacificpower.net/about/rates-regulation/washington-rates-tariffs.html>

⁸⁶ The supporting calculations can be found in the confidential workpaper "210829-PAC-WP-Demand Response Targets 12.31.21 (C).xlsx".

Table 3.8 – Proposed Demand Response Program Budgets 2022-2025

Year	Incentives/Direct Customer Benefit	General Implementation Expense	Total Spending
Total 2022-2025	\$3,745,000 - \$2,285,000	\$3,500,000 - \$2,100,000	\$7,245,000 - \$4,385,000

* Proposed costs for PacifiCorp’s demand response programs are subject to change based on contract negotiations and program filings and timing.

Measurement and verification (M&V) protocols

The company intends to follow guidance and practices outlined in the “*Measurement and Verification for Demand Response*”⁸⁷ developed for DOE and FERC as part of the national action plan on demand response. M&V for settlement of payments to participants will vary depending on each program and is subject to change based on contract negotiations with vendors. M&V strategies for estimating kW impacts are outlined in Table 3.9 below.

⁸⁷ Available online: [Measurement and Verification for Demand Response | Electricity Markets and Policy Group \(lbl.gov\)](https://www.electricitydeliveredata.com/Measurement-and-Verification-for-Demand-Response)

Table 3.9 – Potential M&V Strategies by Program Type

Program Category	Potential M&V Strategies
Commercial and Industrial Curtailment	Data is anticipated to be collected on site from installed meters to verify performance. Baseline is expected to be generated using historical interval meter data and may also use weather and/or historical load data for baseline development.
Irrigation Load Control	Data on actual curtailed load is expected to come from integrated load control devices, providing near real time metrics on the amount of load curtailed for an event. Baseline usage is expected to be estimated using prior day or prior day averages of consumption during event periods.
Bring Your Own Thermostat	Individual capacity reduction can be highly variable depending on individual schedules, occupancy, and weather. Incentive is intended to be fixed per participant, with total kW reduction provided by vendor. Ex post analysis may utilize regression analysis to verify impacts.
Residential Grid Interactive Water Heaters	Controller attached to equipment is expected to meter circuit measuring voltage, current, and power. To quantify impact the pre-heat and post-curtailment energy are expected to be compared to typical non controlled consumption during those intervals, as well as the typical non curtailed consumption during the curtailment window.
Batteries	Batteries are anticipated to connect to company's Energy Management System via Wi-Fi connection to support near real time metrics for performance.
Time of use pilots	PacifiCorp will file its evaluation at the conclusion of the pilot and intends to rely on billing and survey data to estimate impacts for time of use pilots.

Equity and Customer Impacts

Measurements of demand response impacts go beyond kilowatt reductions in an effort to adequately represent the impacts of demand response among other customer types, particularly in named communities. CETA is more focused on the equitable distribution of energy and non-energy benefits, and other benefit areas described in WAC 480-100-640 (4)(b). As part of the 2021 IRP process PacifiCorp had AEG researched the applicability and application of non-energy impacts to determine to what extent utilities in other jurisdictions quantify, monetize, and attribute NEIs to demand response programs. The results of this work are illustrated below in Table 3.10.

Table 3.10 - Examples Non-Energy Benefits and Costs of Demand Response Programs

LEGEND:		
<i>Green color = typically a benefit</i>	<i>Yellow color = either a benefit or a cost</i>	<i>Grey color = typically a cost</i>
Societal Non-Energy Impacts	Utility Non-Energy Impacts	Participant Non-Energy Impacts
Employment above the job creation benefits of manufacturing a combustion turbine or constructing T&D upgrades ^{1 2 3}	Changes in billing costs of utility (e.g., customers unable or unwilling to participate may see bill increases, customers responding to demand response signals may see bill decreases) ¹	Satisfaction/pride from preventing outages and being “green” ^{1 3}
Economic development (e.g., changes in gross domestic product) ^{2 3}	Changes in the number of customer complaint calls or service requests ¹	Improved ability of integrated load management solutions to manage energy use (e.g., demand response -enabled thermostat) ¹
Improved air quality (avoiding criteria pollutants above and beyond the level of existing environmental regulations) ^{1 2 3}	Changes in the number of delinquent bills or disconnections ¹	Economic well-being (e.g., fewer bill-related calls, fewer power shut-offs/reconnects, reduced foreclosures) ³
Additional greenhouse gas (GHG) mitigation benefits (beyond avoided GHG cost embedded in the energy price and criteria pollutants included in the generation cost) ^{1 3}	Improved customer relations ¹	Better public image for commercial enterprises ¹
Changes in public health including healthcare and healthcare insurance costs associated with lower emission levels, especially decreased air pollution (gains with less pollution, loss with back-up generators, potentially more medical emergencies with malfunctioning medical equipment) ^{1 2 3}	Reduced marketing and administrative costs due to demand response customer participation in multiple distributed energy resource programs ¹	Transaction costs beyond the demand response technology/service itself (e.g., application fees, paperwork, time spent researching processes, developing load shedding plans) ^{3 5}
Environmental justice improvements ^{1 3}		Productivity losses (e.g., lower productivity levels, more spoilage/defects, lower sales during demand response events) ^{3 5}
Impacts on cultural resources ¹		Convenience/comfort losses (e.g., thermal, lighting levels/aesthetics) ³

Changes in noise pollution (e.g., benefit when equipment is shut off, but cost when back-up equipment is turned on) ^{1 2}		Safety and health losses (e.g., less lighting may lead to increased crime, non-operational medical equipment) ⁴
Biological impacts ¹		Improved asset value (e.g., improved property value, equipment functionality/performance improvement) ³
Land use, including impacts of energy infrastructure on local ecosystems (fewer power plants) ¹		
Changes in water use, wastewater treatment, and water quality ¹		
Changes in visual resources (e.g., due to removal of power plant stacks or transmission towers, or adding back-up equipment) ¹		
Increases/decreases in criteria pollutants and GHG emissions (e.g., participants use back-up diesel generators during demand response events or increases when loads shift from hours with low- to high-emission resources) ²		
Improved energy security/resilience (e.g., reduced dependence on imported fossil fuels) ^{2 3}		

Data sources and notes:

1. California Public Utilities Commission. 2016 Demand Response Cost Effectiveness Protocol, July 2016.
2. EPRI. *The Total Value Test: A Framework for Evaluating the Cost-Effectiveness of Efficient Electrification*. August 2019.
3. National Energy Screening Project, *National Standard Practice Manual for Benefit-Cost Analysis of Distributed Energy Resources*. August 2020.
4. AEG added this, as it was missing from the three sources.
5. PacifiCorp is already capturing the transaction costs beyond the demand response technology/service itself in the cost-effectiveness analysis.
6. PacifiCorp is already capturing the productivity losses in the cost-effectiveness analysis.

PacifiCorp plans to use the California demand response cost effectiveness protocol⁸⁸ for evaluating expected distribution of cost and benefits for demand response programs. Similar to energy efficiency, the company expects to examine impacts from a utility cost test (UCT) and a total resource cost (TRC) test perspective. The TRC perspective includes non-energy impacts in its assessment of costs and benefits. Where quantifiable, PacifiCorp will include non-energy impacts in its analysis of program costs and benefits. Once program details are finalized following contracting, PacifiCorp will provide additional details regarding the quantification of non-energy impacts of its demand response programs. Appendix C – Specific Actions, lists potential non-energy impacts that could be considered for each demand response program.

CBI/Action Mapping: Demand Response Specific Actions

PacifiCorp proposes five specific demand response actions (see Appendix C for a detailed listing of PacifiCorp’s energy efficiency specific actions). These specific actions impact the CBI of participation in company energy and efficiency programs and billing assistance programs.

The CBI of participation in company energy and efficiency programs and billing assistance programs will help customers lower energy costs and reduce energy burden. Demand response specific actions related to this CBI include the residential demand response program, the commercial and industrial demand response program, the agricultural irrigation demand response program, the battery program, and the company’s time-of-use pilot programs.

Specific to demand response actions, the company will document its progress regarding the CBI of participation in company energy and efficiency programs and billing assistance programs, by tracking the number of demand response program participants and expenditures. Chapter 6 of the CEIP presents an overview of the information that will be contained in PacifiCorp’s annual clean energy progress report.

These metrics will be tracked annually and shared with the DSM advisory committee. Annual reporting on demand response will be conducted for the portfolio summarizing performance, CBIs, and any evaluation results. It will focus on programs that have been in operation for at least one year. For programs that have not reached a full year of operation a status update will be provided within the annual progress report. Reporting on demand response programs will be developed based on to feedback from the DSM advisory group and other stakeholders and is subject to change as a result.

CETA Prioritization

The resources resulting from the 2020AS RFP shown in Table 3.2 are the culmination of system needs identified in the 2019 IRP, filed October 18, 2019. By the time CETA became law in May 2019, the majority of the 2019 data and modeling assumptions were complete. Also, CBI data and tracking were not available at this time. The resources selected by the 2020AS RFP, all of which are renewable, contribute significantly to the company’s ability to meet interim targets and are the subject of ongoing specific actions toward this purpose. However, 2020AS RFP resources

⁸⁸ <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-costs/demand-response-dr/demand-response-cost-effectiveness>

are not considered for the purposes of incremental cost calculation⁸⁹ as they were not driven by CETA legislation.

Despite the timing of the 2019 IRP and 2020AS RFP processes relative to CETA resource procurement prioritization, these resources are nonetheless consistent with the priorities expressed in CETA.⁹⁰

The prioritization in law begins with the company’s pursuit of “all cost-effective, reliable, and feasible conservation and efficiency resources, and demand response,” which is largely consistent with RCW 19.285.040(1), a statute in force at the time of the 2019 IRP and subsequent RFPs. The results of the 2021 Demand Response RFP were considered in the 2019 IRP modeling and analysis that ultimately determined the 2020AS RFP shortlist. Subsequently, in the 2021 IRP, energy efficiency for the state of Washington was optimally selected based on the P02-SCGHG portfolio, and approaches maximum energy efficiency among available programs. Demand response was optimally incorporated into the 2021 IRP based on the competitive demand response RFP, which validated the 2020AS RFP resource selections and selected additional proxy supply-side and demand-side resources by 2025 to be validated in the 2022AS RFP. Taken together, energy efficiency and demand response selections from the 2021 IRP are aligned with CETA requirements and serve to reduce future renewable resource need.

The next prioritization states,

In making new investments, an electric utility must, to the maximum extent feasible: (i) Achieve targets at the lowest reasonable cost, considering risk;

This prioritization requirement is met by the 2020AS RFP and optimization modeling, which by design pursue the most cost-effective resources in consideration of risk, including existing renewable options as identified through the bidding process.

The final prioritization requirement states,

In the acquisition of new resources constructed after May 7, 2019, rely on renewable resources and energy storage, insofar as doing so is consistent with (a)(i) of this subsection.

To the extent that all selected resources resulting from the 2020AS RFP are renewables, this final condition is met.

In all, PacifiCorp’s resource selections in its 2019 IRP, 2021 IRP, 2021 Demand Response RFP and 2020AS RFP were aligned with CETA priorities.

Communication, Outreach and Engagement

The company envisions a number of CEIP actions that are not explicitly demand-side or supply-side actions. Generally, these “other” actions focus improvements on delivery of programs and

⁸⁹ Refer to Chapter 4, Incremental Cost

⁹⁰ Specifically RCW 19.405.040(6)

communications to customers including to named communities (as defined in Chapter 4). This category of action is a direct result of feedback received during EAG meetings. During these meetings, a gap in accessibility was identified in outreach and engagement, particularly in culturally and linguistically responsive outreach and program communication. In response to this feedback, PacifiCorp plans to implement the following other actions as part of the CEIP:

Outreach, Language and Education

PacifiCorp plans to improve and expand its outreach and marketing to better reach all customers including customers in named communities. The company currently has existing marketing plans and budgets for its various programs that are targeted more broadly to its customer base in Washington. PacifiCorp is considering new ways to target customers through existing marketing budgets and plans for energy efficiency and energy assistance programs. This may include increased communications to zip codes in highly impacted communities. PacifiCorp is also looking into new advertising channels to reach customers more directly in their communities in places like schools, grocery stores, and laundromats. For example, this could include energy efficiency messaging on signage in grocery stores, or printed collateral promoting the LIBA program distributed to schools in Washington.

PacifiCorp plans to work directly with community partners to assess needs for additional outreach and develop materials based on those conversations. This could include, but is not limited to, informational flyers, brochures and posters, and will be calibrated based on that work with community partners. PacifiCorp also received feedback through public meeting outreach and during EAG meetings about information being accessible and representative of our customer base. From this feedback, the company plans to adjust strategies to include more direct outreach to customers through email, bill inserts, and handouts provided to community partners and organizations. Additionally, considerations will be made for customers without access to a computer or the Internet. Marketing plans are typically finalized in Q1 of each year. Energy efficiency focused marketing plans are shared with the Washington energy efficiency advisory group annually in December or January. LIBA plans will be shared with the low-income advisory group annually.

PacifiCorp also recognizes the need to continue to increase Spanish outreach to customers. While this work has already begun, PacifiCorp will continue to increase the number of ads and direct outreach (mail, email, and collateral) in Spanish. PacifiCorp will also create additional program webpages and materials in Spanish on its website, including education materials on a new webpage dedicated to educational content. Educational sources will include content, videos and resources for customer and community use. Spanish ads will drive directly to these Spanish webpages. Digital and printed materials in Spanish will be available to customers and community organizations to provide information about program offerings. PacifiCorp also will continue to identify and expand outreach to non-profits that provide services to named communities.

Non-energy impacts that may result from these outreach activities are expected to include increased awareness and participation of PacifiCorp programs such as Home Energy Savings. Non-energy impacts associated with subsequent participation in PacifiCorp programs is expected to be counted and attributed to non-energy impacts specific to programs. Examples of non-energy impacts resulting from better outreach and increased participation in programs, include

trust and partnership between customers and PacifiCorp, along with increased home comfort. PacifiCorp believes actions specific to program outreach and communications can be implemented with existing marketing funds. Additional outreach costs included in Table 4.2 are modest and will be used for enhanced outreach and materials for EAG and public meetings.

Establish an Electric Vehicle (EV) grant program

PacifiCorp plans to establish an Electric Vehicle (EV) program that provides additional support for named communities to install electric vehicle charging infrastructure, purchase electric vehicle charging infrastructure, conduct outreach and education related to transportation electrification, and potentially purchase electric vehicles. The grant program objectives are to: 1) activate transportation electrification projects equitably throughout the Pacific Power territory, and 2) ensure expansion of education and learning of what transportation electrification can mean for named communities. The program will be co-created with the EAG stakeholders to establish an inclusive grant program with emphasis on named communities. Preliminary concepts for the grant eligibility include a potential program covering 100 percent of costs for eligible projects. Potential projects would be inclusive of a variety of electric mobility projects from installation of infrastructure, to adoption of different modes of electric transportation to outreach and educational campaigns and events. Pacific Power anticipates the following engagement schedule and application filing schedule.

- Q1 2022. Engage with stakeholders to build out preliminary grant program design.
 - WUTC Stakeholder Group
 - EAG
- Q2 2022.
 - Build initial application and schedule for named communities grant program
 - Share application with stakeholders for feedback
 - Finalize application ready to file with WUTC
- Q3 2022.
 - File application and schedule with WUTC
- Q4 2022
 - Launch named communities grant program

The company intends to detail additional planning assumptions for the program in its Transportation Electrification Plan in 2022. The Transportation Electrification Plan will examine the future of transportation electrification and identify potential costs and benefits of forthcoming EV programs including non-energy impacts related to transportation electrification. The scale and cost of the grant program will be detailed as part of the planning process and program filings. Those potential costs are not considered incremental costs and, as such, are not included in table 4.3. Current cost estimates of the grant program are anticipated in the range of \$500k to \$750k over the 2022-2025 period but are subject to change as the planning process evolves.

CBI/Action Mapping: Community Outreach Specific Actions

The company's CEIP proposes five specific community outreach and engagement actions (see Appendix C for a detailed listing of PacifiCorp's community outreach and engagement actions). In total, there are two CBIs related to community outreach and engagement actions.

The company proposes two separate CBIs for Community, Outreach and Engagement Actions – culturally and linguistically responsive outreach and program communication, as well as community-focused efforts and investments.

Community outreach and engagement specific actions will ensure the company more appropriately engages with customers to reduce burdens and increase non-energy benefits for Washington customers. These specific actions include focused improvements on delivery of programs and communications to customers including named communities, improve language accessibility, expand outreach to named communities, and improve educational resources.

Specific to community outreach and engagement actions, the company will document its progress regarding the CBI of culturally and linguistically responsive outreach and program communication, by tracking outreach in languages other than English, program communication impressions, and the number of respondents to the Spanish version of PacifiCorp’s CETA Survey and Residential Survey.

Community outreach and engagement specific actions will also work to focus investments so that communities more equitably receive benefits in the form of establishing an electrical vehicle grant program. Impacts from investments in this program will have positive implications on non-energy benefits and will also reduce burdens for Washington customers.

Specific to community outreach and engagement actions, the company will document its progress regarding the CBI of community-focused efforts and investments by tracking the number of public electric vehicle charging stations in PacifiCorp’s service area. Please see Chapter 3 Specific Actions for additional detail.

As outlined in Chapter 6, these metrics will be tracked with results made available in the annual clean energy progress report.

CHAPTER 4 – INCREMENTAL COST

Chapter Summary

The CEIP portfolio, as described in Chapter 1, was specifically optimized and designed to meet CETA standards. This portfolio is contrasted to an IRP study that meets the requirements for an alternative lowest reasonable cost portfolio as defined in rule, referred to as the Alternative Portfolio. Any differences in cost between the CEIP portfolio and the Alternative Portfolio are considered incremental costs, costs directly resulting from actions taken to comply with requirements under RCW 19.405.040 or 19.405.050. 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.

This chapter details the methodology and estimated results for the incremental cost calculation.

Overview and Requirements

WAC 480-100-660(1) states that to determine the “incremental cost of the actions taken to comply with RCP 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 requirements. WAC 480-100-660(1) also states that the company should use a portfolio optimization model consistent with the most recent integrated resource plan as the basis for calculating the lowest and alternative lowest reasonable cost portfolios. The utility must also 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.

The CEIP is informed by PacifiCorp’s 2021 IRP and the CEIP portfolio of resources that was optimally developed to meet CETA requirements. The CEIP portfolio of resources was developed with the SCGHG dispatch adder included in both the long-term capacity expansion decision and in operations. The P02-SC-CETA portfolio, denoted CEIP portfolio, represents the least cost path to achieving CETA targets under the planning assumption of a social cost of greenhouse. The Alternative Portfolio, P02-SCGHG, demonstrates what the Company would have done in the absence of CETA.

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 \$2.59 million per year. An average \$2.59 million increase in revenue requirement would result in customer rates impact of approximately 0.77 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 seek alternative compliance under this provision for the four-year compliance window documented in this CEIP.

Chapter 1 describes the 2021 IRP modeling process that was used to develop optimized portfolios under the social cost of greenhouse gas cost assumption, leading to the development of both the Alternative Portfolio and the CETA-compliant, CEIP portfolio. Refer to Appendix F?

The Alternative Portfolio

PacifiCorp’s Alternative Portfolio is P02-SCGHG, developed during the company’s 2021 IRP.⁹¹ This portfolio best represents the actions the company would have taken but for CETA, consistent with WAC 480-100-605, but also includes the SCGHG “in the resource acquisition decision.”⁹²

Both the Alternative and CEIP portfolios were optimally developed for the PacifiCorp system as a whole -- Although there are portfolio-wide cost variances between the Alternative Portfolio and the CETA Portfolio, only costs that would likely be assignable to Washington customers are included in the incremental cost calculation.⁹³ Other costs – such as changes in resource costs not allocated to Washington – are appropriately ignored in this calculation. This means that the incremental cost calculation is reasonably accurate for Washington but does not demonstrate what actual system costs would be for the entire PacifiCorp system.

Interim Target Shortfall Resolution

To develop the CEIP portfolio, the base portfolio, P02-SCGHG, was evaluated against the CETA standards in 2030 and 2045; that Washington-supplied energy would be 100% greenhouse gas neutral (meaning that up to 20 percent can be supplied by unbundled RECs) beginning in 2030 and Washington-supplied energy would be 100 percent clean and non-emitting by 2045.

A compliance shortfall was identified in 2030 of 14 MW of average annual capacity that needed to be met with clean and non-emitting energy. This resulted in the addition of 80 MW of installed capacity of a Washington situs-allocated resource of co-located wind, solar and storage in Yakima, Washington in 2030. An additional compliance shortfall was identified based on the forecasted compliance for the 2040-2045 period getting to the 100 percent clean and non-emitting energy by 2045 of around 28 MW of average annual capacity. This resulted in another incremental addition of the Washington situs co-located wind, solar and storage Yakima resource in 2040 of 55 MW installed capacity. In total, 135 MW of new installed capacity of co-located wind, solar and storage were added in the CEIP portfolio as a direct result of CETA-compliance.

The additional co-located resources represented a change in the solar and co-located battery originally selected under the P02-SCGHG system portfolio. The addition of a co-located wind unit increases the renewable capacity contribution of the resource (by around 5 times the capacity) while operating within the same transmission limits. By operating within existing

⁹¹ Supporting workpapers for P02-SC-CETA include the LT portfolio summary: “210829-PAC-WP-80616 - LT 21IRP 20yr - P02-SCGR-CETA (CO,NG) 3-13-2023 (C).xlsx” and the ST cost summary: “210829-PAC-WP-ST Cost Summary -P02-SCGR-CETA ST Split Run Cost Data LT 80616 ST 80617 (C).xlsx”.

⁹² Supporting workpapers for P02-SCGHG include the LT portfolio summary: “210829-PAC-WP-LT 29923 21IRP 20yr P02-SC 12-31-21 (C) .xlsx” and the ST cost summary: “210829-PAC-WP-ST Cost Summary -P02-SCGR ST Split Run Cost Data LT 29923 ST 30497 3-13-2023 (C).xlsx”.

⁹³ A Washington-specific allocation of portfolio costs for P02-SC-CETA: “210829-PAC-WP-ST Cost Summary - P02-SCGR-CETA - WA Allocated (C).xlsx” and for P02-SCGHG: “201829-PAC-WP-ST Cost Summary -P02-SCGR ST - WA Allocated 3-13-2023 (C).xlsx”.

transmission limits the company avoids building new transmission which can be disruptive to communities. This was the least-cost incremental resource addition that could be added to meet CETA targets.

Revenue Requirement Methodology

Costs Included for Consideration

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 modelled incremental costs were identified through the comparison of changes in investment costs between the CEIP portfolio and the Alternative Portfolio, described above. 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. The cumulative impacts of CETA compliance are described in Table 4.1.

Incremental investments and expenses were identified from the comparison of the two portfolios and summarized on an annual, nominal and levelized basis, for the compliance years in this CEIP. Table 4.1 summarizes the resource-driven incremental expenses identified by the comparison of relevant portfolios as described in the above section:⁹⁴

Table 4.1 - Annual Impacts of CETA 2022-2025

	Compliance Year			
(\$million)	2022	2023	2024	2025
Fuel Costs	-	-	-	0.02
Other Variable	-	-	-	0.00
Energy Efficiency	-	-	-	-
Net Market Purchases	-	-	-	0.61
Emissions	-	-	-	0.02
Deficiency	-	-	-	0.00
Fixed Costs	-	-	-	-
Total	-	-	-	0.65
	Compliance Year			
(\$million)	2022	2023	2024	2025
Fuel Costs	-	-	-	0.02
Other Variable	-	-	-	0.00
Energy Efficiency	-	-	-	-
Net Market Purchases	-	-	-	0.61
Emissions	-	-	-	0.02
Deficiency	-	-	-	0.00
Fixed Costs	-	-	-	-
Total	-	-	-	0.65

⁹⁴ Table 4.2 and supporting data can be found on workbook tab “IRP Modelled Costs” in the file “210829-PAC-WP-Rev Req 3-13-2023.xlsx”. The data is sourced from workpaper “210829-PAC-WP-Cost Summary Compare P02-SC-CETA less P02-SCGHG.xlsx” which is a compare of Washington-allocated costs for P02-SC-CETA and P02-SCGHG.

(\$million)	Compliance Year			
	2022	2023	2024	2025
Fuel Costs	-	-	-	0.02
Other Variable	-	-	-	0.00
Energy Efficiency	-	-	-	-
Net Market Purchases	-	-	-	0.61
Emissions	-	-	-	0.02
Deficiency	-	-	-	0.00
Fixed Costs	-	-	-	-
Total	-	-	-	0.65

Energy efficiency selections are the same between the alternative lowest reasonable cost portfolio and the CEIP portfolio, and are not therefore an incremental resource difference.

Further to the IRP derived incremental costs, to determine non-IRP modelled incremental costs, all workstreams engaged in the preparation of this report were asked to evaluate and identify any costs expected to be incurred that would not otherwise have been absent CETA requirements during the four-year period. The resulting non-IRP modelled costs reflected in this CEIP include administrative type costs such as EAG-related 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 modelled incremental costs by category⁹⁵:

Table 4.2 – Non-modelled Incremental Costs

(\$million)	Compliance Year				Description of Cost Item
	2022	2023	2024	2025	
CEIP Management, Coordination & Communication	0.56	0.57	0.58	0.60	Additional Staffing to help coordinate, facilitate and strategic planning for CEIP
Enhanced Outreach & Communication	0.41	0.39	0.39	0.40	Outreach and materials for EAG and Public meetings
External Data Support	0.17	0.17	0.18	0.18	Vendor expense for data support
CETA-specific DSM Program Expenses	1.24	1.26	1.29	1.32	Costs incurred to enhance reach and equitable distribution of DSM programs
Total	2.38	2.40	2.45	2.50	

These administrative costs, in addition to the costs identified through the comparison of the CEIP portfolio and alternative lowest reasonable cost portfolio, are included in the revenue requirement calculation described below. Detailed descriptions of and methodologies relied upon to derive non-IRP costs estimates can be found in Revenue Requirement development workpapers “210829-PAC-WP-Rev Req-12-30-21.xlsx”, on the tab labelled “Non-IRP Costs”.

⁹⁵ Table 4.3 and supporting data can be found on workbook tab “Non-IRP Costs” in the file “210829-PAC-WP-Rev Req 3-13-2023.xlsx”.

This workpaper tab also provides a more granular breakdown of the individual costs that make up the total costs under each category in Table 4.2.

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 the above formula, the estimated annual revenue requirement for each year in the compliance period is as follows:

Table 4.3 - Estimated Annual Revenue Requirement

\$-Millions	Compliance Year			
	2022	2023	2024	2025
Revenue Requirement				
Fixed Costs ¹	-	-	-	-
Variable Costs				
Fuel Costs	-	-	-	0.02
Variable O&M	-	-	-	0.00
Energy Efficiency	-	-	-	-
Net Market Purchase	-	-	-	0.61
Emissions	-	-	-	0.02
Deficiency	-	-	-	0.00
Total Variable Costs	-	-	-	0.65
Administrative & General				
DSM Program Costs	1.24	1.26	1.29	1.32
Outreach Costs	0.40	0.37	0.38	0.39
Materials	0.01	0.01	0.01	0.01
Staffing	0.56	0.57	0.59	0.60
Data Support	0.17	0.17	0.18	0.18
Total Revenue Requirement²	2.38	2.40	2.45	3.15
Average Revenue Requirement	2.59			

Notes:

1. Incremental fixed cost are identical between the CEIP portfolio (P02-SC-CETA) and Alternative Portfolio (P02-SCGHG) during the CEIP compliance window. Fixed costs are reported in the respective portfolios at a nominal and levelized basis, which reflects both a return on and return of component.

2. Estimated revenue requirement is calculated based on incremental costs derived by comparing IRP portfolios. Therefore, the cost estimates derived from this exercise are based on MSP allocation assumptions applied to IRP portfolio outcomes. Actual cost recovery will ultimately be determined by the prevailing cost allocation methodology approved in Washington at the time recovery is sought.

The average annual incremental revenue requirement over the reporting period is \$2.59 million.⁹⁶ This average annual cost increase of \$2.59 million does not meet the average annual threshold amount for determining eligibility for reliance on RCW 19.405.060(3), as the next section of this document demonstrates. An average \$2.59 million increase in revenue

⁹⁶ Table 4.4 can be found on workbook tab “Revenue Requirement” of file “210829-PAC-WP-Rev Req 3-13-2023.xlsx”.

requirement would result in customer rates impact of approximately 0.77 percent. Calculations supporting this rate impact estimate can be found in the Revenue Requirements workpaper “210829-PAC-WP-Rev Req 2-25-2023.xlsx”.

Annual Threshold for Alternative Means of 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 compliance. 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:

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

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 \$66.7 million. This translates to an Annual Threshold Amount of \$16.7 million. Forecasted, weather-adjusted sales revenues were developed by applying approved rates (\$/MWh) in Washington to weather-adjusted forecast sales (MWh) in Washington. Workpapers supporting forecasted Washington revenues used for the purpose of this annual threshold calculation can be found workpaper “210829-PAC-WP-Rev Req 2-25-2023.xlsx”.

Table 4.4 – Cost Thresholds

	(\$ million)	2021	2022	2023	2024	Reference
1	Forecasted WA Revenues	331,912	335,220	333,772	332,492	
2	2% of Revenues	6,638	6,704	6,675	6,650	Line 1 x 2.0%
3	Multiplier	4	3	2	1	
4	Threshold Amount	26,553	20,113	13,351	6,650	Line 2 x Line 3
5	Four-Year Threshold Amount	66,667				Sum Line 4
	Annual Threshold Amount	16,667				Line 5 / 4

Based on current forecasts, the estimated incremental costs identified for implementation of CETA from 2022 through 2025 are within the annual threshold amount. As such, the company will not rely on RCW 19.405.060(3) as a means of alternate compliance.

CHAPTER 5 – PUBLIC PARTICIPATION

Chapter Summary

As required by CETA, utilities in Washington must ensure that all customers served in Washington benefit equitably from the transition to renewable energy. In compliance with WAC 480-100-655(2), PacifiCorp established a plan to encourage public participation throughout the development of the 2022 CEIP. PacifiCorp’s July 30, 2021 Revised Public Participation Plan addressed the ways in which PacifiCorp planned to seek and incorporate public feedback to inform the preparation and filing of the 2022 CEIP. As outlined in that plan, public participation for the 2022 CEIP was built on four pillars to support robust and inclusive participation: (1) Engaging members of the public by selecting outreach, methods, timing, and language considerations that address barriers to participation, (2) making data accessible and available to members of the public and CEIP stakeholders, (3) building upon learnings from existing advisory groups and stakeholders interested in the CEIP development process, and (4) building upon learnings from the EAG. PacifiCorp incorporated learnings from each of these four pillars of input to ensure that the health, safety, and well-being of its communities was considered in the CEIP development process.

Public Engagement - Outreach, Timing, Methods, and Language Considerations

PacifiCorp worked to establish a CEIP public participation process that was open, transparent, and accessible. To meet these goals, we developed a process of seeking public participation by embracing inclusive design and ensuring that communication with stakeholders was proactive and easy to understand.

Outreach

An overview of PacifiCorp’s Public Participation outreach methods is provided in below. Additional details are described throughout Chapter 5.

Table 5.1 - Outreach Methods and Opportunities for Feedback

GETTING THE WORD OUT		
Tool	Description (2021 plan)	Proposed 2022-2025 plan
Project website: https://www.pacificorp.com/energy/washington-clean-energy-transformation-act-equity.html ⁹⁷	The project website provides information about the CEIP in English and Spanish, including sharing public participation opportunities, hosting project information, collecting feedback on online surveys, documenting EAG and other advisory group meeting materials, etc. The CEIP webpage received 4,272 pageviews from	PacifiCorp will continue to use and update this page to share information and materials related to CETA.

⁹⁷ WAC 480-100-655(2)(g)(i)-(iv)

	when it was developed in May 2021 through December 2021.	
Email updates	Announcements and CEIP website updates were communicated to stakeholders via e-mail. Public meeting information was communicated to customers via e-mail.	Email was noted as a top method of outreach for public meetings through attendee poll results. E-mail was also instrumental in receiving comments from stakeholders on the draft CEIP. PacifiCorp will continue to send email updates to stakeholders and customers.
Project fact sheet and flyers	PacifiCorp provided digital and printed public participation information to customers in English and Spanish.	EAG members identified a need for informational collateral to distribute. PacifiCorp will continue to provide printed and digital fact sheets and flyers in English and Spanish.
Existing advisory groups and EAG pre-meeting materials	Meeting materials were shared with advisory group members prior to each meeting. EAG pre-meeting materials included the presentation slide deck and an expanded agenda that described the meeting objectives and discussion topics.	As EAG meetings continue in 2022-2025, PacifiCorp plans to share pre-meeting materials with advisory group and EAG members.
Meeting summaries	Following each EAG meeting, meeting summaries were prepared and posted on the CEIP website and distributed to EAG members. Meeting notes were also prepared for public meetings following Public Meeting No. 1.	Meeting summaries will continue to be posted on the CEIP webpage and distributed to EAG members.
Utility bill inserts	Informational bill inserts were provided to customers who receive their bill in the mail in printed format and provided digitally to customers who are on paperless billing. Bill inserts included information in English and Spanish. Call-in information was included to notify customers of public participation meetings to reach those who may not have access to the Internet.	Informational bill inserts will be provided to customers as needed.

Utility bill messages	Informational bill messages were printed or provided digitally with customer bills in both English and Spanish.	Informational bill messages will be provided to customers as needed.
Interactive Voice Response (IVR)	PacifiCorp customers in Washington who call customer service receive a pre-recorded Interactive Voice Response (IVR) message in English or Spanish that directs customers to the CEIP webpage.	Interactive Voice Response (IVR) messages will be provided to customers as needed.
Social media	Informational content is posted on the company's social media accounts directing customers to the CEIP website.	PacifiCorp will continue to utilize existing social media channels to share CETA related information.
Paid media	To reach customers in Washington, the company uses paid advertising across various media channels, including newspaper, radio, and social media ads.	According to public meeting feedback, paid media was an effective way to reach customers about CETA information. PacifiCorp will continue to reach customers in Washington through paid media channels as needed.
Press release	Press releases were issued to local publications in PacifiCorp's Washington service area to notify customers about the public participation meetings.	PacifiCorp will continue to issue press releases to publications in Washington and will consider new Spanish outlets to include.
Text message notices	Text message notices were sent to Washington customers informing them about public participation meetings.	PacifiCorp will continue to send text message notices as needed.
Partner channels	PacifiCorp partnered with its EAG and local community groups and organizations to share CEIP information.	PacifiCorp received feedback from the public and EAG members that one of the most impactful forms of outreach is to work directly with local community organizations and EAG members. PacifiCorp plans to increase outreach through partner channels in 2022-2025.
PacifiCorp website	PacifiCorp has referenced the CEIP project on its primary website and provided a link to https://www.pacificorp.com/energy/washington-clean-energy-transformation-act-equity.html	PacifiCorp will keep references to the CEIP webpage on its primary website.

SHARING INFORMATION AND SEEKING INPUT		
Tool	Description (2021 plan)	Proposed 2022-2025 plan
Community surveys	Data on the benefits from a clean energy transformation were collected from PacifiCorp's Washington customer base, PacifiCorp's existing advisory groups and the EAG. A summary of survey results was posted on PacifiCorp's CEIP webpage.	One of the largest takeaways from the clean energy benefit survey was the clear gap in reaching customers who speak Spanish. PacifiCorp will be making increased efforts to reach and obtain feedback from customers who speak Spanish.
Project email (ceip@pacificorp.com)	Input from stakeholders has been collected via e-mail and responses have been included in Appendix A.	PacifiCorp will continue to review and consider public comments received through the project email.
CEIP Public Meetings	PacifiCorp hosted a series of all-customer meetings to solicit additional feedback from its customer base. Meeting materials were prepared and shared on the CEIP website. Public meeting notes were shared on the CEIP website. Public meeting notes were shared on the CEIP website. Approximate public attendance at each public meeting was as follows: Meeting 1: 18 Meeting 2: 16 Meeting 3: 17	PacifiCorp is prepared to host additional public meetings and technical conferences in 2022-2025 based on interest level. The company is considering in-person workshops; however, with COVID-19, it is currently unclear if that will be feasible.
CEIP Technical Conferences	PacifiCorp hosted a series of technical meetings with parties interested in a deeper examination of the CEIP to solicit direct feedback on its development. Meeting materials were prepared and shared on the CEIP website. The meetings were interactive, and comments were directly addressed during the meetings.	
EAG and Existing Advisory Group Meetings	PacifiCorp's CEIP project team and subject matter experts (SMEs) presented information on CEIP topics for the EAG and existing advisory group members to discuss, react to, and comment on. Participants provided input and/or engaged in dialogue with the CEIP project team, SMEs, and each other on the designated topics.	PacifiCorp plans to continue meeting with the EAG to discuss the implementation of the CEIP. Details of PacifiCorp's proposed EAG meeting schedule for 2022 can be found in Table 5.5.

Key Takeaways

Through public feedback and feedback from EAG members, several changes were made to public outreach tactics to make meeting information more accessible. These changes included:

In response to feedback received about making information available to customers who do not have access to a computer or the Internet, printed bill inserts were sent to customers with call-in information for public meetings. Additionally, newspaper notices ran in local publications with call-in information. These outreach methods were included in English and Spanish.

Based on feedback in the first public participation meeting, English and Spanish radio ads were added to PacifiCorp's outreach tactics for the third and fourth public meetings.

PacifiCorp received feedback from EAG members about sharing information through trusted community partners in Washington. In response to this feedback, PacifiCorp created a flyer with meeting details in English and Spanish and distributed it to EAG members and through a Hispanic Heritage Month event with the Central Washington Hispanic Chamber of Commerce. PacifiCorp will look for additional opportunities to work with community partners to expand outreach.

During public participation meetings, attendees were asked how they heard about the meetings. More attendees mentioned hearing about the meetings through PacifiCorp's outreach in meeting three than they did in meeting two. PacifiCorp plans to continue using these outreach methods in future public meetings while also considering recommendations from the public and EAG members.

Timing

PacifiCorp's outreach began in spring 2021 and focused on outreach through existing channels – especially the existing advisory groups in Washington – and through community-based organizations to identify potential members of the newly-formed EAG.

In April 2021, RMI (formerly Rocky Mountain Institute) assisted PacifiCorp reaching out to and conducting interviews with community-based organizations and members of the public who were identified as potential participants in the EAG. The feedback and learnings obtained through this interview process helped to inform the EAG's scope. Through this process and as described below, the formal EAG was established; the first meeting was held in May 2021.

PacifiCorp provided an email notification to each of the company's existing advisory groups in Washington – as well as the full six-state public IRP distribution list – on May 4, 2021. The email provided notice that the development of the 2022 CEIP was beginning and provided an opportunity to review the company's public participation plan, to join the email distribution list specific to the CEIP (CEIP@pacificorp.com), and to visit the company's webpage for next steps in CEIP participation (<https://www.pacificorp.com/energy/washington-clean-energy-transformation-act-equity.html>).

In July 2021, PacifiCorp distributed a customer survey, intended to seek preliminary feedback from all Washington customers who were not otherwise participating in an advisory group.

PacifiCorp’s existing Washington advisory groups met regularly in 2021 and will continue to hold meetings to, in part, support CEIP development and implementation. A timeline of advisory group meetings, stakeholder meetings, and public participation meetings throughout 2021 is shown in Table 5.2 below.

Table 5.2 – 2021 Advisory Group and Public Participation Meeting Schedule

Meeting Type	Date
Low Income Advisory Committee Meeting	May 6, 2021
EAG Meeting (#1)	May 13, 2021
EAG Meeting (#2)	June 16, 2021
DSM Advisory Group Meeting	June 17, 2021
Low Income Advisory Committee Meeting	June 18, 2021
IRP Public Input Meeting	June 25, 2021
Low Income Advisory Committee Meeting	July 20, 2021
EAG Meeting (#3)	July 21, 2021
DSM Advisory Group Meeting	July 22, 2021
IRP Public Input Meeting	July 29-30, 2021
IRP Public Input Meeting	August 6, 2021
IRP Public Input Meeting	August 12, 2021
EAG Meeting (#4)	August 18, 2021
CEIP Public Meeting (#1)	September 8, 2021
CEIP Technical Conference	September 14, 2021
EAG Meeting (#5)	September 15, 2021
CEIP Public Meeting (#2)	October 6, 2021
DSM Advisory Group Meeting	October 12, 2021
CEIP Technical Conference (#2)	October 19, 2021
EAG Meeting (#6A)	October 20, 2021
CEIP Technical Conference (#3)	November 10, 2021
CEIP Public Meeting (#3)	November 10, 2021
EAG Meeting (#7)	November 17, 2021

Methods

PacifiCorp’s initial public participation outreach was via both telephone and email and was designed to inform existing advisory groups (including the IRP Public Input Process) of the opportunity to provide feedback, as well as to form the EAG.

Direct outreach methods to the IRP public-input stakeholders occurred via email and through a dedicated IRP webpage that provides meeting materials, stakeholder feedback forms, and participation information for each meeting. Outreach for both the DSM Advisory Group and the Low-Income Advisory Group occurred via email to participants on the distribution list. PacifiCorp continued to use these outreach methods as applicable throughout the development of the 2022 CEIP.

In addition to specific outreach to stakeholders, PacifiCorp established a dedicated webpage to provide information to the public regarding how to participate in the development of the 2022 CEIP. The webpage includes information about CETA, the CEIP development

processes, links to relevant documents, and:

- A schedule of advisory group meetings and a tentative schedule of topics to be discussed.
- Meeting summaries, materials, and documents, including those from past meetings.
- Information on how to participate in the development of the CEIP.
- Data and information provided to support participant education as part of the EAG.
- Links to filings and plans associated with CETA compliance (2021 IRP filing that included the CEAP, CEIP filing, etc.) posted no later than thirty days following final action by the Commission.
- Spanish translations of EAG meeting materials and webpage content.

The CEIP website is found at: <https://www.pacificorp.com/energy/washington-clean-energy-transformation-act-equity.html>.

The company also set up a dedicated email address, CEIP@pacificorp.com, that is posted on the webpage to facilitate timely responses to any stakeholder questions. PacifiCorp also encouraged members of the public who wanted to participate in the development of the CEIP to join the company’s email list, which was used to communicate upcoming meetings, meeting materials, and other opportunities for education and feedback.

PacifiCorp developed a survey targeted to our broader Washington customer base to gather input on the development of the CEIP. The survey was made available in English and Spanish between July 2, 2021 and August 10, 2021. There were separate versions for residential and non-residential customers. Outreach for this survey included a printed and digital bill insert to all Washington customers; direct email to approximately 53,000 customers; survey links on the CEIP webpage; a recorded IVR message through PacifiCorp’s customer care center; electronic and hard-copy distribution to community members through the EAG; and direct outreach to Washington business and community leaders from PacifiCorp regional business managers and additional internal contacts. A separate survey was also made available for advisory group input – including to the DSM Advisory Group, Low-Income Advisory Group, and Washington IRP stakeholders – and was shared via email. Survey results were prepared, summarized, and posted on the CETA webpage. Customer feedback was incorporated into the CBI weighting process.

Key takeaways from the survey:

- Residential and non-residential respondents were generally aligned on priorities
- Environmental benefits ranked highest
- Energy benefits, energy security, affordability, and reduction of burdens also ranked high
- Cost and bill increase concerns ranked highest
- Dependability of variable clean energy resources also ranked high
- Need for increased effort to ensure survey responses are representative of PacifiCorp’s broader customer base
- Under-sampled populations tended to rank Affordability higher, to displace Energy Security in the top 3

- When weighting survey results by demographics and income PacifiCorp observed consistency in the main takeaways and overall top 2 rankings: Environment, Energy Benefits

The exercise to aggregate these weighting results and map them to specific proposed CBIs is further explained in the “Summary of Customer Benefit Indicators” section of Chapter 2.

Additionally, in Q4 2021, PacifiCorp conducted its biennially-scheduled residential customer survey across all its service territory, including in the state of Washington. The original objective of this survey effort has been to understand how customers use energy in their homes. This year, PacifiCorp updated and added key demographic and household-level questions to the survey in order to assess and cross-verify customers’ status within vulnerable populations and cross-tabulate with certain key CBI metrics.

In the future, PacifiCorp plans to continue leveraging customer surveys to both gather public input and feedback, as well as estimate key CBI metrics across all customers and within named communities.

PacifiCorp held 3 public meetings on the CEIP development process that were targeted for the company’s Washington customer base. The first meeting was held September 8, 2021 and focused on providing background context on CETA and the CEIP, as well as the initial CBIs and public engagement. The second meeting was held October 6, 2021 and focused on the results of the IRP and actions that PacifiCorp can take to influence the CBIs and their defined metrics. The third meeting was held November 10, 2021 and provided an overview of the draft CEIP for public feedback.

PacifiCorp held 3 technical conferences on the CEIP development process that were targeted for parties interested in a deeper examination of the CEIP. The first meeting was held on September 14, 2021 and provided an overview of the 2021 IRP and CEIP workplan, highlighted PacifiCorp’s proposed Utility Actions, and discussed near-term procurement actions. The second technical conference was held on October 19, 2021 and provided an overview of resource planning and utility costs, refined CBIs, and an update on Utility Actions. The third technical conference was held on November 10, 2021 and provided an overview of this draft CEIP.

PacifiCorp documented its responses to questions, comments and input received as part of its public participation process. PacifiCorp’s responses to comments are found in Appendix A.

Addressing Barriers to Participation

PacifiCorp understands that accessibility is key to ensuring an inclusive public participation process. Through our interviews with experts and EAG members, we identified potential barriers to public participation more broadly, and worked to apply the learnings to encourage participation from members of the public. PacifiCorp identified the following potential barriers to public participation:

In-person outreach and in-person meetings were not possible due to the COVID-19 pandemic and PacifiCorp primarily relied on digital channels for outreach. PacifiCorp continually worked to address the barrier caused by reduced in-person and in-community outreach by refining its methods of communication. As the 2022 CEIP is implemented,

PacifiCorp will continue to explore avenues of community engagement and outreach/education in coordination with its EAG and other existing community organizations as more in-person options become available.

For customers who do not regularly participate in utility planning processes, there may be a perception that input will not be considered by the utility. PacifiCorp worked to clearly outline how feedback was being considered and accounted for as part of the 2022 CEIP. The company worked to address this barrier by conducting proactive outreach to community groups through our regional business managers, by providing meeting notes and materials that include what stakeholder feedback was received during meetings, and through a summary of stakeholder feedback and how that feedback was ultimately incorporated into the CEIP.

Language Considerations. PacifiCorp addressed language considerations by working with a translation service to provide a Spanish version of the company’s CEIP website and meeting materials. Providing Spanish translations of materials is consistent with the company’s current outreach process in Washington. The website included Spanish translated versions of meeting materials, instructions regarding how to participate in future meetings as well as a tentative schedule for topics to be addressed during future meetings, and a link to contact PacifiCorp to request translation services at future CEIP meetings. PacifiCorp also provided live Spanish interpretation services for public participation meetings.

Cultural Considerations. PacifiCorp worked to address cultural barriers and embrace cultural differences by obtaining a deeper understanding of the communities within its service area. PacifiCorp’s EAG advised that the company needs to learn more about our different communities so that we can specifically refine and enhance our mechanisms for outreach and communication. Through contacts with community organizations, we are continually learning and working toward accommodating cultural differences. PacifiCorp also recognized the need for diversity training within our organization and as of June 2021, all employees have received Unconscious Bias training so that we can be more aware of how our actions affect others. PacifiCorp will continue to have conversations with the EAG and public to learn more about ways the company can communicate to meet in ways that meet the cultural needs of its communities.

Members of the public may face economic barriers to participation as most utility engagement has historically been held during weekdays. As part of the interview process in formulating the EAG, PacifiCorp asked potential members to provide feedback on preferred meeting times, with options for meetings outside of typical working hours. While meetings during weekdays were still the preferred option for the EAG, PacifiCorp took steps to address economic barriers by offering a stipend to EAG members who indicated that a stipend would be helpful.

Utility planning processes are often data-heavy, and improvements are planned to make data available in broadly understood terms. PacifiCorp is working to ensure that data is available in broadly understood terms.

As a result of input received from existing advisory groups, the EAG and requests from the public and other stakeholders, PacifiCorp implemented alternative approaches to promote public participation that included:

- Bill inserts and bill messages provided electronically for customers who receive their bills electronically or printed for customers who receive their bills by mail.
- Social media posts targeted to PacifiCorp’s service area in Washington.
- Notices published in newspapers of general circulation in PacifiCorp’s service area in Washington.
- Radio ads running on stations in PacifiCorp’s service area in Washington; and
- Direct email to customers who have provided email information to us.

Incorporating Learnings from Existing Advisory Groups

PacifiCorp has historically considered input throughout the planning process from the company’s existing Washington advisory groups: DSM, low-income programs, and the IRP public participation process. These processes will continue to inform how the company approaches long- and intermediate-term planning. Input from these stakeholders informed the resource, strategy, and CBI considered in the development of the 2022 CEIP. Generally, the input from the stakeholder groups discussed in this chapter was used in the following ways to inform the company’s 2022 CEIP:

- Iterative development of future Washington-specific Clean Energy Action Plans (CEAPs)
- Identification of highly impacted communities and vulnerable populations (referred to as named communities) within the CEIP
- Development of CBIs flowing to named communities and all customers including named communities
- Weighting factors for CBIs specific to named communities and all customers, including named communities
- Development of the utility interim targets within the CEIP
- Development of the CEIP utility actions

Input from these advisory groups will continue to be critical throughout the 2022-2025 implementation period.

Incorporating Stakeholder Feedback from the Low-Income Advisory Committee

PacifiCorp’s Low-Income Advisory Group meets regularly to discuss issues related to energy burden, as well as to advise the company on programs designed to increase limited-income customers’ ability to pay their monthly bills through energy assistance, efficiency measures, and bill discounts. The group currently has two existing programs in its purview:

- **Bill Discount Program:** Included 6,100 participating households in 2019 with a total assistance amount of \$3.1 million.
- **Low-Income Weatherization:** Has provided weatherization funding to over 7,800 homes since the program began. Program eligibility based on 200 percent of federal poverty guideline or 60 percent of state median income, whichever is greater.

This group discussed the methods by which utilities must make funding available on July 31, 2021, for low-income households with income that do not exceed the higher of 80 percent of area median income or 200 percent of federal poverty level. This change modifies the eligibility threshold of the current low-income bill assistance program, and PacifiCorp held meetings to seek advice from the advisory group on meeting income guidelines.

Members of the Low-Income Advisory Group include: Commission Staff, The Energy Project, Public Counsel, NW Energy Coalition, PacifiCorp and the three local Community Action Agencies that administer Low Income Bill Assistance Program (Schedule 17) (Blue Mountain Action Council in Walla Walla, Northwest Community Action Center in Toppenish, and Opportunities Industrialization Center in Yakima). A few of the Low-Income Advisory Group members are also members of PacifiCorp's EAG.

The Low-Income Advisory Group met in May and June 2021 to discuss potential modification to Schedule 17 - Low Income Bill Assistance Program (LIBA) and supported modifications including income guideline tier structure, removal of enrollment cap extending program to all income qualified applicants, and straight percentage discount of net bill. Modifications to LIBA program approved by the Commission and implemented effective August 1, 2021. PacifiCorp obtained input from the Low-Income Advisory Group through the Clean Energy Benefit Survey and presented draft CBIs to the group on July 20, 2021. Input from the Low-Income Advisory Group informed the CBIs and metrics developed as part of this 2022 CEIP.

PacifiCorp plans to hold meetings with the Low-Income Advisory Group in the first half of 2022 to provide updates on the Schedule 17 - Low Income Bill Assistance program and to discuss energy conservation program delivery for Highly Impacted Communities (HIC) and Vulnerable Populations. Additionally, PacifiCorp will provide regular updates to the Low-Income Advisory Group on energy efficiency and related communication specific actions included in the CEIP on an ongoing basis, including the WUTC decision on company's advice filing which includes modifications to the Low Income Weatherization program. Additionally, PacifiCorp plans to discuss the development and scope of an Arrearage Management Plan with its Low-Income Advisory Group.

Incorporating Stakeholder Feedback from the DSM Advisory Group

PacifiCorp uses its DSM Advisory Group to meet the requirements of WAC 480-109-110. The DSM Advisory Group was initially created under the June 16, 2000, Comprehensive Stipulation in docket UE-991832, which the Commission approved in the August 9, 2000, Third Supplemental Order in that docket, and its IRP public input process created under WAC 480-100-238.

DSM Advisory Group topics are focused on energy efficiency (also known as conservation) and include but are not limited to the Energy Independence Act (EIA or I-937) biennial target setting process, including program design and plans, adaptive management, budgets, and communication strategies to achieve the Commission-approved biennial target, cost recovery through the system benefit charge, cost effectiveness. Regulatory filings related to conservation must be provided to the DSM Advisory Group at least 30 days ahead of filing. Members are

asked to provide written comments on conservation filings within 1-2 weeks so their review can be incorporated into the final filed documents.

The DSM Advisory Group meets at least four times per year. Presentation materials are provided 1-2 days in advance of the meeting. Supplemental files may also be provided. The meeting is typically conducted by one or more members of PacifiCorp’s conservation delivery team. Company speakers rotate depending on subject matter. Subject matter experts outside the company may be asked to speak. Presentations are informal with questions encouraged and discussed in the presentation. Meeting notes are kept by the company, but not typically circulated back to the group. Specific group follow-ups are captured and included in the next meeting agenda.

Members include Commission staff, The Energy Project, Public Counsel, NW Energy Coalition, and PacifiCorp. Representatives from Northwest Power and Conservation Council, Northwest Energy Efficiency Council, PacifiCorp customers, Puget Sound Energy, Avista and the Northwest Energy Efficiency Alliance have attended selected meetings in the past. PacifiCorp members have attended Puget Sound Energy and Avista advisory group meetings in the past.

On June 17, 2021, PacifiCorp presented details regarding CETA, the EAG and highly impacted communities within the Washington service area to the DSM Advisory Group. Further, on July 22, 2021, PacifiCorp provided details regarding vulnerable populations, draft CBIs, and requested the DSM Advisory Group to complete the Clean Energy Benefit Survey. On September 2, 2021 PacifiCorp presented an update on CBI development, CBI weighting and a residential benefits crosswalk. On September 15, 2021 PacifiCorp provided draft program details and budgets which included utility actions for energy efficiency that would be included in the draft CEIP. The draft DSM Business Plan provided to the group on October 1, 2021 requested comments and also included the utility action information. The DSM advisory group provided direct input on PacifiCorp’s specific actions developed as part of the 2022 CEIP. PacifiCorp will provide regular updates to the DSM Advisory Group on the energy efficiency, demand response, and related communication specific actions included in the CEIP on an ongoing basis.

Incorporating Stakeholder Feedback from IRP Public-Input Process

PacifiCorp develops its 20-year IRPs on a biennial basis through a robust and inclusive public-input process that allows for stakeholder review and feedback on the company’s long-term planning assumptions, methodologies, analysis, and results. Stakeholders have been involved in the development of the 2021 IRP from the beginning. The public-input meetings held beginning in January 2020 were the cornerstone of the direct public-input process, and there have been a total of 18 public-input meetings held as part of the 2021 IRP development cycle. Three of the meetings were topic-specific technical workshops to discuss development of its CPA. An additional IRP stakeholder meeting was held post-filing on October 1, 2021. The IRP public-input process also included state-specific stakeholder dialogue sessions held in July 2020. The goal of these sessions was to capture key IRP issues of most concern to each state, as well as to discuss how to tackle these issues from a system planning perspective.

PacifiCorp’s IRP public-input process uses stakeholder feedback forms as a vehicle outside of the public input meetings to receive and respond to stakeholder questions and recommendations – as of August 31, 2021, the company had received 91 stakeholder feedback forms comprised of more than 480 questions, comments, or recommendations. PacifiCorp makes these stakeholder feedback forms and the company’s responses publicly available on the company’s IRP webpage. PacifiCorp also provides a summary of the public input process in Appendix C, Public Participation, within its filed IRP.

The company’s IRP public-input process generates input that directly informs the development of the company’s IRP. Most notably, this can be seen through the company’s scenarios and sensitivities run as part of the portfolio modeling process, inputs to modeling assumptions such as the supply-side resource table and price-policy scenarios, and its portfolio modeling methodology and approach. The robust, transparent, and inclusive IRP public-input process provides for public input to ensure that PacifiCorp’s IRP produces a 20-year resource portfolio that is reliable, least-cost and least-risk. This resource portfolio, the preferred portfolio, informed the 10-year Washington-specific CEAP. IRP public-input meetings are open to the public, and to the extent that members of other advisory groups – or anyone interested in the process – would like to attend and provide feedback, PacifiCorp welcomes the participation.

As part of the June 26, 2021, July 30, 2021, and August 27, 2021, IRP public-input meetings PacifiCorp provided an update on the CEIP development process and ways for the public to provide feedback.

Establishing and Supporting the EAG

To establish a cleaner and more equitable electricity system for Washington, PacifiCorp formed its EAG. The EAG is intended to elevate issues of energy equity in the planning process by providing a seat at the table to affected communities. Members of the EAG are community leaders supporting underserved populations, and they provide insights into the lived experiences of Washington communities.

To establish an EAG in compliance with WAC 480-100-655(1)(b), PacifiCorp consulted with experts in energy equity and invited stakeholder input from the onset of the outreach process. These experts included:

- American Council for an Energy-Efficient Economy (ACEEE)
- Front and Centered
- Initiative for Energy Justice (IEJ)
- RMI*
- The Public Counsel Unit of the Washington Attorney General’s Office
- Washington Utilities and Transportation Commission Staff

**RMI served as a consultant to this project, facilitating and designing EAG meetings alongside PacifiCorp’s CEIP team.*

With these experts, PacifiCorp’s team worked not only to identify representative community members for the EAG but also to design an inclusive input process for the EAG to

meaningfully engage in the planning process. This included identifying pathways to integrate EAG expertise into the resource planning process, CEAP, and CEIP.

Identifying EAG Members and Participants

PacifiCorp’s two Washington-focused Regional Business Managers (RBMs) serve as ties between the company and community. These RBMs actively participate in community events and engage with Washington customers. RBMs were integral in identifying prospective EAG participants and supporting stakeholder outreach.

The stakeholder outreach phase of this work served as a forum for gathering insights on local energy equity-related challenges. These interviews provided PacifiCorp and RMI with an understanding of important priorities and perspectives to consider as we designed the EAG and planned for group discussions.

As part of these interviews, PacifiCorp and RMI asked for additional recommendations and referrals for potential EAG participants that have direct knowledge and experience with communities or populations identified as highly impacted or potentially vulnerable. The following organizations provided perspective through this process:

- Asian Pacific Islander Coalition (APIC)-Yakima
- Blue Mountain Action Council (BMAC) of Walla Walla
- Central Washington Hispanic Chamber of Commerce
- The Energy Project
- Greater Yakima Chamber of Commerce
- La Casa Hogar
- Northwest Community Action Center (NCAC)
- Northwest Energy Coalition (NVEC)
- Opportunities Industrialization Center (OIC) of Washington
- Perry Technical Institute
- People for People
- SonBridge
- University of Washington
- Walla Walla Sustainable Living Center
- Washington State Department of Commerce
- Washington State Department of Veterans Affairs
- Washington State Office of the Attorney General
- Washington Utilities and Transportation Commission Staff
- Yakama Nation
- Yakama Power
- Yakima County Development Association
- Yakima County Health District

Overall, these stakeholders expressed passion for the importance of this work and its related outcomes. Stakeholders emphasized the importance of including new voices, creating an accessible public process, and ensuring that the perspectives adequately reflect these communities. Interviewees also shared perspectives on challenges that the communities are facing and how energy equity directly relates to the conditions and situations that people are facing. Challenges shared included: the COVID pandemic, access to computers and internet,

language barriers, heating homes with wood-burning stoves, and a lack of equitable economic development.

Other input captured from stakeholder interviews included priorities related to energy equity, suggested topics to cover in EAG meetings, reasonable expectations to have of EAG members, as well as EAG member accommodations and support. Stakeholders were also asked to share ideas for additional organizations or individuals to reach out to about this effort.

Based on input from these stakeholders, PacifiCorp recruited 12 EAG members (see Table 5.3) to represent local perspectives related to:

- Environmental justice
- Public health
- Social Services
- Businesses
- Tribal populations
- Asian Pacific Islander community
- Hispanic community
- Seniors
- Veterans
- Low-income population
- Agricultural workers

Table 5.3 – PacifiCorp 2021 Equity Advisory Group Members

Name	Organization
Paul Tabayoyon	Asian Pacific Islander Coalition
Sylvia Schaeffer	Blue Mountain Action Council of Walla Walla
Angelica Reyes	La Casa Hogar
Laura Armstrong	Independent representative (former employee of La Casa Hogar)
Noemi Ortiz	Northwest Community Action Center
Isidra Sanchez	Opportunities Industrialization Center
Kaila Lockbeam	Perry Technical Institute
Norman Thiel	SonBridge
Erendira Cruz	Walla Walla Sustainable Living Center
Raymond Wiseman	Representing Yakama Nation; employee of Yakama Power
Jonathan Smith	Yakima County Development Association
Nathan Johnson	Yakima Health District

Building an Inclusive and Accessible Process of Consultation and Collaboration

For the engagement of the EAG to be meaningful, the collaboration process supported full and authentic participation by all individuals. PacifiCorp worked closely with EAG members to address the following potential barriers to EAG and public participation:

- **Information Accessibility.** To ensure that people of various backgrounds were able to participate in this work, PacifiCorp used a variety of outreach and communications channels, including:
 - PacifiCorp’s CEIP webpage

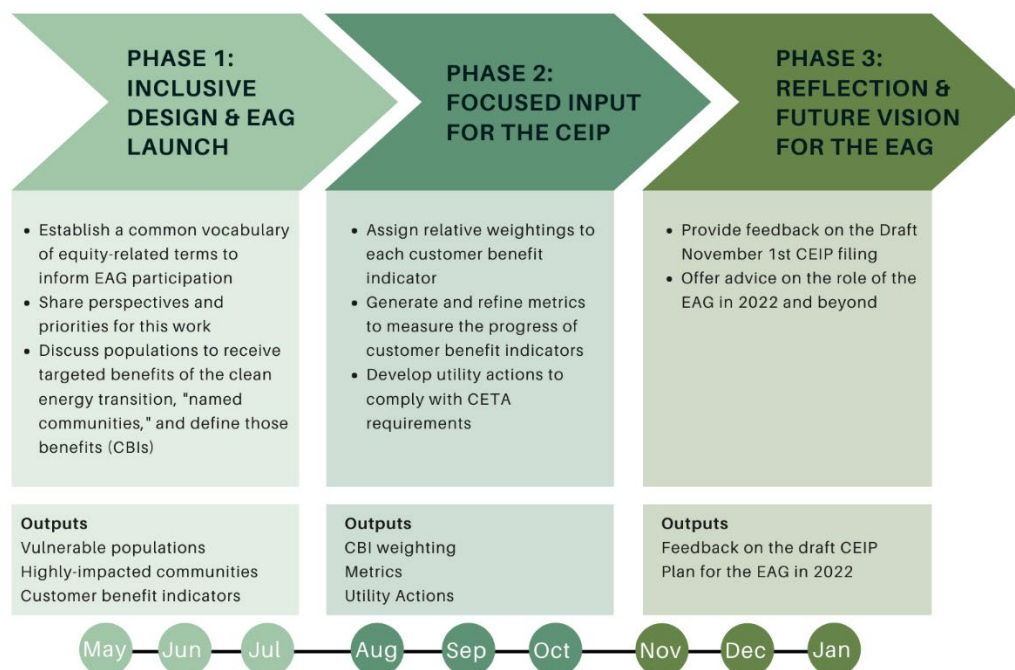
- Email distribution list for CEIP stakeholders, which members of the public were invited to join by emailing CEIP@pacificorp.com,
- Pre-meeting materials that outline meeting objectives and discussion topics, sent directly to EAG members at least 3 business days prior to each scheduled EAG meeting
- Spanish translation of EAG materials shared with EAG members and posted on the CEIP website
- Conference calls with EAG members e.g., when requested by EAG members; make up EAG meeting when 5 members were not able to attend
- Cross-channel communication between the EAG, DSM Advisory Group, Low-Income Advisory Group, and IRP Public Process to inform these groups about the opportunity to participate in CEIP development
- Use of collaboration tools (e.g., MURAL digital workspace, online documents, and online spreadsheets) to collect input and feedback
- **Meeting Accessibility.** Timing and schedules of meetings were determined in collaboration with EAG members to provide the greatest opportunity for participation. In addition to inclusive scheduling, PacifiCorp has a publicly-facing CEIP webpage that publicizes the following meeting information:
 - Times
 - Duration
 - Frequency
 - Virtual meeting web links and phone numbers (or location for future in person meetings when it is safe to do so)
- **Language Accessibility.** Feedback on language considerations and translation support were requested following the first EAG meeting on May 13, 2021. In response, the company expanded translation services to include meeting materials and notes.
- **Meeting Transparency.** EAG meetings were open to the public for observation, though active participation in discussion and breakout rooms was limited to EAG members. Each meeting had a period for public comment. Following each EAG meeting, meeting notes were posted on the company’s CETA website for public review and comment.
- **Compensation.** PacifiCorp piloted a program to compensate EAG members for their time and participation. Five EAG organizations opted into the compensation pilot in 2021. It is expected that the compensation program will be adopted for the CEIP implementation period of 2022-2025.

EAG Collaboration and Meeting Schedule

As described below and illustrated on Figure 5.1, PacifiCorp engaged the EAG across three phases in 2021:

- Phase 1 – Inclusive Design and EAG Launch
- Phase 2 – Focused Input on the CEIP
- Phase 3 – 2021 Reflection and Future Vision for the EAG

Figure 5.1 – PacifiCorp EAG Collaboration



Phase 1 – Inclusive Design and EAG Launch

Phase 1 focused on creating a common vocabulary and mission among EAG members and PacifiCorp. In Phase 1, the EAG shared the lived experiences that informed their contributions to this work, noted the communities that they serve, and co-created definitions of terms important to this work. The outcomes of this phase served as the foundation for the rest of this work.

In Phase 1, the EAG was also tasked with reviewing the definition of highly impacted communities and identifying “vulnerable populations.” PacifiCorp’s EAG defined vulnerable populations as “Communities that experience a disproportionate cumulative risk from environmental burdens due to a) Adverse socioeconomic factors, including unemployment, high housing and transportation costs relative to income, linguistic isolation, and access to food, education, health care, capital and credit; and (b) Sensitivity factors, such as low birth weight and higher rates of hospitalization.” The EAG brainstormed populations that fit this definition in PacifiCorp’s service area and iterated on that list throughout their work together.

The highly impacted communities and vulnerable populations together comprise the named communities that are a focal point of this work, through the development and deployment of CBIs that the EAG began scoping at the end of Phase 1.

Phase 2 – Focused Input for the CEIP

In Phase 2, the EAG began the work of applying the outcomes from Phase 1 to the CEIP. To that end, the EAG helped define the relative weights of the CBIs—this weighting also accounted for the more than 1,000 public responses to a survey about benefit categories and CBIs (more information about the survey is included earlier in this Chapter (Public

Engagement - Outreach, Timing, Methods, and Language) as well as Chapter 2, CBI Development.

EAG members also brainstormed ways to measure the CBIs that they saw as most crucial to their communities. The EAG then provided feedback on a more complete list of metrics. PacifiCorp compiled this list of metrics by examining existing and accessible data resources available to support CBI progress tracking. Further details on this data process are provided in Chapter 2: Summary of Customer Benefit Indicators.

Phase 3 –Reflection & Future Vision for the EAG

In Phase 3, the EAG was tasked with two distinct duties: (1) provide feedback on the Draft November 1 CEIP, and (2) offer advice on the role of the EAG in 2022 and beyond.

For task 1, the EAG provided direct comments on the CEIP and participated in a CEIP feedback meeting on November 17, 2021. This meeting supported the EAG in understanding, digesting, and providing comments on the CEIP. It started with an overview of the CEIP, followed by more details on the chapters that pertain to equity outcomes—the EAG’s feedback has been crucial on equity outcome topics and planning for an equitable clean energy transformation.

For the second task of Phase 3, EAG members were asked to respond to a survey regarding the proposed plan for EAG 2022. After the seventh meeting, the post-meeting survey included questions to understand the interest of EAG members to continue to participate in the group and other information to help PacifiCorp plan for the EAG in 2022. The results from that survey revealed that:

- Eight of the 12 current EAG members said that they would like to continue to participate in the EAG in 2022.
 - 1 respondent would not like to participate
 - 1 respondent would like to participate in the future, but is not available in 2022
 - 1 respondent would like to participate but does not have sufficient availability to be a full EAG member
- EAG members recommended meeting on a regular basis throughout 2022. PacifiCorp is planning to propose a meeting schedule of every 6 weeks (2 meetings per quarter).
- 64 percent of respondents would like meetings that are shorter than 3 hours, 36 percent of respondents like 3-hour meetings. PacifiCorp is planning to propose a meeting duration of 1.5 to 2 hours, depending on meeting content.
- Several respondents recommended additional organizations that could be considered for inclusion in the EAG in 2022: Yakima National Association for the Advancement of Colored People (NAACP), Nuestra Casa, Sunnyside, The Energy Project (PacifiCorp invited The Energy Project to participate in 2021, but they declined), and trade allies, like Nexant, Evergreen Efficiency, and Craft 3.
- EAG members offered ideas for topics to cover in 2022, in the following categories:
 - Overall CEIP implementation

- Additional context on the four CEIP focus areas (supply-side resources, energy efficiency, demand response, and community outreach and engagement): costs, constraints, opportunities
- Implementation details, especially as they relate to ideas generated by the EAG
- Energy resources
 - Equity questionnaire for resource procurement decisions and its criteria and weighting
 - The potential Yakima Wind project planned for 2030
- Community outreach and engagement
 - Plans and actions for community outreach and engagement, with a lens on which local organizations can help with these efforts
 - Multi-lingual engagement
 - Community input and community needs
 - Community education on CETA
- EAG member organizations
 - Short presentations by EAG members on their organizations and impact

Overall, members of the 2021 EAG voiced gratitude for PacifiCorp’s efforts on this work and an appreciation for the structure and effectiveness of EAG meetings.

Past EAG 2021 meetings are summarized in Table 5.4.

Table 5.4 – PacifiCorp EAG 2021 Schedule

Date	Topics for Discussion
May 13, 2021	EAG Meeting 1: Background and introductions Discussion topics included initial introductions, providing background on PacifiCorp and CETA, collaboratively defining equity, and mutual sharing of perspectives, backgrounds, and experiences.
June 16, 2021	EAG Meeting 2: Named communities Topics included the review of highly impacted communities, identification of vulnerable populations, and exploring potential benefits, burdens, and opportunities of clean energy for highly impacted communities and vulnerable populations.
July 21, 2021	EAG Meeting 3: Customer benefit indicators: Part I Topics for discussion included an overview of PacifiCorp’s CEIP, initial view of existing customer programs, and the role of CBIs for tracking progress on equity; CBI alignment with challenges for named communities with community priorities; and initial draft of CBIs.
August 18, 2021	EAG Meeting 4: Customer benefit indicators: Part II Topics for discussion included input from EAG on CBIs; CBI prioritization and weighting factors; methods and data to support CBI metrics; constraints and challenges of CBI metrics.
September 15, 2021	EAG Meeting 5: CBI metrics, utility planning, and utility actions Topics for discussion included continued input on CBI metrics; an initial list of PacifiCorp actions, and an overview of PacifiCorp’s upcoming draft CEIP.
October 20, 2021	EAG Meeting 6: Preparing for draft CEIP comments Topics included highlights on the impact of the EAG on the work thus far; review of CBIs and metrics; more detail on utility actions; process for providing feedback on the CEIP.
November 1, 2021	Draft CEIP published
November 17, 2021	EAG Meeting 7: Draft CEIP review and comments Topics for discussion will include an overview of the November 1 Draft CEIP, input from the EAG on PacifiCorp utility actions and equity included in the November 1 Draft CEIP.

Clarifying How PacifiCorp Incorporated Feedback from the EAG in its CEIP

Throughout 2021, the EAG’s input was critical to the development of the CEIP. In particular, the EAG’s input directly fed into the development of named communities, CBIs, utility actions, and metrics.

1. **Named Communities:** Members of the EAG helped construct the definitions of equity that served as guiderails for this work. With these definitions in mind, the EAG provided feedback on the highly impacted communities as determined by CETA and developed the list of vulnerable populations that are a focus of this work. Further, they helped scope the precise challenges and barriers to participation that these populations face that contribute to the company’s CBIs and actions.
2. **CBIs:** Using these named communities, the EAG defined the benefits that they would like these communities to realize through the clean energy transition in the CBI outcomes. The EAG also provided crucial insight on the lived experiences of community

members to understand the relative importance and prioritization of CBIs, which resulted in the CBI weighting.

3. **Utility Actions:** The EAG’s ideas led to a number of equity-focused Utility Actions, which are outlined in Chapter 2 in the section entitled Communication, Outreach and Engagement. The EAG prioritized the accessibility of utility programs with a focus on helping communities to understand what programs are available and how they can take advantage of them. As part of these considerations, the EAG emphasized the need for PacifiCorp to communicate in ways that meet the language and cultural needs of its communities. EAG discussions led to new program design considerations, including funding for residential energy efficiency repairs and an electric vehicle grants program.
4. **Metrics:** PacifiCorp’s EAG demonstrated a deep understanding of program tracking and appropriate metrics. This expertise helped in the development of leading metrics included in the CEIP. Not only will these metrics support PacifiCorp’s progress along key indicators, but they will help to build equity into the success of important programs.

Together, this input has formed the basis of PacifiCorp’s long-term commitment to equity and an equitable transition to clean energy in the state of Washington.

EAG 2022 and Beyond

At the EAG meeting on January 19, 2022, PacifiCorp will solicit additional input and ideas from the EAG for how to design successful EAG meetings in 2022. PacifiCorp will account for this feedback and input as the plans for EAG meetings in 2022 are developed. Such future engagements may include EAG participation select program design and outreach. PacifiCorp will continue to engage the EAG as a sounding board to learn more about the needs of its Named Communities as the company develops culturally and linguistically responsive outreach and marketing to increase awareness of its energy and conservation programs.

Future EAG 2022 meetings are proposed in Table 5.5. This schedule is draft and subject to change based on input received from the EAG during the January 2022 meeting and EAG recruitment efforts.

The company recognizes that the scope of the EAG’s role in the CEIP will be refined over time. No less than annually, the EAG processes will be evaluated and modified based on feedback, new projects and/or programs, or other considerations by members. PacifiCorp will rely upon outreach methods identified in Table 5.1 to keep the public informed on EAG meeting dates, topics, and opportunities for engagement.

Table 5.5 – PacifiCorp EAG 2022 Proposed Schedule

Date	Topics for Discussion (subject to change)
January 19, 2022	<ul style="list-style-type: none"> • Reflections on EAG process in 2021, and next steps for EAG 2022 • Updates/Review of final CEIP, feedback received
January and February 2022	EAG New Member 2022 Recruitment
February 16, 2022	<ul style="list-style-type: none"> • Review of scope and schedule for meeting topics as discussed at January meeting • Onboarding new EAG members and invitation to other advisory group members that want to learn more • Introduce EV Plan and explore design of EV Grant Program
March 16, 2022	<p>Potential topics include:</p> <ul style="list-style-type: none"> • EAG Member Presentations (5-7) on organizational priorities • Explore design of EV Grant Program (continued)
April 13, 2022	<p>Potential topics include:</p> <ul style="list-style-type: none"> • EAG Member Presentations (5-7) on organizational priorities • Plans and actions for community outreach and engagement, with lens on partnerships with local organizations
June 15, 2022	To be determined
July 13, 2022	To be determined
September 21, 2022	To be determined
October 19, 2022	To be determined
December 7, 2022	Reflections on EAG process in 2022, and next steps for EAG 2023

CHAPTER 6 – ANNUAL REPORTING

Regulatory Reporting Requirements

WAC 480-100-650 sets forth the requirements for ongoing reporting to include:

- (1) Preparation of a clean energy compliance report to be filed by July 1, 2026, and every 4 years thereafter.
- (2) Preparation of annual clean energy progress reports to be filed by July 1st of 2023 and every year thereafter except for the years when a clean energy compliance report is submitted.

As outlined at WAC 480-100-650 (3), PacifiCorp’s annual clean energy progress report will contain the following information:

- (a) Beginning July 1, 2027, and each year thereafter, an attestation for the previous calendar year that PacifiCorp did not use any coal-fired resource to serve Washington retail electric customer load;
- (b) Conservation achievements in megawatts, first-year megawatt-hour savings, and projected cumulative lifetime megawatt-hour savings;
- (c) Demand response program achievement and demand response capability in megawatts and megawatt hours;
- (d) Renewable resource capacity in megawatts, and renewable energy usage in megawatt hours and as a percentage of electricity supplied by renewable resources;
- (e) All renewable energy credits and the program or obligation for which they were used;
- (f) Verification and documentation of the retirement of renewable energy credits for all electricity from renewable resources use to comply with the requirements of RCW 19.405.040, 19.405.050, a specific target, or an interim target; except for electricity purchased from Bonneville Power Administration, which may be used to comply with these requirements without a renewable energy credit until January 1, 2029, as long as the nonpower attributes are tracked through contract language;
- (g) Non-emitting resource capacity in megawatts, and non-emitting energy usage in megawatt hours and as a percentage of total electricity supplied by non-emitting energy;
- (h) PacifiCorp’s greenhouse gas content calculation pursuant to RCW 19.405.070;
- (i) An electronic link to the utility’s most recently filed fuel mix disclosures report as required by RCW 19.29A.140;
- (j) Total greenhouse gas emissions in metric tons of CO₂e;
- (k) Demonstration of ownership of nonpower attributes for non-emitting generation using attestations of ownership and transfer by properly authorized representatives of the generating facility, all immediate owners of the non-emitting electric generation, and an appropriate company executive of the utility.

Other Information

Other information (WAC 480-100-650 (3)(1)) that PacifiCorp plans to provide in its annual report that directly relates to the 2022 CEIP include:

- Customer benefit indicators for programs and actions as outlined in Chapter 2
- Progress on the specific actions found in Chapter 3
- Status of incremental costs in comparison to what is found in Chapter 4

- Ongoing public participation efforts and tactics based on Chapter 5

CBI

In addition to energy tracking, PacifiCorp will also report on and track customer CBIs described in Chapter 2. These metrics report on the progress made in each CBI as PacifiCorp moves through the four-year CEIP cycle. There are separate metrics for each CBI that connect with the feedback that PacifiCorp received from its customers and stakeholders as part of the public participation process.

Table 6.1 shows the metrics for these customer benefit indicators, as described in Chapter 2. PacifiCorp is still in the process of evaluating data availability for some of the metrics. Many of these are new for PacifiCorp; measurement methods and data will continue to be refined over time.

Table 6.1 – CBIs and Metrics

CBI	Metric(s)
Culturally and linguistically responsive outreach and program communication	<ul style="list-style-type: none"> • Outreach in non-English languages • Percentage of responses to surveys in Spanish
Community-focused efforts and investments	<ul style="list-style-type: none"> • Workshops on energy related programs • Headcount of staff supporting program delivery in Washington who are women, minorities, and/or can show disadvantage • Number of public charging stations in named communities
Participation in company energy and efficiency programs and billing assistance programs	<ul style="list-style-type: none"> • Number of households/businesses, including named communities, who participate in company energy/efficiency programs • Percentage of households that participate in billing assistance programs • Number of households/businesses who participate/enroll in demand response, load management, and behavioral programs
Efficiency of housing stock and small businesses, including low-income housing	<ul style="list-style-type: none"> • Number of households and small businesses that participate in company energy/efficiency programs • Energy efficiency expenditures
Renewable energy resources and emissions	<ul style="list-style-type: none"> • Amount of renewables/non-emitting resources serving Washington • Washington allocated greenhouse gas emission from Washington allocated resources
Households experiencing high	<ul style="list-style-type: none"> • Number of customers experiencing high energy burden

energy burden	by: highly impacted communities, vulnerable populations, low-income bill assistance (LIBA) and Low-Income Weatherization participants, and other residential customers
Indoor air quality	<ul style="list-style-type: none"> • Number of households using wood as primary or secondary heating • Non-electric to electric conversions for Low-Income Weatherization program
Frequency and duration of energy outages	<ul style="list-style-type: none"> • SAIDI, SAIFI, and CAIDI at area level including and excluding major events
Residential customer disconnections	<ul style="list-style-type: none"> • Number of residential customer disconnections including disconnections within named communities

Specific Actions

In the annual CEIP progress report, PacifiCorp will report on progress on specific actions. This will include:

- A summary of actions
- Learning that could affect future actions, program design, or targets
- Challenges or barriers encountered that could affect actions, program designs, or targets
- A summary of any required changes to specific actions or program

Incremental Costs

The annual CEIP progress report will provide an update of forecasted or estimated incremental costs presented in the 2022 CEIP.

Public Participation

Ongoing public participation is critical to the success of PacifiCorp’s CEIP.

As part of reporting on public participation, PacifiCorp will prepare a summary of the following topics in the annual report:

- Public participation tactics used
- Success and challenges encountered in public participation
- Adjustment made to public participation during the year
- A summary of advisory group activities during the year
- Copies of or links to advisory group materials and meeting summaries

Definitions

- **Customer benefit indicator (CBI):** an attribute, either quantitative or qualitative, of resources or related distribution investments associated with customer benefits.
- **CBI metric:** the variety of methods in which PacifiCorp understands change in data/criteria used to track CBI progress.
- **Clean Energy Action Plan (CEAP):** The Clean Energy Action Plan (CEAP) is a ten-year planning document that is derived from the IRP and included as an appendix to the IRP. The CEAP provides a Washington-specific view of how PacifiCorp is planning for a clean and equitable energy future that complies with CETA.
- **Clean Energy Implementation Plan (CEIP):** This document, the CEIP, is a plan that lists the specific actions PacifiCorp will take over the next four years to move toward the 2030 and 2045 clean energy directives.
- **Conservation Potential Assessment (CPA):** The Conservation Potential Assessment (CPA) for 2021-2040, conducted by Applied Energy Group (AEG) on behalf of PacifiCorp, primarily seeks to develop reliable estimates of the magnitude, timing, and costs of DSM resources likely available to PacifiCorp over the IRP's 20-year planning horizon.
- **Demand-side Management (DSM):** PacifiCorp classifies DSM resources into four categories, differentiated by two primary characteristics: reliability and customer choice. These resource classifications can be defined as: demand response (e.g., a firm, capacity focused resource such as direct load control), energy efficiency (e.g., a firm energy intensity resource such as conservation), demand side rates (DSR) (e.g., a non-firm, capacity focused resource such as time of use rates), and behavioral-based response (e.g., customer energy management actions through education and information).
- **Highly impacted community (HIC):** a community designated with a score of 9 or 10 based on the DOH cumulative impact analyses or a census tract that is fully or partially on sovereign tribal territory. Scores are assigned based on several indicators that express: 1) environmental exposures, 2) environmental effects, 3) sensitive populations, and 4) socioeconomic factors. This information is available on the Washington Department of Health's Information by Location Environmental Health Disparities (EHD) map.
- **Integrated Resource Plan (IRP):** The IRP is a comprehensive decision support tool and 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.
- **Named communities:** a term for both highly impacted communities and vulnerable populations.⁹⁸
- **Non-energy impacts (NEIs):** benefits (positive) or costs (negative) of non-energy attributes
- **Request for Proposals (RFP):** A procurement solicitation announcement posted publicly indicating that bids for energy supply contracts and associated resources are sought.

⁹⁸ PacifiCorp recognizes these terms do not reflect the strength, individuality, and cultural values of the communities referenced. These are the terms being used to align with CETA legislation, however, PacifiCorp modified CETA's vulnerable population definition to include the insights and perspectives of the EAG.

- **Vulnerable population:** a community that experiences a disproportionate cumulative risk from environmental burdens due to: (a) Adverse socioeconomic factors, including unemployment, high housing and transportation costs relative to income, linguistic isolation, and access to food, education, technology, broadband, health care, capital and credit; and (b) Sensitivity factors, such as mental health, low birth weight, and higher rates of hospitalization.

Appendix A

Stakeholder Input and Responses

Number	Date	Source of Comment	Where was the comment made?	Category	Comment	PacifiCorp Response	Method if Applicable
1	2021-05-13	Observer or Public Comment	EAG Meeting 1	Stakeholder Engagement	There are lots of good options for public participation. I would be interested in seeing responsiveness to equity issues in the PacifiCorp service area beyond assessments and learnings from Department of Health assessments (for example, contractor-led assessment of what equity looks like). There is deeper work at hand about why this needs to happen to inform discussion in meetings to expand equity focus.	PacifiCorp's Public Participation Plan and the Clean Energy Implementation Plan focus on identifying historic barriers to equity.	Answered in Meeting
2	2021-05-13	Current EAG member	EAG Meeting 1	CETA	What was PacifiCorp doing on clean energy before CETA? Is this new?	PacifiCorp has been working on clean energy for some time. The CEAP and CEIP formalizes and standardizes that work.	Answered in Meeting
3	2021-05-13	Current EAG member	EAG Meeting 1	CETA	Will this process be deployed across other states in PacifiCorp's territory?	There are separate ongoing stakeholder processes that have a multi-state scope, and some of these issues will be addressed for other states through those processes.	Answered in Meeting
4	2021-05-13	Current EAG member	EAG Meeting 1	CETA	Washington customers represent a small customer base for PacifiCorp. However, there is significant interstate transmission between other states in PacifiCorp's service territory. This process raises interstate issues that allow utilities to sometimes bypass customer input. Will we be discussing any Federal issues that are being handled across state lines in PacifiCorp's territory?	PacifiCorp is a multistate entity serving six states. Through this process, the EAG and PacifiCorp will discuss the complexities across state lines.	Answered in Meeting
5	2021-05-13	Current EAG member	EAG Meeting 1	CETA	What's the process for partnering with other utilities to share best practices?	PacifiCorp collaborated with other utilities in Washington to share best practices for this process and will continue to do so going forward.	Answered in Meeting
6	2021-05-13	Current EAG member	EAG Meeting 1	EAG Process	PacifiCorp is looking to the EAG to provide input into how the utility can better deliver equitable solutions to communities that the EAG represents. But PacifiCorp is an investor-owned utility with shareholders that they need to satisfy. Regarding the input that the EAG will be giving: is it more about practical solutions that fit the mold, or input that PacifiCorp will evaluate and decide what is best to implement?	One of the key outcomes of the EAG process is Customer Benefit Indicators (CBIs), which are metric driven. We are looking to the EAG to help answer: what should we be measuring, how do we apply those to CETA compliance, and to the CEIP? How do we really measure community benefits and community impacts? There are many layers, and programs are just one layer of this. The way the EAG engages can be very in-depth. On the planning side of things, we are currently completing our integrated resource plan (IRP). This includes the 10-year Clean Energy Action Plan (CEAP) and the 4-year CEIP. The IRP will also include energy efficiency targets for the state. Together, we will make sure benefits are equitably distributed from the implementation of the CEAP. We haven't finished the analysis, and we don't know what the impact on 4-year planning will look like. As we move through this process, we will have a better view of it, and it will inform the EAG's work as well.	Answered in Meeting
7	2021-05-13	Current EAG member	EAG Meeting 1	EAG Process	Work Definition Feedback from the EAG: <ul style="list-style-type: none"> Equity Include specific language on the most underserved communities, and tie these definitions together (i.e., using "highly-impacted communities"). Include actions that the utility could take like "providing individuals with different resources or program adjustments." Environmental justice This definition could use more specificity like "sustainable use of natural resources," "improving air quality," and "improving waste management services." It should include more language about access to these resources in addition to the kinds of communities. Energy justice No comments. Energy burden Consider the relative component of income (i.e., burden relative to income). Consider industrial and commercial customers and how costs are distributed to customers from those industries. Consider including the costs of firewood for heating. <ul style="list-style-type: none"> Energy security "Affordability" depends on who you are, so revise the definition to "equitable price" or "equitably affordable price." Vulnerable populations Be specific about what is being accessed (e.g., food, capital, credit). <ul style="list-style-type: none"> Highly-impacted community This definition should account for ownership. If people don't own their own homes, they can't access the same affordability programs as homeowners. We should align with the Washington State definition on this.	Working definitions were amended to incorporate additional EAG Member Feedback	Answered in Meeting
8	2021-05-13	Current EAG member	EAG Meeting 1 Feedback Survey	Stakeholder Engagement	In response to additional organizations to consider for the EAG: Yakima Landlord tenant association, Yakima county health coordinator or equivalent position	Member from Yakima County Health District was invited and joined the EAG.	Added to Stakeholder List
9	2021-05-13	Current EAG member	EAG Meeting 1 Feedback Survey	EAG Process	I hope we do have some 'lived experience' members on the EAG or perhaps a workshop with PPL customers.	Comment acknowledged and considered in ongoing implementation process.	Comment noted
10	2021-05-13	Current EAG member	EAG Meeting 1 Feedback Survey	Stakeholder Engagement	In response to additional organizations to consider for the EAG: Trade Allies come to mind. They are in the field. They are helping shape consumer decisions.	Suggestion was considered in the stakeholder identification process.	Added to Stakeholder List
11	2021-05-13	Observer or Public Comment	EAG Meeting 1 Feedback Survey	Stakeholder Engagement	In response to additional organizations to consider for the EAG: Neighborhood Health Clinic	Yakima Neighborhood Health Services was contacted by email with no response.	Added to Stakeholder List
12	2021-05-14	Observer or Public Comment	EAG Meeting 1 Feedback Survey	CBI	The public participation forum during the second half of the meeting could have been more robust. I think only one public observer spoke. To comply with CETA rules around public participation, Pac needs to solicit more input from its customers when developing customer benefit indicators (CBIs).	Comment acknowledged and considered in ongoing implementation process.	Comment noted
13	2021-05-14	Observer or Public Comment	EAG Meeting 1 Feedback Survey	Translation	In response to a question concerning the need for meeting translation: Meeting translation should represent the languages spoken within PacifiCorp's WA service territory.	EAG Meeting Materials are translated and posted to the PacifiCorp CETA Website.	Process adjusted accordingly
14	2021-05-14	Observer or Public Comment	EAG Meeting 1 Feedback Survey	EAG Process	Considering meeting times outside normal work hours (e.g., in the evenings) to encourage a wider cross-section of attendees, especially those from the general public.	Acknowledged. In response, PacifiCorp set up 3 public meetings in September, October, and November 2021 that were scheduled for evening hours.	Process adjusted accordingly
15	2021-05-14	Observer or Public Comment	EAG Meeting 1 Feedback Survey	EAG Process	Recording meetings for optional playback, in case interested stakeholders are unable to attend a given meeting.	Acknowledged. In lieu of recording meetings, PacifiCorp prepared and posted public meeting notes following every EAG meeting.	Process adjusted accordingly
16	2021-05-14	Observer or Public Comment	EAG Meeting 1 Feedback Survey	Stakeholder Engagement	Consider reaching out to Pac's peer WA IOU Avista to better understand ways to engage tribal nations within both IOUs' WA service territories (i.e., Yakama Nation in Pac's territory, Colville Nation in Avista's territory).	Acknowledged. PacifiCorp was pleased to have a representative from Yakama Power be a member of the EAG.	Comment noted
17	2021-05-14	Current EAG member	EAG Meeting 1 Feedback Survey	PacifiCorp Information	In future meetings, I would like to learn more about how PacifiCorp is planning to support and fund upgrades relevant to the transition to clean energy to offset the cost burden to customers. What data will be shared to influence the EAG process? At any point, will targeted feedback from community members and businesses be gathered to enhance insight and planning relevant to the objectives?	Comment acknowledged and considered in ongoing implementation process.	Process adjusted accordingly
18	2021-05-14	Current EAG member	EAG Meeting 1 Feedback Survey	Stakeholder Engagement	In response to additional organizations to consider for the EAG: Yakima Housing Authority and La Casa Hogar .	La Casa Hogar has been added to the EAG.	Added to EAG
19	2021-05-14	Current EAG member	EAG Meeting 1 Feedback Survey	Stakeholder Engagement	In response to additional organizations to consider for the EAG: Shawn Collins at The Energy Project.	The Energy Project declined participation in the EAG.	Added to Stakeholder List
20	2021-05-17	Current EAG member	EAG Meeting 1 Feedback Survey	Stakeholder Engagement	In response to additional organizations to consider for the EAG: I think Yakima Union Gospel Mission would be a helpful addition.	Suggestion was considered in the stakeholder identification process.	Added to Stakeholder List
21	2021-06-16	Observer or Public Comment	EAG Meeting 2	Stakeholder Engagement	In regards to public participation: What is the timing of the public session?	PacifiCorp is still exploring what makes the most sense, but due to COVID, the online survey is currently the primary vehicle to getting input. There are opportunities to expand this reach or try different approaches.	Answered in Meeting
22	2021-06-16	Observer or Public Comment	EAG Meeting 2	Stakeholder Engagement	Will an update of the CEIP/EAG teams' progress be presented at the June 24-25 IRP Public Input Meeting?	[Note: PacifiCorp has since included three additional public sessions in September, October, and November 2021] PacifiCorp is open to this, recognizing that the meeting is for stakeholders across multiple jurisdictions.	Answered in Meeting

Stakeholder Input and Responses

Number	Date	Source of Comment	Where was the comment made?	Category	Comment	PacifiCorp Response	Method if Applicable
23	2021-06-16	Current EAG member	EAG Meeting 2	Named Communities	<p>In response to the question: "What ways do you think clean energy and energy programs could help or complicate the challenges that you identified", the EAG highlighted:</p> <p>Advantages highlighted: Environmental benefits, clean air, healthier people Improved education as a result of resources/services being available Access to younger people through school programs to educate them on energy conservation Distributed generation could result in more local benefits</p> <p>Complications/challenges highlighted: Will this increase energy costs? Addressing the lack of understanding of the programs or benefits Utilities need reliable, cost-effective power supply, so unclear how clean energy development costing will be approached and what scale is needed Avoiding vulnerable populations shouldering the burden of clean energy development (e.g. cost, land) Distributed generation may cost more Many community members rely on gas heating; electric furnaces may have higher equipment and usage costs Economic disparities in the community, such as high vs. low-income users, renters vs. property owners Transportation-related challenges such as public transportation Electricity storage in order to integrate renewables Affordable housing, and incentivizing landlords to invest in their properties How will this process address businesses? Translations are critical to getting through the language barriers</p> <p>Additional considerations PacifiCorp should ensure they are providing relatable, easy to understand information to the community, especially to rural, high-barrier communities which will result in a more trusting relationship. The EAG needs to be able to have and provide pertinent information to the communities they serve as the communities ask questions. There may be opportunities for PacifiCorp to take advantage of community organizations' existing needs assessments processes to gather data. PacifiCorp should consider phone calls or in person surveys, not just online, to expand the reach. The EAG expressed interest in resources (especially with graphics) to ensure they can clearly communicate PacifiCorp's clean energy objectives outside this meeting venue to community members. Jobs are a salient issue in this area – how they are created or impacted – that PacifiCorp should consider sharing more about.</p>	Incorporated into ongoing implementation process.	Input incorporated
24	2021-06-16	Observer or Public Comment	EAG Meeting 2 Feedback Survey	Named Communities	Additional vulnerable populations and challenges: Rural, low income, agricultural workers, tribal members; Access to economic opportunity/development, access to broadband internet, access to affordable healthcare, access to reliable transportation	Acknowledged. These populations and challenges were added/considered.	Comment noted
25	2021-06-16	Observer or Public Comment	EAG Meeting 2 Feedback Survey	Named Communities	Additional vulnerable populations and challenges: Low income population; health effects, health care access	Acknowledged. These populations and challenges were added/considered.	Comment noted
26	2021-06-16	Current EAG member	EAG Meeting 2 Feedback Survey	EAG Process	Visuals would be helpful-- I do think some training around how energy systems work (graphics) would be helpful & what "clean energy" flows/systems would look like...AND, what that means for all from a community level, family unit level, and individual level (as INDIVIDUAL REDACTED) talked about...action opportunities)	PacifiCorp has incorporated this feedback into the EAG Process to provide more time to foundational knowledge of clean energy. PacifiCorp also included "Community Outreach and Engagement" as a Utility Action in its CEIP to include the development of a webpage to host educational resources.	Process adjusted accordingly
27	2021-06-16	Current EAG member	EAG Meeting 2 Feedback Survey	Stakeholder Engagement	Additional Groups to Consider: Nuestra Casa, individual stipends for youth participants (you could talk to the organization, Yakima Música en Acción), Trabajadores Unidos por la Justicia, Latino Community Fund A few thoughts:	Suggestion was considered in the stakeholder identification process.	Added to Stakeholder List
28	2021-06-16	Current EAG member	EAG Meeting 2 Feedback Survey	Stakeholder Engagement	<p>1) I really think hiring or giving stipends to a group of Promotors/Trusted Messengers to push out the PacifiCorp survey will be critical to getting feedback that more accurately will reflect the communities here. Often times, surveys try to have proportional responses to the population; but in this situation, our communities who are most impacted by environmental disparities/health risks may need to have disproportionately higher participation in order to move something forward that is equitable. I hope that makes sense-- feel free to email me about this comment if it's not making sense as I type it.</p> <p>2) Just reiterating that I think a lot of people on our EAG (including myself) and definitely in the community in general may have a vague understanding of what "clean energy" means...as I mentioned above, but also the larger context state-wide, nationally and globally. I feel like there's a lot of education that could be done in fun ways to help us all be on the same page.</p> <p>3) I think there's also room for folks representing different sub-sectors of our community to share more first-hand what some of the realities/barriers/assets & strengths are. I wondered a lot if the group is collectively thinking about the range of dynamics such as: Yakama native experiences/realities, immigration status-related barriers, and also especially communities with smaller population percentages, such as AAPI communities whose history in the Valley is deeply impacted by systemic oppression & historical trauma & exclusion; black communities and history of systemic exclusion of opportunities to thrive locally. I just wonder if overall, more shared knowledge of the contexts of our region & how those impact various sub-communities might be helpful & also be a tool for trust & relationship building in this group overall. In Yakima, many conversations defer to orient around white folks, then in "equity" conversations-- it begins to include Latinx or Yakama communities; meanwhile, there are many other communities with smaller population numbers who remain excluded or pushed to margins in the conversations. It'd be nice to know more about assets/strengths (in addition to barriers) so that we're coming at this from how to reinforce & make more available the strengths/assets to be applied, not only the barriers/challenges we need to "solve". I hope that makes sense!</p> <p>Those are some thoughts! Thanks for all of your work & attitudes of openness to feedback, learning & listening!</p>	Comment acknowledged and considered in ongoing implementation process.	Comment noted
29	2021-06-16	Observer or Public Comment	EAG Meeting 2 Feedback Survey	Stakeholder Engagement	Pac should develop a robust communications and outreach plan for their proposed survey if the company means to mainly rely on it as the public participation measure for the CEIP. Working with EAG members to help access their communities seems very important to be able to receive relevant feedback. What do EAG members feel will be helpful to get responses? What strategies do their organizations use to try to reach underserved populations? Undoubtedly, it is challenging to do this, especially the first time around, but I hope that Pac will be creative and consult with EAG members and other WA utilities as they do this work.	Acknowledged. PacifiCorp plans to continue to engage its EAG on these important issues.	Comment noted
30	2021-06-17	Current EAG member	EAG Meeting 2 Feedback Survey	Stakeholder Engagement	Additional group to consider: WW Immigrant Rights Coalition possibly	Suggestion was considered in the stakeholder identification process.	Added to Stakeholder List
31	2021-07-01	Observer or Public Comment	Public Survey	CETA	How were the results from PacifiCorp's clean energy benefit survey and how will they be used?	PacifiCorp issued a public survey in July and August. While specific responses will not be shared, overall customer feedback was incorporated into the CBI Weighting process. Public survey results were posted on PacifiCorp's CEIP website.	Comment noted
32	2021-07-21	Current EAG member	EAG Meeting 3	PacifiCorp Information	Have you seen an increase in the usage of low-income programs over the last year recognizing the effect COVID-19 has had on Yakima and Washington?	Predominantly, we saw an increase in federal assistance, such as emergency rental assistance the rescue plan. There is a pending request to increase the capacity of our low-income bill assistance program.	Answered in Meeting

Stakeholder Input and Responses

Number	Date	Source of Comment	Where was the comment made?	Category	Comment	PacifiCorp Response	Method if Applicable
33	2021-07-21	Current EAG member	EAG Meeting 3	PacifiCorp Information	Were the surveys mentioned in the slide already completed, and are they different from the customer survey that recently went out? How are customers receiving those surveys? Some of my community is only reachable by phone, for example.	The survey's described in the slide have already been completed by PacifiCorp. PacifiCorp conducts a number of surveys. The residential surveys are completed every two years. There are more regular customer satisfaction surveys. These are in addition to the survey recently sent out to CEIP stakeholders, the EAG, and customers.	Answered in Meeting Notes
34	2021-07-21	Current EAG member	EAG Meeting 3	CBI	Do we see a drop in electricity consumption as a possible [CBI] outcome?	The surveys normally administered by PacifiCorp are distributed through email. However, for the current CETA related CBI development surveys, PacifiCorp is using various approaches. Emails with a link, it's available through the CEIP website, and several of our EAG stakeholders are distributing hardcopies to community members. Yes. Overall consumption is influenced by many factors including things like weather which can have a significant impact on consumption over given periods of time. Certain types of programs (like energy efficiency programs) are important for customers and for the utility of managing overall load. While in many cases program participation will reduce participants' consumption, it is like that CBIs related to consumption will focus on improved awareness and education and equitable participation in programs.	Answered in Meeting Notes
35	2021-07-21	Current EAG member	EAG Meeting 3	PacifiCorp Information	How was the WattSmart program implemented during COVID impacted by the change in instruction method?	For 2020, in response to COVID-19, Be Wattsmart at home presentations were conducted online with digital presentations and interactive web components. Despite being a digital program in 2020, the program met its outreach goals of reaching 3,399 students and 144 teachers with 47 school presentations. The same number of school presentations were given in 2019. Students also completed "Home Energy Worksheets" which are used as part of a home energy audit activity. Twenty percent of the worksheets were completed in 2020, down from 53 percent in 2019. We believe this drop in returned worksheets was due to COVID-19.	Answered in Meeting Notes
36	2021-07-21	Current EAG member	EAG Meeting 3	Named Communities	In response to what additional vulnerable populations PacifiCorp should consider: Minority business owners, such as those that qualify for Community Development Block Grants. Near low income individuals; the EAG provided the United Way term: Asset Limited, Income Constrained, Employed (ALICE). People with medical equipment at home.	The list of vulnerable populations was updated.	Input incorporated
37	2021-07-21	Current EAG member	EAG Meeting 3	CBI	Could a CBI be created around reducing energy burden, or even percent of income paid to utilities (as this would be for all users), because many of the "unknown" challenges are linked to resources available to the customer? Who was involved in matching CBIs to the challenges we raised in the previous meetings?	We didn't see a direct impact the utility could have in these cases, which is why we categorized them as unknown. We agree that it's probable that we could have an indirect positive impact by lowering energy burden. PacifiCorp's renewable portfolio team, load forecasting team, low-income programming, customer solutions, care center, and resiliency teams. We also leveraged previous work done by the Washington Utilities and Transportation Commission (WUTC) and our peer utilities.	Answered in Meeting
38	2021-07-21	Current EAG member	EAG Meeting 3	CBI		We have forthcoming input from additional advisory groups that PacifiCorp organizes, the public surveys, and advocate groups and additional public meetings that will also be taken into consideration.	Answered in Meeting Notes
39	2021-07-21	Current EAG member	EAG Meeting 3	CBI	Which is the benchmark for the "starting point" to understand how to gauge what good progress looks like? Is that related to metrics in the [CEIP Process]?	Yes, we will cover the development of metrics in Meeting #4, but it will be an iterative process between CBI development and metric development.	Answered in Meeting
40	2021-07-21	Current EAG member	EAG Meeting 3	CBI	What kind of collaboration is being done on CBIs with the other utilities and the state?	PacifiCorp established a working group with the other Washington utilities (Puget Sound Energy and Avista) to share best practices, recognizing the uniqueness of the communities that PacifiCorp serves. In addition, PacifiCorp meets regularly with the UTC, as well as with other advisory groups, such as the low-income advisory group.	Answered in Meeting
41	2021-07-21	Current EAG member	EAG Meeting 3	CBI	What is the difference between access to health care and then the unknown around healthcare?	The reference to health care for improved health and well-being CBI should have been deleted prior to distribution of EAG meeting #3 materials. It is currently unknown how PacifiCorp can address the challenge of access to local health resources.	Answered in Meeting Notes
42	2021-07-21	Current EAG member	EAG Meeting 3	CBI	In regards to the first draft CBIs, the EAG provided the following comments: <ul style="list-style-type: none"> •The CBIs seem to capture everything the EAG has provided in the previous meetings, and the visual of the input on vulnerable populations and their challenges from the EAG is helpful in showing progress. •The CBIs don't necessarily reflect the effort that needs to be put in by the customer. For example, many low-income community members have challenges with their home. These customers would need to spend money on fixing their homes in order to be ready to be served by these clean energy programs. •Within the public health category, there seems to be missing a category for people with home medical equipment that need consistent power. •Some of the "unknown" category of challenges could be served by public charging stations, which might, for example, allow unhooked populations to charge cell phones to access services. This could be measured in a CBI. •The CBIs didn't necessarily capture energy use reduction cases. Is there a way to capture outlier electricity uses, for example, from faulty or inefficient equipment like furnaces in peoples' homes? Additionally, energy reduction should be considered in the context of the target customer demographics, not on a system-wide basis. •Some of the CBIs should be about customers simply needing access to money, rather than physical access to energy. COVID-19 has led to higher unemployment and lower access to money. •PacifiCorp has brought together a broad group of people within their service territory, and they are providing feedback on what they have seen "on the ground" and what is working. •Certain members clarified that their participation in this process should not be construed as endorsement of the end result. PacifiCorp acknowledged this point. •Does the PacifiCorp CETA team have the makeup and lived experiences to cover any blind spots they might have in regards to developing these CBIs? This may be an area of consideration for additional CBIs: internal to the PacifiCorp team such as the number of Spanish-speakers on the team rather than increasing translation. •It looks like there is some amount of fitting CBIs into existing programs that feels like more of the same. •It would be helpful to see more environmental benefits. •Is there room for a project-based implementation in energy efficiency, similar to what was done in Hood River in the 1980s? Crews went to neighborhoods trying to fix each house to the best of their ability. •There is some concern about the potential high cost of the implementation of this plan. If it's too expensive, how will the State of Washington consider customer rates? •It would be good for PacifiCorp to work more closely with community-based organizations to achieve some of the identified benefits. •When is a customer actually a customer in the service territory? For example, when attached to PacifiCorp's grid, it's obvious, but what about the unhooked? What about more transient populations, like those working in construction and agriculture? 	Feedback was incorporated into the next round of draft CBIs	Input incorporated
43	2021-07-21	Current EAG member	EAG Meeting 3 Feedback Survey	EAG Process	Videos or other media be used as part of the presentation process	Comment acknowledged and considered in ongoing implementation process.	Comment noted
44	2021-07-21	Current EAG member	EAG Meeting 3 Feedback Survey	EAG Process	I would welcome some additional background materials or resources that provide context for this effort and PPL's response to it. For example, the potential for a nuclear power facility in WY to replace the retiring coal plant. Positive health impacts of cleaner energy, challenges associated with renewables, etc. I think it is fair to say we (most EAG Members) have very little knowledge of these challenges and responses and little to no exposure to industry specific materials.	PacifiCorp has included "Community Outreach and Engagement" as a Utility Action in its CEIP to include the development of a webpage to host educational resources.	Comment noted
45	2021-07-21	Current EAG member	EAG Meeting 3 Feedback Survey	CBI	Please allow access to data used to make decisions on CBI and relation to decision chosen	The process and data for selecting CBIs will be presented outlined in the CEIP	Comment noted

Stakeholder Input and Responses

Number	Date	Source of Comment	Where was the comment made?	Category	Comment	PacifiCorp Response	Method if Applicable
46	2021-07-23	Current EAG member	Email	Educational Materials	The presentation was also helpful to give a bigger picture understanding of what we're talking about and we're excited for the forthcoming educational materials to help break down some of those acronyms used by PacifiCorp.	PacifiCorp is working on educational materials that will be available digitally on our CEIP webpage, and printed copies available upon request. These materials will be available in both English and Spanish and will include some of the common acronyms that the company uses.	Answered by Email
47	2021-07-23	Current EAG member	Email	DEI	What I was curious about was whether the brainstorm/development team reflects the demographics, languages, and lived experiences of the customers in HICs and vulnerable communities. I appreciate that the EAG is serving as one of those resources to offer that insight & lived experience and think that's a good piece of the larger puzzle; and, also I feel that without that type of representation directly within PacifiCorp's, the metrics and longer term understanding/evaluation of what those metrics mean and if they do or do not indicate success will have blind spots and inherent biases. That led to a curiosity around what PacifiCorp's larger internal organizational equity plan is?	In 2020, PacifiCorp established its Diversity, Equity, and Inclusion (DEI) Taskforce with a commitment to acknowledging, respecting, and promoting DEI for our employees, in our communities and with our stakeholders, and in the services we provide to our customers. Our first-year objectives included understanding our employee demographics, surveying employees on DEI impressions, increasing access to DEI trainings, including training on unconscious bias, and expanding our Employee Resource Groups (ERGs). PacifiCorp will continue to track employee demographics, issue an annual survey to measure year-over-year changes in employee perceptions of DEI, and continue to develop programs to foster a diverse, equitable, and inclusive workplace for all of our employees.	Answered by Email
48	2021-07-23	Current EAG member	Email	DEI	Are there metrics or goals for increasing equity, diversity and inclusion within the organization to represent the communities serviced?	PacifiCorp strives to represent the communities we serve. We achieve this by actively recruiting within our local communities, working with trusted community partners to develop or support scholarship or internship opportunities, and through our community giving that supports local scholarship and academics across our service territory. In recent years we have focused on STEAM funding in the education sector, with an emphasis on driving improvements in STEAM education and opportunity in rural and underserved communities. Over the past few years, Pacific Power and the Pacific Power Foundation are proud to have supported nearly \$90,000 in education and STEAM/STEM programs in Washington. By engaging students with rich, experiential learning opportunities, it not only brings long-term value to the students, it helps their communities thrive.	Answered by Email
49	2021-07-23	Current EAG member	Email	DEI	I also think that some of the "unknown" elements category could get addressed-- perhaps slightly indirectly-- by expanding that type of internal work because it would increase knowledge, understanding and learning around how the items in the "unknown" category are interconnected and could be addressed in different ways within the scope of PacifiCorp's work.	Comment acknowledged and considered in ongoing implementation process.	Answered by Email
50	2021-07-23	Current EAG member	Email	CBI	In terms of the CBIs proposed, I felt they need more specificity. During my reflection time, I played around with wording to see if I could get to something along the lines of what I was thinking. I just did 3 in pink and am offering that below if it's helpful. Overall though, I think more specificity will help for measurements and evaluation of success: -Increase efforts to support clean energy education (Develop, train trusted messengers, and implement a clean energy education initiative, in multiple languages.) -Improve marketing and outreach to increase awareness of energy and conservation programs (Develop culturally & linguistically responsive outreach and marketing to increase awareness of energy and conservation programs) -Expand Spanish translation services -- (Expand in-language services across written, spoken and visual services/information) "in-language" is referring to whatever the language the customer is needing-- Spanish or otherwise, and is also to [EAG Member]'s stated point that we hope the goal is not "translated services" but that there are staff/capacity who know the languages spoken and can develop materials in-language first, rather than a later translation.	Comment acknowledged and considered in ongoing implementation process.	Answered by Email
51	2021-07-23	Current EAG member	Email	Named Communities	Lastly, I am wondering if PacifiCorp's has done an overall Equity Assessment of how HICs and Vulnerable communities will be impacted by the clean energy transition plans? PacifiCorp mentioned they will be doing a feedback process to gather input more broadly from customers-- I'm curious to hear what that will look like & methods of engagement.	This is an ongoing requirement of PacifiCorp's compliance under the Clean Energy Transformation Act in Washington, and feedback through the EAG will inform our future impact/benefit assessments. More specifically, each Clean Energy Action Plan (filed along with the IRP) will contain a 10-year high-level overview of our customers and communities, current status of named communities based on the Department of Health maps and benchmarking done as part of identifying VPs, and an assessment of how the 10-year portfolio plan may impact and/or benefit customers and communities. With the CEIP, we will frame benefit/impact through the lens of near-term utility action and each action will be assessed through the lens of community impact and benefit. These processes will be iterative and will be highly informed by public participation.	Answered by Email
52	2021-07-30	Observer or Public Comment	Email	CBI	Joint Comments on Customer Benefit Indicators sent to WUTC and IOUs on behalf of: The Energy Project Front and Centered NW Energy Coalition The Washington State Office of the Attorney General, Public Counsel Unit Are the customers with email primarily the paperless billing customers?	PacifiCorp acknowledged receipt of the comments; reviewed, incorporated, and analyzed the comments; and provided an emailed response to each item on October 25, 2021	Answered by Email
53	2021-08-18	Current EAG member	EAG Meeting 4	PacifiCorp Information	Are the customers with email primarily the paperless billing customers?	Yes, approximately 75% of the customers we have email addresses for receive paperless bills.	Answered in Meeting
54	2021-08-18	Current EAG member	EAG Meeting 4	Surveys	Did the Time of Use survey get the same volume of responses?	To date, PacifiCorp has not completed a Time of Use survey. We are still about a year away from sending out a survey on Time of Use.	Answered in Meeting
55	2021-08-18	Current EAG member	EAG Meeting 4	Surveys	In regards to customer surveys: Was there a goal for the number of survey responses? How long was the customer survey open?	We didn't have a specific goal, but PacifiCorp would love to reach as many people as possible. We were pretty satisfied with the number of residential responses we received. We had a low number of non-residential responses. July through August. One month plus one week.	Answered in Meeting
56	2021-08-18	Current EAG member	EAG Meeting 4	Surveys	How is the survey relevant to the CBIs? How will CBIs actually impact PacifiCorp's actions?	PacifiCorp will be addressing utility actions shortly and weighting CBIs is a key component to get there.	Answered in Meeting
57	2021-08-18	Current EAG member	EAG Meeting 4	Surveys	For the non-residential survey, almost as many respondents ranked climate change as the #1 benefit as the #10 benefit. Is that because the term climate change is polarizing? The benefit related to the environment doesn't seem to be as polarizing.	PacifiCorp did see some polarizing responses on the survey.	Answered in Meeting
58	2021-08-18	Current EAG member	EAG Meeting 4	Surveys	Environmental education may be a barrier to understanding climate change and clean energy. Utilities have a responsibility for broader environmental protections, such as protecting wildlife and water.	PacifiCorp agrees with this comment.	Comment noted
59	2021-08-18	Current EAG member	EAG Meeting 4	Surveys	It is positive to see environment and climate change as key priorities for the respondents, though many are unaware of the specifics of CETA.	Resiliency ranks higher when it is not asked in the context of environment or affordability	Answered in Meeting
60	2021-08-18	Current EAG member	EAG Meeting 4	Surveys	In reviewing the Clean Energy Transformation Act (CETA), it looks like utilities cannot increase costs more than 2% per year. Do you think there would be fewer concerns about increased costs if survey respondents knew this?	It's possible. The survey did not include this context.	Answered in Meeting
61	2021-08-18	Current EAG member	EAG Meeting 4	Surveys	Respondents age 65+ may be more cost-sensitive or have different perspectives on the environment, and this population was overrepresented in this survey. Can the survey results be analyzed to understand these demographic differences?	Yes, PacifiCorp plans to analyze the survey data to understand demographic variability like this.	Answered in Meeting
62	2021-08-18	Current EAG member	EAG Meeting 4	Surveys	It is positive to see representation from those under 200% of the federal poverty level. It may be interesting to compare this data against this demographic.	PacifiCorp is able to analyze data in this manner. Further analysis of the survey was completed and presented as part of EAG Meeting 5.	Answered in Meeting
63	2021-08-18	Current EAG member	EAG Meeting 4	Surveys	Language and terminology is important, and it appears that the survey under-represents Hispanics and Latinx populations and Renters.	PacifiCorp can consider disaggregating responses from these respondents.	Answered in Meeting
64	2021-08-18	Current EAG member	EAG Meeting 4	Surveys	In looking at the business respondents, it seems agricultural businesses are under-represented. It may be a challenging time of year for businesses in this industry to dedicate time to the survey.	Comment acknowledged.	
65	2021-08-18	Current EAG member	EAG Meeting 4	CBI	Are all 9 CBI categories represented in the draft CBIs?	Yes.	Answered in Meeting
66	2021-08-18	Current EAG member	EAG Meeting 4	CBI	Why did PacifiCorp choose to change "CO2" to "Greenhouse Gases" given the different monitoring requirements in different parts of the state?	PacifiCorp is required to report GHG data in the state of Washington, and it helps to standardize the CBI to this requirement because there are strict methodologies that the utility must adhere to.	Answered in Meeting
67	2021-08-18	Current EAG member	EAG Meeting 4	CBI	Are distributed energy resources included in optimizing grid investments for energy resiliency?	They could be. It will depend on the actions that arise from this CBI.	Answered in Meeting

Stakeholder Input and Responses

Number	Date	Source of Comment	Where was the comment made?	Category	Comment	PacifiCorp Response	Method if Applicable
69	2021-08-18	Current EAG member	EAG Meeting 4	CBI	The public health examples seem to be missing a few items specific to air quality and home medical equipment with access 24/7.	PacifiCorp does not currently have generation facilities in our service territory in Washington, which is why air quality is not included. PacifiCorp will consider a CBI that could address 24/7 access to home medical equipment.	Answered in Meeting Notes
70	2021-08-18	Current EAG member	EAG Meeting 4	CBI	The environmental and public health CBIs still seem limited. When developing infrastructure, there is a conscious choice to spend more to reduce environmental impacts. Is there a reason why your environmental CBI category is limited given the survey response priorities?	PacifiCorp understands and agrees. We are attempting to match the CBIs with the CETA Requirements and the relationship between renewables and emissions is a primary focus.	Answered in Meeting Notes
71	2021-08-18	Current EAG member	EAG Meeting 4	CBI	How will you go about reducing wood heating in homes?	PacifiCorp is committed to using natural resources wisely and protecting the environment. Our Environmental RESPECT policy details our commitment in the areas of Responsibility, Efficiency, Stewardship, Performance, Evaluation, Communication, and Training.	Answered in Meeting Notes
72	2021-08-18	Current EAG member	EAG Meeting 4	CETA	Based on the data, it looks like members of the community can make small changes, but perhaps corporations could have greater impact. What is the plan to ensure that they are part of these clean energy transformation discussions?	PacifiCorp is gathering more information on its Home Energy Savings program and will provide an update to the EAG.	Answered in Meeting Notes
73	2021-08-18	Observer or Public Comment	EAG Meeting 4	Stakeholder Engagement	Has PacifiCorp received and accounted for the "JOINT COMMENTS ON CUSTOMER BENEFIT INDICATORS"?	Yes, these were reviewed and where applicable, incorporated.	Answered in Meeting
74	2021-08-18	Current EAG member	EAG Meeting 4	Utility Actions	Improved education and awareness and reduced barriers for participation should be considered first	Comment acknowledged and considered in ongoing implementation process.	Comment noted
75	2021-08-18	Current EAG member	EAG Meeting 4	Utility Actions	Without Commercial and Industrial customers as a part of this group, the EAG doesn't fully understand what burden the residential customers will carry in regard to cost. An EAG member expressed concern that without programs specifically targeting this customer class, the impact on CBIs will be limited.	Comment acknowledged and considered in ongoing implementation process.	Comment noted
76	2021-08-18	Current EAG member	EAG Meeting 4	CBI	Electrical reliability and disruptions are critical in the short term given climate issues. Without the ability to manage disruptions and keep people safe, many of the other benefits are moot. Longer term, addressing GHG emissions becomes more of a focus. After these items, education and awareness are key since these will impact where investments will go and how community actions respond to issues as they emerge.	Comment acknowledged and considered in ongoing implementation process.	Comment noted
77	2021-08-18	Current EAG member	EAG Meeting 4	CETA	Underpinning all of these is the grid infrastructure. Resilience may not be such an issue because of PacifiCorp's existing infrastructure and membership in the California electricity system [CAISO].	Comment noted	Comment noted
78	2021-08-18	Current EAG member	EAG Meeting 4	CBI	It appears that many of the CBIs do not address a clean, equitable energy transformation. In some ways it felt forced into categories to meet external requirements.	Comment noted	Comment noted
79	2021-08-18	Current EAG member	EAG Meeting 4	CBI	Some of the CBIs were rated lower in the activity because PacifiCorp has a good record in certain areas, but the EAG does not necessarily have the data to know this performance in named communities specifically.	Comment noted	Comment noted
80	2021-08-18	Current EAG member	EAG Meeting 4	CBI	Ultimately, reducing the number of disconnections should be the main goal, and the other CBIs should support that. An EAG member highlighted that often, customers who might benefit most from assistance won't reach out because they do not wish to draw attention to themselves. If the system costs increase, it will affect those with the least ability to pay.	Comment noted	Comment noted
81	2021-08-18	Current EAG member	EAG Meeting 4	Metrics	Are there leading metrics that could help PacifiCorp anticipate issues with CBI outcomes?	It is likely that there are. PacifiCorp will consider possible leading metrics.	Answered in Meeting
82	2021-08-18	Current EAG member	EAG Meeting 4	Metrics	What is the rationale for splitting metrics/CBIs between named communities and all communities?	This is a requirement under CETA that certain CBI categories be explicitly for named communities.	Answered in Meeting
83	2021-08-18	Current EAG member	EAG Meeting 4	Metrics	Will PacifiCorp consider handling the cascading costs associated with residential system electrification upgrades that may be necessary in houses that cannot safely transition away from wood heating?	PacifiCorp will review their current program to understand how to manage this.	Answered in Meeting
84	2021-08-26	Current EAG member	EAG Meeting 4	CBI	Has PacifiCorp considered leading indicators in addition to lagging indicators?	Comment acknowledged and considered during the development of metrics.	Comment noted
85	2021-08-26	Current EAG member	EAG Meeting 4	EAG Process	I wonder if in the future with the full EAG, there could be ways to split into small groups & place a for a PacifiCorp team member be in each group for part of the small group time so that EAG members could have their own direct discussion, but then also have a chance to more directly interact/ask for clarification/questions with a PacifiCorp person.	Comment acknowledged and considered in ongoing implementation process.	Comment noted
86	2021-08-26	Current EAG member	EAG Meeting 4	Stakeholder Engagement	I would be happy to offer some examples, education or share names of specific organizations that could be critical community partners for methods in the future; it also can take a bit of time to build those partnerships so that when the time comes to do another survey 2 years from now, they are partner orgs ready to implement.	Comment acknowledged and considered in ongoing implementation process.	Comment noted
87	2021-09-08	Observer or Public Comment	Public Meeting 1	Energy Programs	I was a bit disappointed that was not part of the survey engagement because I recall it being brought up at the very first EAG meeting by at least 2 of us. I'm glad to hear weighting of the CBIs and splicing/dicing data based on demographics is happening and hope that will account for some of the underrepresentation of the survey responses.	The annual expiration of excess credits from solar systems comes directly from Washington state law. As it comes from state law, Pacific Power has no ability to adjust the policy. In RCW 80.60.030(S), the state law says: "On March 31st of each calendar year, any remaining unused credits for kilowatt-hours accumulated during the previous year shall be granted to the electric utility, without any compensation to the customer-generator."	Answered by Email
88	2021-09-08	Observer or Public Comment	Public Meeting 1	Energy Programs	When will new nuclear power come on line?	Pacific Power is required to continue to offer net metering as designed in the state law until there are 37 megawatts of customer sited solar energy systems interconnected to the Pacific Power system in Washington (there are 22 megawatts interconnected currently). The average size for a solar system in Washington is approximately 7.5 kW. This means that approximately 2,000 more solar systems can interconnect under the current policy.	Answered in Meeting
89	2021-09-08	Observer or Public Comment	Public Meeting 1	Energy Programs	Will there be smaller power producing centers for solar, wind etc.? & Considering how often nuclear power is over budget and over schedule, is there a back up plan to add more renewable energy if that doesn't make it in time?	It will come online in 2028.	Answered in Meeting
90	2021-09-08	Observer or Public Comment	Public Meeting 1	CETA	You may have already answered this, I lost my connection for a minute. Is this only for Washington?	If there is a delay, it will be adjusted as part of the planning period.	Answered in Meeting
91	2021-09-08	Observer or Public Comment	Public Meeting 1	CETA	Does Pacific Power plan on making its entire operation across the other states renewable/zero emissions?	CETA is for Washington State.	Answered in Meeting
92	2021-09-08	Observer or Public Comment	Public Meeting 1	CETA	Does Pacific Power plan on making its entire operation across the other states renewable/zero emissions?	PacifiCorp's portfolio meets CETA but it will be applied across system in all our states.	Answered in Meeting
					If the WUTC rules require all of these elements to be addressed in CBIs, why is it necessary to pick one that is the most important? Why rank the statutory categories, rather than the CBIs within each category	Based on the amount of text and translation required, we limited the question to the categories for simplicity. The public survey obtained the input on each CBI from the public respondents, as well as ranking the categories. Zoom poll functionality doesn't allow for ranking at this time, unfortunately.	Answered in Meeting

Stakeholder Input and Responses

Number	Date	Source of Comment	Where was the comment made?	Category	Comment	PacifiCorp Response	Method if Applicable
93	2021-09-08	Observer or Public Comment	Public Meeting 1	Stakeholder Engagement	Are the 893 survey respondents all in WA?	Yes	Answered in Meeting
94	2021-09-08	Observer or Public Comment	Public Meeting 1	Stakeholder Engagement	Was there any efforts to reach out to people who may not have access too, or know how to use technology such as email and website links?	PacifiCorp provided paper copies of the survey through the EAG Members.	Answered in Meeting
95	2021-09-08	Observer or Public Comment	Public Meeting 1	Stakeholder Engagement	Has any efforts been made Spanish media	A Spanish press release was developed and was posted in a Spanish paper.	Answered in Meeting
96	2021-09-08	Observer or Public Comment	Public Meeting 1	Stakeholder Engagement	Spanish radio can go a long way in these parts, gets the word out fast. Radio KNDA based out of Granger seems to have good reach to Spanish speaking communities.	Thank you very much for this recommendation. We will look into this option.	Answered in Meeting
97	2021-09-08	Observer or Public Comment	Public Meeting 1	Stakeholder Engagement	You may try surveying customers who are on the even pay plan. They may be a more focused group, and easy to target.	Thank you for this recommendation.	Answered in Meeting
98	2021-09-08	Observer or Public Comment	Public Meeting 1	Stakeholder Engagement	There are non profit agencies that have energy assistance programs and would probably help you survey their clients. OIC in Yakima is one.	OIC is a member of our EAG and has contributed to publicizing the survey.	Answered in Meeting
99	2021-09-08	Observer or Public Comment	Public Meeting 1	CBI	Have you talked about CBIs with the other advisory groups?	CBIs were shared with the DSM advisory group and low-income advisory group.	Answered in Meeting
100	2021-09-14	WUTC Comment	CEIP Technical Meeting 1	CBI	Concerning Low-Income Bill Assistance, did PacifiCorp consult RCW 19-405-120 as well? While CETA considers this, the specifics of this type of program are covered in the RCW reference and need to be double checked.	Following CEIP Technical Conference 1, PacifiCorp discussed this topic with WUTC staff. These discussions resulted in PacifiCorp refining its definition of Utility Action. As presented during PacifiCorp's CEIP Technical Conference 2 and EAG Meeting 6A, if a utility is required to offer a program or take an action by a different law, then that program or action will not be identified in the CEIP as a utility action, even if it is consistent with CETA. For example, the Modified Low Income Bill Assistance program supports CETA objectives, but it is not included in the CEIP as a "utility action" because it is required by a different law.	Described in CEIP Technical Conference 2, EAG Meeting 6A, and draft CEIP
101	2021-09-14	WUTC Comment	CEIP Technical Meeting 1	CETA	In regards to assessing PacifiCorp's preferred portfolio relative to CETA and more broadly, the CEIP requirements, does that only include the resource assessment?	This is focused on the what is included in the Integrated Resource Plan (IRP) and long-term resource planning relative to Washington's retail allocation.	Answered in Meeting
102	2021-09-14	WUTC Comment	CEIP Technical Meeting 1	CETA	The IRP models are only done for 20 years. You note that this analysis was extrapolated to 2045 to account for CETA requirements. Can you provide more details on that extrapolation? Was this completed in a Washington-specific Plexos Model?	In the Draft CEIP, the trend in retail load growth was extrapolated linearly to 2045. The Washington-specific analysis was done outside the model because PacifiCorp is a six-state utility, requiring it to be done externally for cost-allocation purposes. This extrapolation is no longer necessary as described in Chapter 1 regarding Figure 1.1.	Answered in Meeting
103	2021-09-14	Observer or Public Comment	CEIP Technical Meeting 1	CETA	Are the 2030 and 2045 targets PacifiCorp showing annual energy requirements?	Yes	Answered in Meeting
104	2021-09-14	WUTC Comment	CEIP Technical Meeting 1	CETA	In PacifiCorp's CETA Assessment Assumptions, there is a term "dynamic allocation method" in future years. Is this done to approximate what a future allocation method might be?	Yes, that's correct. Because the Washington Interjurisdictional Allocation Methodology (WIJAM) is set to expire in 2024, for future years we have provided a set of assumptions that allocate resources on an annual basis.	Answered in Meeting
105	2021-09-14	WUTC Comment	CEIP Technical Meeting 1	CETA	Recognizing that the draft incremental cost calculations needed for the CEIP are not finalized, could we suggest a second workshop in October prior to submitting the draft CEIP?	This makes a lot of sense and we'll schedule a second technical workshop.	Answered in Meeting
106	2021-09-14	WUTC Comment	CEIP Technical Meeting 1	CETA	In regards to the supply-side specific actions, PacifiCorp made a statement that additional actions will be coming from the CBIs and named communities. Could you clarify this statement?	All of the specific actions we propose will be viewed through the lens of the CBIs. We want to highlight that in addition to supply and demand side actions, there are a third "bucket" of actions that will drive equity actions specifically.	Answered in Meeting
107	2021-09-14	WUTC Comment	CEIP Technical Meeting 1	CETA	In regards to energy efficiency, PacifiCorp says over 202,367 MWh of energy efficiency by 2025, however, you state 156,018 MWh in 2022-2025. Where is the difference?	The 200k MWh is the adjusted energy efficiency portfolio for the purpose setting EIA 2-year target.	Answered in Meeting
108	2021-09-14	WUTC Comment	CEIP Technical Meeting 1	CETA	In regards to the 2022 All Source Request for Proposal (RFP), what is PacifiCorp's strategy for incorporating some of the CEIP-required information like incorporation of the CBIs?	As part of the RFP, we have a non-price scoring and equity questionnaire. We also intend to have the Independent Evaluator incorporate the final CBIs once determined into the draft proposal.	Answered in Meeting
109	2021-09-15	Current EAG member	EAG Meeting 5	CBI	In regards to PacifiCorp's proposed CBI Weighting, the EAG provided the following feedback: <ul style="list-style-type: none"> •Energy resilience and risk reduction was ranked higher by the EAG than the public or other advisory groups. The EAG recognized that resiliency and risk reduction is part of the work that many of their organizations do. •Low and middle-income members that don't have the ability to get loans, that rent housing, or that live in mobile or marginal homes cannot participate in many CBIs in the Energy Benefit category. •The CBI weightings are difficult to think of as actionable. •The CBI for culturally and linguistically appropriate outreach, which has a high weighting, will have a cascading effect into access that improves other CBIs, like participation in programs and energy benefits. •Some CBIs may have incentives that encourage actions that may have subsequent or related negative implications. It will be important to ensure that CBIs have overall positive outcomes for named communities. PacifiCorp's presence in Washington is largely transmission and distribution based. How does local generation, such as solar, get developed? Can costs go down with local generation because of lower transmission costs?	Comments noted	Comments noted
110	2021-09-15	Current EAG member	EAG Meeting 5	PacifiCorp Information		Any party interested in developing a renewable generator in PacifiCorp's Washington territory would need to obtain a site and complete an interconnection application with PacifiCorp in order to understand the feasibility, cost, and timing of connecting the proposed generating resource to PacifiCorp's distribution or transmission grid. The interconnection process is regulated by the Federal Energy Regulatory Commission (FERC) and the application process is laid out in PacifiCorp's Open Access Transmission Tariff (OATT) which can be found on PacifiCorp's Open Access Same-time Information System (OASIS) website. More information can also be found here: Transmission Services - PacifiCorp (https://www.pacifiCorp.com/transmission/transmission-services.html) After a party has established site control and conducted other project due diligence, they may participate in a PacifiCorp request for proposal (RFP) process and bid their project to the utility or they may request pricing and a contract as a qualified facility (QF) under the Public Utility Regulatory Policies Act (PURPA) and Washington Chapter 480-106 WAC ELECTRIC COMPANIES—PURCHASES OF ELECTRICITY FROM QUALIFYING FACILITIES. Costs are typically a function of the overall size of the project, the cost of equipment, the characteristics of the site, the cost of the engineering, labor and construction services, the cost of the interconnection and the required profit margin, and cost of capital required by the project developer and its investors. Costs of local generation may be greater than or less than resources that require transmission based on the items listed above as well as the quality of the solar resource as compared to those in other areas of PacifiCorp's territory. It's important to understand that PacifiCorp's system benefit is not only a function of cost, but also a function renewable resource availability and the value a resource brings to PacifiCorp's system. Costs to develop a new renewable asset in Washington versus other states serviced by PacifiCorp are reasonably close. The difference lies in the natural wind or solar resource available to a Washington site's asset. Therefore, given similar capital costs, new capital may be more likely to be proposed and selected in other states, such as Wyoming and Utah, where the same capital can yield a higher benefit to both the resource developer and PacifiCorp.	Answered in Meeting Notes
111	2021-09-15	Current EAG member	EAG Meeting 5	CBI	Why is there only 1 CBI selected for each CBI category?	PacifiCorp developed 22 draft CBIs. CETA requires at least 1 CBI per category, but 22 CBIs may be too ambitious for our first year. These CBIs are very interrelated. PacifiCorp recognizes that all of these CBIs are important, and even if they are not the selected with the final CBIs this year, we will still be considering them.	Answered in Meeting
112	2021-09-15	Current EAG member	EAG Meeting 5	CBI	Some CBIs, such as the clean energy education, are not the highest-weighted in the category, but are weighted higher than those in other categories. Is there room to add some of these higher-rated CBIs for consideration?	CBIs are being considered primarily in the context of the CBI category. PacifiCorp is trying to manage this by developing actions that address some of these other CBIs even if they were not weighted highest in their category.	Answered in Meeting

Stakeholder Input and Responses

Number	Date	Source of Comment	Where was the comment made?	Category	Comment	PacifiCorp Response	Method if Applicable
113	2021-09-15	Current EAG member	EAG Meeting 5	CBI	What is the plan now that the CBIs have been weighted? How will this be integrated with public participation?	It helps PacifiCorp identify what attributes of a given action are most important to the community. Actions have several attributes, such as a program that both reduces burdens and has an environmental benefit. PacifiCorp needs to begin tracking how well the company is meeting these objectives.	Answered in Meeting
114	2021-09-15	Current EAG member	EAG Meeting 5	Metrics	On non-energy benefits, the metric is the number of workshops. Could the metric focus on number of participants instead?	Yes, we will look at number of workshops and attendance.	Answered in Meeting
115	2021-09-15	Current EAG member	EAG Meeting 5	Metrics	The CBI metric for culturally and linguistically appropriate outreach only proposes language metrics. How is PacifiCorp going to measure culturally appropriate communications, such as with individuals on the Yakama Nation reservation? I see a link between public health and energy security. For example, disconnecting electricity could create a health issue when customers instead heat their homes with wood. Who is tracking the data related to something like this?	PacifiCorp will primarily look at this through the program design to ensure that the company is listening and engaging well with people. We welcome suggestions for metrics that might be more appropriate. PacifiCorp agrees that there is a link between public health and energy security. There will very likely be multiple CBIs affiliated with specific actions. In this instance, if we implement a program/action intended to reduce disconnections, then that program/action would very likely have beneficial outcomes for public health—as they would have access to electricity that they would not have had if they had been disconnected. This program/action would also likely have positive implications on the CBI of increased participation in company energy and efficiency programs. We are currently evaluating the CBIs affiliated with specific actions and intend to share our current thinking around the nexus between programs/actions and the CBIs in Meeting #6.	Answered in Meeting Answered in Meeting Notes
116	2021-09-15	Current EAG member	EAG Meeting 5	Metrics			
117	2021-09-15	Current EAG member	EAG Meeting 5	Utility Actions	Does the supply-side include anything you're picking up from Public Utility Regulatory Policies Act (PURPA), such as local solar projects in the Yakima Valley that might not make it into the request for proposal (RFP)?	The supply-side action item list does not include PURPA, but all Washington utilities are required to take outputs from these projects. The IRP planning process does assume known PURPA contracts; this list only reflects the results of the 2020 all-source RFP and so it not comprehensive of the entire system.	Answered in Meeting
118	2021-09-15	Current EAG member	EAG Meeting 5	Utility Actions	What about the cost of distribution for these remote generation facilities?	PacifiCorp's system has the capability to select and transmit from remote wind and solar resources that are best suited to serve the company's customers. Transmission and distribution costs are included in the IRP, as well as the cost to acquire the resources.	Answered in Meeting
119	2021-09-15	Current EAG member	EAG Meeting 5	Utility Actions	Is there a list of Washington generation facilities? It seems like other states will see the benefit of these renewable energy generation facilities, but not Washington.	The RFP looked at Washington resources, but none of them met the threshold of least cost and least risk. The integrated nature of PacifiCorp's system means that the company can select resources and optimize across the whole system, which lowers costs for all customers. Washington currently supplies approximately 300 MW of wind and 600 MW of hydro, and Oregon supplies approximately 1,000 MW of wind and solar. In the next RFP, PacifiCorp is hoping to solicit bids from a more diverse range of suppliers, including Washington-based suppliers. Washington generation facilities can be found in CHAPTER 6 – LOAD AND RESOURCE BALANCE of the 2021 Integrated Resource Plan. Washington customers benefit from the lowest cost renewables, which PacifiCorp can import from competitively priced renewable resources in its six-state territory. Likewise, customers in PacifiCorp's other states may benefit from the low-cost hydro and wind resources that have previously been developed and constructed in Washington.	Answered in Meeting Notes
120	2021-09-15	Current EAG member	EAG Meeting 5	Utility Actions	Are the [2021 All Source Procurement Results] numbers nameplate capacity?	Yes, all capacity numbers are nameplate capacity.	Answered in Meeting
121	2021-09-15	Current EAG member	EAG Meeting 5	Utility Actions	Renewables don't always generate. How is PacifiCorp firming up its resource portfolio?	PacifiCorp's biennial resource planning process is designed to ensure that the company's resource portfolio can generate and transport electricity to customers when and where they need it. While variable generating resources may not always generate, PacifiCorp serves multiple climate zones, is including energy storage co-located with new renewables, has access to multiple power markets, and includes margins in our planning process to ensure adequate supply during all hours of the year.	Answered in Meeting Notes
122	2021-09-15	Current EAG member	EAG Meeting 5	Utility Actions		These are actions that can be put into place where there are load constraints on the electricity system. For example, if it's a warm day with lots of air conditioning use, demand response can incentivize customers to shift their air conditioning earlier in the day when power is more plentiful to ease demand on the grid, using thermostat programs for example.	Answered in Meeting
123	2021-09-15	Current EAG member	EAG Meeting 5	Utility Actions	What are demand response resources? What is the point of diminishing returns for energy efficiency programs?	The IRP selected significant energy efficiency resources throughout the planning period. Programs to deliver that resource will remain an important part of the company's clean energy transition. Certainly, some efficiency opportunities become less cost effective over time but at the same time new technology is evolving. Efficient light bulbs used to be an efficiency upgrade and are now the baseline for residential, but there are new energy efficiency opportunities such as more efficient heat pumps and more energy efficient windows. PacifiCorp updates its Conservation Potential Assessment study every two years to incorporate these types of changes. Outputs from this study are inputs to the next Integrated Resource Planning model.	Answered in Meeting Notes
124	2021-09-15	Current EAG member	EAG Meeting 5	Utility Actions	As more homes become weatherized and higher building codes are passed, at what point do you stop investing in energy efficiency and have to account for demand growth instead?	PacifiCorp runs a planning process that models technology advances by sector for the IRP. We compare this model to external models to develop a menu of potential activities and costs. This menu then "competes" things like energy efficiency against supply-side resources to identify the lowest cost options. The planning process, conservation potential assessment, and the IRP energy efficiency selections indicate that energy efficiency remains a key resource for the foreseeable future.	Answered in Meeting
125	2021-09-15	Current EAG member	EAG Meeting 5	Utility Actions	An EAG member expressed concern about the differences in investment going to procuring new resources versus home improvement or demand-side programs. It is unclear if choosing "low-hanging fruit" options that are cost-effective will serve the right communities. Typical programs target quick and easy participant recruitment rather than harder to reach rural communities, for example.	Comment noted	Comment noted
126	2021-09-15	Current EAG member	EAG Meeting 5	Stakeholder Engagement	How can local communities become more participatory in system-wide investments? Can civic organizations or community groups get involved? Do enough public organizations know about PacifiCorp's resource procurement process?	PacifiCorp's resource procurement process is widely publicized and updates on the energy supply solicitation processes and selection of an independent evaluator to oversee the 2022 all-source energy supply procurement process have been included in the IRP and CEIP public participation process.	Answered in Meeting
127	2021-09-15	Current EAG member	EAG Meeting 5	EAG Process	An EAG member expressed confusion and frustration with the current EAG process—the EAG is being asked to provide comment before plans are complete.	The timeframe is compressed due to the November 1 CEIP filing deadline. PacifiCorp plans to add another EAG meeting to the schedule in November to provide the EAG members with more opportunity for input.	Answered in Meeting Notes
128	2021-09-15	Current EAG member	EAG Meeting 5	Utility Actions	Is this the last time we get to provide input on utility actions?	Many of the actions come directly from the results of the IRP and PacifiCorp's Biennial Conservation Plan; CBIs will be applied to these actions. The third bucket of "other utility actions" stem directly from feedback provided by the EAG to allow for greater access to programs by Named Communities. EAG Meeting #6 in October will feature more input on actions and the CEIP.	Answered in Meeting
129	2021-09-15	Current EAG member	EAG Meeting 5	Utility Actions	It seems like the focus on equity has gotten lost in some of the actions.	Comment acknowledged and considered in ongoing implementation process.	Process adjusted accordingly
130	2021-09-15	Current EAG member	EAG Meeting 5	CBI	CBIs, such as the one related to disconnections, could result in negative outcomes for some communities.	PacifiCorp is looking at data to assist in measuring the outcomes as it relates to this challenge, especially for the CBIs identified specifically for named communities.	Answered in Meeting
131	2021-09-15	Current EAG member	EAG Meeting 5	Metrics	Does PacifiCorp have metrics on the direct support the company has given to community actions where it is of no cost to the customer? This structure could be helpful for renters and low-income customers. Would that be a better metric for named communities? For example, the number of homes retrofitted, equipment installed, or dollars spent? Does PacifiCorp have the data for both utility and nonprofits that serve the area with energy efficiency programs?	In a previous EAG meeting, PacifiCorp showed the data that tracks weatherization program participation. The company maintains data for location and account participation, so this can be analyzed.	Answered in Meeting Notes
132	2021-09-15	Current EAG member	EAG Meeting 5	PacifiCorp Information		PacifiCorp only presented data for utility programs to the EAG, but PacifiCorp's annual report includes data from nonprofit programs. The most recent annual report (found at https://www.pacifiCorp.com/content/dam/pcorp/documents/en/pacifiCorp/environment/dsm/washington/2016-17_PacifiCorp_Low_Income_Weatherization_Report_WA_FINAL.pdf for program years 2016–2017) provides number of participants by weatherization implementation agency (nonprofits). Weatherization implementation agencies leverage Washington State Matchmaker funds with PacifiCorp funds to provide no cost weatherization services to program participants. PacifiCorp pays 50% of qualifying measures when Matchmaker funds are available, and 100% when Matchmaker funds are exhausted.	Answered in Meeting Notes

Stakeholder Input and Responses

Number	Date	Source of Comment	Where was the comment made?	Category	Comment	PacifiCorp Response	Method if Applicable
133	2021-09-15	Current EAG member	EAG Meeting 5	Utility Actions	Has PacifiCorp considered including alternative electric-powered transportation, like bicycles and scooters, to your EV program? These less expensive modes of travel can be great for named communities.	The CBI is focused on electrification, not just vehicles and we agree that forms of transportation beyond light duty vehicles are important to consider as programs are designed.	Answered in Meeting Notes
134	2021-09-15	Current EAG member	EAG Meeting 5 Whiteboard Session	Stakeholder Engagement	What does the outreach strategy look like?	The specific outreach strategy is in development; however, it will include expanded written and oral language services in Spanish.	Answered in Meeting Notes
135	2021-09-15	Current EAG member	EAG Meeting 5 Whiteboard Session	Stakeholder Engagement	How does PacifiCorp plan to differentiate between linguistically appropriate and culturally appropriate outreach?	Culturally and linguistically appropriate outreach go hand-in-hand. Culturally appropriate outreach is communication that is equitable, respectful, and understanding of diverse cultural beliefs and needs. Linguistically appropriate outreach focuses on accessibility of culturally appropriate oral and written language.	Answered in Meeting Notes
136	2021-09-15	Current EAG member	EAG Meeting 5 Whiteboard Session	Stakeholder Engagement	How will PacifiCorp reach more participants for the next public meeting?	PacifiCorp will conduct additional outreach for the next public meeting, including a customer bill insert, direct email, paid media ads, interactive voice response (IVR) recording on our customer care center phone lines, and text message notices to customers.	Answered in Meeting Notes
137	2021-09-15	Current EAG member	EAG Meeting 5 Whiteboard Session	Metrics	What kind of input can the EAG provide on metrics and when?	Metrics will be further discussed during EAG Meeting #6 and will include an opportunity for feedback.	Answered in Meeting Notes
138	2021-09-15	Current EAG member	EAG Meeting 5 Whiteboard Session	Utility Actions	How does an EV rebate program work?	This is a typical equipment rebate program. Customer would purchase a qualified EVSE product and submit documentation (proof of purchase, application, etc.) to Pacific Power. Pacific Power would approve the purchase and issue an incentive check to the customer. While this is one concept under consideration, the company will consider program design details and other EV program concepts in the context of equitable access to these programs.	Answered in Meeting Notes
139	2021-09-15	Current EAG member	EAG Meeting 5 Whiteboard Session	Utility Actions	How will you support the reduction of wood burning?	PacifiCorp would like to increase incentives (Home Energy Savings program for all customers, it does not have an income qualification) for heat pumps starting in 2022. We have proposed 2022 changes to Schedule 114 (low-income weatherization) to increase funds available for repairs and permit installation of electric heating in cases where the home is being heated by space heaters.	Answered in Meeting Notes
140	2021-09-15	Current EAG member	EAG Meeting 5 Whiteboard Session	Utility Actions	Will specific renter/owner programs be developed to serve the needs to tenants?	PacifiCorp will continue the direct install of efficient lighting in multi-family units and increase incentives for multi-family window replacement beginning in 2022.	Answered in Meeting Notes
141	2021-09-15	Current EAG member	EAG Meeting 5 Whiteboard Session	Utility Actions	Could batteries play a role in preventing the impacts of disconnection?	If the disconnection is a reliability issue where the distribution line loses power then storage can help prevent individual customer impacts as the charge in the battery will delay the impacts of the power outage for those specific customers that have the storage facility. If the disconnection is related to nonpayment or something of that nature, then the battery will be able to delay the impacts of the disconnection for one cycle of the battery, but then will have no value as there are no means to replenish the power within the battery.	Answered in Meeting Notes
142	2021-09-15	Current EAG member	EAG Meeting 5 Whiteboard Session	Stakeholder Engagement	How is the progress of this work going to be shared?	Educational materials and content will be available on Pacific Power's website. Updates will be shared during EAG meetings, as well as through direct outreach to customers, EAG members, advisory groups, and community agencies.	Answered in Meeting Notes
143	2021-09-15	Current EAG member	EAG Meeting 5 Whiteboard Session	Stakeholder Engagement	Who are the targets for educational programs?	Targets for the educational content and materials are both adults and children. Materials will be available in English and Spanish.	Answered in Meeting Notes
144	2021-09-15	Current EAG member	EAG Meeting 5 Whiteboard Session	Stakeholder Engagement	Making a website for educational material has too many barriers for too many people for it to be broadly effective.	While the content will be available on the Pacific Power website, materials will also be available to be printed and shipped to those that are interested.	Answered in Meeting Notes
145	2021-09-15	Current EAG member	EAG Meeting 5 Whiteboard Session	Stakeholder Engagement	Consider efforts and methods for children's education.	Pacific Power offers a Wattsmart Schools education program in Washington through the National Energy Foundation. The program is designed to develop a culture of energy efficiency among teachers, students, and families. This program includes a presentation with educational video components as well as hands-on, group activities for 4th and 5th grade students. Students are also sent home with a Home Energy Worksheet in English and Spanish to explore energy use in their homes. In 2020 the program reached 3,399 students and was presented in 47 schools in Washington.	Answered in Meeting Notes
146	2021-09-15	Current EAG member	EAG Meeting 5 Whiteboard Session	Utility Actions	How are large industrial power users contributing to the solution?	Industrial customer energy efficiency opportunities are included in Conservation Potential Assessment. They are eligible to participate in the Wattsmart Business energy efficiency program (and soon, Demand response programs). Large customers are major contributors to the system benefit charge that funds energy efficiency (and soon, DR) programs.	Answered in Meeting Notes
147	2021-09-15	Current EAG member	EAG Meeting 5 Whiteboard Session	PacifiCorp Information	Will there be future investment maps available?	With respect to planning, the biennial IRP selects an optimized mix of resource types and locations to serve our customers in the least cost and least risk way. No maps were developed in the recently completed 2021 IRP, but instead a table was developed showing the type and general location of proxy resources chosen for the preferred portfolio.	Answered in Meeting Notes
148	2021-09-15	Current EAG member	EAG Meeting 5 Whiteboard Session	PacifiCorp Information	Where do direct efficiencies fall into the utility actions?	PacifiCorp needed additional clarity/direction on this question and was unable to answer it.	Described in Meeting Notes
149	2021-09-15	Current EAG member	EAG Meeting 5 Whiteboard Session	PacifiCorp Information	In the next RFP, consider local community benefits as criteria in evaluating bids.	PacifiCorp will consider this for conservation and demand response resources. Washington CETA rules require PacifiCorp to evaluate all RFP bids based on the community benefit indicators develop in partnership with the EAG and reported in the CEIP.	Answered in Meeting Notes
150	2021-09-15	Current EAG member	EAG Meeting 5 Whiteboard Session	CETA	How will CETA directly affect my community?	CETA requires utilities, stakeholders, and state agencies to work together. The objective of CETA is to ensure that all communities, primarily highly-impacted communities and vulnerable populations, are equitably benefitting from the transformation to 100% clean energy through least cost resources, demand response, and other programs. Through PacifiCorp's newly formed EAG, public meetings and outreach, communities now have many opportunities and avenues to have a seat at the table and to have their voices heard as PacifiCorp develops its plan. PacifiCorp greatly welcomes this opportunity for our customers and communities to share their perspectives and new ideas for a cleaner energy future.	Answered in Meeting Notes
151	2021-09-15	Current EAG member	EAG Meeting 5 Whiteboard Session	Utility Actions	Will you create data for examining the difference between low income and other demand-side usage patterns geographically to ensure that you are serving the most needed areas first?	Yes. PacifiCorp has accumulated participation data for low-income weatherization, low-income bill assistance, and demand-side programs. PacifiCorp has also developed its mapping capabilities to understand program participation within highly impacted communities.	Answered in Meeting Notes
152	2021-09-15	Observer or Public Comment	EAG Meeting 5	EAG Process	Why doesn't the EAG get to listen to public comment?	We create public facing notes to capture the information shared, and the EAG has access to that. It's a function of time efficiency to use this time to engage with you while the EAG is in a breakout.	Answered in Meeting
153	2021-09-15	Observer or Public Comment	EAG Meeting 5	Utility Actions	On slide 21 of the EAG Meeting 5 Slide Deck, those resources will be considered part of the base, since they were in the 2020 RFP, correct? The incremental renewable energy to comply with CETA will derive from the 2022 RFP, correct?	The incremental resources will move PacifiCorp towards our future targets.	Answered in Meeting
154	2021-09-15	Observer or Public Comment	EAG Meeting 5	CETA	Would any of those resources from slide 21 of the EAG Meeting 5 Slide Deck be acquired without CETA?	Yes, they would have been acquired. They were the least cost resources. The preferred portfolio was developed with least cost, least risk. They were not evaluated by CETA, but we did an analysis afterwards to make sure that the preferred portfolio aligned with CETA. The portfolio was not designed for CETA targets, but it is aligned.	Answered in Meeting
155	2021-09-15	Observer or Public Comment	EAG Meeting 5	Utility Actions	On slide 17 of the EAG Meeting 5 Slide Deck, how much of the 550 MW of new DR are already committed, per footnote? Can you clarify the difference between slides 17 and 21 about how much DR is targeted for Washington—62MW versus 78MW?	The difference is a matter of timing. The action plan goes through 2024. 274 MW is the new DR coming online. That is in addition to get to the 550 MW.	Answered in Meeting
156	2021-09-15	Observer or Public Comment	EAG Meeting 5	PacifiCorp Information	Regarding slide 18 [of the EAG Meeting 5 Slide Deck], which shows emissions reductions, the statute requires that clean energy be used to serve retail load. Where is the chart that shows increasing use of clean energy to meet 2030 and 2045 standards?	Executive summary and Chapter 9 in the IRP touch on this. The website has information on the Technical Workshops that we are holding, so it includes details of the assumptions made there. The IRP is only through 2040, but we are on track to meet 100% clean energy in 2045.	Answered in Meeting
157	2021-09-15	Observer or Public Comment	EAG Meeting 5	Metrics	For metrics, it seems like it would be valuable to track multiple values—both the percentage change and the total amount, for example.	Comment noted	Comment noted

Stakeholder Input and Responses

Number	Date	Source of Comment	Where was the comment made?	Category	Comment	PacifiCorp Response	Method if Applicable
158	2021-09-15	Observer or Public Comment	EAG Meeting 5	Metrics	We don't think the metric about grants from the Pacific Power Foundation count as utility actions since they are from the foundation, not the utility.	In consideration of this comment and further discussions with WUTC staff, grants from the Pacific Power Foundation was removed as a Utility Action.	Process adjusted accordingly
159	2021-09-15	Current EAG member	EAG Meeting 5 Feedback Survey	CETA	Some of the EAG are frustrated that the CEIP seems to be coming down to how existing programs can fit the bill for advancing the CETA and equity concerns while lacking solutions for those most disadvantaged. For me, I'm certain the intent of CETA/CEIP is not to reinvent the wheel, but it seems there could be additional focus on programs that really do significantly positively impact the named communities.	In recognition of this comment in EAG Meeting 5, PacifiCorp focused on making the connection between Utility Actions, CBIs, and metrics clearer during EAG Meeting 6A.	Comment noted
160	2021-10-06	Observer or Public Comment	Public Meeting 2	Named Communities	What is your definition of equity	We asked our EAG to weigh in and modify our initial equity definition, so our definition for this work with their input is: "Equity is the fair and just treatment of people, with the recognition that individuals and communities have vastly different access to opportunities and advancement based on race, renter status, employment status, income, ethnicity, gender, immigration status, and sexual orientation. Achieving equity may require providing individuals and communities with different resources, systems, processes, access and adjustments to programs, and support to ensure they have equal opportunities to be successful."	Answered in Meeting
161	2021-10-06	Observer or Public Comment	Public Meeting 2	PacifiCorp Information	How many public attendees are there participating tonight?	PacifiCorp had 12 public attendees in the meeting at the time the question was asked.	Answered in Meeting
162	2021-10-06	Observer or Public Comment	Public Meeting 2	Energy Programs	What is the carbon footprint of the mining, processing, manufacturing, delivery, installation and disposal of solar PV and wind turbines? How is that factored into the 'clean' energy calculations?	There are long term resource planning efforts and different resource options for wind and solar. The carbon footprint metrics we have do not look at emissions from the production of the equipment itself; they only calculate system-level emissions of the portfolio of resources and equipment being analyzed based on a model's dispatch of the resources. Proxy cost assumptions include demolition costs for solar and wind.	Answered in Meeting
163	2021-10-06	Observer or Public Comment	Public Meeting 2	CETA	Is nuclear power an eligible resource for CETA requirements?	Yes, nuclear power is included in the non-emitting resource category.	Answered in Meeting
164	2021-10-06	Observer or Public Comment	Public Meeting 2	Named Communities	Are renters one of the vulnerable populations?	Yes, based on input from our EAG, PacifiCorp added renters to the vulnerable populations list.	Answered in Meeting
165	2021-10-06	Observer or Public Comment	Public Meeting 2	Educational Materials	Would you explain the difference between MW and MWh? How do wind and solar capacity factors impact your forecasts?	MW refers to installed capacity, MWh refers to generation. The capacity factor varies by resource and location. This is the link to the Supply-Side Resource Table with details on resources assessed in the 2021 IRP: https://www.pacifiCorp.com/content/dam/pcorp/documents/en/pacifiCorp/energy/integrated-resource-plan/2021-1-11%20Supply-Side%20Resource%20Table.pdf . You can also see Chapters 6 and 7 of our 2021 IRP for more information.	Answered in Meeting
166	2021-10-06	Observer or Public Comment	Public Meeting 2	Utility Actions	WAC 480-100-640(5) and (6) requires detailed information on specific actions, not just general programs. When will PacifiCorp provide the data required by this rule?	We are working through this process. We're going to publish our draft CEIP on November 1, which will have that information included. We will also be presenting specifics in our EAG Meeting #6 on October 20, which is open to the public to observe. The primary focus of that meeting will be utility actions and the CEIP. The slides from that meeting will be posted on our website along with public notes.	Answered in Meeting
167	2021-10-06	Observer or Public Comment	Public Meeting 2	PacifiCorp Information	Did you answer how many public attendees are participating in this webinar?	At the time the question was asked, 18 public attendees had joined the webinar.	Answered in Meeting
168	2021-10-06	Observer or Public Comment	Public Meeting 2	Metrics	To reduce customer disconnections, have you looked into prepay being installed at the meter? Consumers learn about their usage as well through this tool.	PacifiCorp hasn't looked at prepay due to the cost of installing the technology and administration. It might be something down the road that the company could look at. With our energy usage reports, customers can gain insights into patterns of how they use energy and when they use most energy. At this point in time, the long-term focus using the advance metering infrastructure (AMI)—also called "smart"—meter, which provides customer nearly real-time information about energy usage.	Answered in Meeting
169	2021-10-06	Observer or Public Comment	Public Meeting 2	PacifiCorp Information	How is carbon neutrality being measured for PacifiCorp? How are offsets being handled?	By 2045, 100% of our Washington retail allocation of electricity will be served by clean energy—that's something we can track with our resource mix. From a planning standpoint, like in the IRP, we evaluate system-level emissions based on resource mix. That's an output of our modeling based on the dispatch model in our portfolio.	Answered in Meeting
170	2021-10-06	Observer or Public Comment	Public Meeting 2	PacifiCorp Information	I'm interested in the interim 2030 portfolio.	In 2030, there will be Washington-specific resources (wind, solar, storage co-located with solar) to achieve carbon targets. But that is outside of the timeline of the action plan window for the 2021 IRP and we will continue to evaluate in subsequent IRPs.	Answered in Meeting
171	2021-10-06	Observer or Public Comment	Public Meeting 2	CETA	At what point will you know how this process will affect rates?	There is a component of the CEIP that will look at the incremental costs of achieving progress towards clean energy in Washington through an incremental cost analysis. This will be part of the work we're doing and will be included in the upcoming draft CEIP on November 1. Relative to long-term resource planning, when we're talking about 2,000 MW of additional solar and storage, those are based on proxy resource cost and performance assumptions. We don't know the exact costs (due to uncertainty in timing, location, etc.). In terms of rate impacts, the resource planning doesn't evaluate this, partly because it's based on proxy and partly because it's based on other factors (company cost and/or savings) that may be applicable at the time.	Answered in Meeting
172	2021-10-06	Observer or Public Comment	Public Meeting 2	PacifiCorp Information	How will tax increases proposed by the Biden administration impact rates?	If federal tax policy were to change for solar or wind for example, that would be something PacifiCorp would look at in our planning assumptions and update or possibly run scenarios or sensitivities as needed.	Answered in Meeting
173	2021-10-19	Observer or Public Comment	CEIP Technical Meeting 2	CETA	In the incremental cost calculation, how was the social cost of carbon accounted for beyond Washington Resources?	The incremental costs are of dispatch addition, and applies to non-WA resources.	Answered in Meeting
174	2021-10-19	Observer or Public Comment	CEIP Technical Meeting 2	CETA	How is the social cost of carbon integrated into the CEIP?	PacifiCorp ran a number of models under a variety of scenarios including those with the social cost of carbon. A non-CETA model was also completed in order to generate the incremental cost calculations.	Answered in Meeting
175	2021-10-19	WUTC Comment	CEIP Technical Meeting 2	CETA	Can PacifiCorp elaborate on the approach it is using to document non-modeled CETA costs? When do you anticipate this being wrapped up?	One component of incremental cost is the comparative portfolio, while the second is actual costs incurred that do not show up in the models. PacifiCorp is still working to identify all of these costs and developing an internal tracking procedure so this is still in flux. We'll have the draft done by November 1, but there may still be some work through the January 1, 2022 filing date.	Answered in Meeting
176	2021-10-19	Observer or Public Comment	CEIP Technical Meeting 2	CETA	Can PacifiCorp comment on how this cost is apportioned when only part of the generator output is procured?	PacifiCorp cannot acquire only a portion of a facility, so there is not any prorating done in terms of the incremental cost.	Answered in Meeting
177	2021-10-19	Observer or Public Comment	CEIP Technical Meeting 2	CETA	Washington only represents a small portion of PacifiCorp's customer base. How are you ensuring the cost is not high relative to the rest of your portfolio?	The CETA portfolio is not very different from the non-CETA portfolio selection.	Answered in Meeting
178	2021-10-19	WUTC Comment	CEIP Technical Meeting 2	CETA	In regards to the example incremental cost calculation, does that factor in the social cost of greenhouse gases as a cost adder?	No, at the moment, PacifiCorp does not have high confidence in the results of the model while including the social cost of greenhouse gas and will likely file for a waiver for this requirement.	Answered in Meeting
179	2021-10-19	Observer or Public Comment	CEIP Technical Meeting 2	CETA	In regards to the example incremental cost calculation, are the scenarios being compared without the social cost of greenhouse gases then, given the modeling challenges? We feel the purpose of this is to ensure energy efficiency and demand-side management are considered adequately.	At the moment, PacifiCorp is planning on using an alternative portfolio that closely matches the portfolio that includes the social cost of greenhouse gas because the primary costs of energy efficiency and demand-side management in both scenarios are very close.	Answered in Meeting
180	2021-10-19	WUTC Comment	CEIP Technical Meeting 2	CETA	Can PacifiCorp elaborate on how it arrived to the conclusions that energy efficiency and demand-side management have very little difference in the scenarios with and without the social cost of greenhouse gases?	In regards to CETA compliance and Washington-allocated resources, very little addition is needed to meet the requirements in either scenario.	Answered in Meeting
181	2021-10-19	Observer or Public Comment	CEIP Technical Meeting 2	CBI	Now that PacifiCorp has developed CBIs and Metrics, can you elaborate on the directionality of each of these and how you apply those to proposed resources and programs?	PacifiCorp is still exploring this process.	Answered in Meeting
182	2021-10-19	WUTC Comment	CEIP Technical Meeting 2	PacifiCorp Information	In the slides related to new resource additions, what do the asterisks mean?	These indicate these resources are being developed as build-transfer agreements rather than as Power Purchase Agreements.	Answered in Meeting
183	2021-10-19	WUTC Comment	CEIP Technical Meeting 2	CETA	What is the difference between the resource additions indicated in this meeting and the Clean Energy Implementation Plan work?	These resources are all CEIP-compliant and support the CEIP.	Answered in Meeting
184	2021-10-19	Observer or Public Comment	CEIP Technical Meeting 2	Utility Actions	In regards to the 2022 All Source Request for Proposal, where are the renewable energy actions included given the RFP is outside the CEIP time period?	The IRP determines the optimum portfolio, based on certain assumptions.	Answered in Meeting

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Number	Date	Source of Comment	Where was the comment made?	Category	Comment	PacifiCorp Response	Method if Applicable
185	2021-10-19	WUTC Comment	CEIP Technical Meeting 2	CBI	Can you elaborate on the considerations of CBIs on equity considerations in the 2022 All Source Request for Proposal? It appears that the CBIs may be included more as a post-processing step.	This is challenging because the IRP is across a 6-state system. In regards to Washington, PacifiCorp is considering choices between resources.	Answered in Meeting
186	2021-10-19	WUTC Comment	CEIP Technical Meeting 2	Utility Actions	In regards to demand response, can PacifiCorp comment whether the renewable energy capacity amount is the same as the renewable energy target for its utility actions?	The demand response resources were included earlier in the 2021 All-source Request for Proposal, and only part of that is available for the CEIP implementation.	Answered in Meeting
187	2021-10-19	Observer or Public Comment	CEIP Technical Meeting 2	Energy Programs	Did the numbers in the energy efficiency models differ from the Biennial Conservation Plan?	They are based on the same forecasts to align very closely, but will be just a little bit higher.	Answered in Meeting
188	2021-10-19	WUTC Comment	CEIP Technical Meeting 2	CBI	Is the intent to track energy efficiency actions back to named communities or just Highly-Impacted Communities?	The focus is Highly-Impacted Communities, and we are working on tracking other vulnerable populations.	Answered in Meeting
189	2021-10-19	Observer or Public Comment	CEIP Technical Meeting 2	CBI	Will you be tracking some CBIs for all communities?	Yes, some CBIs are applicable to all communities	Answered in Meeting
190	2021-10-19	Observer or Public Comment	CEIP Technical Meeting 2	Utility Actions	For each specific action, you need to report in a tabular form and the metrics related if they are affected by resource efficiency, and I want to confirm that we should expect that in the draft.	Comment noted	Comment noted
191	2021-10-20	Current EAG member	EAG Meeting 6	Metrics	In regards to PacifiCorp's proposed metrics, can you please talk about the metric for headcount of staff supporting Washington-focused program delivery?	This metric is intended to measure the staff that are directly involved in the delivery of our programs in Washington that are women, minority, or disadvantaged. This definition was based on a Washington State certification (OMWBE). This metric includes internal staff and those organizations contracting with PacifiCorp to deliver programs.	Answered in Meeting
192	2021-10-20	Current EAG member	EAG Meeting 6	Utility Actions	How do the outlined energy efficiency goals compare to where we are now?	To meet these energy efficiency (EE) goals, PacifiCorp will have to increase EE programs from where they are today. These targets were generated by looking at the social cost of carbon alongside non-energy benefits over a ten-year period. We extrapolated what would need to happen in the next 2 years to be on track.	Answered in Meeting
193	2021-10-20	Current EAG member	EAG Meeting 6	Utility Actions	How are low-income weatherization programs being handled for multi-family dwellings?	For multi-family homes, 65% of the home needs to be income-qualified for the apartment or units to be eligible for the weatherization program. That percentage could be changed if there is a better threshold for eligibility	Answered in Meeting
194	2021-10-20	Current EAG member	EAG Meeting 6	Utility Actions	When extreme events cause homes to be damaged, as part of the repair process can PacifiCorp leverage economies of scale to weatherize a bunch of homes at once?	PacifiCorp and their community partners would explore economies of scale in service delivery after an extreme event impacting homes. How that would look depends on the type and extent of damage and other resources (such as FEMA) that are available.	Answered in Meeting Notes
195	2021-10-20	Current EAG member	EAG Meeting 6	Utility Actions	How do the weatherization program and the bill assistance interact? Can one be leveraged to increase participation in the other?	There is a close partnership between the implementers of bill assistance and weatherization. PacifiCorp partners with three community action agencies—Blue Mountain Action Council (BMAC) serving Columbia, Garfield, and Walla Walla counties; Northwest Community Action Center (NCAC) serving Yakima County (South); and OIC of Washington service Yakima County (North)—to deliver the company's Low Income Bill Assistance (LIBA) program. These community action agencies deliver Low Income Home Energy Assistance Program (LIHEAP) and weatherization services, among other services, to income qualifying households in their local communities.	Answered in Meeting Notes
196	2021-10-20	Current EAG member	EAG Meeting 6	Utility Actions	Will the electric vehicle (EV) grant program be available to landlords that serve renters?	PacifiCorp hasn't gotten to this level of detail yet, but we anticipate working with the EAG on these kinds of questions.	Answered in Meeting
197	2021-10-20	Current EAG member	EAG Meeting 6	Utility Actions	Can you comment on how the use of renewable resources outside of Washington are applicable to this law? Will they be double counted in the states where the resource is located?	CETA requires PacifiCorp to meet the clean energy goals to become carbon neutral. CETA does not require that the renewable resources are built in a specific location or state. Renewable resources generate renewable energy credits (RECs) which are tracked in the Western Renewable Energy Generation Information System (WREGIS). There are finite number of RECs which can be used to substantiate renewable claims and demonstrate compliance with policies such as CETA. RECs are allocated to PacifiCorp states based on their cost allocation methodology. Under this principle each state can get a share of a renewable resource inside and outside the state without double counting.	Answered in Meeting Notes
198	2021-10-20	Current EAG member	EAG Meeting 6	Utility Actions	Is there a way to close the urban/rural divide on how the EV grant program is implemented? Some rural communities do not have the infrastructure to support EVs.	These topics and concerns will be considered as the EV grant program is developed.	Answered in Meeting Notes
199	2021-10-20	Current EAG member	EAG Meeting 6	Utility Actions	The energy efficiency programs should target commercial customers who use the most energy. PacifiCorp's Question: Which of the actions and/or metrics presented today do you think will be most impactful for your community?	Comments acknowledged and considered in ongoing implementation process	Comments noted
200	2021-10-20	Current EAG member	EAG Meeting 6	EAG Process	Responses: -Bill assistance programs for residential households experiencing high energy burden. -Weatherization programs will be very helpful to create healthier living conditions, especially in the winter. These programs will have a ripple effect. -Energy efficiency to lower bills and make energy affordable is significant as we move toward cleaner sources of energy. PacifiCorp's Question: Based on your experience, what advice do you have for PacifiCorp as they implement these actions and track progress on CBIs?	Comments acknowledged and considered in ongoing implementation process	Comments noted
201	2021-10-20	Current EAG member	EAG Meeting 6	EAG Process	Responses: -Keep in mind the communities that we are looking to benefit with this work. -Ensure access to proper information for our Spanish-speaking population on the pros and cons of clean energy implementation. -Access points could make it easier to provide feedback, access customers at regional to small pay points. -Capitalize on opportunities for feedback. An opportunity to do so is with the home energy efficiency and weatherization programs. Make sure customers are realizing the benefits we are targeting, such as lower bills and more comfortable/healthier living spaces. -Continue strategizing ways to connect with people. Many of these communities don't have access to the internet and other methods of communication. -There is a shortage of electricians, so PacifiCorp will need to think beyond the traditional means of implementing things like the Wattsmart program. -Identify opportunities to synergize what you're doing with other programs. -Think about local partners for workshop facilitation and communication directly with communities. -Keep the ripple effect in mind. Some of these types of houses and communities are hard to access, but once they do, they can be forces for positive change. For example, with multi-family households, accessing 1 or 2 can cause a ripple effect. -Customer engagement is crucial through every step of the process. They need to be aware of programs, how to access them, and the resources available from beginning to end. -Some benefits we are targeting may be secondary to those who are scraping to save money. For example, air quality is secondary to folks who are using wood for home heating to save money. -Fixed-income homeowners often get left out of these solutions.	Comments acknowledged and considered in ongoing implementation process	Comments noted
202	2021-10-20	Current EAG member	EAG Meeting 6	EAG Process	In regards to an email note an EAG Member received: Is the rate increase that we were notified of by email related to this work?	What we've just presented are forecasted costs, and those will be subjected to review before they result in actual rate changes. The rate change that you're referencing does not have to do with this work.	Answered in Meeting

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Number	Date	Source of Comment	Where was the comment made?	Category	Comment	PacifiCorp Response	Method if Applicable
203	2021-10-20	Current EAG member	EAG Meeting 6	EAG Process	<p>The EAG Members offered the following suggests to what might make it easier for their communities to provide feedback on the Clean Energy Implementation Plan:</p> <ul style="list-style-type: none"> •Emphasize the importance of providing feedback on the CEIP in all communications •Hard copies of the documents would be useful for those who do not have internet access •Public meetings have made it easier to provide feedback •Media, like radio announcements, local tv, and social media, to encourage community members to complete surveys and access programs •Make things transparent and provide them in different languages in different media platforms •Social media may appeal to different ages and demographics •Include a link in bill payments to enable input sharing •Focus groups may be helpful for folks in communities to digest and react to the information •Offer a financial incentive to provide feedback 	Comments acknowledged and considered in ongoing implementation process	Comments noted
204	2021-09-01	Observer or Public Comment	CEIP Mailbox	CEIP	<p>I don't like you don't have a Local office so I can talk to a representative in person . Going clean energy is good if it doesn't raise any of our bills . With WA. Having the Largest Dam in the United States our power bill's should be one of the Lowest anywhere in the US ! Thank you for asking for public input on this matter. I would like to put in a few requests on the implementation of alternate energy sources. First off if any solar or wind generators or similar alternatives to energy are on residential property then those properties should be allowed to use these items in a power outage. In California there were companies that did the no cost solar systems for residents and when the power grid goes out the customers were left with no power. Not even on a sunny day and solar panels all over the roof, this is a stupid backwards step if this is how ppl would implement residential solar systems. There are other companies and businesses who would love to be a mini solar farm and have their roof (already rated for extra weight) or parking lots covered with solar panels. Especially if they could rent the space to ppl for a discount on their power bill instead of a rent check. Their building is shaded from the hot sun and or their customers have shaded parking spots so they don't come out to a 150" car after shopping. A bonus would be for residential solar spots to be able to have mini power grids some how that when storm takes out power lines or similar event then people with solar panels could charge their own house battery backups and then when those are 80% full or so then the solar panels go to the broken grid and charge the neighboring houses batteries. Lots of switches in this set up but future idea maybe. Or a solar farm that one can trailer their house battery to and charge it up after a power grid failure. Residents like me who have an easy 24'x24' roof space for solar panels and room for many more but don't need that many panels are kinda out of luck. I have low power needs and with led and more energy efficient appliances like natural gas heat, dryer and oven the power bill is to low for allowance of solar panels on my property and receiving a money back on my power bill would result in a negative bill during good sunny days. But this abundant space should not be a barrier any more and there should be some way to figure out a way to still utilize the wasted space like this and not rip off the customers by not paying them for the solar energy space used. Same for wind generators. I have a windmill to be installed and will make it fully functioning but instead of pumping water it could pump electricity into the grid or neighboring house battery backups. Could use all those negative bills I could get from solar energy to pay ppl for battery upkeep and replacements or services so that the residents don't have to mess with batteries and maintaining them or refurbishing them. If residents paid the same amount per month but got solar panels and house battery backup system with free maintenance for life then I would go for that type of setup. Still would need a system like energy bills increase on less energy efficient appliances so that residents still want to go out and buy better appliances to reduce their energy bill. Homes with extra solar panels vs what they need would be a bonus too on decreasing their energy bill that would have some sort of monthly fee for battery and solar system upkeep. Putting solar on the side walls too as shade for pedestrians would be great. Even out on parks walkways and the Bennington lake paths or road way for bikers and walkers. Where else would shade be welcome?</p>	Comment acknowledged and considered in ongoing implementation process.	Email
205	2021-09-03	Observer or Public Comment	CEIP Mailbox	CEIP	<p>Residents like me who have an easy 24'x24' roof space for solar panels and room for many more but don't need that many panels are kinda out of luck. I have low power needs and with led and more energy efficient appliances like natural gas heat, dryer and oven the power bill is to low for allowance of solar panels on my property and receiving a money back on my power bill would result in a negative bill during good sunny days. But this abundant space should not be a barrier any more and there should be some way to figure out a way to still utilize the wasted space like this and not rip off the customers by not paying them for the solar energy space used. Same for wind generators. I have a windmill to be installed and will make it fully functioning but instead of pumping water it could pump electricity into the grid or neighboring house battery backups. Could use all those negative bills I could get from solar energy to pay ppl for battery upkeep and replacements or services so that the residents don't have to mess with batteries and maintaining them or refurbishing them. If residents paid the same amount per month but got solar panels and house battery backup system with free maintenance for life then I would go for that type of setup. Still would need a system like energy bills increase on less energy efficient appliances so that residents still want to go out and buy better appliances to reduce their energy bill. Homes with extra solar panels vs what they need would be a bonus too on decreasing their energy bill that would have some sort of monthly fee for battery and solar system upkeep. Putting solar on the side walls too as shade for pedestrians would be great. Even out on parks walkways and the Bennington lake paths or road way for bikers and walkers. Where else would shade be welcome?</p>	<p>With regards to the ability of renewable generators to provide increased reliability for a customer: As you note, renewable generating resources at this point are generally installed in a way, that if the distribution grid in the area goes offline, the renewable energy system also deenergizes. This design feature is included to prevent safety risks for the customer and the line men attempting to restore service to the area. Currently, customers can install renewable energy systems that are designed to safely "island" (disconnect from the surrounding grid) during grid outages and continue to provide power to the customer. These systems are more complex and have additional equipment and affiliated costs associated with them. Typically, these systems have a storage component, a transfer switch that allows the islanding, and a control system that will balance the output from the solar and the storage with the load on the site. A customer interested in this additional protection should contact a local renewable energy installation company and discuss the cost and complexity of adding that feature.</p> <p>In answer to the second issue regarding rate structures that would compensate customers that produce energy above and beyond their onsite needs: This is a complex story that hits at the intersection of federal and state energy law. Under the federal Public Utility Regulatory Policies Act, any person can ask the utility to purchase energy from a renewable energy facility by becoming a qualifying facility ("QF"). These renewable energy developers are compensated at avoided cost - basically the value of the energy to the system.</p> <p>For most customers interested in installing generation, their goal isn't to earn money for generating energy, it is simply to offset their load and reduce their personal bills. In that case, there is a program called net metering that is authorized by state law. That program basically takes the generation from the facility and nets any energy that is provided to the grid with energy the customer takes from the grid. An individual facility must choose its path either as a QF under federal law or as a net metering facility under state law. For most customers net metering is the most economical way to install renewable generation, as the customer is offsetting energy at the full retail rate rather than being paid the avoided cost as a QF would. While this framework may change over time, at this point the legal system only provides these two options.</p>	Email
206	2021-10-02	Observer or Public Comment	CEIP Mailbox	CEIP	<p>Thank you for providing a way to comment. So glad that I am actually able to respond to your request for comment in the manner that I want to. I tried to respond through the "survey". I did not want to be forced to pick responses that did not reflect my thinking but which would fit your narrative so you can get kudos from the "woke".</p> <p>Climate change is a reality. It is important to consider it when planning. I would hope that the utility plans to use as many sources to provide my electricity focusing on the most affordable, most reliable and the most cost effective. Bing held hostage by the environmentalists, we see acres of wood burn up. The wood could have been used to keep building costs lower and provide heat in the winter. Having lived in Texas, my family lived through this past winter with the debacle of the windmills and not being able to access resources (due to federal government oversight) that the utility had available. Fortunately, they had generators and were able to keep water pipes from freezing and parts of their homes warm when the temperatures plummeted.</p> <p>I use your utility – a "public" utility because it is what is offered in my city/community. My wishes are for RELIABLE electric service when I need it. I want to be able to heat or cool when it is necessary. My thermostat for a/c is set at maximum 70 degrees summer. I have an electric water heater. My bill is manageable even with extra family and company during the holidays. I have had electric heat pumps. My experience in cold weather (California, Virginia, Michigan, Indiana, Kentucky and Washington) is the electric heat strips have to run full time to provide heat which is a really an inefficient way to heat and causes a high demand on resources.</p>	Comment acknowledged and considered in ongoing implementation process.	Email

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Number	Date	Source of Comment	Where was the comment made?	Category	Comment	PacifiCorp Response	Method if Applicable
207	2021-10-03 & 2021-12-20	Observer or Public Comment	CEIP Mailbox	PacifiCorp Information	<p>Public comment submitted on 10/3/2021: We have taken the Grand Coulee Dam tour twice (2018 and 2019). Both times, they explained that most of the electricity that this dam is capable of generating is NOT being transmitted. In other words, only a fraction of the electricity that this dam is fully equipped to generate is actually supplied to the "grid" while the rest of it remains idle. This apparently has nothing to do with equipment failures or maintenance. This is what the tour guides were saying. Why is this so? If this dam would be allowed to produce and supply all of the electricity that it is capable of, then wouldn't that preclude the necessity of constructing so many of these new and expensive "green energy" suppliers?</p> <p>Public comment submitted on 12/20/2021: Thank you for your reply, but it still did not address my question. Your answer nicely laid out the strategic theory (or theoretic strategy) behind having multiple sources of electricity generation and was therefore a decent but partial answer. It did NOT address the demand-side necessity of building, AT GREAT EXPENSE, more super-expensive energy generators (or whatever the generic phrase is for anything that generates electricity) that might just not be necessary given that Grand Coulee & the other dams are only supplying a fraction of the energy that they are fully capable of. Why build (and make us pay for) more energy generators than we actually need when the dams themselves are already more-than capable of meeting the demand for electricity with voltage to spare?</p> <p>I agree that we should try get a little ahead (and stay ahead) of projected future demand, but I HATE seeing these green energy generators (dams) only supplying a fraction of their full potential while the public is being told of the necessity for building more (which sounds like a big lie to me). Couple that with the trend in recent years of an increasing number of residents and businesses installing their own solar panels and storage batteries which greatly reduce their dependency on "the grid." The PNW appears to be overflowing with electricity.</p> <p>When I lived Kettle Falls in the 1990s, every year we would see FDR Lake start dropping during mid-winter in anticipation of the annual spring runoff. The Lake would always return to and stay at its normal level during the summer and into the fall, even during the drought year of 1994. The hydrologists had it all calculated, and everything worked out just fine with no alarms being sounded about a need for more generators. I do not recall seeing a lot of wind turbine construction in those days.</p> <p>I originally sent my comment thinking it would be recorded and considered along with all other public comments that were originally requested in response to PacifiCorp's plans for the future. Based on your answer, which sounded as if you were trying to correct me rather than taking my comments into consideration, it sounds as though PC will plow forward with its plans REGARDLESS of the public feedback that you were originally soliciting.</p>	<p>PacifiCorp reply on 12/10/2021: In general for hydro projects with larger reservoirs/lakes, the time and extent of hydro generation is based on customer and grid requirements at any moment in time. The reservoir is essentially like a fuel tank, the supply limited to annual or season inflow. Use of that fuel is often directed to its greatest value typically based on customer demand and availability/cost of other generation sources. For example, during the spring time when the wind is consistently blowing, we can meet customer demand through our wind generation fleet and reduce hydro generation to store spring runoff into the reservoirs. In the summer and fall, we can then use that water and hydro generation if the wind is not blowing. Wind, hydro and solar generation are all limited by what nature provides you, hydro is the only one that can store the fuel for later use; both wind and solar are use it or lose it "fuel" sources. As such these projects are typically run with first priority then complemented with hydro.</p> <p>PacifiCorp reply on 12/29/2021: With growing populations in our service territories, increasingly cost-effective renewables and a societal demand that new energy be sourced from renewable resources, PacifiCorp has identified new renewable generation sources will be needed to meet future electrical demand. Unlike thermal based generation that you can stock/schedule fuel supply, the renewables "fuel" sources (sun, wind and water) are intermittent or in the case of hydro can only be stored to the reservoir size associated with the project. Hydro generation can only run full capacity until the water in the reservoir is gone or the elevation drawdown impacts water withdrawal to the powerhouse. Also, in some cases reservoir elevations must be held to meet irrigation water rights/demands or recreation requirements. PacifiCorp's reservoirs are not large enough to sustain a full generation long-term operation unless inflows are greater than the capacity of the powerhouse. Renewable resources projected to be added to the system in the CEIP are extremely cost-effective in meeting system requirements, including retail load, and have been selected based on least-cost least-risk metrics. Future rates for Washington customers will be higher without these resources. Hydro dispatch potential is extremely valuable and is managed to keep costs low in a regulated environment where immediate water availability is not the only factor. For detailed information regarding the economics of resources and optimal system outcomes, please refer to the company's 2021 IRP, publicly available at 2021 IRP Volume 1 (pacificorp.com), and specifically Chapters 7, 8 and 9.</p>	Email
208	2021-10-18	Observer or Public Comment	CEIP Mailbox	CEIP	<p>In my opinion, "Pacific Power" can promote Green electrical production within its service area. However I think with the existing WASHINGTON STATE housing is in dire need of insulation upgrades. The amount of KW usage by residential house could be reduced with an immediate attic insulation upgrade. Any efforts you can make in this issue will pay off in big dividends to your customers.</p> <p>I have started working on my 1905 Walla Walla house. see attachment with the intent of total annual KW reduction. I have converted to an "All Electric" house</p> <p>IMPROVEMENTS Disconnected from Cascade Gas Service Disconnected HVAC ducted 50 year old Gas Furnace ----- Upgraded to 200 AMP Service Added RHEEM Classic Performance Water Heater (Added 4) Daiken Mini Splits Foil Radiant Barrier Roof Rafters coverage in the attic R30 to R60 Attic Fiberglass floor insulation</p> <p>NOTE Made a submission to Pacific Power for a Case Study on my performance for 2022 KW usage reduction.</p> <p>I listed below your two service areas States: Oregon / Washington.</p> <p>Oregon is in dire need to begin to reduce its Fossil Fuel electrical generation</p> <p>Washington (in good shape) can increase the # of WIND TURBINES to begin to reduce its COAL and Natural Gas usage over time.</p> <p>[Email included attachments of graphs and photos not included in this log]</p>	<p>Comment acknowledged and considered in ongoing implementation process.</p>	Email
209	2021-10-26	Observer or Public Comment	CEIP Mailbox	CEIP	<p>Your mad rush to embrace green energy means higher costs, less reliability, environmental degradation and wildlife destruction. We'll have brownouts in the not too distant future, thanks to the closure of coal plants in this region. You can see the future in Europe, which has embraced your vision and is poised to shiver through the winter. But at least some rich investors will do great. Charging people more for electricity when demand is higher is punitive to those of us on a fixed income. I am a retired senior who worked all my life. I live on Social Security and and a very small savings. I don't get help from government programs like Medicaid and food stamps and free this and that.</p>	<p>Comment acknowledged and considered in ongoing implementation process.</p>	Email
210	2021-11-05	Observer or Public Comment	CEIP Mailbox	PacifiCorp Information	<p>This clean energy campaign is just another money maker for the industries it will create, who will all become billionaires. So what is your plan to not PUNISH the seniors on fixed incomes?</p>	<p>Comments acknowledged and considered in ongoing implementation process.</p>	Email
211	2021-11-05	Observer or Public Comment	CEIP Mailbox	CBIs	<p>Attached please find a letter to Director Maxwell and the Joint Comments on Customer Benefits Indicators on behalf of The Energy Project, Front and Centered, NW Energy Coalition and Public Counsel. These documents were filed in the above-referenced docket via the UTC's Web Portal today.</p> <p>You are being copied on this filing per the UTC's master service list in this docket.</p> <p>[Attachments removed: CBI List, Cover Letter to Director Maxwell, Certificate of Service]</p>	<p>PacifiCorp completed a comprehensive review of the July 30, 2021 Joint Comments on CBIs prepared by the Joint Advocates. PacifiCorp compared the Joint Advocate CBIs and metrics to those being considered by PacifiCorp. This mapping exercise resulted in refinements to several of PacifiCorp's CBIs and the adoption of additional metrics as reflected in the draft and final CEIP. PacifiCorp's comparative analysis was transmitted to the Joint Advocates on October 25, 2021. PacifiCorp initiated and participated in a conference call with the Joint Advocates on November 19, 2021 to respond to comments from the Joint Advocates contained in the draft CEIP as well as PacifiCorp's mapping exercise. The Energy Project also completed a comparative analysis of the CBIs and metrics proposed by the Joint Advocates to those proposed by the PacifiCorp. Copies of the CBI comparative analyses prepared by PacifiCorp and The Energy Project are found in Appendix A of the final CEIP.</p>	Email, formal response dated October 25, 2021, and teleconference

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Number	Date	Source of Comment	Where was the comment made?	Category	Comment	PacifiCorp Response	Method if Applicable
212	2021-11-08	Observer or Public Comment	CEIP Mailbox	PacifiCorp Information	I've been a customer for about a decade. I just found out that your power comes from coal. Frankly this is outrageous. I've always assumed that here in Washington we do not have to worry about all of the issues related to fossil fuel electricity production because we have abundant Hydro and wind power in our state. While that may be true for the majority of Washington's counties for some unexplained reason Yakima County is stuck getting power from your dirty out of state coal plants. That's shocking to me and it should be to most people living in this community. Please switch out of this power source and inform the public about how many carbons you are releasing per KWH so that we can keep track of progress. Obviously carbon capture can do a lot and I would go there first to clean up your plans. There are Coal plans all over the world that have been implementing 100% carbon capture. Please do this as fast as possible.	Comment acknowledged and considered in ongoing implementation process.	Email
213	2021-11-09	Observer or Public Comment	CEIP Mailbox	CETA	First, we have politicians and profiteers, not scientists, creating energy policy. The equity/communal/idealist approach is an anathema to getting low-cost energy to EVERY single person regardless of race, political party, or citizenship. Energy is energy, no matter WHO it benefits. Second, solar farms and wind turbines are the most unreliable, unproductive, COSTLY/SUBSIDIZED/ECO DEADLY energy devised by man. Last, these carbon-free plans are specifically (purposefully) void of new technological improvisation, and they are SUICIDAL. New technology has been steadily advancing, including clean coal and clean nuclear, and fusion is making rapid advances, while the push for rare earth elements to create renewable batteries creates a near total dependence on China for supply. The term "SUICIDAL" posits actual reality, that while CEIP is looking to a carbon free future, the most congested smog ridden environment on earth = China, is CURRENTLY BUILDING over 200 new coal plants (as we speak!), while at the same time using that coal to build a massive military infrastructure which is building new nuclear submarines, hypersonic missiles, and other advanced weaponry.	Comments acknowledged and considered in ongoing implementation process.	Email
214	2021-11-10	Observer or Public Comment	Public Meeting 3	CETA	What is the definition of "renewable" and how does that differ from "[Greenhouse Gas] Neutral"?	CETA defines "renewable resources" as (a) Water; (b) wind; (c) solar energy; (d) geothermal energy; (e) renewable natural gas; (f) renewable hydrogen; (g) wave, ocean, or tidal power; (h) biodiesel fuel that is not derived from crops raised on land cleared from old growth or first growth forests; or (i) biomass energy. It also defines nonemitting electric generation as "electricity from a generating facility or a resource that provides electric energy, capacity, or ancillary services to an electric utility and that does not emit greenhouse gases as a by-product of energy generation." While CETA does not use the term GHG neutral, both types of resources are GHG neutral.	Answered in meeting
215	2021-11-10	Observer or Public Comment	Public Meeting 3	CETA	Is hydroelectric power "renewable"?	Yes, hydroelectric power is included as an eligible renewable resource in CETA.	Answered in meeting
216	2021-11-10	Observer or Public Comment	Public Meeting 3	PacifiCorp Information	Is the production, materials, end of life, and raw material sourcing of the power generation facilities (solar, wind, etc.) factored or addressed in your carbon neutral plan?	The carbon footprint metrics we have do not look at emissions from the production of the equipment itself; they only calculate system-level emissions of the portfolio of resources and equipment being analyzed based on a model's dispatch of the resources. Proxy cost assumptions include demolition costs for solar and wind.	Answered in meeting notes
217	2021-11-10	Observer or Public Comment	Public Meeting 3	Named Communities	[I] noticed that 42% of your customer base speaks Spanish at home. Does the uptake of these programs reflect that demographic?	We are working with our communication teams to ensure that we have linguistically targeted programs. We are hoping participation will increase in targeted communities with an increase in targeted communication. The Community Outreach and Engagement category of actions includes plans to increase targeted Spanish communication and ads (e.g., radio), having live interpreters, and more.	Answered in meeting
218	2021-11-10	Observer or Public Comment	Public Meeting 3	Utility Actions	Given Pacific Power's increased and increasing reliance on wind power, what actions are you taking to avoid the hundreds of deaths which occurred in Texas last winter due to frozen wind machines?	When PacifiCorp issues requests for proposals (RFPs), we include technical specifications that bidders are required to adhere to, and we require bidders to design systems that are appropriate for our context. From a system planning perspective, we model with an eye towards managing risk. We take into account even highly unlikely scenarios. PacifiCorp's system is diverse, and we have redundancies built in. Finally, Texas' problems in winter 2020 stemmed primarily from difficulties at improperly weatherized natural gas generation, not wind resources.	Answered in meeting
219	2021-11-10	Observer or Public Comment	Public Meeting 3	Utility Actions	Demand response question: Will high-demand reduction be sought during certain times of the day, certain days of the year (high energy use days), or both?	Both. We are focused on specific times of the day during hours are when demand is typically highest and on specific times of the year, typically in summer and winter months. Each program offers opportunity for load reduction, and it depends on when customer is using the load. Each program also has parameters around how we manage demand response, and we will be upfront with customers' boundaries. For example, for commercial and industrial customers, there are boundaries that limit how often we'd request a demand response event, based on hours per year, duration, and frequency.	Answered in meeting
220	2021-11-10	Observer or Public Comment	Public Meeting 3	CETA	What actions, if any, is Pacific Power taking toward the repeal of CETA?	PacifiCorp has no plans to do this. We are aligned with CETA's objectives.	Answered in meeting
221	2021-11-11	Observer or Public Comment	CEIP Mailbox	Utility Actions	I attended Pacific Power's Draft CEIP meeting yesterday. The "Yakima Unit" was mentioned on numerous occasions during the call. My understanding from the call is that this unit will come online 2030 and be part of PAC's resource supply. Are you able to provide with me with any more information regarding this unit? I am sure any resources you can provide will be helpful.	In regards to your question about the 2030 renewable resource selected in Yakima, Washington as part of Pacific Power's CEIP and long-term plan to meet Washington's clean energy targets, please see the following list of references from the 2021 Integrated Resource Plan: 1.2021 IRP Volume I: Integrated Resource Plan Chapter 9, subsection "Preferred Portfolio Selection" •This subsection includes a high-level discussion of the assessment that lead to addition of the 2030 Yakima renewable resource for purposes of meeting Clean Energy Transformation Act (CETA) targets. 2.2021 IRP Volume II: Appendices Appendix O "Washington Clean Energy Plan" •This subsection includes additional discussion specific to CETA requirements, the Washington-allocation of the preferred portfolio and is a precursor to the CEIP. 3.2021 IRP Volume I: Integrated Resource Plan Chapter 7, Table 7.1 – 2021 Supply-Side Resource Table, page 172 •Under the "Fuel" category, "Solar + Storage + Wind" that is located in "Yakima, WA" under the "Resource" column corresponds to the 2030 renewable resource in question. This table contains cost and attribute assumptions used in the modeling process.	Email
222	2021-11-13	Observer or Public Comment	CEIP Mailbox	Utility Actions	I am suggesting inserting (SMRS) small nuclear production at existing Coal Fired location sites. Then whittle down the remaining existing location with similar replacements. https://www.energy.gov/ne/advanced-small-modular-reactors-smrs The reality is TRANSMISSION from existing facilities to exiting client in a short timetable is the problem. These existing locations of Coal Fired Plants have that delivery infrastructure. A seamless (SMRS) connection to the TRANSMISSION lines solves Pacific Power's Goals quickly and less costly. Other government would re [SIC].	Comment acknowledged and considered in ongoing implementation process.	Email
223	2021-11-13	Observer or Public Comment	CEIP Mailbox	Utility Actions	[Attached removed: EIA DEC 2018 Washington State Electricity Generation graph] The INSULATION incentive to put in in existing HOMES R39+ attic insulation reduces your existing (65+) SENIOR HOMEOWNERS customers usage. This targeted group lives 24/7 in their homes unlike the workforce who leaves their home during the day and crank up the HVAC for heat/Cool. These two actions would be "A WIN WIN" solution for Pacific Power Goals that should NOT be ignored.	Comment acknowledged and considered in ongoing implementation process.	Email

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Number	Date	Source of Comment	Where was the comment made?	Category	Comment	PacifiCorp Response	Method if Applicable
224	2021-11-15	Observer or Public Comment	CEIP Mailbox	Utility Actions	<p>A City has several sub-stations within its boundary. The commercial areas (highest usage) would benefit greatly by adding an SMRS into that transmission hub to feed the usage.</p> <p>The Coal Fired Plants would begin to operate less frequently and eventually close down.</p> <p>[Follow Up email sent later in the day]</p> <p>Thanks for the reference on NATRIUM. A good idea.</p> <p>My 2nd suggestion follow -up was localized SMRS at the local sub-station.</p> <p>[Follow Up email sent on 16-Nov-2021]</p> <p>All Pacific Power existing houses should be now upgraded to 200 AMPS. The elimination of Nat Gas appliances, purchases of EV (needing 50 AMPS dedicated for charging) and the All Electric house becoming the normal. Many current houses are at 100 AMPS in Washington.</p> <p>[Follow Up email sent 17-Nov-2021]</p> <p>Bill Gates' TerraPower will build its first advanced nuclear reactor in a coal town in Wyoming [Link to CNBC removed]</p>	<p>PacifiCorp's 2021 Integrated Resource Plan considers nuclear projects and existing generation sites in its optimized selection of resources to meet long-term customer needs. The company anticipates continuing to consider these opportunities in the future. For more information about nuclear resources in the 2021 IRP, please refer to Chapter 7 of the IRP, publicly available at this weblink Integrated Resource Plan (pacificorp.com).</p> <p>[Response to second email]</p> <p>Thank you. Your suggestions are being noted and considered.</p>	Email
225	2021-11-17	Observer or Public Comment	CEIP Mailbox	Utility Actions	<p>[Follow up email to a note received 11-Nov-2021]</p> <p>Upon review of the materials, I have a few remaining questions. If I understand correctly, you (PAC) are saying that you have a supply shortfall in the Yakima Municipality (?) area that would be addressed with a 160 MW wind/solar resource with storage. Is that correct? Or, are you referencing a specific project?</p> <p>[Follow up email received on 17-Nov-2021]</p> <p>Thank you for that clarification. Does PAC intend on issuing a RFP in the future for the wind resource with solar and co-located storage in Yakima or have they already selected a resource?</p>	<p>The compliance shortfall identified in 2030 was based on the requirement to meet a percentage of all electricity sales to Washington customers with owned renewable and non-emitting resources – the shortfall was not specific to one area of customers. The selection of an additional wind resource with solar and co-located storage in Yakima was considered an optimal decision based on the system infrastructure and viable resource options. For example, the project would take advantage of existing and planned transmission capacity so that additional transmission lines do not need to be built.</p> <p>The resource may serve customer electricity need in the Yakima area, but it is part of a larger integrated system and could supply energy for neighboring areas and contribute to system reserves.</p> <p>[Response to follow up email]</p> <p>The Yakima resource is a proxy resource selected in 2030 in the 2021 Integrated Resource Plan. This is beyond the company's current action plan window (2022 – 2025) and thus beyond the period of time for which the company would issue a Request for Proposal. The 2030 clean energy target will be subsequently evaluated in the next several IRP cycles (done on a biennial basis) and with updated forecasts and new information, the proxy resource selection could change. If within a closer time frame to 2030 the Yakima wind and solar resource co-located with storage is still the optimal proxy resource selection, such a resource could be included in an RFP.</p>	Email
226	2021-11-17	Current EAG Member	CEIP Mailbox	CEIP	<p>Thanks for the EAG meeting. I have a question on page 8 of the CEIP-- it states: "The interim targets are informed by the company's historical performance under median water conditions, which is a factor in developing expected resource behaviors and Washington retail sales."</p> <p>I'm curious if you can share more about this statement? If I understand correctly, it's stating that the targets for the first 3 years are based on median water conditions in the region. How will this plan change if/when we have drought conditions and/or water conditions are impacted by the climate crisis?</p>	<p>The 2021 Integrated Resource Plan incorporates a climate change scenario in which there is an approximate 7 percent reduction in hydro availability due to climate-related low water conditions. The study also incorporates unfavorable hydro volatility which affects future system costs. While the company has not calculated a separate set of interim targets based on this study, the expectation is that by 2025 the interim target would be lower than the estimated 50 percent level where it now sits in the CEIP. In order to reach the 2030 and 2045 CETA standards for interim targets in such a future, the company would adapt its portfolio going forward, possibly by investing in even higher levels of demand-side management resources such as energy efficiency and demand response, and by siting additional renewable generation to compensate for the loss of hydro generation.</p> <p>The company anticipates continuing to study climate change, including hydro impacts, and is committed to being responsive to changing conditions.</p> <p>For additional information on the climate change case, please refer to the 2021 IRP Volume I, Chapter 9 – Modeling and Portfolio Selection Results, page 314.</p> <p>https://www.pacificorp.com/energy/integrated-resource-plan.html</p>	Email
227	2021-11-17	Current EAG Member	EAG Meeting 7	PacifiCorp Information	Does PacifiCorp sell wholesale electricity in Washington?	PacifiCorp does not have wholesale customers in Washington.	Answered in meeting
228	2021-11-17	Current EAG Member	EAG Meeting 7	Utility Actions	Are Greenhouse Gas (GHG) emitting resources being allocated to non-Washington customers in order to reach interim targets?	PacifiCorp optimizes its portfolio of generating resources across its six-state system as a whole and the allocation methodology is such that some of PacifiCorp's non-Washington customers may be allocated emitting resources. In some cases, early retirement of system emitting resources might occur, but not necessarily due to CETA requirements.	Answered in meeting
229	2021-11-17	Observer or Public Comment	EAG Meeting 7	Interim Targets	What accounts for the big jumps in the percentage of clean energy in PacifiCorp's portfolio in 2024-2025 and 2029-2030?	Washington is exiting all coal systems in 2025, so the capacity of other renewable resources will come online to replace this demand. In 2030, modeling indicated a small shortfall in renewable and non-emitting resources to meet CETA's 2030 Specific Target, and as a result PacifiCorp is procuring new Washington-sited renewable resources.	Answered in meeting
230	2021-11-17	Observer or Public Comment	EAG Meeting 7	Interim Targets	Why in the interim targets does the percentage of renewable energy drop slightly in 2036?	These targets are indicative and won't necessarily reflect the exact percentages in any given year. The targets are the result of aggregating all hours in each year (to get total megawatt-hours (MWh)), and they can change due to the assumptions of asset performance and other impacts, like weather assumptions.	Answered in meeting
231	2021-11-17	Current EAG Member	EAG Meeting 7	CBIs	Does the overall percentage of customers experiencing energy burden (24.4%) represent all customers including those who are not in named communities?	Yes, that is the average for all customers. The highly impacted communities (HICs) percentage includes vulnerable populations located in those census tracts.	Answered in meeting
232	2021-11-17	Current EAG Member	EAG Meeting 7	CBIs	Can PacifiCorp give an indication of the absolute number of customers that are considered energy-burdened?	Yes, that data is available in Table 2.17 on Page 43 of the draft CEIP.	Answered in meeting
233	2021-11-17	Current EAG Member	EAG Meeting 7	Utility Actions	Are gas to electric appliance conversions incentivized in the low-income weatherization program?	Currently, in 2021, there are no incentives for gas to electric appliance conversions. Efficient electric heat has to be installed in a home with an existing operable electric heating system. Starting in 2022, PacifiCorp has proposed to expand the program to convert solid fuel, propane, and oil to electric. Additionally, the proposal provides for gas to electric conversion when the existing system presents a health hazard to the customer. The proposed gas to electric conversion only applies to homes with gas systems that have inadequate combustion air as determined by the agencies that delivers weatherization services.	Answered in meeting notes
234	2021-11-17	Current EAG Member	EAG Meeting 7	Incremental Costs	How does the \$5.6 million in incremental costs factor into the overall costs?	The overall costs and revenues are in Table 4.4, on page 70 of the draft CEIP.	Answered in meeting

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Number	Date	Source of Comment	Where was the comment made?	Category	Comment	PacifiCorp Response	Method if Applicable
235	2021-11-17	Observer or Public Comment	EAG Meeting 7	Incremental Costs	Do the Community Outreach and Education actions outlined in the CEIP factor into the incremental cost calculations?	As a result of the CEIP development process, especially feedback from the EAG, PacifiCorp is taking steps to modify or expand its community outreach and engagement actions. Incremental cost calculations in the CEIP include cost estimates for public outreach, EAG meeting facilitation, and translation services.	Answered in meeting
236	2021-11-17	Observer or Public Comment	EAG Meeting 7	Utility Actions	Does PacifiCorp plan any programs to lower barriers for customer-sited rooftop solar and storage?	There are no specific actions in the CEIP related to customer-sited generation. PacifiCorp is considering projects such as co-locating storage with customers.	Answered in meeting
237	2021-11-17	Observer or Public Comment	EAG Meeting 7	Utility Actions	Does PacifiCorp have programs focusing specifically on electric vehicles (EVs)?	The draft CEIP includes a proposal for an EV program targeted at transportation electrification in named communities.	Answered in meeting
238	2021-11-17	Observer or Public Comment	EAG Meeting 7	Incremental Costs	Is the EV program within the draft CEIP intended to be an incremental cost as defined by CETA?	No.	Answered in meeting
					EAG members provided the following feedback on Utility Actions in the draft CEIP:	Comments acknowledged and considered in ongoing implementation process.	Discussed in meeting
239	2021-11-17	Current EAG Member	EAG Meeting 7	CEIP	<ul style="list-style-type: none"> All EAG members expressed support for education and outreach that is culturally and linguistically responsive. All EAG members indicated that community access so that all customers can participate in programs is paramount. One member expressed concern that near-low-income/Asset Limited, Income Constrained, Employed (ALICE) members of the community get lost in the draft CEIP. Avoid creating a "missing middle." It would be helpful if PacifiCorp was more specific on their actions. PacifiCorp will need to work closer with community partners and organizations to credibly engage with communities and ensure fuller participation. The EAG expressed appreciation to PacifiCorp for providing a space to hear from the EAG and hope that the process provides a precedent for the future. 		
					Following review of PacifiCorp's Draft Clean Energy Implementation Plan, the Alliance of Western Energy Consumers has the following two recommendations for potential incorporation into the Company's Final CEIP:	PacifiCorp may transfer renewable energy credits (REC) between states as an alternative to purchasing RECs in the market, when needed. The company has, in the past, transferred RECs from a state that does not have a renewable portfolio standards (RPS) and a state that does, specifically, from Utah and Idaho to California. These transfers generally require support from both jurisdictions on the price associated with the transfer and, historically, agreement is not always reached as to the price. It is PacifiCorp's current perspective that it cannot therefore reliably count on this type of transfer for future compliance, as it would make compliance with Washington law contingent on another state's actions.	Email
240	2021-11-23	Alliance of Western Energy Consumers (AWEC)	CEIP Mailbox	CEIP	-PacifiCorp currently allocates renewable energy credits to all of the states it serves, even though some states do not require RECs for compliance with a clean energy law. PacifiCorp should analyze the cost to Washington of purchasing RECs from these states as a means of CETA compliance. The company should compare this cost with the cost of its proposed compliance pathway identified in the Draft CEIP (which, as AWEC understands it, is primarily based on the action plans of its most recent IRPs and relies primarily on new renewable resources and transmission).		
241	2021-11-23	Alliance of Western Energy Consumers (AWEC)	CEIP Mailbox	CEIP	-The Draft CEIP mentions PacifiCorp's proposal to convert Jim Bridger Units 1 and 2 to gas, but states that PacifiCorp "does not anticipate allocating any of the converted Jim Bridger units to Washington." (Draft CEIP at 16). This statement is not accompanied by any explanation or analysis. AWEC recommends that PacifiCorp explain and justify its proposal not to allocate a portion of the converted Bridger units to Washington.	In regards to the proposal to convert Jim Bridger Units 1 and 2 to gas and an assumed allocation within the draft CEIP: this statement is PacifiCorp's tentative view of a question that will be addressed in future multi-state protocol allocations, and no final decisions have been made. The company will continue to evaluate if a Washington-allocation of the converted units would be appropriate based on the outcome of ongoing discussion on the post-interim period interjurisdictional allocation in the multi-state process.	Email
					As PacifiCorp staff know, Public Counsel was part of the group of joint advocates who proposed a set of customer benefit indicators earlier this year. We continue to support those CBIs and concur with the analysis done by The Energy Project in evaluating and comparing the joint advocate CBIs with the CBIs in Pac's draft CEIP. Public Counsel does appreciate Pac's willingness to engage with the joint advocates on the CBIs and for providing the comparative document earlier this fall.	PacifiCorp has included additional detail in the final CEIP that further outlines a plan for increased outreach to named communities. PacifiCorp will continue to refine this plan through collaboration with its EAG and advisory groups.	CEIP updated
242	2021-12-03	Public Counsel	CEIP Mailbox	CEIP	Given the comments and analysis about CBIs that has been shared with Pac through the joint advocate meetings, the comments below are focused mainly on the specific action chapter of the draft CEIP and some thoughts about public participation:		
					•Chapter 3 calls out four main areas of specific actions: supply side resources, energy efficiency, demand response, and community outreach & engagement. The section on community outreach & engagement feels less fully developed and with fewer details on specific actions than other areas of the chapter. I do understand that the company wants to work with community partners to develop this area, but I'd encourage the company to include more information to outline a plan and provide examples of the type of materials they plan to develop in the final CEIP.		
243	2021-12-03	Public Counsel	CEIP Mailbox	CEIP	•In chapter 3, there are a few places where the table titles in the text need to be updated. For example, at the bottom of page 60, it references the budgets shown in Table 3.9, but the budget ranges are shown in Table 3.7.	Tables and references in Chapter 3 have been updated to reflect the appropriate table numbering.	CEIP updated
244	2021-12-03	Public Counsel	CEIP Mailbox	CEIP	•Table 3.9 on pages 62-64 appears to have some color coding, but it's not clear what the color coding means. It would be helpful for the company to identify what this is to symbolize in the final.	A legend has been added illustrating what each color category represents in Table 3.9	CEIP updated
245	2021-12-03	Public Counsel	CEIP Mailbox	CEIP	•In general, I appreciate Pac's good faith effort to engage with their equity advisory group. The EAG meetings were well run. The company did engage with other advisory groups to a lesser extent. I know there were a number of members overlapping between the EAG and the low income advisory group, but it would've been good for the company to do a bit more with that advisory group in particular.	The company appreciates this feedback and plans to engage the low income advisory committee on CETA topics going forward.	CEIP updated
					•I also appreciated Pac's efforts during their series of evening public meetings. I'd be curious to see information about how many people participated in those general public meetings and how those were advertised. Part of the reason that I'm interested in more detail in the communications and outreach section of specific actions is because I'm curious to see what lessons the company learned in their public outreach related to the CEIP and how they might adjust their strategies going forward.	The number of attendees (unique individuals) at each public participation meeting is as follows: Meeting 1: 18 Meeting 2: 16 Meeting 3: 17 Outreach methods for these meetings included: direct email to customers, direct email to stakeholder groups, bill inserts, press releases, text message notices, a flyer sent to EAG members to distribute, newspaper ads, social media ads, radio ads, and a recording when Washington customers call our Customer Care Center. Several of these outreach methods were added or adjusted based on EAG and public feedback, and will likely be implemented in the future. Table 5.1 in the CEIP has been updated to reflect outreach methods that will be used during the 2022-2025 implementation period.	CEIP updated
247	2021-12-03	The Energy Project (TEP)	Docket UE-210829	CBIs	The Energy Project joined with Front and Centered, the Northwest Energy Coalition, and the Public Counsel Unit of the Washington Attorney General's Office to develop a draft list of Customer Benefit Indicators (CBIs). The Joint Advocates (JA) initially shared this list with the Company and stakeholders in late July 2021 and have subsequently filed the list in this docket.	PacifiCorp appreciated the opportunity to participate in a conference call with the Joint Advocates on November 19, 2021 to respond to comments from the Joint Advocates on the CBIs contained in the draft CEIP as well as PacifiCorp's October 25, 2021 CBI mapping exercise. PacifiCorp reviewed the CBI comparative analysis and comments prepared by The Energy Project. Specific responses to comments are presented below.	Comment noted
					[This submission included the following attachments: 210829-TEP Cmts-12-3-12.doc/pdf - summarized in the following comments; 210829-TEPCLtr_12-3-21.pdf - a cover letter; 200829_TEP Attachment A Table 1.docx/pdf - a table comparing the Joint Advocate submission to PacifiCorp's CEIP]		
248	2021-12-03	The Energy Project (TEP)	CEIP Mailbox	CBIs	PacifiCorp's Draft CEIP outlines the CBIs at Table 2.3. One confusing aspect of this table is that multiple statutory elements are often indicated for a given CBI. For example, "non-energy benefits" is referenced for four of the nine CBIs. In contrast, the statutory elements "energy security" and "energy resiliency" are shown as pertaining to only a single CBI. The Company indicates this modification to the organization of the CBIs was made later in the process, after reviewing Avista's draft CEIP. We recognize that some degree of overlap certainly exists, but TEP believes this structure creates unnecessary confusion. Ultimately, it is important to make sure that each statutory element receives equal weight and consideration within the CBIs. For clarity, we recommend a structure along the lines of the Joint Advocates' CBIs, whereby the CBIs are organized around a single statutory element.	Initially in the CEIP process, PacifiCorp envisioned that each CBI would be associated with one statutory element. Later in the process of developing the CEIP, it became apparent that not all CBIs would be associated with a single statutory element. The company's proposed CBIs illustrate the reality that some CBIs touch upon more than a single statutory element.	Comment noted

Stakeholder Input and Responses

Number	Date	Source of Comment	Where was the comment made?	Category	Comment	PacifiCorp Response	Method if Applicable
249	2021-12-03	The Energy Project (TEP)	CEIP Mailbox	CBIs	PacifiCorp undertook a weighting process with the Equity Advisory Group (EAG) and its customers through a public survey. An area of concern for TEP is that as a general matter, this exercise seeks to prioritize certain statutory elements over others, which is not contemplated under Clean Energy Transformation Act (CETA).	In addition to developing a weighting process with the EAG and its broader customer base through a public survey, the company also obtained feedback through a survey of the low-income advisory group, the DSM advisory group and the Washington IRP stakeholder group which was used to inform the company's CBI weights. Per WAC 480-100-655(2)(a)(ii), the company is required to obtain input from the public regarding CBI weighting factors. Further, in light of timing requirements for filing PacifiCorp's Draft CEIP (November 1, 2021), it was necessary to develop an approach to obtain input from all customers regarding their prioritization/weighting of benefits from the Clean Energy Transformation Act without having well-defined CBIs at the time of survey implementation. However, the company did have access to statutory elements that it could later incorporate with forthcoming EAG input. PacifiCorp's public survey was made available in English and Spanish and was active over the July 2, 2021 to August 10, 2021 timeframe. Given the aforementioned considerations, the relationship between CBIs and statutory elements, provides the nexus to develop CBI weights that account for input from the public, the EAG, the low-income advisory group, the DSM advisory group and the Washington IRP stakeholder group. Within the Final CEIP, the company has used the statutory elements weightings as presented in the Draft CEIP to develop CBI specific weights.	Comment noted
250	2021-12-03	The Energy Project (TEP)	CEIP Mailbox	CBIs	PacifiCorp engaged with its EAG on development of the CBIs and draft CEIP, and also sought feedback from its customers via a public survey. However, the customers responding to an internet survey are most likely not fully representative of the Company's customer base. Another area of concern is that other stakeholder advisory groups were not actively engaged as part of the development of the CEIP. The Energy Project appreciates that PacifiCorp did hold a recent meeting with the JA in mid-November, subsequent to filing of the Draft CEIP. We hope that dialogue can continue, and that in the future, all stakeholder advisory groups are engaged more fully and actively on CETA implementation matters.	PacifiCorp realizes that it has work to do to engage its customer base. As reflected in the CEIP and specific to our CBIs, outreach and engagement are critical to achieving the desired outcomes. PacifiCorp looks forward to continuing to collaborate with its EAG and will place a greater emphasis on seeking input on CETA issues with its existing advisory groups and stakeholders in this process.	CEIP updated
251	2021-12-03	The Energy Project (TEP)	CEIP Mailbox	CBIs	As mentioned above, TEP worked with JA to develop a draft list of CBIs shared with PacifiCorp in late July, 2021. The Company discusses the JA CBIs and indicates that in a few areas, modifications were made to the draft CBIs to incorporate feedback from the JA list. We appreciate that consideration and modification. The Energy Project has prepared a comparison analysis, and found that 46 percent of the JA CBIs were at least partially addressed through PacifiCorp's list. An Attachment A provided with these informal comments provides that analysis. The Energy Project strongly encourages PacifiCorp to look further at the JA CBIs, as our primary feedback is that we continue to recommend inclusion of all of the Joint Advocate CBIs. A few areas of omission are discussed below.	PacifiCorp views its 2022 CEIP as a starting point for determining the appropriate benefit indicators and metrics for assessing an equitable transition to clean energy. Indicators and metrics will continue to be refined over time through advisory group input, benchmarking, and data collection and analysis. PacifiCorp believes that it has met its statutory requirements for the development of CBIs in this inaugural CEIP. PacifiCorp will consider adding or modifying CBIs in future CEIP cycles, based on input by stakeholders.	Comment noted
252	2021-12-03	The Energy Project (TEP)	CEIP Mailbox	CBIs	<i>Arrearages 90+ days</i> . As part of the Covid-19 relief docket, the IOU data filings have underscored that those customers with arrearages 90 or more days past due are the customers most struggling to pay their bills and therefore most at risk of disconnection. While the draft CEIP includes residential disconnections as a CBI, TEP believes that Arrearages 90+ days, with a breakdown in the data as suggested by the JA CBI's, is an important metric to also include in the CEIP. The JA list included Arrearages 90+ days as a CBI for the 'Reduction in Cost' statutory element.	As part of the disconnection reduction plan filed December 2021, PacifiCorp is working with the Low Income Advisory Board to explore an arrearage management program (AMP). AMP programs are intended to target customers past due balances. The result of the investigation will be included in the 2023 Annual Clean Energy Progress Report which may include recommendations for associated CBIs and metrics.	Comment noted
253	2021-12-03	The Energy Project (TEP)	CEIP Mailbox	CBIs	<i>Low-income and Vulnerable Populations Access to Renewables and Distributed Energy Resource (DER)</i> . This CBI metric from the JA list (as an 'Energy Benefit' CBI) is not at all addressed in PacifiCorp's draft CEIP. Appendix A to the draft CEIP provides a mapping of the Company's draft to the JA CBIs, and for this metric explains: "The Company has historically supported the creation of state funded renewable energy incentives targeted to low-income customers. As the state adopts renewable incentive programs in the future, the Company will evaluate how to encourage their use in our service territory." In general, this seems to be more of a passive approach. The Energy Project encourages PacifiCorp to work with stakeholders and seek to more actively encourage greater access to renewables and DERs for low income and vulnerable populations.	PacifiCorp does support and has historically supported state-funded renewable efforts and will continue to do so in the future. Although DER programs could provide increased storage and backup power, EAG members expressed that DERs installations are not the highest priority for customers in Named Communities. PacifiCorp may consider this for future CEIPs. Please also refer to comment number 251.	Comment noted
254	2021-12-03	The Energy Project (TEP)	CEIP Mailbox	CBIs	<i>Improved Access to Reliable Clean Energy</i> . The JA CBI list included this CBI under the 'Energy Security' statutory element. Specific metrics within this proposed CBI included increased storage and backup power in neighborhoods for emergencies, increased DER in low-income neighborhoods, and optimizing grid investments through increased distribution system planning. Appendix A to the draft CEIP shows that the Company is not planning to track any of these metrics (for DER they mention again the Company's historic support of state funded renewable efforts). We encourage PacifiCorp to consider inclusion of this CBI in the Final CEIP.	Please refer to comment number 253.	
255	2021-12-03	The Energy Project (TEP)	CEIP Mailbox	CBIs	Additional issues included in the JA CBIs but omitted from PacifiCorp's draft CBI list include the following: <ul style="list-style-type: none"> •Improved health outcomes •Reduced pollution burden and pollution exposure •Electrification of transit •Increased home comfort •Reduced health care costs •Review of utility credit code scoring and fewer customers with low utility credit codes. 	Although PacifiCorp did not explicitly adopt all of the CBIs proposed by the Joint Advocates, many of the same themes are captured and reflected as metrics or specific actions. 1&2. PacifiCorp does not plan to track "Reduced pollution burden and pollution exposure" because the company does not have significant emitting resources located within its retail service communities in Washington and is therefore not a large direct contributor to pollution burden within its service territory. PacifiCorp will contribute to improving air quality through decreased use of wood for home heating. PacifiCorp will track the "Indoor air quality" CBI via the metric of "number of households using wood as primary or secondary heating." 3. Although PacifiCorp did not explicitly adopt the CBI of "Electrification of transit" as proposed by TEP, the company has adopted "Community-focused efforts and investments", for which a specific action under this CBI will be the establishment of an EV grant program. 4. Although PacifiCorp did not explicitly adopt the CBI of "Increased home comfort" as proposed by TEP, the company has adopted "Participation in company energy and efficiency programs and billing assistance programs", for which an NEI, Residential - Thermal Comfort, is available from the DNV study. 5. PacifiCorp does not plan to track "Reduced health care costs" because the company does not have significant emitting resources located within its retail service communities in Washington and is not a large direct contributor to poor air quality issues within its service territory. Although PacifiCorp did not explicitly adopt the CBI of "Reduced health care costs" as proposed by TEP, the company has adopted "Indoor air quality." 6. Although PacifiCorp did not explicitly adopt the CBI of "Review of utility credit code scoring and fewer customers with low utility credit codes" as proposed by TEP, the company has adopted "Residential customer disconnections", for which the company will include a review of the internal credit code as part of an overall disconnect reduction plan.	Email, formal response dated October 25, 2021, and teleconference

Stakeholder Input and Responses

Number	Date	Source of Comment	Where was the comment made?	Category	Comment	PacifiCorp Response	Method if Applicable
256	2021-12-03	The Energy Project (TEP)	CEIP Mailbox	Metrics	One example of inclusion of data for HIC in the draft CEIP pertains to duration and frequency of outages. Table 2.20 provides SAIDI, SAIFI, and CAIDI data including major events for all customers, for HIC, and for non-HIC areas. For all three metrics, the HIC data is significantly worse than for non-HIC areas. For example, the SAIDI result for HIC (435) is 92 percent higher than non-HIC (227), indicating that during major events, customers in HIC areas have much longer duration of outages. The CAIDI data shows that during major events, those customers in HIC areas would experience an outage of 210 minutes on average, 44 percent higher than the 146 minutes for non-HIC areas. As discussed below under "Specific Actions," this is the type of data and information that can be particularly helpful in tracking performance under CETA, and especially relevant to developing utility actions that can help ensure equitable distribution of benefits.	PacifiCorp conducted further analysis on SAIDI, SAIFI, and CAIDI scores since the draft CEIP filing, specifically analyzing time trends of those scores differentiated by whether the customer's transformer is located within the HIC and non-HIC geographies. Prior to the CETA-specific analysis, such trends would have been performed based upon circuits and their topology rather than census tract geospatial boundaries. The time trend analysis revealed that there has been no persistent bias for HIC versus non-HIC reliability across a seven-year average; the company looks at longer term periods when evaluating smaller data sets to ensure sufficient data points to determine trends. In fact, the level of reliability delivered over that time period ranks in the first quartile nationally, at 85-86 minutes. See additional text and updated figures on those resiliency scores towards the end of Chapter 2. Note that if a utility is required to offer a program or take an action by a different law, then that program or action will not be identified in the CEIP as a specific utility action, even if it is consistent with CETA. Resiliency programs and transmission & distribution planning are one example of that, in which those actions are covered by a separate law. While special attention can be paid to transmission within HICs, for example, those specific actions are not included in this CEIP.	Additional analysis included in the CEIP.
257	2021-12-03	The Energy Project (TEP)	CEIP Mailbox	Metrics	In some areas of the draft CEIP, data by HIC or vulnerable populations is shown as "in progress" (e.g., Energy Burden, at Table 2.16; Residential disconnections, at Table 2.21). The Energy Project looks forward to reviewing that data once it is available. In addition, there are likely other areas where it would be very helpful to analyze this data for HIC and vulnerable populations, such as Arrearages 90+ days, as well as utility credit code scoring (those customers most at risk of pending disconnection), in order to help develop specific actions that can have meaningful impact. As the Company further develops its CBIs for the Final CEIP, TEP encourages further consideration of the JA CBIs and breakdown of data for customers in HIC as well as vulnerable populations. PacifiCorp's planned specific actions are described in Chapter 3, organized around four categories: supply side resources, community outreach & engagement, energy efficiency, and demand response. An overarching concern for TEP is a lack of understanding regarding how PacifiCorp's planned specific actions will impact the CBIs. What is not yet fully clear, is how these planned utility actions relate specifically to the proposed CBIs. A central purpose of the CBIs is to allow the Commission and stakeholders to monitor and track performance related to CETA, and the specific actions should outline and describe the utility's planned actions designed to impact those CBIs.	Please see Chapter 2 of the company's Final CEIP for the available data.	Additional analysis included in the CEIP.
258	2021-12-03	The Energy Project (TEP)	CEIP Mailbox	Utility Actions	PacifiCorp's planned specific actions are described in Chapter 3, organized around four categories: supply side resources, community outreach & engagement, energy efficiency, and demand response. An overarching concern for TEP is a lack of understanding regarding how PacifiCorp's planned specific actions will impact the CBIs. What is not yet fully clear, is how these planned utility actions relate specifically to the proposed CBIs. A central purpose of the CBIs is to allow the Commission and stakeholders to monitor and track performance related to CETA, and the specific actions should outline and describe the utility's planned actions designed to impact those CBIs.	PacifiCorp received feedback from multiple stakeholders on its November 1, 2021 draft on this topic. The company has provided additional explanation and clarity about the process it undertook to connect CBIs to specific actions in the final CEIP. Please see the "Summary of Customer Benefit Indicators" section in Chapter 2, the final section of Chapter 2, and added details in Chapter 3.	CEIP updated
259	2021-12-03	The Energy Project (TEP)	CEIP Mailbox	Utility Actions	As an example of this, earlier we described the SAIDI, SAIFI and CAIDI data provided in the draft CEIP for HIC and non-HIC areas (again, we applaud the Company for inclusion of this type of data). This data is proposed as a CBI for Energy Resiliency (and risk reduction and energy benefit). Above we noted that when major events are included, the data is significantly worse for HIC, indicating that the duration and frequency of outages during major events are worse for customers in highly impacted communities. This would seem to represent a clear finding that could inform specific utility actions in the CEIP, to help improve performance in this metric. However, there is no mention of any actions related to this in the Specific Actions chapter. The Energy Project appreciates that PacifiCorp considered inquiries on this issue during a recent meeting with JA.	Please see the company's response to comment 256.	Additional analysis included in the CEIP.
260	2021-12-03	The Energy Project (TEP)	CEIP Mailbox	Utility Actions	Regarding the community outreach and engagement activities discussed in the Draft CEIP, TEP has some concerns and feedback. The Energy Project encourages the Company to actively engage with stakeholders, including the Low-Income Advisory Group, to help ensure that outreach efforts are working in partnership and utilizing trusted organizations and community partners. The Energy Project shared this feedback during a recent meeting the Company held with JA and we appreciate that the Company seems receptive to this feedback.	PacifiCorp will continue to refine its outreach efforts through collaboration with its EAG and existing advisory groups. Additionally, please refer to the company's response to comment 245.	CEIP updated
261	2021-12-03	The Energy Project (TEP)	CEIP Mailbox	Utility Actions	Another area of concern pertains to costs referenced in the draft CEIP as related to community engagement and outreach. PacifiCorp estimates total incremental costs of \$5.6M annually, which includes in part costs related to outreach and engagement. Given other legislative requirements that include outreach (e.g., SB 5295), as well as ongoing and historic utility outreach efforts, it may not be appropriate for PacifiCorp to assert that all of the costs for the outreach efforts mentioned in chapter 3 are fully attributable to CETA.	PacifiCorp appreciates this feedback. SB 5295's community outreach provisions are specifically directed at developing and promoting discount rates, which is a considerably narrower scope than CEIP community engagement and outreach. Further, the CEIP community engagement and outreach is incremental to longstanding outreach programs, such as the company's various advisory groups, and would not be occurring but for CETA.	Comment noted
262	2021-12-06	Sierra Club	Docket UE-210829	Incremental Costs	CETA not only envisions a bold transformation of the electric sector but also an equitable transformation. Accordingly, the Act prioritizes "[t]he equitable distribution of energy benefits and reduction of burdens to vulnerable populations and highly impacted communities; long-term and short-term public health, economic, and environmental benefits and the reduction of costs and risks; and energy security and resiliency." In order to achieve these goals, the holistic pricing of energy generation resources—which considers all costs of utilizing that resource—is critical. Integrated resource plans have been the primary vehicle for evaluating generation costs and benefits. Because the carbon intensity of various energy resources has significant impacts on public health and environmental protection—and thus imposes significant costs on society—it is unsurprising that Washington law defines an "integrated resource plan" as "an analysis describing the mix of generating resources . . . that will meet current and projected needs at the lowest reasonable cost," and goes on to define "lowest reasonable cost" as including "the cost of risks associated with environmental effects including emissions of carbon dioxide." CETA reinforces the requirement to evaluate the costs of continuing to emit carbon dioxide and other greenhouse gases by stating that "electric utilities shall consider the social cost of greenhouse gas emissions . . . when developing integrated resource plans and clean energy action plans." Indeed, as the Act's title implies, CETA intends to "spur transformational change in the utility industry" and does so, in part, by requiring that utilities not only recognize the SCGHG but also utilize the SCGHG in a fair evaluation of the "least cost" portfolio. Historically, public health and other societal impacts of continuing to burn fossil fuels have not been priced in integrated resource plans due to claims that these costs are too difficult to quantify or attribute specifically to a utility's customer base. SCGHG is a scientifically valid and widely accepted quantification of these costs. While PacifiCorp claims that the SCGHG is "a significant negative incremental cost that would never actually translate to customers' bills[,] customers do pay for continued reliance on fossil fuels in the form of medical bills and responding to natural disasters made worse by the effects of climate change, among other costs. Even acknowledging that the SCGHG is an imperfect cost estimate, its quantification is much closer to the true social costs of greenhouse gas-emitting resources than how those costs are currently quantified, i.e. as zero dollars.	Following the Commission's December 9, 2021 open meeting and subsequent order issued December 13, 2021, PacifiCorp reassessed its incremental cost approach and determined that it can provide an incremental cost calculation that compares the preferred portfolio to a baseline portfolio that was developed with the SCGHG in the resource acquisition decision. Please refer to both Chapter 4 and "Appendix D - Supporting Referenced and Workpapers" of this CEIP for additional details on the selected CEIP-compliant portfolio as well as other studies considered for this purpose.	CEIP updated
263	2021-12-06	Sierra Club	Docket UE-210829	Incremental Costs	PacifiCorp's assertion that CETA merely requires PacifiCorp to analyze resource portfolios using the SCGHG—but not actually make any decisions using this information—is incorrect. CETA's mandate includes not only that PacifiCorp conduct model runs that use the SCGHG but also that the Company use the SCGHG in determining which portfolios are "least cost." PacifiCorp's failure to do so in its 2021 IRP predictably resulted in what the Company deems "absurd results" when calculating incremental CETA compliance costs against a least-cost portfolio that does properly incorporate the SCGHG. This predicament was predictable and only reinforces that the Company should have been aware that this Commission expected the Company to use the SCGHG in determining a preferred portfolio. Sierra Club recommends that the Commission deny PacifiCorp's Petition requesting an exemption from using the SCGHG in its "alternative lowest cost and reasonably available portfolio" as defined by WAC 480-100-605 and instead order additional model runs from the Company to properly calculate the incremental compliance costs with CETA, in compliance with Washington law. PacifiCorp could do this by adding the SCGHG to its preferred portfolio, as was envisioned by CETA in the first place, and comparing those results against its P02-CETA portfolio. PacifiCorp raises concerns that this approach would result in shifting costs to other states based on Washington's public policy. Alternatively, Sierra Club supports the recommendation put forth by NW Energy Coalition's comments, namely that an additional Washington-specific portfolio run be conducted that freezes resource decisions allocated to other states so that the SCGHG only affects resource decision allocations to Washington. If the Commission has concerns with this approach, other alternatives may be possible that properly apply the SCGHG to Washington's resources, and the Commission should require PacifiCorp to work with stakeholders to develop another solution.	PacifiCorp has resolved these concerns and will present an incremental cost calculation that is based on a baseline portfolio developed with the SCGHG in the resource acquisition decision. See also the company's response to comment 262. Each of the suggested alternatives has been discussed with Staff, and the company has arrived at the best compliance approach based on input from both Staff and Commission based on the written order following the December 13, 2021 order.	CEIP updated

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Number	Date	Source of Comment	Where was the comment made?	Category	Comment	PacifiCorp Response	Method if Applicable
264	2021-12-06	Sierra Club	Docket UE-210829	Incremental Costs	Despite CETA's clear intention, PacifiCorp failed to consider the SCGHG in selecting its Preferred Portfolio and now requests an exemption from using the SCGHG in evaluating CETA compliance costs, despite the requirement that it do so in WAC 480-100-605. As described above, CETA intends for utilities to begin using the SCGHG in making resourcing decisions. PacifiCorp violated this requirement with no attempt at compliance. The Commission should deny PacifiCorp's attempt to avoid this mandate.	Please refer to the company's response to comment number 262.	CEIP updated
265	2021-12-06	Public Counsel	Docket UE-210829	Incremental Costs	The Commission previously found that the inclusion of the SCGHG in the baseline portfolio is required by statute, RCW 19.280.030.1. The language of RCW 19.405.060(3)(a) requires the average incremental cost of compliance to include all costs necessary to meet the requirements of RCWs 19.405.040 and 19.405.050. Under the Commission's analysis, RCW 19.280.030 would still be a statutory requirement even accounting for RCWs 19.405.040 and 19.405.050 and must therefore be included in the baseline portfolio. While the Commission has the discretion to grant an exemption to its own rules, it cannot exempt a utility from compliance with state law. If PacifiCorp disagrees with the Commission's interpretation of the statutory requirements of RCW 19.280.030 and its interaction with CEIPs, the appropriate vehicle for such a challenge should have been a petition for reconsideration of the Commission's General Order 601. For these reasons, Public Counsel does not support PacifiCorp's petition for exemption.	Please refer to the company's response to comment number 262.	CEIP updated
266	2021-12-03	Earth Justice (via NWECC)	Docket UE-210829	CEIP	This October 8, 2021 memorandum was prepared by Earth Justice and submitted to NWECC regarding investor-owned utilities' interpretation of the requirement that a CEIP be "consistent with" an IOU's IRP as meaning that a utility's CEIP cannot go beyond the provisions and assumptions contained in its long-range integrated resource plan. Earth Justice states that IOUs' interpretation of "consistent with" is untenable and cannot be reconciled with the purpose, text, or structure of CETA. They go on to state that when the phrase "consistent with" is considered in its statutory context, it is clear that "consistent with" a utility's IRP means compatible with and not in conflict with a utility's IRP, rather than coextensive with a utility's IRP. NWECC provided a copy of this memorandum to PacifiCorp along with its December 3, 2021 comments.	PacifiCorp agrees that the CEIP-compliant portfolio need not necessarily be restricted to the Integrated Resource Plan's preferred portfolio. However, there is an expectation that they will be largely consistent to the extent that reasonable modeling strategies are applied throughout. The company reads this clause as affirming this interpretation, as the clause would not be needed if there were no expectation of consistency.	Comment noted
267	12//3/2021	Northwest Energy Coalition (NWECC)	Docket UE-210829	CEIP	Since this is the first time CEIPs have been developed by Washington utilities, we expect the first efforts to serve as a springboard for clarification, refinement, and improvement. A CEIP should be a relatively short, concise, stand-alone document that clearly delineates the specific actions a utility will undertake over the four-year implementation period. It is not intended to be a mini-integrated resource plan weighing many options, but an explanation of the specific actions that will be undertaken in the short term, just the next four years. While the CEIP is meant to fulfill a regulatory requirement, it should not be solely a regulatory compliance document. Rather, it should serve as a public document, understandable by an interested customer or stakeholder. PAC's CEIP weighs in at 90+ pages, and is generally more concise than the draft CEIPs submitted by other IOUs, as the draft follows directly on the heels of the delayed submission of the IRP. Yet, a great deal of information is missing in the CEIP due to PAC awaiting responses to their upcoming RFP. In the future, it would be appropriate for PAC (and all utilities) to conduct its CEIP planning concurrently with its Integrated Resource Plan (IRP) and CEAP, to avoid this issue.	Development of the draft CEIP has been the result of ongoing collaboration with Washington Staff, the Equity Advisory Group, the DSM Advisory Group, Low-income Advisory Group, Technical Conferences and CEIP Public Input Meetings, the first of which occurred in April 2021, concurrent with IRP portfolio development. The development of the CEIP was additionally discussed in four IRP public input meetings. The company's CEIP is also compliant with the required CEIP compliance matrix with worksheets (both public and confidential) supporting the analysis.	Comment noted
268	2021-12-03	Northwest Energy Coalition (NWECC)	Docket UE-210829	CEIP	To support transparency and accountability, it is important that the CEIP clearly convey all supporting data that PAC used to make its resource decisions for the four-year compliance period. Supporting details should be either in the CEIP or electronically linked. As much data as possible should be easily available in the CEIP and the assumptions and methodologies clearly explained so stakeholders can understand and vet PAC's process and results. The reader should not have to jump between the CEIP, the Biennial Conservation Plan (BCP), the Integrated Resource Plan (IRP), and other appendices to get a full picture of PAC's CETA compliance plan. All relevant information should be distilled and contained in the CEIP, with the other sources serving as supporting documentation in appendices.	The CEIP is a stand-alone document containing appropriate public information and references, where relevant, to public information available in other venues. As the CEIP is by rule required to be informed by the Integrated Resource Plan, the company believes such references to be helpful and appropriate. The company welcomes additional requests for information which may encompass confidential information and possibly useful information available in other public forums. The company cannot provide support in anticipation of all possible inquiries and also does not wish to limit the nature and depth of stakeholder requests for information.	Comment noted
269	2021-12-03	Northwest Energy Coalition (NWECC)	Docket UE-210829	CEIP	In general, we are disappointed to see that PAC's Draft CEIP falls short in some important respects of both the minimal requirements and our overall expectations for this first round of CEIPs. We recommend that significant changes be made to the document to ensure that the information is clearly presented and supported by analysis, and that the Final CEIP meets the requirements of WAC 480-100-640 and RCW 19.405.060. The rules at WAC 480-100-640 are very clear as to what must be included in a CEIP. There are significant shortcomings in the draft CEIP relative to the contents. Individual comments are noted in rows below.	The detailed requirements of CETA have generated many interpretations and discussions, which is appropriate in any new multi-faceted process involving many stakeholders. It is for the reason that the Draft CEIP, the compliance matrix, the public input processes and comments are important in developing a final version.	Comment noted
270	2021-12-03	Northwest Energy Coalition (NWECC)	Docket UE-210829	Utility Actions	The CEIP lacks some specific actions, as required by WAC 480-100-650(5) and (6), and adds a fourth category of specific actions for Community outreach and engagement. In Appendix C - Specific Actions there is an unclear mix of: general categories of kinds of DR actions; a few specific actions that are a restatement of current Biennial Conservation Program (BCP) activities; a list of equity programs for which no impacts are available; and a list of renewable energy projects that were approved prior to the CEIP and are not a result of the CEIP. Much of the individual action cost and impact data is missing. PAC has explained that it cannot complete the tables and narratives required by WAC 480-100-640(5) and (6) until the results of the various RFPs have been received and analyzed. This trade-off between submitting a complete plan and waiting for RFP cycles to complete is simply a false choice, and should be remedied in the Final CEIP. The lack of complete information is inconsistent with the intent and purpose of the CEIP, and has the effect of delaying PAC's implementation of CETA for more than another year. Further, this choice by PAC places the Commission in the impossible position of reviewing a plan without a thorough understanding of those specific actions that should comprise the plan	NWECC has captured one of the many challenges of aligning the inaugural CEIP with PacifiCorp's existing planning and resource acquisition processes. For supply side options, while complete information is desirable, the company cannot present information that is currently unavailable or does not yet exist. In the case of RFP processes, the company has no basis to dictate which resources may be bid into the process and cannot dictate the best outcomes in advance of a completed analysis. The realities of long running interrelated processes is not new to the CEIP, and the company does not anticipate the need to accelerate, decelerate or skip valuable or required processes such as the CEIP, IRP, RFP, etc. For more information on how supply-side resource actions align with CETA goals, see response to 134.	Comment noted
271	2021-12-03	Northwest Energy Coalition (NWECC)	Docket UE-210829	Incremental Costs	Estimated incremental costs cannot be accurately calculated without the specific action and resource cost updates (WAC 480-100-640(7)). This information is particularly important if a utility intends to meet the compliance by relying on the 2% incremental cost compliance option at RCW 19.405.060(3)(a), because the Commission will ultimately decide whether the actions taken to comply with the standards in sections 4(1) and 5(1) allow the utility to rely on the 2% incremental cost. This alone will require a thorough understanding of each action, the underlying business case and the financial aspects of the action. Instead, it would be appropriate for the first CEIP to include the best information available to PAC for the Commission to consider at the time it is submitted, with the caveat that specific actions can be updated as the various RFP cycles are completed. The final CEIP must also justify why non-IRP modelled costs currently attributed to CETA as incremental costs would not be pursued if CETA did not exist. The non-IRP modelled costs are largely targeted to "named communities"; PAC may have realized they have those needs due to evaluations and analysis required by CETA, but the actions themselves should be undertaken even if CETA did not exist.	The existence of CETA legislation posits that there is a desire for utilities take new actions in new ways driven by new legislative rules and requirements. The company's long-term plans, in the absence of CETA, as represented by its alternative lowest reasonable cost portfolio, is already nearly 100% capable of meeting all CETA standards per WAC 480-100-610. The company's first CEIP presents moderate incremental costs that are prudent in pursuing CETA standards based on actions the company was not immediately poised to pursue in the absence of CETA legislation. In the absence of CETA legislation, the company would be largely compelled to select the alternative least-cost least-risk portfolio which would by definition be more expensive and lack CETA actions.	Comment noted
272	2021-12-03	Northwest Energy Coalition (NWECC)	Docket UE-210829	Incremental Costs	More significantly, the incremental cost calculation presented in the CEIP does not conform to either the rules or the clear intent of the legislation. PAC intentionally chose NOT to develop a CETA preferred lowest reasonable cost portfolio that incorporated the Social Cost of Greenhouse Gases (SCGHG), asserting that they are not required to do so and that other analyses came close enough. This must be corrected in the final CEIP.	Please refer to the company's response to comment number 262.	CEIP updated
273	2021-12-03	Northwest Energy Coalition (NWECC)	Docket UE-210829	CBIs	The organization of Customer benefit indicators (CBI) is somewhat confusing, with several CBIs dependent on the same metric. Nor is it clear how the CBIs relate to the proposed specific actions.	Please see the company's response to comment 258.	CEIP updated
274	2021-12-03	Northwest Energy Coalition (NWECC)	Docket UE-210829	Utility Actions	CETA's resource prioritization is not clearly represented. RCW 19.405.040(6)(ii) and (iii) clearly identify the order of resource acquisition required of utilities under CETA. First, utilities are required to pursue all cost effective, reliable and feasible conservation and efficiency resources and demand response, then existing renewable resources, then renewable resources and energy storage before acquiring new resources per RCW 19.405.040(6)(ii) and (iii). PAC's implementation of this provision is not clearly mapped out in its CEIP.	Washington Staff also appropriately identified this shortcoming of the Draft CEIP, where alignment of supply-side resources with CETA priorities was implicit but not specified. This has been addressed in the final filing.	CEIP updated

Stakeholder Input and Responses

Number	Date	Source of Comment	Where was the comment made?	Category	Comment	PacifiCorp Response	Method if Applicable
275	2021-12-03	Northwest Energy Coalition (NWECC)	Docket UE-210829	Utility Actions	WAC 480-100-660(5) and (6) present in detail how the CEIP should present the specific actions it plans to undertake in the next four years. PAC has the responses and data from the 2020 all source Request for Proposals (RFP) and the 2021 Demand Response (DR) RFP, which were confirmed as specific actions in the 2021 IRP, yet PAC has delayed the selection of specific actions until responses to a 2022 all source/targeted DR RFP are received and evaluated. This is puzzling, as the data PAC has at hand gathered from RFP responses was used to determine the 2021 preferred portfolio. The CEIP could be updated when the results from the next round of RFPs are available in 2023. If accepted as is, the CEIP will not be complete until late in 2023.	The completion of the CEIP is not inherently dependent on the final resolution of any particular specific action. There is nothing in rule or statute requiring specific actions to be time-limited or required to begin or end entirely within a CEIP cycle, and indeed such a restriction would be detrimental to Washingtonians who would be subject to actions made only on a short-term basis.	Comment noted
276	2021-12-03	Northwest Energy Coalition (NWECC)	Docket UE-210829	Utility Actions	There are a number of actions in the CEIP that are actions PAC already undertakes, such as the conservation actions from the Biennial Conservation Plan, and the solar/wind/storage acquisitions that PAC is already undertaking. While it is appropriate for PAC to include these CETA compliant actions in the CEIP, the purpose of the CEIP is to show what they will do beyond what is already included in their baseline alternative portfolio. These actions should not be included as part of the incremental cost.	Please refer to the company's response to comment 270.	Comment noted
277	2021-12-03	Northwest Energy Coalition (NWECC)	Docket UE-210829	Utility Actions	While the CEIP actions should be "consistent" with the twenty-year IRP and "informed" by the 10-year Clean Energy Action Plan (CEAP), that does not mean the information in the CEIP should be limited to the data from the longer-term plans (See Attached legal memo "Consistent with" in CETA from EarthJustice dated October 8, 2021). In this particular cycle, PAC's Request for Proposal(s) were issued in summer of 2020, so that the most recent cost data would have been available for this CEIP. The CEIP could have started with that information, updated after the results from the 2022 RFP are obtained.	The CEIP is based on 2021 IRP model analysis which used updated bid pricing and also confirmed the 2020 AS RFP final shortlist results. Final 2020AS RFP costs will not be known until contracts are completed and signed. Future updates to these costs will occur based on requirements, timing and availability of data.	
278	2021-12-03	Northwest Energy Coalition (NWECC)	Docket UE-210829	Utility Actions	Demand response is one of the bright spots in the plan. While many details remain to be decided, both the very ambitious acquisition targets during the CEIP period and the range of measures, programs and rate designs indicate that the company is now taking the potential and importance of demand response and load management seriously. In addition to the overall 37.4 MW "actionable target" it would be helpful to have an estimate of the total peak load reduction for both summer and winter peaks.	Also, please refer to the company's response to comment number 266. The final CEIP includes a footnote estimating the winter and summer peak impacts associated with the target.	CEIP updated
279	2021-12-03	Northwest Energy Coalition (NWECC)	Docket UE-210829	Utility Actions	PAC has listed how the utility has evolved its EE programming to implement CETA and reach more named communities with programming. We are hopeful that these changes will result in more PAC customers, and particularly members of named communities, receiving the benefits of conservation. As PAC continues its work with the EAG and with other stakeholders, there may be further opportunities to target EE programming to help households experiencing high energy burdens, and we look forward to working with the company to continue adaptively managing their programs.	Comments acknowledged and considered in ongoing implementation process.	Comment noted
280	2021-12-03	Northwest Energy Coalition (NWECC)	Docket UE-210829	Utility Actions	RCW 19.405.060(2)(a)(i) requires the CEIP include interim targets for meeting the standards prior to 2030 and after, as well as specific targets for energy efficiency, demand response and renewable energy. To this list PAC has voluntarily added a specific target for Community Outreach and Engagement (COE), which is not specified in the statute. The first three categories either reduce load, reduce or eliminate peaks, or provide electricity, while the COE actions are meant to ensure named communities are not left out of existing programs. PAC should include further explanation of why a separate target for COE actions is necessary under CETA, and acknowledge which actions are required by other legislation, such as SB 5295 (2021).	PacifiCorp understands NWECC's feedback to be based on RCW 19.405.060(1)(a)(i). First, the company's COE target is linked to the requirements of RCW 19.405.040(8), which requires that the company, "in complying with this section... 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." Accordingly, PacifiCorp believes that it is appropriate to include the COE target in response to RCW 19.405.060(1)(a)(i), because that statute is intended to implement RCW 19.405.040(1) and 19.405.050(1). RCW 19.405.040(1) is part of the "section" discussed in RCW 19.405.040(8).	Comment noted
281	2021-12-03	Northwest Energy Coalition (NWECC)	Docket UE-210829	Utility Actions	NWECC believes that it would be inappropriate to consider these proposed COE actions to be incremental costs due to CETA. While CETA may have required additional analysis and documentation to be undertaken to support these actions, they would certainly not be abandoned if CETA did not exist. Rather, these COE actions represent best practices that the utility should undertake as part of its core business of providing a public utility service in Washington state. For example, PAC already offered transportation electrification programs prior to CETA enactment, planned to continue offering them after CETA was enacted, and has received separate direction allowing them to do so under chapter 80.28 RCW. To help the program work better for named communities, PAC should engage in conversations with the Equity Advisory Group (EAG) to see if actions other than installing chargers in named communities, such as electrifying transit, or replacing internal combustion engine vehicles for low-income service providers and community-based organization, would have more impact in named communities.	With respect to the EV grant program costs, identified as CETA incremental costs in the CEIP draft, PacifiCorp agrees with NWECC and has removed those estimates from the incremental cost analysis in the final CEIP. The company believes the remaining costs identified related to the COE sections are incremental due to CETA.	CEIP updated
282	2021-12-03	Northwest Energy Coalition (NWECC)	Docket UE-210829	Incremental Costs	Chapter 4 in the draft CEIP dealing with incremental costs is a sparse five pages long, mostly arguing that PAC should not have to include the SCGHG in the Alternative Lowest Reasonable Cost portfolio (ALRC) as required by WAC 480-100-605, because PAC did not include the SCGHG in the IRP preferred portfolio nor in the CETA preferred portfolio, as PAC readily admits. This chapter must be completely revised in the final CEIP to comply with the rules in WAC 19.280.030 and WAC 480-100-660, as PAC assumes "that its petition for a limited exemption for WAC 480-100-605 will be granted" (page 66, draft CEIP) and calculates incremental costs based on that assumption. NWECC has submitted comments and a legal memo on the petition, urging it be denied.	Please refer to the company's response to comment number 262, above.	CEIP updated
283	2021-12-03	Northwest Energy Coalition (NWECC)	Docket UE-210829	Incremental Costs	PAC misses the point of the CETA requirement to apply the SCGHG when selecting resources, which is to level the playing field between resources. The selection of resources can reasonably be expected to differ from what would have been selected without incorporating the SCGHG compared to when the SCGHG is applied, as PAC acknowledges on page 68. CETA transforms how preferred portfolios are developed – preferred portfolios are now not just lowest reasonable cost portfolios but lowest reasonable cost portfolios that incorporate new planning assumptions, such as the SCGHG and equity considerations.	First, as a general matter, there are almost no differences in the Washington specific resources during the action plan window for portfolios developed under a MM-price policy scenario and one developed with the SCGHG. Please refer to the company's response to comment number 262, above.	Comment noted
284	2021-12-03	Northwest Energy Coalition (NWECC)	Docket UE-210829	Incremental Costs	The preferred portfolio developed in the IRP and CEAP is required by RCW 19.280.030(3)(c)(iii) to incorporate the SCGHG when "evaluating and selecting intermediate and long-term resource options". The CEIP, in turn, must identify specific actions (in other words the selected portfolio) that are consistent with the utility's long-range IRP (RCW 19.405.060(1)(b)(iii)). By not considering the SCGHG in either the IRP or the CEIP, the selected portfolio is not compliant. PAC selected a portfolio, which does not account for the SCGHG, then requested a waiver from the requirement to include the SCGHG in the alternative portfolio. Both portfolios fail to comply with the statute and rules and contradict the intent of the law, which was to account for the externalized costs of fossil fuels, as part of the transformation of the electric system.	Please refer to the company's response to comment number 262.	CEIP updated
285	2021-12-03	Northwest Energy Coalition (NWECC)	Docket UE-210829	Incremental Costs	PAC argues that the CEIP does not explicitly require the preferred portfolio to consider the SCGHG, but General Order R-601 (Docket UE-191023 and Docket UE-190698), paragraphs 37 and 38, make it abundantly clear the SCGHG should be included in the CEIP preferred portfolio as well as the alternative portfolio (emphasis added):	Please refer to the company's response to comment number 262.	CEIP updated
286	2021-12-03	Northwest Energy Coalition (NWECC)	Docket UE-210829	Incremental Costs	37. The variety of proposals demonstrates the lack of statutory direction concerning the incorporation, or modeling, of the SCGHG emissions in IRPs. Accordingly, the rules we adopt by this Order do not require a specific modeling approach at this time. Rather, as we discuss further below in Section III.F.2, the proposed rules require that the utility include the SCGHG emissions in the alternative lowest reasonable cost and reasonably available portfolio for calculating the incremental cost of compliance in the CEIP. How the utility chooses to model the SCGHG emissions in its preferred portfolio in the IRP will inform its CEAP and ultimately its CEIP. The utility must provide a description in its CEIP of how the SCGHG emissions are modelled and incorporated in its preferred portfolio.	Please refer to the company's response to comment number 262.	CEIP updated
287	2021-12-03	Northwest Energy Coalition (NWECC)	Docket UE-210829	Incremental Costs	38. Utilities should also consult with their advisory groups regarding how to model the SCGHG in their IRP, CEAP, and CEIP. If a utility treats the SCGHG as a planning or fixed cost adder in its determination of the optimal portfolio, including retirements and new plant builds, we expect the utility to model at least one other scenario or sensitivity in which the SCGHG is reflected in dispatch. Similarly, if a utility incorporates the SCGHG in modeling dispatch costs, we expect the utility to provide an alternative scenario or sensitivity analysis, such as the planning adder approach, to determine the optimal portfolio, including retirements and new builds. Such modelling will help to inform how best to implement CETA's requirement to include the SCGHG emissions as a cost adder.	Please refer to the company's response to comments number 262 and number 267.	CEIP updated

Stakeholder Input and Responses

Number	Date	Source of Comment	Where was the comment made?	Category	Comment	PacifiCorp Response	Method if Applicable
288	2021-12-03	Northwest Energy Coalition (NWECC)	Docket UE-210829	Incremental Costs	132.In enacting CETA, the Legislature both amended Chapter 19.280 RCW and created Chapter 19.405 RCW. The IRP and CEIP processes are closely interrelated. The most reasonable statutory interpretation is that the term "lowest reasonable cost" has the same general meaning in both statutes. Finally, although the phrase "social cost of greenhouse gas emissions" appears only in RCW 19.280.030, the calculation of cost for greenhouse gas emissions, including the effect of emissions, applies throughout CETA. This is yet another indication that SCGHG was intended to have implications outside of the IRP. The proposed rules, therefore, define the baseline portfolio's reference to "lowest reasonable cost" to include the SCGHG in the same manner required under Chapter 19.280 RCW.	Please refer to the company's response to comment number 262.	CEIP updated
289	2021-12-03	Northwest Energy Coalition (NWECC)	Docket UE-210829	Incremental Costs	The Commission's Order makes clear that the question is not "should the SCGHG be considered" in the CEIP, but "how it should be calculated". The Commission did not suggest that including the SCGHG may be optional. This is simply contrary to the statute. While PAC has faced significant modeling challenges during this planning cycle, we are confident that their team is up to the task of creating both a preferred portfolio and an alternative portfolio that includes the SCGHG. As for the costs used in the calculation, the draft CEIP shows an abrupt increase in expenditures for both power costs and energy efficiency in the last two years of the CEIP period (page 68), without detailed explanations of either the assumptions underlying the expenditures or the actual costs; both need to be fully described in the final.	Please refer to the company's response to comment number 262.	CEIP updated
290	2021-12-03	Northwest Energy Coalition (NWECC)	Docket UE-210829	CBIs	NWECC, The Energy Project, Front and Centered, and the Public Counsel Unit of the Washington Attorney General's Office joined together as Joint Advocates to develop a draft list of Customer Benefit Indicators (CBIs) early in the summer. The Joint Advocates initially shared this list with the companies and stakeholders in late July 2021, and met with PAC in mid-November, after the filing of the draft CEIP to discuss the proposed CBIs. NWECC agrees with the comments submitted by The Energy Project (TEP) to this docket and to PAC, particularly the concerns raised about creating a CBI that focuses on reducing 90+ day arrearages, taking a more proactive stance to promote greater access to and control over renewable resources for low income and vulnerable populations, expanding the CBIs to include improved health outcomes, and revising the utility credit code scoring to reduce the number of customers with low utility credit code problems.	PacifiCorp is continuing the long term payment plans offered during the pandemic. In addition, the company will be working with the Low Income Advisory Board to investigate and develop an Arrearage Management Program in 2022. The Arrearage Management Program will directly target assistance for customers with long term arrears. Associated CBIs will be developed and outlined as part of the program.	Comment noted
291	2021-12-03	Northwest Energy Coalition (NWECC)	Docket UE-210829	CBIs	The approach to weighting the CBIs needs to be re-examined in the final CEIP. The results of the weighting process in the draft CEIP resulted in some very close ratings and some very useful metrics were left out.	Please refer to the company's response to comment number 249.	Comment noted
292	2021-12-03	Northwest Energy Coalition (NWECC)	Docket UE-210829	CBIs	The final CEIP should much more clearly explain how the CBIs will be used to evaluate all resource choices, as a central purpose of the CBIs is to monitor and track performance related to CETA and how specific actions are shaped by the CBIs. For example, the draft states on page 47 "...the 2020AS RFP resources are primarily located outside of Washington, and therefore, the other CBIs related to highly impacted communities and vulnerable populations are not applicable", yet acquiring renewables to replace natural gas facilities would have a positive regional impact on air quality, which affects all customers. The interactions of CBIs with resource choices needs to be more fully developed.	Please refer to the company's response to comments number 255 regarding pollution burden and pollution exposure and indoor air quality, 258 regarding the updated CBI/action mapping explanations, and 337 regarding decisions about supply-side resources.	Comment noted and CEIP updated
293	2021-12-06	Front and Centered	CEIP Mailbox	CBIs	PacifiCorp's CEIP details the utility's plans to begin its shift to providing fully carbon-free energy to Washington state consumers by 2045 and specifically covers the period from 2022- 2025. While the draft CEIP demonstrates that PacifiCorp has done some work to include equity considerations in their transition plan, the proposed planning document still has some major areas for improvement. As part of their planning, PacifiCorp has generated Customer Benefit Indicators (CBIs) to ensure this transition is equitable. Front and Centered is primarily concerned that the selected CBIs are minimalist in nature, lack definitional clarity, and generally do not meet the standards required by statute to equitably distribute benefits and reduce burdens for highly impacted communities and vulnerable populations.	Please refer to the company's response to comment number 251.	Comment noted
294	2021-12-06	Front and Centered	CEIP Mailbox	CBIs	While UTC rules require at minimum eight (8) CBIs, Front and Centered reads the statutory requirement to call for utilities to develop well more than this base number. Yet PacifiCorp has proposed only nine (9) indicators, at least one of which Front and Centered believes is double counted. Further, based on PacifiCorp's draft CEIP, which details how it came to select the proposed CBIs, Front and Centered is concerned that PacifiCorp may be attempting to prioritize certain equity categories above others, which directly clashes with the equal attention given to each category by the CETA statutes and regulations.	Please refer to the company's response to comment number 251 and 249.	Comment noted
295	2021-12-06	Front and Centered	CEIP Mailbox	CBIs	Even with the CBIs that have been selected, PacifiCorp's draft CEIP does little to explain how the utility understands the CBIs to function and does not provide the necessary clarity for the public to meaningfully engage with the proposed indicators. While PacifiCorp has done a good job of including baseline data for the selected CBIs, Front and Centered urges the utility to develop its baseline data further and to include the utility's targets for improvement.	PacifiCorp understands CBIs to be the outcomes resulting from actions taken by the company to address customer challenges. As a result of the actions put forth in the Final CEIP, it is expected that improvements in the CBI metrics will be evident over time. In this inaugural CEIP, PacifiCorp is conducting a baseline assessment of the metrics and will leverage a track record of data to determine future targets for improvement.	Comment noted
296	2021-12-06	Front and Centered	CEIP Mailbox	CBIs	Finally, while PacifiCorp's draft CEIP includes proposed specific actions that the utility will take to comply with the statutory requirements of CETA, the draft CEIP does not connect these proposed actions with the CBIs that they are meant to link with. This lack of connection makes it difficult for the public to understand exactly how PacifiCorp has included equity considerations in their planning.	Please refer to the company's response to comment number 258, above.	CEIP updated
297	2021-12-06	Front and Centered	CEIP Mailbox	CBIs	We recommend the following for the CEIP: 1. Develop more CBIs, including those suggested by the Joint Advocates, to better comply with the legislative intent of CETA. 2. Include more detailed baseline data and set forth targets for the utility as it moves forward in its equitable transition to clean energy. 3. Refine the CBIs to include a greater depth of understanding about what they mean, and to which populations, as well as a wider breadth of energy and non-energy impacts with clear long- and interim- term targets. 4. Provide greater clarity around the methodology used when developing the proposed Specific Actions from the proposed CBIs.	1. Please refer to the company's response to comment number 251. 2. Regarding baseline data please refer to the company's response to comment number 299 and regarding targets, please refer to the response to comment number 295. 3. Regarding understanding CBI meaning, please refer to response to comment number 295. For populations impacted by CBIs please see "Table 2.7 -- CBI to Benefit Category Mapping" in the final CEIP. 4. Please refer to response to comment number 258.	Comments noted and CEIP updated
298	2021-12-06	Front and Centered	CEIP Mailbox	CBIs	[Statutory Requirements from RCW 19.404.040(8) and 19.405.040(8) removed] The above-stated requirements from the UTC are simply base guidelines—they set a floor, but not a ceiling. Instead, the language of the rules explicitly leaves open the possibility of more than eight CBI areas. Front and Centered would thus urge PacifiCorp to take guidance from the statutory elements contained in RCW 19.405.040(8), rather than minimally complying with WAC 480-100-640(8). The statutory categories, as listed above, would draw out a more detailed analysis from utilities when considering the impact of proposed plans. Namely, the statutory elements (1) draw out the distinctions between vulnerable populations and highly impacted communities and (2) require both short-term and long-term analysis of public health and environmental benefits and costs.	Please refer to the company's response to comment number 251. PacifiCorp believes it is in compliance with RCW 19.405.040(8) and WAC 480-100-640 (4). Regarding the distinction between vulnerable populations and HICs, please refer to the section on Baseline Metrics in Chapter 2 that distinguishes named communities from all customers, as well as "Table 2.7 -- CBI to Benefit Category Mapping" in Chapter 2, which indicates the customer segments to which the benefit categories flow.	Comment noted
299	2021-12-06	Front and Centered	CEIP Mailbox	CBIs	Front and Centered applauds PacifiCorp for its attention to this detail in some of its presentation of baseline data in its draft CEIP. Tables 2.16 and 2.17 demonstrate the importance of gathering data for both highly impacted communities and vulnerable populations to draw out the distinctive issues that each may be facing and provide the public with insight into how well a proposed action plan may result in substantive change. Nevertheless, there is a noticeable lack of separation of data for most of the rest of the document, both in baseline data presentation and in narrative format. See, e.g., pages 43-44, noting that "PacifiCorp identified wood heating, and its associated indoor air quality impacts, as a public health threat for vulnerable populations in the Washington service area" but then continuing only to provide data for highly impacted communities. By not incorporating such findings, PacifiCorp may be overlooking notable areas where the utility could be making an equitable transition even more of a reality.	Where data were available, PacifiCorp has updated the baseline metrics within the Final CEIP to illustrate findings for both vulnerable populations and HICs. The number of households using wood as a primary or secondary heating source for vulnerable populations has been provided in Table 2.21.	CEIP updated
300	2021-12-06	Front and Centered	CEIP Mailbox	CBIs	Further, drawing out distinctions between short-term and long-term public health and environmental benefits and costs will help PacifiCorp to both better plan for the immediate future and set longer-term goals. While Front and Centered recognizes that the CEIP is meant to be an intermediate-step focused document, Front and Centered also urges PacifiCorp to detail what its long-term environmental and public health goals are. Such detailing will aid both PacifiCorp and the public in determining which intermediate steps will be most effective in achieving long-term goals. Further, setting at least two distinct CBIs, one short-term and one long-term, will allow for a more wide-reaching and yet simultaneously targeted approach to an equitable transition.	In this inaugural CEIP, PacifiCorp has attempted to establish a solid data baseline upon which it will continue to build. Additionally, please see the company's response to comment numbers 251, 255, 295.	Comment noted

Stakeholder Input and Responses

Number	Date	Source of Comment	Where was the comment made?	Category	Comment	PacifiCorp Response	Method if Applicable
301	2021-12-06	Front and Centered	CEIP Mailbox	CBIs	<p>Finally, it is important to recognize that the consideration and reduction of burdens applies to all areas of analysis, and thus should be a major part of the CBI drafting process. The statute calls for the reduction of burdens with consideration to highly impacted communities and vulnerable populations, as well as an analysis of the ways a utility may reduce the costs of its actions on both public health and the environment. However, both the UTC WACs and PacifiCorp's Draft CEIP only consider reduction of burdens generally as a category of CBI, rather than as an interwoven design throughout all other areas.</p> <p>(2) Of the CBIs chosen, there is little rationale demonstrated why any single one was better than another proposed or why prioritization was required.</p> <p>As part of its Draft CEIP, PacifiCorp included a table (Table 2.5) which detailed the prioritization of proposed CBIs based on a weighted score. The score was determined through a ranking done by PacifiCorp's Equity Advisory Group (EAG). This data, in and of itself, is useful feedback from the EAG to PacifiCorp. However, the highest-ranking CBI is not the only CBI that could, or should, be chosen. As noted above, there is nothing limiting PacifiCorp to selecting only one CBI per category. For instance, why, when there is only a 0.3 difference in score, was only "Increase in renewable energy resources" selected as an environmental CBI, and not "Lower Greenhouse Gas emissions?" Surely both are goals that PacifiCorp strives to meet. Similarly, the same could be said of the two highest ranking proposed CBIs for Energy Resiliency/Risk Reduction, where the difference between the two was only 0.2—it is important both for PacifiCorp to reduce the frequency and duration of energy outages while simultaneously supporting customer programs related to community resiliency.</p>	<p>PacifiCorp recognizes that many of our CBIs will touch more than one benefit category. Similarly, many of our proposed specific actions address more than one CBI. Additionally, the EAG identified households experiencing high energy burden as a vulnerable population and the proportion of energy burdened customers (within different segments, including among named communities) is also a metric proposed to measure that CBI. PacifiCorp understands and recognizes it will be addressing reduction of burdens in a holistic way in this CEIP.</p> <p>The process that was used for the selection of CBIs is described in Section 2 of the CEIP. In reference to the example cited in this comment, PacifiCorp adopted a CBI to track renewable energy resources AND emissions which covers both the category of increasing renewable energy resources and lowering greenhouse gas emissions. As described in the company's response to comment 251, we view these CBIs as a starting point in this inaugural CEIP and will continue to review and refine them throughout the 4-year implementation period and beyond.</p>	Comment noted
302	2021-12-06	Front and Centered	CEIP Mailbox	CBIs	<p>Further, as The Energy Project noted in its comments on this Draft CEIP, there is no requirement in CETA for a utility to rank prioritization between CBI categories. In fact, it seems contrary to the general spirit of CETA's equity mandate, which does not elevate any one category above another. As such, while Front and Centered understands the desire to gather data and applauds PacifiCorp for soliciting public feedback on proposed CBI categories, Front and Centered is concerned that PacifiCorp, along with the other IOUs, has seemingly chosen to prioritize some CBI categories over others.</p> <p>(3) CBI presentation is confusing, lacks definitional clarity, and there is at least some overlap between proposed CBIs. Front and Centered echoes the comments submitted by The Energy Project on this Draft CEIP regarding PacifiCorp's chosen method to present their CBIs. Organizing CBIs by benefit category, rather than ascribing multiple benefit categories to each CBI, would help ensure that readers can understand exactly where PacifiCorp is prioritizing its attention.</p> <p>Front and Centered is also concerned with PacifiCorp's decision to only include a singular CBI that it claims touches on the categories of energy resiliency and risk reduction. Front and Centered interprets WAC 480-100-640(4) to call for a separate CBI for each listed category. While PacifiCorp has nine (9) listed CBIs to the eight (8) listed categories, this double counting should not be overlooked.</p> <p>Further, when describing their chosen CBIs, PacifiCorp's explanations often do not go beyond a simple restating of the CBI itself. For instance, on page 37 of the Draft CEIP, PacifiCorp describes the purpose of their "Community-Focused Efforts and Investment" CBI as "focus[ing] investments so that communities more equitably receive benefits." They then describe the metrics that they will use to measure the CBI, though they never exactly state what they define as "efforts" nor "investments."</p>	<p>Please refer to the company's response to comment number 249.</p> <p>Please refer to the company's response to comment number 248 and 258.</p> <p>Please refer to the company's response to comment number 248 and 258.</p>	Comment noted
303	2021-12-06	Front and Centered	CEIP Mailbox	CBIs	<p>Front and Centered calls on PacifiCorp to provide more detail as to how exactly it understands the CBIs it is proposing. Only through providing more detail can the public hold PacifiCorp accountable to its stated intentions.</p> <p>(4) The lack of connection between proposed specific actions to CBIs also makes it difficult to analyze the efficacy of the actions proposed by PacifiCorp.</p> <p>Front and Centered further echoes the points raised by The Energy Project in its comments on this draft CEIP regarding the lack of explicit connection between PacifiCorp's proposed specific actions and the stated CBIs. Front and Centered believes that CBIs should be utilized by utilities to guide the choice of specific actions taken. As a result, CBIs must first be clear and detailed, both so that the utility can demonstrate an understanding of what is often an idea promoted by the utility's EAG. Further, by clearly articulating what exactly the CBI is, the utility will necessarily also include what its target goal is, and thus aid both the UTC and the public in holding the utility accountable.</p>	<p>Please refer to the company's response to comment number 248 and 258.</p> <p>The metrics that PacifiCorp plans to track (workshops & diverse headcount) describe the efforts and investments that PacifiCorp will be making to support this CBI.</p>	Comment noted
304	2021-12-06	Front and Centered	CEIP Mailbox	CBIs	<p>Front and Centered calls on PacifiCorp to provide more detail as to how exactly it understands the CBIs it is proposing. Only through providing more detail can the public hold PacifiCorp accountable to its stated intentions.</p> <p>(4) The lack of connection between proposed specific actions to CBIs also makes it difficult to analyze the efficacy of the actions proposed by PacifiCorp.</p> <p>Front and Centered further echoes the points raised by The Energy Project in its comments on this draft CEIP regarding the lack of explicit connection between PacifiCorp's proposed specific actions and the stated CBIs. Front and Centered believes that CBIs should be utilized by utilities to guide the choice of specific actions taken. As a result, CBIs must first be clear and detailed, both so that the utility can demonstrate an understanding of what is often an idea promoted by the utility's EAG. Further, by clearly articulating what exactly the CBI is, the utility will necessarily also include what its target goal is, and thus aid both the UTC and the public in holding the utility accountable.</p>	<p>PacifiCorp has included additional detail in Chapter 2 to provide clarity on the development of CBIs and their relationship to specific actions. Additionally, please refer to the company's response to comment number 295.</p> <p>Please refer to the company's response to comment number 258.</p>	CEIP updated
305	2021-12-06	Front and Centered	CEIP Mailbox	CBIs	<p>Clear articulation of CBIs also allows for greater public input (and thus greater self-governance) by communities who would be affected by proposed specific actions. As part of an equitable transition to clean energy, Front and Centered believes that communities must be given the opportunity to meaningfully influence the decision-making of the utilities that provide them services. The only way that communities can effectively provide such feedback is through utilities providing clear statements of their intent.</p> <p>Similarly, baseline data provides yet another opportunity for utilities to clarify their intent regarding the transition to clean energy. By providing clear baseline data, a utility is necessarily required to reflect on its current and historical actions, as well as reckon with its potential capacity for growth. Front and Centered applauds PacifiCorp for the level of detailed baseline data provided in its draft CEIP but notes that there is still room for improvement. For instance, Table 2.10, which represents a headcount of staff that support program delivery in Washington that PacifiCorp has classified as diverse in some way is not helpful without context. Front and Centered suggests that PacifiCorp include details such as the general availability of eligible candidates in the hiring pool (i.e., workforce availability) and break down the employee status (e.g., craft, non-craft, managerial, executive). Further, for those baseline data points that PacifiCorp states are "in progress," Front and Centered urges PacifiCorp to describe its proposed methods for data collection</p>	<p>PacifiCorp takes this responsibility seriously. Through the EAG and other advisory groups as well as other means of public participation, PacifiCorp is providing its communities with opportunities to meaningfully engage in the development of its programs.</p> <p>PacifiCorp agrees that tracking these metrics over time will shed light on the degrees to which the specific actions "move the needle" on the CBIs. PacifiCorp has updated all "in progress" placeholders to reflect the additional data and analysis it was able to obtain following submission of the draft. PacifiCorp will continue to research, update, and refine all available data sources during the implementation period.</p> <p>Specific to Table 2.10 (headcount of support staff), the data in Table 2.10 is the most granular PacifiCorp is able to provide at this time. Future contracts for program delivery may generate additional information similar to that suggested by Front and Centered.</p>	Comment noted
306	2021-12-06	Front and Centered	CEIP Mailbox	CBIs	<p>Front and Centered also suggests that PacifiCorp use its baseline data presentation as a location for setting soft goals for itself (i.e., target numbers). In doing so, PacifiCorp would be able to demonstrate how committed it is to its stated goals, as well as provide yet another point where both the UTC and the public can help to hold the utility accountable.</p>	<p>Please refer to the company's response to comment number 262.</p>	Comment noted
307	2021-12-06	Front and Centered	CEIP Mailbox	CBIs	<p>WUTC Staff recommend issuance of an order denying Pacific Power & Lights's petition on 11/1/2021 requesting an exemption from WAC 480-100-605, requiring the Company's "alternative lowest reasonable cost and reasonably available portfolio" to include the social cost of greenhouse gases "in the resource acquisition decision."</p> <p>Renewable Northwest recommends denial of PacifiCorp's petition for an exemption from WAC 480-100-605 which provides that "[t]he alternative lowest reasonable cost and reasonably available portfolio" for purposes of determining the social cost of greenhouse gases in the resource acquisition decision" because it is neither legally appropriate nor in the public interest.</p> <p>The Washington Attorney General recommends denial of PacifiCorp's petition for an exemption from WAC 480-100-605 which provides that "[t]he alternative lowest reasonable cost and reasonably available portfolio" for purposes of determining the social cost of greenhouse gases in the resource acquisition decision" because it is a statutory obligation that must be implemented through Commission rule and order, and the incremental cost calculation is a crucial aspect of the CEIP.</p>	<p>Please refer to the company's response to comment number 262.</p>	CEIP updated
308	2021-12-06	Front and Centered	CEIP Mailbox	CBIs	<p>PacifiCorp's draft CEIP indicates the Company has petitioned the Commission to modify its rule that the alternative LRC and reasonably available portfolio not include the SCGHGs as a cost adder. However, PacifiCorp's petition sidesteps the reality that the Company's CEIP LRC portfolio must also include the SCGHGs to comply with Washington's Clean Energy Transformation Act (CETA). In describing its CEIP incremental cost methodology, PacifiCorp acknowledges its 2021 IRP solution or preferred portfolio "was not developed to use the SCGHGs in the resource acquisition decision." Yet the Company maintains its 2021 IRP preferred portfolio complies with CETA requirements. Staff respectfully maintains a plain reading of the law requires "an electric utility [to] incorporate the SCGHGs as a cost adder when evaluating and selecting...resource options." Staff presents its rationale for opposing PacifiCorp's SCGHG Petition in greater detail in Staff's legal response.</p>	<p>Please refer to the company's response to comment number 262.</p>	CEIP updated
309	2021-12-06	Front and Centered	CEIP Mailbox	CBIs	<p>Front and Centered also suggests that PacifiCorp use its baseline data presentation as a location for setting soft goals for itself (i.e., target numbers). In doing so, PacifiCorp would be able to demonstrate how committed it is to its stated goals, as well as provide yet another point where both the UTC and the public can help to hold the utility accountable.</p>	<p>PacifiCorp believes that it is important to make sure that it is collecting the right data points and that the data is useable and reproducible over time so that it can begin to measure trends over time before establishing target numbers.</p>	Comment noted
310	2021-12-06	Front and Centered	CEIP Mailbox	Metrics	<p>WUTC Staff recommend issuance of an order denying Pacific Power & Lights's petition on 11/1/2021 requesting an exemption from WAC 480-100-605, requiring the Company's "alternative lowest reasonable cost and reasonably available portfolio" to include the social cost of greenhouse gases "in the resource acquisition decision."</p> <p>Renewable Northwest recommends denial of PacifiCorp's petition for an exemption from WAC 480-100-605 which provides that "[t]he alternative lowest reasonable cost and reasonably available portfolio" for purposes of determining the social cost of greenhouse gases in the resource acquisition decision" because it is neither legally appropriate nor in the public interest.</p> <p>The Washington Attorney General recommends denial of PacifiCorp's petition for an exemption from WAC 480-100-605 which provides that "[t]he alternative lowest reasonable cost and reasonably available portfolio" for purposes of determining the social cost of greenhouse gases in the resource acquisition decision" because it is a statutory obligation that must be implemented through Commission rule and order, and the incremental cost calculation is a crucial aspect of the CEIP.</p>	<p>Please refer to the company's response to comment number 262.</p>	CEIP updated
311	2021-12-06	Front and Centered	CEIP Mailbox	Metrics	<p>WUTC Staff recommend issuance of an order denying Pacific Power & Lights's petition on 11/1/2021 requesting an exemption from WAC 480-100-605, requiring the Company's "alternative lowest reasonable cost and reasonably available portfolio" to include the social cost of greenhouse gases "in the resource acquisition decision."</p> <p>Renewable Northwest recommends denial of PacifiCorp's petition for an exemption from WAC 480-100-605 which provides that "[t]he alternative lowest reasonable cost and reasonably available portfolio" for purposes of determining the social cost of greenhouse gases in the resource acquisition decision" because it is neither legally appropriate nor in the public interest.</p> <p>The Washington Attorney General recommends denial of PacifiCorp's petition for an exemption from WAC 480-100-605 which provides that "[t]he alternative lowest reasonable cost and reasonably available portfolio" for purposes of determining the social cost of greenhouse gases in the resource acquisition decision" because it is a statutory obligation that must be implemented through Commission rule and order, and the incremental cost calculation is a crucial aspect of the CEIP.</p>	<p>Please refer to the company's response to comment number 262.</p>	CEIP updated
312	2021-12-09	WUTC Staff	Docket UE-210829	Incremental Costs	<p>PacifiCorp's draft CEIP indicates the Company has petitioned the Commission to modify its rule that the alternative LRC and reasonably available portfolio not include the SCGHGs as a cost adder. However, PacifiCorp's petition sidesteps the reality that the Company's CEIP LRC portfolio must also include the SCGHGs to comply with Washington's Clean Energy Transformation Act (CETA). In describing its CEIP incremental cost methodology, PacifiCorp acknowledges its 2021 IRP solution or preferred portfolio "was not developed to use the SCGHGs in the resource acquisition decision." Yet the Company maintains its 2021 IRP preferred portfolio complies with CETA requirements. Staff respectfully maintains a plain reading of the law requires "an electric utility [to] incorporate the SCGHGs as a cost adder when evaluating and selecting...resource options." Staff presents its rationale for opposing PacifiCorp's SCGHG Petition in greater detail in Staff's legal response.</p>	<p>Please refer to the company's response to comment number 262.</p>	CEIP updated
313	2021-12-06	Renewable Northwest	Docket UE-210829	Incremental Costs	<p>PacifiCorp's draft CEIP indicates the Company has petitioned the Commission to modify its rule that the alternative LRC and reasonably available portfolio not include the SCGHGs as a cost adder. However, PacifiCorp's petition sidesteps the reality that the Company's CEIP LRC portfolio must also include the SCGHGs to comply with Washington's Clean Energy Transformation Act (CETA). In describing its CEIP incremental cost methodology, PacifiCorp acknowledges its 2021 IRP solution or preferred portfolio "was not developed to use the SCGHGs in the resource acquisition decision." Yet the Company maintains its 2021 IRP preferred portfolio complies with CETA requirements. Staff respectfully maintains a plain reading of the law requires "an electric utility [to] incorporate the SCGHGs as a cost adder when evaluating and selecting...resource options." Staff presents its rationale for opposing PacifiCorp's SCGHG Petition in greater detail in Staff's legal response.</p>	<p>Please refer to the company's response to comment number 262.</p>	CEIP updated
314	2021-12-06	Public Counsel	Docket UE-210829	Incremental Costs	<p>PacifiCorp's draft CEIP indicates the Company has petitioned the Commission to modify its rule that the alternative LRC and reasonably available portfolio not include the SCGHGs as a cost adder. However, PacifiCorp's petition sidesteps the reality that the Company's CEIP LRC portfolio must also include the SCGHGs to comply with Washington's Clean Energy Transformation Act (CETA). In describing its CEIP incremental cost methodology, PacifiCorp acknowledges its 2021 IRP solution or preferred portfolio "was not developed to use the SCGHGs in the resource acquisition decision." Yet the Company maintains its 2021 IRP preferred portfolio complies with CETA requirements. Staff respectfully maintains a plain reading of the law requires "an electric utility [to] incorporate the SCGHGs as a cost adder when evaluating and selecting...resource options." Staff presents its rationale for opposing PacifiCorp's SCGHG Petition in greater detail in Staff's legal response.</p>	<p>Please refer to the company's response to comment number 262.</p>	CEIP updated
315	2021-12-10	WUTC Staff	E-mail to IRP Team	Modeling	<p>PacifiCorp's draft CEIP indicates the Company has petitioned the Commission to modify its rule that the alternative LRC and reasonably available portfolio not include the SCGHGs as a cost adder. However, PacifiCorp's petition sidesteps the reality that the Company's CEIP LRC portfolio must also include the SCGHGs to comply with Washington's Clean Energy Transformation Act (CETA). In describing its CEIP incremental cost methodology, PacifiCorp acknowledges its 2021 IRP solution or preferred portfolio "was not developed to use the SCGHGs in the resource acquisition decision." Yet the Company maintains its 2021 IRP preferred portfolio complies with CETA requirements. Staff respectfully maintains a plain reading of the law requires "an electric utility [to] incorporate the SCGHGs as a cost adder when evaluating and selecting...resource options." Staff presents its rationale for opposing PacifiCorp's SCGHG Petition in greater detail in Staff's legal response.</p>	<p>Please refer to the company's response to comment number 262.</p>	CEIP updated

Stakeholder Input and Responses

Number	Date	Source of Comment	Where was the comment made?	Category	Comment	PacifiCorp Response	Method if Applicable
316	2021-12-10	WUTC Staff	E-mail to IRP Team	Modeling	During PacifiCorp's 2021 IRP development process, the Company maintained during its public interest meetings that the SCGHG price-policy assumptions made as part of its portfolio generation were "consistent" with Washington CETA planning requirements. Staff strongly recommends PacifiCorp re-run its 2021 IRP preferred portfolio as well as its alternative LRC and reasonably available portfolio to appropriately incorporate the SCGHGs as a cost adder ahead of the Company filing its final CEIP by January 1, 2022. Given the significant portfolio cost increase incorporating the SCGHGs would likely impart, Staff believes correctly applying this cost adder could result in resource differences during the 2022 – 2025 CEIP compliance period beyond just Washington demand-side management (DSM) selections as the Company maintains. Further, Staff notes the Commission's rules allow PacifiCorp to propose an alternative incremental cost methodology that does not equate the LRC portfolio to the Company's docketed 2021 IRP solution as long as the proposed IC portfolio comparison costs carbon emissions, as outlined in CETA.	Please refer to the company's response to comment number 262.	CEIP updated
317	2021-12-10	WUTC Staff	E-mail to IRP Team	Modeling	PacifiCorp's modeling also falls short beyond the Company's treatment of the SCGHGs, or lack thereof. A disconnect exists between PacifiCorp's modeling of its interim targets between 2021 through 2040 and how the Company calculates its target setting during the final five-year 2041-through-2045 period. The linkages between PacifiCorp's 2021 IRP portfolio development and its interim target setting through 2040 are clear. However, PacifiCorp's 2021 IRP only covers the 2021 – 2040 twenty-year time horizon. The Company's draft CEIP workpapers demonstrate PacifiCorp only applied a linear interpolation of its 21 IRP preferred portfolio to calculate its 2041 through 2045 targets. Staff observed no attempt by PacifiCorp to optimize these linearly extrapolated results to achieve a LRC solution, as required per rule.	The optimization of years 2041-2045 in the CEIP was conducted in the IRP's optimization of years 2021-2040, which comprises the best available data for optimizing outcomes both during and beyond a twenty year planning window. The linearly extrapolated results are already optimal. The optimization of the final five years using a different methodology based on increasingly speculative data will not impact the company's ability to achieve full compliance in any of those years, nor will it reduce the costs of compliance. This is because no resources are added beyond year 2030 in order to achieve CETA interim targets, and the resources selected through 2040 are driven by system requirements that exist in the absence of CETA legislation. The only possible change would be the addition of incremental resources driven by non-CETA obligations, and therefore not applicable to the incremental cost of CETA. Also, the Draft CEIP relied on extrapolation to achieve CETA standard by 2045 whereas the final CEIP does not. This is because 100 percent renewable compliance is achieved by 2038 due to improving the interim cost calculation to be based on Washington retail sales rather than using retail load as a proxy.	Comment noted
318	2021-12-10	WUTC Staff	E-mail to IRP Team	Modeling	PacifiCorp's decision to optimize a resource portfolio through 2040 and not 2045 stands in marked contrast to the modeling decisions and underlying analytics that inform both Avista Corporation's (Avista) and Puget Sound Energy's (PSE) CEIP clean energy transformation standard target setting. Staff raised the issue that PacifiCorp's 2021 IRP planning horizon would not cover the relevant CETA targets (e.g., 2045 100 percent clean electricity standard) at the Company's very first public interest meeting, yet PacifiCorp failed to adjust its modeling approach. Staff strongly encourages PacifiCorp to re-run its CEIP portfolio development to optimize 2041 through 2045 results that are in fact LRC ahead of filing its final CEIP by January 1, 2022. If time constraints make this path forward infeasible, at minimum, PacifiCorp should undertake a portfolio development approach that satisfactorily addresses the entire Washington CETA planning time horizon through 2045 as part of its next IRP two-year progress report and biennial CEIP update.	The company's modeling approach is already optimized. Please see the response to comment number 317.	Comment noted
319	2021-12-10	WUTC Staff	E-mail to IRP Team		PacifiCorp needs to do a better job in its CEIP explaining what expenditures should inform and, similarly, what costs should be excluded from its projected IC calculation. Staff are concerned PacifiCorp may be significantly underestimating the investments and expenses that are directly attributable to actions necessary to comply with, or make progress towards CETA's greenhouse gas neutrality and 100 percent clean electricity standards. PacifiCorp did not include any of these procurement costs in its projected IC calculation, as the Company maintains the significant renewable energy procurement it has pursued via its 2020 All-source Request for Proposals (RFP) depended on previous planning (i.e., PacifiCorp's 2019 IRP) and would have occurred regardless of CETA. However, Staff's review of the Company's CEIP supporting files confirms the CETA compliant renewable energy resources allocated to Washington more than double (i.e., increase approximately 138 percent) during the 2022 through 2025 compliance period. This significant ramp up appears directly attributable to PacifiCorp's strategy to meet its 2030 interim target. Staff questions whether PacifiCorp would have made these renewable energy allocation choices to its Washington service territory in the absence of CETA's 2030 and 2045 targets. In comparison, assumptions made by Washington's other two electric IOUs in calculating their respective projected IC calculations do suggest such electricity operation and delivery costs should be considered directly attributable expenses. Furthermore, stakeholders consulted agree that allocation activities should be considered in the Company's projected IC calculation.	The company has expanded its explanation of incremental costs in narrative and has included additional workpapers. Please refer to Chapter 4 and Appendix D. The ramp up of renewables described by Staff during the 2022-2025 period is in no way driven by CETA. The company made these resource decisions on a least-cost least-risk basis prior to the development of CETA rules and notably did not model any CETA requirements in its 2019 IRP. No calculation of interim targets occurred prior to the 2021 IRP, the first IRP to which CETA legislation applies. These resources were included in the 2021 IRP as planned and not proxy resources because the RFP FSL analysis had already been completed. Chapter 9 of the 2021 IRP includes two alternative sensitivities (P02c and P02d) measuring the impacts of removing 2020AS RFP FSL resources to test whether or not these resources remain economic with updated analysis. The results of these studies demonstrated the continuing economics of these pre-CETA decisions. The relevance of these resource to CEIP compliance is that while the company cannot retroactively apply CETA legislation to actions already taken, the company can consider CETA legislation to the extent possible in future actions as these resources are developed.	CEIP updated
320	2021-12-10	WUTC Staff	E-mail to IRP Team	Incremental Costs			
321	2021-12-10	WUTC Staff	E-mail to IRP Team	Modeling	If Washington's 2030 and 2045 targets were no longer modeling constraints, and the renewable energy allocated to the state remained the same, then it would confirm that such a significant increase in renewable energy allocated to Washington during the 2022-25 timeframe would have occurred regardless of requirements pursuant to RCW 19.405.040 and RCW 19.405.050. Staff strongly recommends that PacifiCorp provide evidence, in the form of easily accessible modeling support files, that confirm the Company's assertion that Washington's resource allocation would remain the same regardless of CETA's greenhouse gas neutrality and 100 percent clean electricity requirements. If modeling results without the RCW 19.405.040 and RCW 19.405.050 constraints reflect a significantly different 2022 – 25 renewable energy allocation, Staff would expect PacifiCorp's final CEIP would reflect a greater net power cost contribution to its projected IC calculation.	Washington's 2030 and 2045 targets were not modeled in the development of non-CETA compliant portfolios. In addition to applying the results of the Demand Response RFP and energy efficiency derived from the application of SCGHG to Washington outcomes, CETA compliant portfolios required only a small renewables addition in a single year to achieve CETA targets. This is as anticipated and discussed with Staff during the development of the 2021 IRP. The small 2030 hybrid resource addition was the optimal resource addition to serve Washington customers within existing transmission interconnection constraints. Staff has full access to the company's modeling and can observe that no CETA targets were applied (and in fact all but completely already met).	Comment noted
322	2021-12-10	WUTC Staff	E-mail to IRP Team	Modeling	In terms of "net power costs," PacifiCorp should also explain in its final CEIP what actions or programs constitute these costs as categorized in Table 4.1. Staff found no explanation of this directly attributable cost category within the Company's draft CEIP nor within the Company's confidential revenue requirement workpaper.	The "Net Power Costs" category represents the complete system-wide impacts on operations driven by portfolio changes, and is calculated based on detailed data provided in "Cost Summary Compare P02-MMGR-CETA less P02-SCGHG-MM.xlsx". The PLEXOS model optimizes dispatch and operational costs of each portfolio and the differences in resulting costs between one portfolio and another are tabulated annually in categories meaningful for analysis. Therefore, there is no action or program defined as "decrease generation and therefore fuel costs of resource X", for example.	CEIP updated
323	2021-12-10	WUTC Staff	E-mail to IRP Team	Incremental Costs	While PacifiCorp does provide a projected IC calculation and proposes directly attributable costs, the Company's justifications for these costs and, more importantly, the informing data are opaque. The total 2022 – 25 projected ICs are not clearly presented as a separate and distinct calculation stymying Staff from making a compliance determination. It is not explicitly stated how the incremental costs (either modeled or non-modeled) remain below the threshold value. The Company must present on a yearly basis what the incremental costs are in their totality, including all categories (i.e., modeled and non-modeled) that are applicable to compare to the annual threshold amount. PacifiCorp must provide supporting data and results calculations, with formulas intact.	The company has enhanced workpapers and appendices submitted with the CEIP to provide further insights on the sources informing the incremental costs estimates. As well, formula capabilities have been reviewed to ensure to the extent possible, results of calculations are supported by relevant data sources, process descriptions, references to other regulatory filings and/or workpapers to provide better transparency for incremental cost evaluation.	CEIP updated
324	2021-12-10	WUTC Staff	E-mail to IRP Team	Incremental Costs	Additionally, PacifiCorp should identify the sourcing information for Table 4.3, Estimated Annual Revenue Requirement. Staff understands the numbers in this table come from confidential workpapers. Key data is simply "hard coded" within this workbook, including the pre-tax rate of return – 8.409% (cell C32, "Revenue requirement" tab), net power costs and energy efficiency ("IRP costs" tab), as well as all non-IRP costs. Similarly, PacifiCorp should appropriately source Table 4.4, Cost thresholds. Staff were unable to locate any corresponding workpaper for this table and specifically wonder how the forecasted Washington revenues were derived for 2021 – 2024.	The company will enhance workpapers and appendices submitted with the CEIP to provide further insights on the sources informing the incremental costs estimates. As well, formula capabilities will be reviewed to ensure to the extent possible, results of calculations are supported by relevant data sources, process descriptions, references to other regulatory filings and/or workpapers to provide better transparency for incremental cost evaluation.	CEIP updated
325	2021-12-10	WUTC Staff	E-mail to IRP Team	Incremental Costs	To assist with data accessibility, both within this incremental cost section of the CEIP and throughout the implementation plan, Staff recommends PacifiCorp at least source the parallel workstreams from which relevant costs are derived (e.g., PacifiCorp's 2019 general rate case and 2022-23 biennial conservation plan).	The incremental cost methodology for DSM equity and the relationship between the base case (delivery of the EIA volume regardless of equity) and the equity adders required by CETA are outlined in the incremental cost work papers.	

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Number	Date	Source of Comment	Where was the comment made?	Category	Comment	PacifiCorp Response	Method if Applicable
326	2021-12-10	WUTC Staff	E-mail to IRP Team	Supporting Analyses	As part of its draft CEIP review, Staff has prioritized evaluating whether electric IOUs have made available underlying inputs, data, and assumptions in an easily accessible format that would enable the "Commission, Staff, ...and other parties...to understand why the [companies] took the actions [they] did." For example, PacifiCorp did include as confidential support files, spreadsheet workbooks derived from the Company's 2021 IRP PLEXOS results supporting its interim target setting through 2040 (not 2045) and incremental cost portfolio results (albeit using a medium carbon price rather than the SCGHG). PacifiCorp did not properly source or document how it determined its specific targets (i.e., renewable energy, energy efficiency, demand response) nor its corresponding specific actions. As part of its final CEIP filing, PacifiCorp needs to file native file format versions of its specific target and specific actions data. Such results need to be properly sourced and/or justified.	The company has filed additional workpapers as part of its final filing and in consideration of parties' comments.	CEIP updated
327	2021-12-10	WUTC Staff	E-mail to IRP Team	Supporting Analyses	Staff notes PacifiCorp's CEIP report narrative is largely "decoupled" from what underlying data files the Company has included as part of this draft CEIP filing. The reader must instead search through the suite of files provided, using filenames as their primary guide. PacifiCorp has not provided any master data file "index" as an appendix to its CEIP. Staff believes such an index or data "table of contents" type document would greatly increase the level of CEIP data accessibility the Commission envisioned. For its final CEIP, PacifiCorp should: (a) Specifically link its frontmatter report to the underlying data files that inform the various targets, charts, and tables in the report. An appropriate way to accomplish this goal is for PacifiCorp to footnote specific supporting workpaper cells and/or tabs within its report narrative. (b) Include a master data file "index" as a CEIP chapter or supporting appendix. At minimum, the Company should organize its final CEIP deliverable by including a master table of contents, readme files, and categorically grouping related data. For comparison, the Commission added a similar requirement as a condition for PacifiCorp's 2021 IRP. reader must instead search through the suite of files provided, using filenames as their primary guide. PacifiCorp has not provided any master data file "index" as an appendix to its CEIP. Staff believes such an index or data "table of contents" type document would greatly increase the level of CEIP data accessibility the Commission envisioned.	The company has composed an appendix of workpaper references and is also providing workpaper references as footnotes in the main CEIP document.	CEIP updated
328	2021-12-10	WUTC Staff	E-mail to IRP Team	Supporting Data	Further, PacifiCorp's specific actions tables (i.e., Appendix C) lack any sourcing information nor links specific action project and program attributes back to underlying files that contain the relevant capacity, energy, or cost data. Staff must resort to spot checking PacifiCorp's proposed specific actions or otherwise trust this table is consistent with the Company's planning efforts, namely its 2021 IRP results. As part of its final CEIP, PacifiCorp must file a specific actions Appendix C in native file format (i.e., Excel workbook format) that appropriately links quantitative attributes (i.e., capacity, energy, and projected cost details) to the underlying planning source files per rule. Filing its specific actions data in a more easily accessible format will enable Staff to better assess whether PacifiCorp's CEIP specific actions appropriately align with the Company's 2021 IRP. Further, PacifiCorp's specific actions tables (i.e., Appendix C) lack any sourcing information nor links specific action project and program attributes back to underlying files that contain the relevant capacity, energy, or cost data. Staff must resort to spot checking PacifiCorp's proposed specific actions or otherwise trust this table is consistent with the Company's planning efforts, namely its 2021 IRP results.	The company has added a column in Appendix C to indicate general sourcing information as well as workpaper references relevant to specific tables and information within the CEIP document itself. Please also refer to the company's response to comments 326 and 327.	CEIP updated
329	2021-12-10	WUTC Staff	E-mail to IRP Team	Supporting Analyses	Staff echoes stakeholders' claims that PacifiCorp needs to provide more of an explanation and justification of its supporting 2021 IRP analyses to help interested parties understand why the Company is highlighting various interim and specific target setting measures in its CEIP. For example, PacifiCorp is planning to remove Jim Bridger from Washington customer rates by the end of 2023, even though the Company is planning to convert Bridger to a natural gas-fired plant. PacifiCorp's CEIP has not included any analysis to support this decision. It is in the Company's interest to provide easily accessible supporting data, which will assist the Commission and interested parties independently determine whether activities proposed are in the public interest and represent the LRC option. Staff highlight PacifiCorp's deficient renewable energy target setting as another key issue area in these draft CEIP comments. The Company does not appear to propose a publicly available renewable energy specific target. Within the context of the Company's CEIP report narrative, PacifiCorp references the existing Washington Inter-Jurisdictional Allocation Methodology (WIJAM) for Washington-specific allocations of the Company's system-wide resources through 2023 and on-going Multi-state protocol (MSP) negotiations in 2024 and beyond. Staff observe more specific state allocation factors appear in PacifiCorp's draft CEIP confidential workpapers. However, this supporting data does not meet Staff's expectations that such data is provided in an easily accessible format, as required by statute, rule, and the Commission's CETA Rulemaking Order.	The 2021 IRP's preferred portfolio represents the lowest reasonable cost portfolio of resources to serve customers in all six of PacifiCorp's states. Explanations and justifications for IRP analysis can be found in the IRP. Removing Jim Bridger from Washington's allocation of electricity by 2023 meets the requirements of RCW 19.405.030. Final allocation decisions will be determined in MSP.	Comment noted
330	2021-12-10	WUTC Staff	E-mail to IRP Team	Supporting Analyses	While electric utilities have discretion as to what data they designate as confidential, Staff sees no reason why PacifiCorp is designating a CEIP component as fundamental as its renewable energy specific target as confidential in its entirety; and it is counter to the transparent path its peer utilities have taken regarding this target. Staff is hopeful PacifiCorp will include its renewable energy specific target in its final CEIP without compromising the sensitive material discussed in other Company settings.	The company includes in its filing a publicly available workpaper reporting annual projected renewable and clean energy generation and Washington retail sales that are used to calculate interim targets through 2040 and 2045 within the CEIP. See Chapter 1 and Appendix D for references to the relevant workpapers. Additional supporting workpapers remain confidential as they contain data specific to both individual resources and ongoing multi-state protocol (MSP) negotiations. Please also refer to responses to comments 326-328.	CEIP updated
331	2021-12-10	WUTC Staff	E-mail to IRP Team	Interim and Specific Targets	Staff appreciates the incremental action PacifiCorp is planning beyond what is laid out in the Company's 2022-23 biennial conservation plan (BCP) in setting its CEIP energy efficiency (EE) targets. The Company's 2021 IRP solution, which underwent both a reliability assessment and cost and risk analysis two-step process undertaken endogenously within the PLEXOS portfolio development process, appears to inform its interim and specific targets. The yearly targets as listed suggest the Company has made the necessary adjustments to pursue "all" cost-effective EE, since the Company's 2021 IRP cycle. Additionally, Staff commends the Company for describing how it will make updates to its EE programs to better reach named communities, which comprise highly impacted communities (HICs) and vulnerable populations (VPs).	The company appreciates this positive feedback and intends to continuously work to improve its processes going forward.	Comment noted
332	2021-12-10	WUTC Staff	E-mail to IRP Team	Interim and Specific Targets	Staff did not observe interim EE targets explicitly called out but infers the yearly "total conservation" targets listed in Table 3.4 are the Company's interim targets. PacifiCorp should list its interim EE targets in its interim target section of the final CEIP as the rule requires.	Conservation targets are in Table 1.3 of the CEIP. Table 3.5 outlines forecasted conservation program impacts that meet (and exceed) the conservation targets in aggregate listed in Table 1.3	CEIP updated
333	2021-12-10	WUTC Staff	E-mail to IRP Team	Interim and Specific Targets	Staff is pleased that in setting the demand response (DR) target, the Company gained insight from its 2021 DR RFP results. Under CETA, DR includes pricing programs. As such, the company's DR target should also include the upcoming time-of-use pilot program. However, if the capacity (i.e., MW) expected from this pilot is not available by the final CEIP filing, Staff recommends PacifiCorp apply the results of this pilot to future DR targets. As a follow on to the above Data disclosure issue area discussion, Staff strongly recommends PacifiCorp better explain and update its Appendix C specific actions table. For example, Staff notes project costs are pending and nonenergy impacts (NEIs) remain to be determined for the Company's renewable energy projects. NEIs are also outstanding for the EE specific actions. Given most of the renewable energy projects source to PacifiCorp's 2020 All-source RFP and the Company was expecting to execute agreements with associated bidders by early November 2021, one would expect cost information to be listed at minimum for these line items. Staff expects PacifiCorp to furnish complete data, including NEIs, for its EE specific actions based on insights the Company has gained developing its 2022-23 BCP. Staff strongly recommends PacifiCorp minimize any remaining Appendix C data gaps when filing its final CEIP.	The company appreciates the positive feedback regarding demand response. The DR target and specific actions have been updated to make reference to time of use pilots.	CEIP updated
334	2021-12-10	WUTC Staff	E-mail to IRP Team	Specific Actions	As a follow on to the above Data disclosure issue area discussion, Staff strongly recommends PacifiCorp better explain and update its Appendix C specific actions table. For example, Staff notes project costs are pending and nonenergy impacts (NEIs) remain to be determined for the Company's renewable energy projects. NEIs are also outstanding for the EE specific actions. Given most of the renewable energy projects source to PacifiCorp's 2020 All-source RFP and the Company was expecting to execute agreements with associated bidders by early November 2021, one would expect cost information to be listed at minimum for these line items. Staff expects PacifiCorp to furnish complete data, including NEIs, for its EE specific actions based on insights the Company has gained developing its 2022-23 BCP. Staff strongly recommends PacifiCorp minimize any remaining Appendix C data gaps when filing its final CEIP.	NEI's for energy efficiency actions with energy savings have been added to the final Exhibit C. NEI calculations utilize the DNV mapping (NEI to measure) and \$/kWh estimates provided in Appendix 4 for the DSM Business Plan for 2022-2023. Notes documenting the methodology using the DNV values and calculations related to the low income program repair costs have been added.	CEIP updated

Stakeholder Input and Responses

Number	Date	Source of Comment	Where was the comment made?	Category	Comment	PacifiCorp Response	Method if Applicable
335	2021-12-10	WUTC Staff	E-mail to IRP Team	Specific Actions	Regarding PacifiCorp's planned DR specific actions, Staff notes all programs are in development. DR in the Company's Washington service territory is new but given the Company's experience with DR in other states, we anticipate smooth implementation. To ensure these DSM programs properly serve all customers, Staff strongly encourages PacifiCorp to consistently confer with an advisory group about DR. This does not necessarily mean the creation of another DR-specific advisory group. The Company could leverage its existing Washington DSM advisory group structure, expanding this group's purview to encompass all distributed energy resources (DERs). In the final CEIP, PacifiCorp should: <ul style="list-style-type: none"> •Include its time-of-use pilot in the Company's specific actions list (i.e., Appendix C). •Describe how it will utilize an advisory group process to further DR in Washington. •Finalize applicable DR program budgets and related implementation decisions. 	The final CEIP includes time-of-use pilots in the company's specific actions for DR and describes more fully the anticipated process for soliciting feedback on program design and draft filings, including utilizing the Washington DSM advisory group.	CEIP updated
336	2021-12-10	WUTC Staff	E-mail to IRP Team	Specific Actions	Staff observes PacifiCorp did not connect its specific actions to any resource adequacy (RA) metrics as required per rule. This represents another area where the Company can better define linkages between its CEIP and 2021 IRP, which used a minimum capacity reserve margin of 13 percent as the primary RA metric. In meeting the standards in RCW 19.405.040 and RCW 19.405.050 requirements are clear PacifiCorp's specific actions must demonstrate its customers are benefiting from the transition to clean energy through energy security and resiliency. Staff encourages PacifiCorp to clarify how its specific actions are consistent with the Company's resource adequacy requirements in its final CEIP.	The company discusses the modeling of reliability requirements in Chapters 1 and 3 of the CEIP; the resource adequacy connection is now made explicit in Chapter 3 regarding supply-side resource specific actions. The solicitation process for the 2020AS RFP did not include an evaluation of CBIs as none were required at the time. With the understanding that supply-side resource selections in Table 3.1 are the result of an RFP process initiated in the 2019 IRP prior to the development of CETA rules, the company has clarified how its selections nonetheless meet CETA priorities in Chapter 3, "CETA Prioritization", and benefits Washington customers by contributing to the achievement of CETA objectives.	CEIP updated
337	2021-12-10	WUTC Staff	E-mail to IRP Team	Specific Actions	As discussed further in the next Customer benefit data sub-section, Staff finds no mention in the specific action selection methodology as to how customer benefit indicators (CBIs) or other equity considerations informed the selection of resources. Specifically, Staff takes issue with PacifiCorp's assertion that "the 2020 All-source RFP resources are primarily located outside of Washington, and therefore, CBIs related to [named communities] are not applicable." Staff is not aware of any so-called outside Washington geographic CBI "exclusion" per statute or rule and expects the company to fully comply with this important CETA provision.	PacifiCorp has added a section to the CEIP to specifically address how supply-side actions align with or are supported by CBIs. PacifiCorp continues to maintain that nonenergy benefits related to out-of-state supply side actions are not applicable.	CEIP updated
338	2021-12-10	WUTC Staff	E-mail to IRP Team	Specific Actions	Beyond CBI considerations, Staff has numerous questions regarding PacifiCorp's treatment of equity and customer impacts associated with its recommended specific actions. The draft CEIP lacks adequate context explaining the forecasted distribution of NEIs across programs during the 2022-25 compliance period. PacifiCorp does not explain how these NEIs were determined and only directs the reader to the DNV analyses supplied as Appendix 4 to the Company's 2022-23 BCP. Staff maintains "forecasted distribution" should detail what customers, populations, or geographic locations are impacted and the corresponding breakdown of costs and benefits. PacifiCorp should address these deficiencies in its final CEIP.	Information summarizing the DNV approach to calculating the NEIs utilized in the program level assessment has been added to the final CEIP. A work paper prepared by AEG which builds upon the DNV measure level mapping and calculates the values found in Tables 3.6 and Figure 3.1 is provided. This work paper provides a forecasted distribution by customer (residential, non-residential) type and energy efficiency measure (windows, HVAC, lighting, etc.) type. Other than savings estimates associated with specific actions tied to target communities, the company does not have a geographic forecast for energy efficiency.	CEIP updated
339	2021-12-10	WUTC Staff	E-mail to IRP Team	Specific Actions	PacifiCorp does present select data that should enable the Company to track how specific actions impact named communities. A bona fide example is the SAIDI, SAIFI, and CAIDI data presented indicating the duration and frequency of outages during major events are significantly worse for highly impacted communities. In its final CEIP, PacifiCorp should demonstrate how select specific actions are trying to reduce this power reliability disparity moving forward.	Please refer to the company's response to comment 256.	Additional analysis included in the CEIP.
340	2021-12-10	WUTC Staff	E-mail to IRP Team	Specific Actions	Staff commends PacifiCorp for proposing an electric vehicle (EV) grant program for named communities. However, data deficiencies associated with this program exist, including: no information offered as to which stakeholders the Company would engage, no justification as to why this EV grant program was proposed, and vagaries regarding program details (e.g., will PacifiCorp only install charging infrastructure or "potentially purchase electric vehicles" as well?). PacifiCorp should propose and vet such an EV program through its upcoming transportation electrification plan the Company expects to docket with the Commission during the first quarter of 2022. The "use case forecasts and the...energy impacts" associated with such an EV program are additional planning requirements PacifiCorp will need to consider in its next IRP two-year progress report and biennial CEIP update in 2023.	The company appreciates the positive feedback regarding our proposed electric vehicle grant program. Language has been added to the specific actions section related to EV grants providing details on proposed stakeholder engagement strategies and timelines related to program development and launch.	CEIP updated
341	2021-12-10	WUTC Staff	E-mail to IRP Team	CBIs	Staff caveats the following CBI feedback is not exhaustive. We encourage the Company to review closely comments from other stakeholders and additional CBI guidance Staff may be able to provide later in December 2021, time permitting. PacifiCorp's development of CBIs should not be the ultimate goal or objective of these equity-focused service quality indicators in the Company's CEIP. Instead, PacifiCorp needs to demonstrate how these CBIs inform selection of the Company's specific actions. PacifiCorp claims its "CBIs are designed to demonstrate the impact of proposed programs, actions, and investments." However, Staff does not see any evidence where the Company applies these indicators when evaluating existing programs, proposed programs, or new resource investments. Other stakeholders consulted appear to share Staff's perspective that CBIs should enable specific action monitoring and performance tracking. Staff strongly urges PacifiCorp clearly write, with an appropriate level detail how CBIs are used in resource selection. The company must outline CBI impacts (negative or positive) to be compliant with statute and rule. To achieve these objectives PacifiCorp needs to clarify the relationship between each specific action and its associated CBIs in the Company's final CEIP.	PacifiCorp has reviewed those comments from other stakeholders and is providing a response to them in Appendix A.	Comment noted
342	2021-12-10	WUTC Staff	E-mail to IRP Team	CBIs	PacifiCorp's development of CBIs should not be the ultimate goal or objective of these equity-focused service quality indicators in the Company's CEIP. Instead, PacifiCorp needs to demonstrate how these CBIs inform selection of the Company's specific actions. PacifiCorp claims its "CBIs are designed to demonstrate the impact of proposed programs, actions, and investments." However, Staff does not see any evidence where the Company applies these indicators when evaluating existing programs, proposed programs, or new resource investments. Other stakeholders consulted appear to share Staff's perspective that CBIs should enable specific action monitoring and performance tracking. Staff strongly urges PacifiCorp clearly write, with an appropriate level detail how CBIs are used in resource selection. The company must outline CBI impacts (negative or positive) to be compliant with statute and rule. To achieve these objectives PacifiCorp needs to clarify the relationship between each specific action and its associated CBIs in the Company's final CEIP.	Please refer to the company's response to comment number 258. Please refer to the company's response to comment number 336, regarding how CBIs were used in resource selection.	Comments noted and CEIP updated
343	2021-12-10	WUTC Staff	E-mail to IRP Team	CBIs	When considering equity, Staff does appreciate PacifiCorp developing its first round of CBIs in conjunction with its Equity Advisory Group (EAG) supplemented with as much public input as the Company could gather. Hopefully future CBI iterations in subsequent CEIPs will allow PacifiCorp to further its public communications and engagement, especially with its named communities. With that future goal in mind, the following are incremental CBI refinements Staff encourages the Company to address in its final 2022 CEIP: <ul style="list-style-type: none"> •Fold in and better explain the baseline data from which the CBIs were developed by adding column(s) to the CBI summary table. The current draft CEIP organization, which describes the baseline analysis after listing the CBIs in tabular form, makes it difficult to connect what information informed what indicator(s). •Do retroactive bill assistance programs directly mitigate customer energy burden? Or should PacifiCorp re-design programs to provide cost relief when bills are initially due? Staff encourages the Company to consider bill assistance timing in its final CEIP. •Supplement program participation tables with population numbers eligible for each program. Side-by-side program enrollment actuals versus potential should provide a better snapshot of current program effectiveness. 	1. Please refer to the "Summary of Customer Benefit Indicators" section in Chapter 2 of the CEIP for an explanation of how the EAG process informed the creation and iteration of the CBIs. 2. PacifiCorp has contracted with Empower Dataworks to develop metrics and identify areas of high energy burden. Once the data is obtained, it can be used to develop a "heat" map of areas experiencing high energy burden. Theoretically, Washington Rate Schedule 17 is designed to offer bill credits to customers who are at or below various thresholds of the Federal Poverty Level / Area Median Income. All else equal, as energy expenditures go down, so must energy burden. While PacifiCorp has proposed a number of actions relating to energy and efficiency program offerings to customer in named communities (including implementing the Low Income Weatherization program), it is prudent to note that LIBA specifically is covered under separate regulation; if a utility is required to offer a program or take an action by a different law, then that program or action will not be identified in the CEIP as a utility action, even if it is consistent with CETA. 3. With additional data and analysis following the Nov 1, 2021 draft submittal, PacifiCorp was able to make two updates within the final CEIP that address the question of percentage participation rates. First, PacifiCorp added a new table showing HES, HER, LIWx, and LIBA participation rates among the 22 vulnerable populations, based on PacifiCorp tracking data and 2021 residential survey responses. Please see Table 2.17 in Chapter 2. Second, PacifiCorp was able to update the "In Progress" placeholders in Table 2.16 to include LIBA percentage participation rates by HIC and overall.	CEIP updated

Stakeholder Input and Responses

Number	Date	Source of Comment	Where was the comment made?	Category	Comment	PacifiCorp Response	Method if Applicable
344	2021-12-10	WUTC Staff	E-mail to IRP Team	Public Participation	<p>Staff observes Chapter Five, Public Participation, of PacifiCorp's draft CEIP is similar in substance to the Company's re-filed Public Participation Plan (PPP) dated July 30, 2021. However, PacifiCorp's public participation treatment in its draft CEIP is more expansive than its re-filed PPP given the Company has included consolidated stakeholder feedback as part of its draft CEIP filing. For this reason, Staff recommends PacifiCorp make the following public participation improvements in its final CEIP rather than re-filing another PPP:</p> <ul style="list-style-type: none"> •Actionable steps to improve "language accessibility" and a plan to assess customer needs, especially for named communities. PacifiCorp should detail which programs it plans to review and/or revamp. •Details of each outreach method's performance. For example, the numbers of: people subscribed to the CEIP email list, public participants at each public meeting, visits the PacifiCorp CETA website registered, comments received via email or phone. While Staff view PacifiCorp's public participation planning as satisfactory, post-mortem assessments of what worked and what did not are lacking in the draft CEIP. For instance, did the Company find a financial stipend useful in recruiting and retaining its EAG members? Given public participation's iterative nature, PacifiCorp showing the first round of public engagement results should provide a baseline for future public participation and outreach improvement. •Summaries and takeaways from survey results posted to the Company's CEIP website to clarify how PacifiCorp plans to leverage insights gained. 	<p>PacifiCorp has added additional detail to Chapter Five, Public Participation, including:</p> <ul style="list-style-type: none"> -Expanded details and key takeaways of public outreach performance and plans for 2022-2025 -Additional details about survey results and how PacifiCorp will incorporate response feedback <p>PacifiCorp has also added additional detail in Chapter Three, Specific Actions, surrounding language accessibility and expanded outreach to named communities through program marketing.</p>	CEIP updated
345	2021-12-10	WUTC Staff	E-mail to IRP Team	Workplans	<p>Beyond the recommended corrective actions discussed in the "key issue areas" section of these comments that Staff expects PacifiCorp to address in its final CEIP due on January 1, 2022, Staff lists the following additional items that we would appreciate the Company providing a timetable for addressing in its final CEIP. PacifiCorp's commitments list or workplan, which can be included as an appendix to its final CEIP, should include but not be limited to the following:</p> <ul style="list-style-type: none"> •Waiver of the Commission's advertising rule (i.e., WAC 480-90-223) to cover any related advertising PacifiCorp may undertake to further its CEIP objectives. •DER assessments beyond EE and DR, as described in WAC 480-100-620(3), including distributed energy programs and mechanisms identified pursuant to RCW 19.405.120 and other DER potential assessments. •A detailed, comprehensive list of any items, besides those explicit in WAC 480-100-625(4), that the Company has identified to update in its 2023 IRP progress report due to the Commission by January 1, 2023. •Distribution planning – How has PacifiCorp (either in its IRP or CEIP development processes to date) analyzed CETA's impact (or lack of impact) on the Company's distribution planning efforts? •A modeling workplan that lays out PacifiCorp's proposed approach for quantifying CBIs in the Company's next IRP portfolio development and optimization. •Components of RCW 19.280.030(1) that refine implementation of the Company's IRP-to-CEIP, via the clean energy action plan, development process emphasizing compliance with RCW 19.405.040(8). 	<ol style="list-style-type: none"> 1. The company interprets WAC 480-90-223 to be applicable to gas utilities. PacifiCorp expects that any CEIP-related advertising would be covered by WAC 480-100-223(2), which allows advertising of various utility programs that are intended to reduce peak demand, safety and emergencies, advertising required by law or regulation (which would include CETA), potential employment opportunities, use of efficient appliances, equipment and services, announcements of proposed rates and schedules (which would include any implementation of CEIP programs done via tariff), and notices of meetings or hearings concerning rates or tariffs. The company does not anticipate needing to file for a waiver of this rule. 2. Private generation and electric vehicle forecast are completed in the spring of the first year of the two year IRP cycle. Behind the meter battery storage projections are expected to be incorporated in the 2023 IRP and development of this forecast is also anticipated in the spring of first year of the two year IRP cycle. 3. The company anticipates providing an outline of the Draft IRP in mid-2022, which will include a list of planned items that it will include in its 2023 IRP progress report. 4. To the extent possible, the company is currently incorporating demographic information within its distribution planning efforts. As an example, in its annual reliability analysis, demographic and energy equity data was incorporated as a scoring metric in addition to legacy reliability, numbers of customers served by the circuit, and other relevant prioritization aspects to assess and advance projects for several circuits contained within HIC area. Although no substantial bias in performance could be demonstrated within HIC areas, the data was integrated into the planning process. Further, based on residential survey responses, the company is identifying if the survey respondent and their associated transformer is located in an HIC and if the respondent self-identifies as a member of a vulnerable population and will integrate this data into its reliability planning activities as is appropriate. 5. As part of the 2023 IRP cycle, PacifiCorp is planning to collaborate with other WA IOUs to consider methodological options for incorporating CBIs in future IRP development. 6. The company is committed to strengthening the connection between the IRP and CEIP particularly via the Clean Energy Action Plan (which was incorporated as Appendix O in the 2021 IRP). A workplan or list is anticipated to be included in the 2023 IRP outline of the Draft IRP in mid-2022. 	Comments noted

Appendix B

Comparison of July 30, 2021 Joint Comments on Customer Benefit Indicators (CBIs) to 10/15/2021 Draft PacifiCorp CBIs

Row #	Primary CBI Category	Joint Comments - Proposed CBI	Joint Comments - Proposed Metrics	Mapping to PacifiCorp Proposed CBIs and Metrics (10/19/2021 DRAFT)
1	Energy Benefit	Improve efficiency of housing stock in utility service territory, including low-income housing		PacifiCorp initially proposed - "Participation in bill assistance, weatherization and energy efficiency programs and grant opportunities." PacifiCorp has modified a current CBI as follows: "Efficiency of housing stock and small businesses, including low-income housing."
2			Increased funding of efficiency programs targeted to low income, both owner and renter.	PacifiCorp plans to track energy efficiency expenditures.
3			Increased participation in programs.	PacifiCorp plans to track participation in programs in Named Communities and has a separate CBI of, "Participation in company energy and efficiency programs and billing assistance programs."
4			Reduction in bills due to actions taken to improve efficiency.	PacifiCorp does not plan to directly track "reduction in bills" but proposes to use the metric of energy burden: see rows 22-27 for the additional detail on those metrics proposed for measuring the "Reduce Number of Households Experiencing High Energy Burden" CBI.
5			Increase number and percentage of appliances converted to efficient models.	PacifiCorp does not plan to directly track the "increase in number and percentage of appliances converted to efficient models" but will track the participation in company energy and efficiency programs and billing assistance programs.
6			Improvement and expansion of EE in rental housing stock.	PacifiCorp plans to track participation in programs in Named Communities, which includes Renters.
7	Energy Benefit	Low income and vulnerable communities have access to an increasing number of renewable or non-emitting distributed generation resources.		The Company has historically supported the creation of state funded renewable energy incentives targeted to low income customers. As the state adopts renewable incentive programs in the future, the Company will evaluate how to encourage their use in our service territory.
8			Increase in number of distributed and community renewable projects.	PacifiCorp does not plan to track this metric. See comments above.
9			Increase in number of community groups and households that own renewable energy projects.	PacifiCorp does not plan to track this metric. See comments above.
10			Increased percentage of electricity generated by distributed renewable energy projects.	PacifiCorp does not plan to track this metric. See comments above.
11	Non-Energy Benefits	Community Employment Opportunities		PacifiCorp evaluated this as a CBI to the non-Energy Benefit category - "Support for job training programs"- but the EAG did not ultimately prioritize it in the ranking exercise. However, PacifiCorp does plan to implement a number of programs to support "community employment opportunities." See rows 12-14 for further details.
12			Increased number of local low-income and vulnerable population representation in clean energy apprenticeships and/or training programs in the state.	PacifiCorp recruitment goals for apprenticeships is aligned with this CBI. We are currently exploring opportunities to support pre-apprenticeship programs in order to increase the competitiveness of under represented individuals for apprenticeships.
13			Increase in the number of living wage/union jobs sustained.	PacifiCorp does not plan to directly track the "number of living wage/union jobs sustained," but as part of the procurement process (All Source RFP), we will document and consider diversity and employment numbers.
14			Increased representation of low-income and vulnerable communities for contractors selected in local program delivery.	PacifiCorp plans to track "headcount of staff supporting program delivery in Washington who are woman, minority, or can show disadvantage" for energy efficiency programs with exception to low income.
15	Non-Energy Benefits	Health and Community Well-Being		In the area of Health and Community Well-Being, PacifiCorp adopted a CBI for Indoor Air Quality.
16			Reduced number of school and work absences due to illness triggered by poor air quality in highly impacted communities.	PacifiCorp does not maintain generating assets in the service territory that directly contribute to poor air quality in the highly impacted communities. PacifiCorp is not aware of medically verified work and school absence data that can be statistically correlated with PacifiCorp actions. PacifiCorp will track the public health CBI via reduction in wood use.
17			Improved housing conditions: health and safety outcomes related to weatherization measure installation.	PacifiCorp plans to track participation in programs in Named Communities.
18			Improved comfort in home (for example, customers' ability to heat/cool as needed, with efficient heat pump technology) due to more affordable bills.	PacifiCorp does not plan to track "comfort in home" but we anticipate programs that incentivize equipment that improves comfort.
19			Increase in number of customers with access to electricity as a transportation fuel in highly impacted communities.	PacifiCorp plans to propose an EV grant program.
20			Increased incorporation of non-energy benefits in utility cost-effectiveness analyses, particularly for low-income weatherization measures and programs.	PacifiCorp does not plan to track "increased incorporation of non-energy benefits in utility cost-effectiveness analysis" as part of the CEIP. Per WAC 480-109-100 (10) low income weatherization is exempt from cost effectiveness calculations and low income funding is not constrained by cost effectiveness. Impact evaluations include non-energy impacts quantified by program evaluator. Reports are posted on web site. PacifiCorp plans to continue this practice and to include additional impacts such as those available from the DNV study underway in the 2020-2021 EIA docket.

21	Reduction of Burdens	Reduction in number of customers suffering from high energy burden		"Households Experiencing High Energy Burden" was adopted as a CBI under the Cost Reduction and Reduction of Burden benefit categories.
22			Reduction in number of customers suffering from high energy burden by:	
23			a. customers in highly impacted communities;	PacifiCorp will track this metric using the DOE LEAD tool in conjunction with our residential survey.
24			b. customers in vulnerable populations;	PacifiCorp will track energy burden by vulnerable population using our residential survey, sample accuracy allowing.
25			c. participants in bill assistance programs;	PacifiCorp will track this metric using LBA participation data.
26			d. known low-income customers; and	PacifiCorp will track this metric using low-income weatherization participation data.
27			e. other residential customers with high energy burden.	PacifiCorp will track energy burden for customers not in vulnerable populations using our residential survey, sample accuracy allowing. We may also refer to the Washington Dept of Commerce's Utility Energy Program Assistance Survey Tool.
28	Reduction of Burdens	Reduced barriers for program participation		PacifiCorp adopted "Participation in Company Energy and Efficiency Programs and Billing Assistance Programs" as a CBI under the benefit categories of Cost Reduction, Reduction of Burden, Non-Energy Benefit, and Energy Benefit.
29			Increased participation in bill assistance, weatherization, and energy efficiency programs and grant opportunities	PacifiCorp plans to track participation in programs.
30			Expand translation services	PacifiCorp adopted "Culturally and linguistically responsive outreach and marketing to increase awareness of energy and conservation programs" as a CBI under the Reduction of Burdens benefit category. PacifiCorp plans to track outreach in non-English languages and percentage of responses to surveys in Spanish.
31			Reduction in cost disparities between customers who have access to EV charging at home on a residential rate and customers who do not have access to EV charging at home.	PacifiCorp plans to propose an EV grant program and plans to track public charging stations in named communities.
32	Public Health	Improved Health outcomes		PacifiCorp adopted "Indoor Air Quality" as a CBI under the benefit categories of Public Health and Non-Energy benefit.
33			Reduction of hospital admissions for asthma.	PacifiCorp does not plan to track this metric because the Company does not have significant emitting resources located within its retail service communities in Washington and is not a large direct contributor to poor air quality issues within its service territory. PacifiCorp is not aware of medically verified hospital admissions for asthma data that can be statistically correlated with PacifiCorp action. PacifiCorp will track the public health CBI via reduction in wood use and an EV grant program to expand electrification is a program under consideration as an action.
34			Decreased wood use for home heating.	PacifiCorp will track this metric through the residential survey.
35			Improvements in indoor and outdoor air quality in communities that experience poor air quality due to pollution.	See response to "reduction of hospital admissions for asthma" above.
36			Reduction in health care cost burden and reduced health care bills.	See response to "reduction of hospital admissions for asthma" above.
37	Environment	Reduction of GHG Emissions		PacifiCorp's CBI for the Environmental benefit category is "Renewable Energy Resources and Emissions." PacifiCorp will track Washington-allocated greenhouse gas emissions associated with its energy production from resources used to serve Washington customers.
38			Continuous reduction in overall greenhouse gas emissions in the utility service area.	PacifiCorp does not have any emitting resources located within its retail service communities in Washington and is therefore not a large direct contributor to greenhouse gas emissions within its service territory. See response above.
39			Increased electrification (gas to electric conversion).	PacifiCorp will track gas to electric conversion for LWX weatherization.
40			Increased electrification of medium- and heavy-duty transport and utility maintenance fleets, and last mile delivery fleets that serve or operate in highly impacted communities.	PacifiCorp does not plan to track this metric as part of the CEIP.
41			Increased electrification of transit services.	PacifiCorp plans to track the number of public charging stations in Named Communities.
42	Environment	Reduced Pollution Burden and Pollution Exposure		PacifiCorp adopted "Indoor Air Quality" as a CBI under the benefit categories of Public Health and Non-Energy benefit.
43			Decrease in share of population and pollution burden, by race/ethnicity, geography and all customer groups (e.g., income level, frontline community, senior citizens, medically vulnerable, rural/ urban, renter/homeowner, race, gender, ability/disability, language spoken, etc.).	PacifiCorp does not plan to track this metric because the Company does not have significant emitting resources located within its retail service communities in Washington and is therefore not a large direct contributor to pollution burden within its service territory. PacifiCorp will contribute to improving air quality through decreased use of wood use for home heating. PacifiCorp will track the public health CBI via reduction in wood use.
44			Decrease in air pollution exposure index, by race/ethnicity and all other customer groups.	See response above.
45			Reduction of particulates from fossil fuel burners in targeted neighborhoods.	See response above.
46			Reduction in airborne particles in neighborhoods next to rail lines that transport coal.	PacifiCorp does not plan to track this metric for this CEIP because the Company does not own or operate any coal resources in Washington and does transport coal via rail through Washington.
47			Improved air quality due to reduction in diesel particulate emissions.	PacifiCorp does not plan to track this metric because it is not a significant source of diesel particulate emissions within PacifiCorp retail service territory.
48	Reduction in Cost	Expand Bill Assistance Programs		PacifiCorp has made the commitment to expand its bill assistance programs separately from this CEIP.
49			Increase participation rates, including among highly impacted communities, vulnerable populations, and all eligible customers.	PacifiCorp plans to track this metric related to increased participation in programs.
50			Increase penetration rates (portion of those eligible participating) overall and among highly impacted communities and vulnerable populations.	PacifiCorp plans to track this metric related to increased penetration rates in programs.
51			Increase annual program budget showing increases over prior years.	PacifiCorp does not plan to track this metric as part of the CEIP. However, PacifiCorp will track program participation.
52			Increase in customers avoiding disconnection (i.e. customers who fall behind, but are ultimately spared disconnection due to assistance).	PacifiCorp adopted "Residential Customer Disconnections" as a CBI under the Energy Security benefit category.

53	Reduction in Cost	Reductions in Number and Amounts of Arrearages		PacifiCorp has not adopted this CBI.
54			Reduction in number and percentage of residential customers with arrearages 90+ days—with breakout for customers by zip code/census tract, renter, highly impacted communities, vulnerable populations, known low income, and BIPOC communities.	PacifiCorp does not plan to track this metric. However, PacifiCorp plans to focus efforts on reducing disconnections and has adopted a CBI specific to disconnections.
55	Reduction in Risk	Fewer customers with low utility credit code scores / fewer customers sent to collections		PacifiCorp adopted "Residential Customer Disconnections" as a CBI under the Energy Security benefit category.
56			Reduction in number and percentage of residential customers with the lowest and second lowest utility credit code scores. -With particular attention to highly impacted and low-income communities.	PacifiCorp does not plan to track this metric. Focusing on a reduction in the number of customers disconnected and reducing overall costs for electricity will have a greater impact on customers than an internal credit review. Credit scores have little impact on customers being disconnected.
57			Utility assessment and review of its credit code score system.	PacifiCorp will include a review of the internal credit code as part of an overall disconnect reduction plan that is under development.
58			Reduction in number and percentage of customers sent to collections for residential customers, including customers in highly impacted communities.	PacifiCorp does not plan to consider this metric. It is important to note that it is only when a customer closes an account and leaves an unpaid bill that the debt is referred to a collection agency.
59	Reduction in Risk	Increase Neighborhood Safety		PacifiCorp adopted "Frequency of outages, duration of outages, and customer impact of outages" as a CBI for the benefit categories of Energy Resiliency/Risk Reduction and Energy Benefit.
60			Reduction in frequency and length of outages due to major disasters, wildfires, and extreme weather events through cost-effective investments to reduce risk.	PacifiCorp plans to track SAIDI, SAIFI, and CAIDI at the area level to include Named Communities. These metrics will be presented to include major events and exclude major events.
61			Increased capacity of local community to respond to local disasters or weather events.	Although PacifiCorp does not plan to track this metric as part of this CEIP, PacifiCorp will continue to evaluate opportunities to improve reliability where the absence of that effort could create unintended capacity consequences to the community. PacifiCorp routinely documents the effectiveness of its hardening efforts.
62	Energy Security	Reduced Residential Disconnections		PacifiCorp adopted "Residential Customer Disconnections" as a CBI under the Energy Security benefit category.
63			Reduction in number and percentage of residential customer disconnections.	PacifiCorp will consider this as a metric as it develops its residential customer disconnection program.
64			Reduction in number and percentage of residential customer disconnections by location (and demographic info) of residential customer disconnections (zip code/census tract; renter; known low-income; highly impacted communities; and BIPOC customers).	PacifiCorp will consider this as a metric as it develops its residential customer disconnection program.
65			Reduction in risk of disconnection as evidenced by increased participation in arrearage management and Percentage of Income Payment programs.	PacifiCorp will consider this as a metric as it develops its residential customer disconnection program.
66	Energy Security	Improved access to reliable clean energy		PacifiCorp adopted "Renewable Energy Resources and Emissions" as a CBI related to the Environment benefit category.
67			Increase number of neighborhoods with storage/backup/locally powered centers for emergencies.	PacifiCorp is not planning to track this metric as part of this CEIP. The Company is considering a program to support the installation of customer sited storage that can be leveraged by the utility to provide grid benefits, as well as provide increased resiliency for the host. Tracking program participation will occur if that program moves forward.
68			Increase distributed generation in low-income neighborhoods.	The Company has historically supported the creation of state funded renewable energy incentives targeted to low income customers. As the state adopts renewable programs in the future, the Company will evaluate how to encourage their use in our service territory.
69			Optimize grid investments on the distribution system through increased distribution system planning.	PacifiCorp does not plan to track this metric as part of this CEIP. However, the Company is in the process of developing its Distribution System Plan in other jurisdictions and plans to incorporate lessons learned relative to optimal grid investments and through the equity.
70	Resilience	Reduce frequency and duration of blackouts or brownouts in target communities		PacifiCorp adopted "Frequency and duration of energy outages" as a CBI for the Energy Resiliency/Risk Reduction and Energy Benefit categories.
71			Improve SAIDI and SAIFI, particularly in communities that have experienced long loss of service in the past.	PacifiCorp plans to track SAIDI, SAIFI, and CAIDI at the area level to include Named Communities. These metrics will be presented to include major events and exclude major events.
72	Resilience	Reduction in energy and capacity need		PacifiCorp adopted "Participation in Company Energy and Efficiency Programs and Billing Assistance Programs" as a CBI under the benefit categories of Cost Reduction, Reduction of Burden, Non-Energy Benefit, and Energy Benefit.
73			Increased participation in targeted demand response, load management, and behavioral programs that result in a measurable reduction to peak demand.	PacifiCorp plans to track participation in demand response, load management, and behavioral programs.
74			Increased acquisition of energy efficiency savings.	The Company is developing specific Demand-Side actions that will be presented in this CEIP.
75			Increased water savings due to water efficiency measures.	PacifiCorp does not plan to track this metric as part of this CEIP.

Note: This mapping exercise compares the July 30, 2021 Joint Comments to PacifiCorp's refined CBIs posted in the October 2021 slide deck for the Equity Advisory Group Meeting 6A. CBIs, metrics and any related actions remain subject to change as the CEIP is drafted.

PAC Clean Energy Implementation Plan Summary of Customer Benefit Indicators & Public Comments

Advocates

17 CBIs
57 Metrics

After reviewing peer utilities' draft CEIPs, PacifiCorp removed "directionality from the move-forward CBIs and metrics, to allow tracking and measurement to be more objective and easier to interpret." (pp. 35)

PAC

9 CBIs
17 Metrics

"PacifiCorp compared the Joint Advocate CBIs and metrics to those being considered by PacifiCorp. This mapping exercise resulted in refinements to several of PacifiCorp's CBIs and the adoption of additional metrics as reflected in Table 2.3". (pp.35)

PAC proposed a baseline analysis for the 17 metrics on pp. 35-45.

Key Findings

1. Some of PAC's CBIs are not as extensive or detailed as the Joint Advocates' (JA). The JA offer steps on *how* to achieve the CBI.
2. The Joint Advocates proposed CBIs and metrics *not* mentioned by PAC. PAC addresses some of these in other areas within the Draft CEIP (home comfort, reduced healthcare costs, water savings).
3. 49% of the metrics proposed by the Joint Advocates were at least partially addressed by PAC. Some JA metrics were not applicable to PAC.

1. Some of PAC’s CBIs are *not* as extensive or detailed as the Joint Advocates’. The JA offer steps on *how* to achieve the CBI.

Example 1: All metrics pertaining to the “Environment” category

PAC	Joint Advocates
<ul style="list-style-type: none"> • Amount of renewables/non-emitting resources serving Washington • Washington allocated greenhouse gas emission from Washington allocated resources • Number of public charging stations in named communities 	<ul style="list-style-type: none"> • Continuous reduction in overall greenhouse gas emissions in the utility service area • Increased electrification (gas to electric conversions) • Increased electrification of medium- and heavy-duty transport and utility maintenance fleets, and last-mile delivery fleets that serve or operate in highly impacted communities • Increased electrification of transit services • Decrease in share of population and pollution burden, by race/ethnicity, geography and all customer groups • Decrease in air pollution exposure index, by race/ethnicity and all other customer groups • Reduction of particulates from fossil fuel burners in targeted neighborhoods • Reduction in airborne particles in neighborhoods next to rail lines that transport coal • Improved air quality due to reduction in diesel particulate emissions

2. The Joint Advocates proposed CBIs and metrics *not* mentioned by PAC. PAC addresses some of these in other areas within the Draft CEIP.

The missing CBIs and metrics pertain to:

- Improved health outcomes, pollution burden ¹
- Vehicle electrification
- Credit scores ²
- Home comfort ³
- Reduced healthcare costs ⁴
- 90+ day arrearages
- Water savings ⁵

¹ PacifiCorp does not plan to track metrics for this CBI “because the Company does not have significant emitting resources located within its retail service communities in Washington and is not a large direct contributor to poor air quality issues within its service territory.” (PAC Mapping to JA CBIS, pp. 2. 10/24/21)

² “PacifiCorp does not plan to track this metric. Focusing on a reduction in the number of customers disconnected and reducing overall costs for electricity will have a greater impact on customers than an internal credit review. Credit scores have little impact on customers being disconnected.” (PAC Mapping to JA CBIS, pp. 3. 10/24/21)

³ Not mentioned in CBIs but was mentioned in CEIP (pp. 20, 56, 60)

⁴ Not mentioned in CBIs but was mentioned in CEIP (pp. 62)

⁵ Not mentioned in CBIs but was mentioned in CEIP (pp. 20)

3. 49% of the metrics proposed by the Joint Advocates were at least partially addressed by PAC’s metrics.

CATEGORY	JA CBIs	JA METRICS	DID PAC PROPOSE THIS, TOO?
ENERGY BENEFITS	Improve efficiency of housing stock in utility service territory, including low-income housing:	Increased funding of efficiency programs targeted to low income, both owner and renter.	Yes (CBI 3)
		Increased participation in programs	Yes (CBI 3)
		Reduction in bills due to actions taken to improve efficiency.	No
		Increase number and percentage of appliances converted to efficient models.	No
	Low income and vulnerable communities have access to an increasing number of renewable or non-emitting distributed generation resources:	Improvement and expansion of EE in rental housing stock.	Yes (CBI 3)
		Increase in number of distributed and community renewable projects.	No
		Increase in number of community groups and households that own renewable energy projects.	No
NON-ENERGY BENEFITS	Community Employment opportunities:	Increased percentage of electricity generated by distributed renewable energy projects.	No
		Increased number of local low-income and vulnerable population representation in clean energy apprenticeships and/or training programs in the state	Partially (CBI 2)
		Increase in number of living wage/union jobs sustained.	No
	Health and Community well-being:	Increased representation of low-income and vulnerable communities for contractors selected in local program delivery	Partially (CBI 2)
		Reduced number of school and work absences due to illness triggered by poor air quality in highly impacted communities.	No
		Improved housing conditions: health and safety outcomes related to weatherization measure installation.	Partially (CBI 4)
		Improved comfort in home (for example, customers’ ability to heat/cool as needed, with efficient heat pump technology) due to more affordable bills.	No
		Increase in number of customers with access to electricity as a transportation fuel in highly impacted communities.	No
		Increase in number of customers with access to electricity as a transportation fuel in highly impacted communities.	No
		Increase in incorporation of non-energy benefits in utility cost-effectiveness analyses, particularly for low-income weatherization measures and programs.	No
REDUCTION OF BURDENS	Reduction in number of customers suffering from high energy burden by:	customers in highly impacted communities;	Yes (CBI 6)
		customers in vulnerable populations;	Yes (CBI 6)
		participants in bill assistance programs;	Yes (CBI 6)
	Reduced barriers for program participation:	known low-income customers; and other residential customers with high energy burden.	Yes (CBI 6)
		Increased participation in bill assistance, weatherization, and energy efficiency programs and grant opportunities.	Yes (CBI 3)
		Expand translation services	Yes (CBI 1)
PUBLIC HEALTH	Improved Health outcomes:	Reduction in cost disparities between customers who have access to EV charging at home on a residential rate and customers who do not have access to EV charging at home	Partially (CBI 5)
		Reduction of hospital admissions for asthma.	No
		Decreased wood use for home heating.	Yes (CBI 7)
		Improvements in indoor and outdoor air quality in communities that experience poor air quality due to pollution.	No
		Reduction in health care cost burden and reduced health care bills.	No

ENVIRONMENT	Reduction of GHG emissions:	Continuous reduction in overall greenhouse gas emissions in the utility service area.	Partially (CBI 5)
		Increased electrification (gas to electric conversions).	Yes (CBI 4)
		Increased electrification of medium- and heavy-duty transport and utility maintenance fleets, and last-mile delivery fleets that serve or operate in highly impacted communities.	No
		Increased electrification of transit services.	Partially (CBI 5)
	Reduced Pollution Burden and Pollution Exposure:	Decrease in share of population and pollution burden, by race/ethnicity, geography and all customer groups (e.g., income level, frontline community, senior citizens, medically vulnerable, rural/ urban, renter/homeowner, race, gender, ability/disability, language spoken, etc.).	No
		Decrease in air pollution exposure index, by race/ethnicity and all other customer groups.	No
		Reduction of particulates from fossil fuel burners in targeted neighborhoods.	No
		Reduction in airborne particles in neighborhoods next to rail lines that transport coal.	No
		Improved air quality due to reduction in diesel particulate emissions.	No
REDUCTION IN COST	Expand Bill Assistance Programs:	Increase participation rates, including among highly impacted communities, vulnerable populations, and all eligible customers	Yes (CBI 3)
		Increase penetration rates (portion of those eligible participating) overall and among highly impacted communities and vulnerable populations	Yes (CBI 3)
		Increase annual program budget showing increases over prior years	No
		Increase in customers avoiding disconnection (i.e. customers who fall behind, but are ultimately spared disconnection due to assistance)	Yes (CBI 9)
	Reductions in Number and Amounts of Arrearages:	Reduction in number and percentage of residential customers with arrearages 90+ days—with breakout for customers by zip code/census tract, renter, highly impacted communities, vulnerable populations, known low income, and BIPOC communities	No
REDUCTION IN RISK	Fewer customers with low utility credit code scores / fewer customers sent to collections:	Reduction in number and percentage of residential customers with the lowest and second lowest utility credit code scores	No
		Utility assessment and review of its credit code score system.	No
		Reduction in number and percentage of customers sent to collections for residential customers, including customers in highly impacted communities	No
	Increase Neighborhood Safety:	Reduction in frequency and length of outages due to major disasters, wildfires, and extreme weather events through cost-effective investments to reduce risk.	Yes (CBI 8)
		Increased capacity of local community to respond to local disasters or weather events.	No
ENERGY SECURITY	Reduced Residential Disconnections:	Reduction in number and percentage of residential customer disconnections.	Yes (CBI 9)
		Reduction in number and percentage of residential customer disconnections by location (and demographic info) of residential customer disconnections (zip code/census tract; renter; known low-income; highly impacted communities; and BIPOC customers).	Yes (CBI 9)
		Reduction in risk of disconnection as evidenced by increased participation in arrearage management and Percentage of Income Payment programs.	Partially (CBI 9)
	Improved access to reliable clean energy:	Increase number of neighborhoods with storage/backup/locally powered centers for emergencies.	No
		Increase distributed generation in low-income neighborhoods.	No
		Optimize grid investments on the distribution system through increased distribution system planning.	No
RESILIENCE	Reduce frequency and duration of blackouts or brownouts in target communities:	Improve SAIDI and SAIFI, particularly in communities that have experienced long loss of service in the past.	Partially (CBI 8)
	Reduction in energy and capacity need:	Increased participation in targeted demand response, load management, and behavioral programs that result in a measurable reduction to peak demand.	Yes (CBI 3)
		Increased acquisition of energy efficiency savings.	Partially (CBI 4)
		Increased water savings due to water efficiency measures.	No

Appendix C

Specific Actions	Named Community Impact	Description	Benefit Area	Impacted CBIs	Nameplate Capacity (MW)	Projected Cost	Non-energy Impacts	Reference
Resources								
Procurement of Anticline (NextEra)	N/A	Renewable Renewable Wind resource, 2020 AS RFP, Wyoming East	Environmental	Renewable energy resources and emissions	100.5	Pending	N/A	2020AS RFP
Procurement of Cedar Springs IV (NextEra)	N/A	Renewable Renewable Wind resource, 2020 AS RFP, Wyoming East	Environmental	Renewable energy resources and emissions	350.4	Pending	N/A	2020AS RFP
Procurement of Rock Creek I* (Invenergy)	N/A	Renewable Renewable Wind resource, 2020 AS RFP, Wyoming East	Environmental	Renewable energy resources and emissions	190	Pending	N/A	2020AS RFP
Procurement of Rock Creek II* (Invenergy)	N/A	Renewable Renewable Wind resource, 2020 AS RFP, Wyoming East	Environmental	Renewable energy resources and emissions	400	Pending	N/A	2020AS RFP
Procurement of Boswell Springs (Innergex)	N/A	Renewable Renewable Wind resource, 2020 AS RFP, Wyoming East	Environmental	Renewable energy resources and emissions	320	Pending	N/A	2020AS RFP
Procurement of Two Rivers (Blue Earth & Clearway)	N/A	Renewable Renewable Wind resource, 2020 AS RFP, Goshen ID	Environmental	Renewable energy resources and emissions	280	Pending	N/A	2020AS RFP
Procurement of Cedar Creek (rPlus Energies)	N/A	Renewable Renewable Solar with Battery resource, 2020 AS RFP, Utah South	Environmental	Renewable energy resources and emissions	151	Pending	N/A	2020AS RFP
Procurement of Fremont (Longroad Energy)	N/A	Renewable Renewable Solar with Battery resource, 2020 AS RFP, Utah South	Environmental	Renewable energy resources and emissions	99 and 49.5 storage	Pending	N/A	2020AS RFP
Procurement of Rush Lake (Longroad Energy)	N/A	Renewable Renewable Solar with Battery resource, 2020 AS RFP, Utah South	Environmental	Renewable energy resources and emissions	99 and 49.5 storage	Pending	N/A	2020AS RFP
Procurement of Parowan (First Solar)	N/A	Renewable Renewable Solar with Battery resource, 2020 AS RFP, Utah South	Environmental	Renewable energy resources and emissions	58 and 58 storage	Pending	N/A	2020AS RFP
Procurement of Rocket Solar II (DESRI)	N/A	Renewable Renewable Solar with Battery resource, 2020 AS RFP, Utah North	Environmental	Renewable energy resources and emissions	45 and 12.5 storage	Pending	N/A	2020AS RFP
Procurement of Hornshadow I & II (enyo energy)	N/A	Renewable Renewable Solar with Battery resource, 2020 AS RFP, Utah South	Environmental	Renewable energy resources and emissions	300 and 75 storage	Pending	N/A	2020AS RFP
Procurement of Green River I & II (rPlus Energies)	N/A	Renewable Renewable Solar with Battery resource, 2020 AS RFP, Utah South	Environmental	Renewable energy resources and emissions	400 and 200 storage	Pending	N/A	2020AS RFP
Procurement of Hamaker (ecoplexus)	N/A	Renewable Renewable Solar with Battery resource, 2020 AS RFP, Southern OR	Environmental	Renewable energy resources and emissions	50 and 12.5 storage	Pending	N/A	2020AS RFP
Procurement of Hayden 2 (ecoplexus)	N/A	Renewable Renewable Solar with Battery resource, 2020 AS RFP, Southern OR	Environmental	Renewable energy resources and emissions	160 and 40 storage	Pending	N/A	2020AS RFP
Procurement of Dominguez I (Able Grid)	N/A	Renewable Renewable Battery Storage resource, 2020 AS RFP, Utah North	Environmental	Renewable energy resources and emissions	200 storage	Pending	N/A	2020AS RFP
Procurement of Glen Canyon (sPower)	N/A	Renewable Renewable Solar Photo-voltaic resource, 2020 AS RFP, Utah South	Environmental	Renewable energy resources and emissions	95	Pending	N/A	2020AS RFP
Procurement of Portland/N. Coast Proxy Renewable (TBD)	N/A	Renewable Renewable Wind resource, 2022 AS RFP, NW Oregon	Environmental	Renewable energy resources and emissions	130	Pending	TBD	2021 IRP/ 2022AS RFP
Procurement of Willamette Proxy Renewable (TBD)	N/A	Renewable Renewable Wind resource sought, 2022 AS RFP, NW Oregon	Environmental	Renewable energy resources and emissions	615	Pending	TBD	2021 IRP/ 2022AS RFP
Procurement of Borah Hemingway Proxy Renewable (TBD)	N/A	Renewable Renewable Solar with Battery resource, 2022 AS RFP, Idaho	Environmental	Renewable energy resources and emissions	600 and 600 storage	Pending	TBD	2021 IRP/ 2022AS RFP
Procurement of Washington QF Renewable Resource (Sunnyside Solar)	N/A	Renewable Solar Photo-voltaic resource, QF, Washington	Environmental	Renewable energy resources and emissions	4.99	Pending	N/A	QF

Specific Actions	Named Community Impact	Description	Benefit Area	Impacted CBIs	Capacity (MW)	Energy (kWh @gen)	Projected Cost	Non-energy Impacts	Reference
Home Energy Savings Program									
Multifamily window incentives	High	Enhanced incentives for windows in multi-family units on residential rate schedules with focus on buildings in Highly Impacted Communities.	Cost reduction Reduction of burden Non-energy benefit Energy benefit	Participation in company energy and efficiency programs and billing assistance programs Households experiencing high energy burden Community-focused efforts and investments	1.23	2,623,849	\$3,950,518	\$ 4,499	UE210830 DSM Business Plan
Multifamily and manufactured home direct install lighting	High	Continue direct install residential lighting in multi-family units and manufactured homes. Continue focus in Highly Impacted Communities.	Cost reduction Reduction of burden Non-energy benefit Energy benefit	Participation in company energy and efficiency programs and billing assistance programs Households experiencing high energy burden Community-focused efforts and investments	0.19	411,675	\$167,637	\$ 21,610	UE210830 DSM Business Plan
Lamp buy downs	High	Maintain and expand if possible general purpose lamp buy down in "dollar stores" in Highly Impacted Communities.	Cost reduction Reduction of burden Non-energy benefit Energy benefit	Participation in company energy and efficiency programs and billing assistance programs Households experiencing high energy burden Community-focused efforts and investments	0.04	93,039	\$100,683	\$ 11,222	UE210830 DSM Business Plan
Manufactured home direct install duct sealing	High	Continue manufactured home direct install duct sealing with focus in Highly Impacted Communities.	Cost reduction Reduction of burden Non-energy benefit Energy benefit	Participation in company energy and efficiency programs and billing assistance programs Households experiencing high energy burden Community-focused efforts and investments	1.52	3,232,003	\$2,399,234	\$ 705,525	UE210830 DSM Business Plan
New construction multifamily offerings	High	Continue promoting new construction offerings for multifamily and single family units with focus in Highly Impacted Communities.	Cost reduction Reduction of burden Non-energy benefit Energy benefit	Participation in company energy and efficiency programs and billing assistance programs Households experiencing high energy burden Community-focused efforts and investments	0.41	861,408	\$646,438	\$ -	UE210830 DSM Business Plan
Assistance for non-electric, non-gas heating, replacement with ductless heat pumps	High	Serve named community residential customers who use non-electric and non-natural gas fuel sources in their primary heating systems by decommissioning these systems and installing ductless heat pumps. This measure will be offered at the same incentive rate as the typical ductless heat pumps measure, and will be available in single family, manufactured homes, and multifamily residences.	Cost reduction Reduction of burden Non-energy benefit Energy benefit	Participation in company energy and efficiency programs and billing assistance programs Households experiencing high energy burden Community-focused efforts and investments	0.41	861,408	\$992,000	\$ 1,263,991	UE210830 DSM Business Plan
Wattsmart Business Program									
Higher incentives	Low	Create a new offer within the current small business enhanced incentive offer targeting the smallest businesses using less than 30,000 kilowatt-hours per year and Named Community small businesses on Schedule 24. For those customers, offer higher incentive (higher than the small business enhanced incentive) and increase the incentive cap from 90% to 100% of project costs.	Cost reduction Reduction of burden Non-energy benefit Energy benefit	Participation in company energy and efficiency programs and billing assistance programs Community-focused efforts and investments	2.03	4,307,040	\$2,000,000	\$ 1,846,376	UE210830 DSM Business Plan
HIC small business delivery and outreach	High	Target a portion of company initiated proactive outreach to small businesses located in Highly Impacted Communities. Continue to tie proactive outreach to approved small business vendor capacity to respond to customer inquiries.	Cost reduction Reduction of burden Non-energy benefit Energy benefit	Participation in company energy and efficiency programs and billing assistance programs Community-focused efforts and investments	0	0	\$700,000	\$ -	UE210830 DSM Business Plan
HIC increased vendor incentives for completed projects	High	Offer approved small business lighting vendors a higher vendor incentive (higher than the vendor incentive per project for the small business enhanced offer) for completed lighting retrofit projects with the smallest of the small businesses and small businesses located in Highly Impacted Communities.	Cost reduction Reduction of burden Non-energy benefit Energy benefit	Participation in company energy and efficiency programs and billing assistance programs Efficiency of housing stock and small businesses, including low-income housing Community-focused efforts and investments	0	0	\$100,000	\$ -	UE210830 DSM Business Plan
Low Income Weatherization									
Repair funds increase	High	Increase funds available for repairs from 15% to 30%.	Cost reduction Reduction of burden Non-energy benefit Energy benefit	Efficiency of housing stock and small businesses, including low-income housing Participation in company energy and efficiency programs and billing assistance programs Households experiencing high energy burden Community-focused efforts and investments	0	0	\$792,500		
Electric heat installations	High	Permit 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.	Cost reduction Reduction of burden Non-energy benefit Energy benefit Public Health	Efficiency of housing stock and small businesses, including low-income housing Participation in company energy and efficiency programs and billing assistance programs Households experiencing high energy burden Indoor air quality Community-focused efforts and investments				\$ 673,625	UE210830 DSM Business Plan

Note: Home Energy Savings: Non-energy impacts are the product of estimated energy savings multiplied by \$/kWh value identified for the energy efficiency measure in DNVGL study. For measures without a DNVGL value, non-energy impacts are zero.

Note: Wattsmart Business: Non-energy impacts are the product of estimated energy savings multiplied by \$/kWh value identified for the energy efficiency measure in DNVGL study. For measures without energy savings, non-energy impacts are zero.

Note: Low Income Weatherization: No additional energy savings were attributed to repair investments and non-energy impacts could be set to zero using the rationale applied to the other two programs. In the case of low income customers, the alternate approach assumed repair expenditures increased property values dollar for dollar after removing 15% administrative cost payments.

Specific Actions	Named Community Impact	Description	Benefit Area	Impacted CBIs	Capacity (MW)	Energy	Projected Cost	Potential Non-energy Impacts	Reference
Residential Program	Medium	In development during CEIP Implementation Period - PacifiCorp anticipates launching a program that provides incentives for customer load reductions for heating, cooling and water heater loads.	Cost reduction Reduction of burden Non-energy benefit Energy benefit	Participation in company energy and efficiency programs and billing assistance programs	3.2	n/a	\$650,000 - \$1,050,000	<ul style="list-style-type: none"> Convenience/comfort losses Improved energy security/resilience Improved air quality Greenhouse gas (GHG) mitigation benefits 	Pending
Commercial and Industrial Program	Low	In development during CEIP Implementation Period - PacifiCorp anticipates launching a program that provides incentives to commercial and industrial customers with loads exceeding 100 kW in the prior year who are willing to provide curtailment for a specified number of hours. The program is expected to aggregate customers for dispatch during events for winter and summer seasons.	Cost reduction Reduction of burden Non-energy benefit Energy benefit	Participation in company energy and efficiency programs and billing assistance programs	16	n/a	\$1,700,000 - \$2,800,000	<ul style="list-style-type: none"> Convenience/comfort losses Productivity losses Improved energy security/resilience Improved air quality Greenhouse gas (GHG) mitigation benefits 	Pending
Agricultural Irrigation Program	Low	In development during CEIP Implementation Period - PacifiCorp anticipates launching a program providing incentives for agricultural irrigation customers customers on Schedule 41 or 48, who reduced their irrigating or soil drain pumping loads. The program is expected to aggregate customers for dispatch during the summer months.	Cost reduction Reduction of burden Non-energy benefit Energy benefit	Participation in company energy and efficiency programs and billing assistance programs	13	n/a	\$1,385,000 - \$2,300,000	<ul style="list-style-type: none"> Changes in water use Improved energy security/resilience Improved air quality Greenhouse gas (GHG) mitigation benefits 	Pending
Battery Program	Low	In development during CEIP Implementation Period - PacifiCorp anticipates launching a program providing incentives for residential and commercial customers with Wi-Fi connection to promote the installation of individual batteries for system wide integration in support of overall grid management.	Cost reduction Reduction of burden Non-energy benefit Energy benefit	Participation in company energy and efficiency programs and billing assistance programs	2.5	n/a	\$650,000 - \$1,095,000	<ul style="list-style-type: none"> Improved energy security/resilience Improved air quality Greenhouse gas (GHG) mitigation benefits Improved asset value 	Pending
Time of use pilots	Low	Ongoing - PacifiCorp launched time of use pilots in May 2021 to encourage customers to shift usage to off-peak hours. Impacts are an expected outcome of the pilot evaluation	Cost reduction Reduction of burden Energy benefit	Participation in company energy and efficiency programs and billing assistance programs	TBD	TBD	TBD	TBD	Docket No. UE-191024

Specific Actions	Named Community Impact	Description	Benefit Area	Impacted CBIs	Capacity	Energy	Projected Cost	Potential Non-energy Impacts	Reference
Focus improvements on delivery of programs and communications to customers including Named Communities	High	Outreach in non-English languages and percentage of responses to surveys in Spanish.	Reduction of burdens/ Non-energy benefit	Culturally and linguistically responsive outreach and program communication	N/A	N/A	\$1.18 million	• Increased participation in and awareness of PacifiCorp programs	N/A
Improve language accessibility	High	PacifiCorp plans to improve language accessibility by assessing needs, reviewing current programs, identifying gaps, and developing clear plans and processes for action.	Reduction of burdens/ Non-energy benefit	Culturally and linguistically responsive outreach and program communication	N/A	N/A	Total cost combined in I3	• Increased participation in and awareness of PacifiCorp programs	N/A
Expand outreach to Named Communities	High	PacifiCorp will identify and track communications to customers in Named Communities and look for opportunities to expand outreach.	Reduction of burdens/ Non-energy benefit	Culturally and linguistically responsive outreach and program communication	N/A	N/A	Total cost combined in I3	• Increased participation in and awareness of PacifiCorp programs	N/A
Establish EV Grant Program	Medium	PacifiCorp plans to establish an Electric Vehicle (EV) Supply Equipment Grant program that provides additional support for low income and customers living in multi-family dwellings.	Reduction of burdens/ Non-energy benefit / Public health	Community-focused efforts and investments	TBD	TBD	\$1 million	• Reduced carbon emissions • O&M savings	Forthcoming TE plan
Improve educational resources	Medium	PacifiCorp plans to develop a webpage to host educational resources.	Reduction of burdens/ Non-energy benefit	Culturally and linguistically responsive outreach and program communication	N/A	N/A	Total cost combined in I3	• Increased participation in and awareness of PacifiCorp programs	N/A

Appendix D

Appendix D: Supporting Workpapers and References

Chapter 1 – Interim and Specific Targets

File name	Short Description	Tables	Figures
210829-PAC-WP-Figure 1.1 - P02-MM-CETA 2022-2045 Interim Targets-12-31-21.xlsx	<p>Annual summary of Washington-allocated energy from P02-MM-CETA portfolio of resources and projected interim targets for 2022-2045.</p> <p>Original source data: “210829-PAC-WP-P02-MM-CETA WA Allocation Target Development-12-31-21(C).xlsx”</p>	1.1 (workbook tab “Table – Interim Targets”)	1.1 (workbook tab “Interim Targets” sourced from data on tab “WA CETA Summary”)
210829-PAC-WP-LT 18609 21IRP 20yr P02-MM-CETA-12-31-21 (C).xlsx	<p><i>Confidential</i> Portfolio summary for Long-Term (LT) model run for the 2021 IRP preferred portfolio, P02-MM-CETA</p> <p>Used in: “210829-PAC-WP-P02-MM-CETA WA Allocation Target Development-12-31-21(C).xlsx”</p>	--	1.3 (workbook tab “Cumulative Changes Graph”)
210829-PAC-WP-P02-MM-CETA WA Allocation Target Development-12-31-21(C).xlsx	<p><i>Confidential</i> Detailed Washington-allocation of all portfolio resource generation for P02-MM-CETA.</p> <p>Original source data pulled from the LT (“210829-PAC-WP-LT 18609_21IRP 20yr_P02-MM-CETA-12-31-21 (C).xlsx”), ST (“210829-PAC-WP-ST Cost Summary -P02-MMGR-CETA ST Split Run Cost Data LT 18609 ST 19709 12-31-21 (C).xlsx”), and MT (“210829-PAC-WP-MT Cost Summary -P02-MMGR-CETA MT Split Run Cost Data LT 18609 MT 18631 12-31-21 (C).xlsx”) portfolio and cost summaries for P02-MM-CETA.</p>	--	1.1
210829-PAC-WP-Figures 1.4 - 1.5 - Resource Charts - IRP 12-31-21 (C).xlsx	<p><i>Confidential</i> Annual data and graphs depicting annual emissions and cumulative changes in resource capacity by type for P02-MM-CETA.</p>	--	1.4 (workbook tab “Port Graphs – emissions”) 1.5 (bottom of workbook tab “Port Graphs 2021 less 2019”)

210829-PAC-WP-Demand Response Targets 12.31.21 (C).xlsx	<i>Confidential</i> Demand response target development using with RFP bids and CPA resources	--	--
210829-PAC-WP-WA 2022-2023 EIA target development and adjustments 12-31-21 (C).xlsx	<i>Confidential</i> EIA target development for 2022-2023 extended for two more years to arrive at 4-year CEIP target	1.3	--

Chapter 2 – Development of Customer Benefit Indicators

File name	Short Description	Tables	Figures
210829-PAC-WP-VulnerablePopulations 12.31.21 (C).xlsx	<i>Confidential</i> Provides demographic data and PAC service territory data used to estimate vulnerable populations and HIC status by census tracts and statewide	2.2	2.2 - 2.3
210829-PAC-WP-CBIWeights 12.31.21 (C).xlsx	<i>Confidential</i> Shows public and EAG weighting responses, aggregates them, and applies them to CBIs and benefit categories	2.4, 2.6 - 2.7	2.6 - 2.7
210829-PAC-WP-CBIWeightsEAG 12.31.21 (C).xlsx	<i>Confidential</i> Provides EAG scoring on CBIs	2.5	--
210829-PAC-WP-SpanishResponses 12.31.21 (C).xlsx	<i>Confidential</i> Shows Spanish responses by count and percentage for three most recent surveys	2.10	--
210829-PAC-WP-RenewableResources 12.31.21 (C).xlsx	<i>Confidential</i> Provides WA allocated renewable resources	--	2.10
210829-PAC-WP-Emissions 12.31.21 (C).xlsx	<i>Confidential</i> Shows WA allocated GHG emissions	--	2.11
210829-PAC-WP-PublicChargingStations 12.31.21.xlsx	Provides a list of public EV charging stations within the WA service territory	2.13	--
210829-PAC-WP-ProgramParticipationExpenditures 12.31.21 (C).xlsx	<i>Confidential</i> Shows participation rates and expenditures for energy, efficiency, DR, behavioral, low income, and billing assistance programs	2.14 - 2.16	--
210829-PAC-WP-SurveyOutputs 12.31.21 (C).xlsx	<i>Confidential</i> Provides the key CBI metrics and related summaries from the 2021 survey	2.17 - 2.21	--
210829-PAC-WP-SAIDIScores 12.31.21 (C).xlsx	<i>Confidential</i> Shows the reliability metrics by year for the WA service territory	--	2.12 - 2.17
210829-PAC-WP-Disconnects 12.31.21 (C)	<i>Confidential</i> Provides the list of 2019 customer disconnects within the service territory	2.23	--

Note that some tables and figures in Chapter 2 do not have distinct corresponding workpapers, as their sources are either the CEIP or an appendix. Those tables include 2.1, 2.3, 2.8, 2.9, 2.11, 2.12, 2.22, 2.24, and 2.25. Those figures include 2.1, 2.4, 2.5, 2.8, and 2.9.

Chapter 3 – Specific Actions

File name	Short Description	Tables	Figures
210829-PAC-WP-BenCost PY2022-25 12.31.21 (C).xlsm	<i>Confidential</i> NEIs mapped to annual program forecasts to arrive at NPV of NEIs for the 4-year period.	3.7	3.1
210829-PAC WA _WSB HES Portfolio CE inputs_2022-2023_DLJ_090621_nmg_DLJ_092921+incr costs (C)	<i>Confidential</i> Program forecasts from 2022-2023 biennial target setting process extended for two years to arrive at 4-year CEIP forecast Program budgets from 2022-2023 biennial target setting process extended for two years to arrive at 4-year CEIP budget	3.5 3.6	--
210829-PAC-WP-Demand Response Targets 12.31.21 (C).xlsx	<i>Confidential</i> Budget estimates for demand response with RFP bids and CPA resources	3.8	--

Chapter 4 – Incremental Cost

File name	Short Description	Tables	Figures
210829-PAC-WP-P02-MM Initial WA Resource Alloc 12-31-21 (C).xlsx	<i>Confidential</i> Detailed Washington-allocation of all portfolio resource generation for P02-MM, the top performing portfolio the Company would have pursued without CETA legislation. Original source data pulled from the LT (“210829-PAC-WP-LT 5230_21IRP 20yr_P02-MM 12-31-21 (C).xlsx” below), ST (“210829-PAC-WP-ST Cost Summary -P02-MMGR ST Split Run Cost Data LT 5230 ST 19667 12-31-21 (C).xlsx” below), and MT (“210829-PAC-WP-MT Cost Summary -P02-MMGR MT Split Run Cost Data LT 5230 MT 16232 (C).xlsx” below) portfolio and cost summaries for P02-MM.	--	--
210829-PAC-WP-Figure 4.1 - 21IRP 20yr P02-MM-CETA (18609) less 21IRP 20yr_P02-MM (5230)-12-31-21 (C).xlsx	<i>Confidential</i> Based on the LT model portfolio summaries for the P02-MM-CETA (ref in Chapter 1) portfolio the P02-MM portfolio (below) calculates the difference between	--	4.1 (workbook tab “Cumulative Changes Graph”)

	long-term resource planning decisions between the two portfolios to demonstrate changes in long-term investment decisions driven by CETA.		
210829-PAC-WP-LT 29923_21IRP 20yr P02-SC 12-31-21 (C).xlsx	<i>Confidential</i> Portfolio summary for Long-Term (LT) model run for the 2021 IRP portfolio P02-SCGHG developed with the social cost of greenhouse gas cost adder in the resource acquisition decision	--	--
210829-PAC-WP-LT 5230_21IRP 20yr P02-MM 12-31-21 (C).xlsx	<i>Confidential</i> Portfolio summary for Long-Term (LT) model run for the 2021 IRP portfolio P02-MM, developed under the medium gas medium carbon price scenario	--	--
210829-PAC-WP-ST Cost Summary -P02-MMGR-CETA ST Split Run Cost Data LT 18609 ST 19709 12-31-21 (C).xlsx	<i>Confidential</i> Cost Summary derived from the Short-Term (ST) model run for the 2021 IRP portfolio P02-MM-CETA. This file is used in calculating the incremental costs of CETA for all alternative incremental cost calculations. The ST Cost Summary hooks in investment costs from the LT fixed costs report ("210829-PAC-WP-18609 - P02-MMGR-CETA Fixed Costs 12-31-21 (C).xlsx" below) and a system-wide risk-adjustment from the MT model ("210829-PAC-WP-MT Cost Summary -P02-MMGR-CETA MT Split Run Cost Data LT 18609 MT 18631 12-31-21 (C).xlsx" below) for P02-MM-CETA.	--	--
210829-PAC-WP-ST Cost Summary -P02-MMGR-CETA-SC ST Split Run Cost Data LT 18609 ST 20549 12-31-21 (C).xlsx	<i>Confidential</i> Cost Summary derived from the Short-Term (ST) model run for the 2021 IRP portfolio P02-MM-CETA-SCGHG. This file is used in calculating the incremental costs of CETA, but when the social cost of greenhouse gas is added as an operational cost. The ST Cost Summary hooks in investment costs from the LT fixed costs report ("210829-PAC-WP-18609 - P02-MMGR-CETA Fixed Costs 12-31-21 (C).xlsx" below) and a system-wide risk-adjustment from the MT model ("210829-PAC-WP-MT Cost Summary -P02-MMGR-CETA-SC MT Split Run Cost Data LT 18609 MT	--	--

	18716 (C).xlsx" below) for P02-MM-CETA and P02-MM-CETA-SCGHG, respectively.		
210829-PAC-WP-ST Cost Summary -P02-MMGR ST Split Run Cost Data LT 5230 ST 19667 12-31-21 (C).xlsx	<p><i>Confidential</i> Cost Summary derived from the Short-Term (ST) model run for the 2021 IRP portfolio P02-MM. This file is used in calculating the incremental costs as an alternative lowest reasonable cost portfolio.</p> <p>The ST Cost Summary hooks in investment costs from the LT fixed costs report ("210829-PAC-WP-5230 - P02-MMGR Fixed Costs 12-31-21 (C).xlsx" below) and a system-wide risk-adjustment from the MT model ("210829-PAC-WP-MT Cost Summary -P02-MMGR MT Split Run Cost Data LT 5230 MT 16232 (C).xlsx" below) for P02-MM.</p>	--	--
210829-PAC-WP-ST Cost Summary -P02-MMGR-SC ST Split Run Cost Data LT 5230 ST 20633 12-31-21 (C).xlsx	<p><i>Confidential</i> Cost Summary derived from the Short-Term (ST) model run for the 2021 IRP portfolio P02-MM-SCGHG. This file is used in calculating the incremental costs as an alternative lowest reasonable cost portfolio when the social cost of greenhouse gas is added as an operational cost.</p> <p>The ST Cost Summary hooks in investment costs from the LT fixed costs report ("210829-PAC-WP-5230 - P02-MMGR Fixed Costs 12-31-21 (C).xlsx" below) and a system-wide risk-adjustment from the MT model ("210829-PAC-WP-MT Cost Summary -P02-MMGR-SC MT Split Run Cost Data LT 5230 MT 17644 12-31-21 (C).xlsx" below) for P02-MM and P02-MM-SCGHG, respectively.</p>	--	--
210829-PAC-WP-ST Cost Summary -P02-SCGHG-MM Split Run Cost Data LT 29923 ST 30180 12-31-21 (C).xlsx	<p><i>Confidential</i> Cost Summary derived from the Short-Term (ST) model run for the 2021 IRP portfolio P02-SCGHG-MM. This file is used in calculating the incremental costs as an alternative lowest reasonable cost portfolio as explicitly required by CETA and uses the social cost of greenhouse gas as a dispatch cost adder in the resource acquisition decision.</p>	--	--

	<p>The ST Cost Summary hooks in investment costs from the LT fixed costs report (“210829-PAC-WP-29923 - P02-SCGR Fixed Costs 12-31-21 (C).xlsx” below) and a system-wide risk-adjustment from the MT model (“210829-PAC-WP-MT Cost Summary -P02-SCGHG-MM MT Split Run Cost Data LT 29923 MT 30029 12-31-21 (C).xlsx” below) for P02-SCGHG and P02-SCGHG-MM, respectively.</p>		
210829-PAC-WP-MT Cost Summary -P02-MMGR-CETA MT Split Run Cost Data LT 18609 MT 18631 12-31-21 (C).xlsx	<p><i>Confidential</i> Cost Summary derived from the Medium-Term (MT) model run for the 2021 IRP portfolio P02-MM-CETA.</p> <p>This file is used to create the risk-adjustment value added in the ST Cost Summary file.</p>	--	--
210829-PAC-WP-MT Cost Summary -P02-MMGR-CETA-SC MT Split Run Cost Data LT 18609 MT 18716 (C).xlsx	<p><i>Confidential</i> Cost Summary derived from the Medium-Term (MT) model run for the 2021 IRP portfolio P02-MM-CETA-SCGHG.</p> <p>This file is used to create the risk-adjustment value added in the ST Cost Summary file.</p>	--	--
210829-PAC-WP-MT Cost Summary -P02-MMGR MT Split Run Cost Data LT 5230 MT 16232 (C).xlsx	<p><i>Confidential</i> Cost Summary derived from the Medium-Term (MT) model run for the 2021 IRP portfolio P02-MM.</p> <p>This file is used to create the risk-adjustment value added in the ST Cost Summary file.</p>	--	--
210829-PAC-WP-MT Cost Summary -P02-MMGR-SC MT Split Run Cost Data LT 5230 MT 17644 12-31-21 (C).xlsx	<p><i>Confidential</i> Cost Summary derived from the Medium-Term (MT) model run for the 2021 IRP portfolio P02-MM-SCGHG.</p> <p>This file is used to create the risk-adjustment value added in the ST Cost Summary file.</p>	--	--
210829-PAC-WP-MT Cost Summary -P02-SCGHG-MM MT Split Run Cost Data LT 29923 MT 30029 12-31-21 (C).xlsx	<p><i>Confidential</i> Cost Summary derived from the Medium-Term (MT) model run for the 2021 IRP portfolio P02-SCGHG-MM.</p>	--	--

	This file is used to create the risk-adjustment value added in the ST Cost Summary file.		
210829-PAC-WP-18609 - P02-MMGR-CETA Fixed Costs 12-31-21 (C).xlsx	<i>Confidential</i> Source data for LT portfolio fixed costs used in the ST Cost Summary for P02-MM-CETA.	--	--
210829-PAC-WP-5230 - P02-MMGR Fixed Costs 12-31-21 (C).xlsx	<i>Confidential</i> Source data for LT portfolio fixed costs used in the ST Cost Summary for P02-MM.	--	--
210829-PAC-WP-29923 - P02-SCGR Fixed Costs 12-31-21 (C).xlsx	<i>Confidential</i> Source data for LT portfolio fixed costs used in the ST Cost Summary for P02-SCGHG.	--	--
210829-PAC-WP-ST Cost Summary -P02-MMGR-CETA ST WA Alloc 12-31-21 (C).xlsx	<i>Confidential</i> A Washington-allocation view of the ST Cost Summary file for P02-MM-CETA specifically for the CEIP period of 2022-2025 used only for purposes of calculating the incremental cost of CETA. Is the source data for the P02-MM-CETA less P02-SCGHG-MM compare file below.	--	--
210829-PAC-WP-ST Cost Summary -P02-SCGHG-MM ST WA Alloc 12-31-21 (C).xlsx	<i>Confidential</i> A Washington-allocation view of the ST Cost Summary file for P02-SCGHG-MM specifically for the CEIP period of 2022-2025 used only for purposes of calculating the incremental cost of CETA. Is the source data for the P02-MM-CETA less P02-SCGHG-MM compare file below.	--	--
210829-PAC-WP-Cost Summary Compare P02-MMGR-CETA less P02-SCGHG-MM 12-31-21 (C).xlsx	<i>Confidential</i> Calculates the difference between total portfolio costs of the P02-MM-CETA portfolio (lowest reasonable cost portfolio) and the P02-SCGHG-MM (alternative lowest reasonable cost portfolio). Original data pulled from the Washington-allocated ST Cost Summary files for P02-MM-CETA and P02-SCGHG-MM (costs are derived from both the LT plan PVRR costs and ST hourly generation costs, with a system-wide risk-adjustment value from the MT stochastic model).	--	--
210829-PAC-WP-Cost Summary Compare P02-MM-CETA less P02-MM 12-31-21 (C).xlsx	<i>Confidential</i> Calculates the difference between total portfolio costs of the P02-MM-CETA portfolio (lowest reasonable cost portfolio)	--	--

	<p>and the P02-MM (for information purposes).</p> <p>Original data pulled from the ST Cost Summary files for P02-MM-CETA and P02-MM (costs are derived from both the LT plan PVRR costs and ST hourly generation costs, with a system-wide risk-adjustment value from the MT stochastic model).</p>		
210829-PAC-WP-Cost Summary Compare P02-MM-CETA-SC less P02-MM-SC 12-31-21 (C).xlsx	<p><i>Confidential</i> Calculates the difference between total portfolio costs of the P02-MM-CETA-SGHH portfolio (lowest reasonable cost portfolio) and the P02-MM-SCGHH (for informational purposes).</p> <p>Original data pulled from the ST Cost Summary files for P02-MM-CETA-SCGHH and P02-MM-SCGHH (costs are derived from both the LT plan PVRR costs and ST hourly generation costs, with a system-wide risk-adjustment value from the MT stochastic model).</p>	--	--
210829-PAC-WP-Rev Req-12-31-21.xlsx	Revenue Requirement Calculations	4.1 – 4.4	--
210829-PAC-WP-Port Scenarios Costs-12-31-21.xlsx	Scenario analysis – Revenue Requirement of Alternative Portfolio Comparisons	4.5	--

APPENDIX E

APPENDIX E – REFILING PLAN

The refiling plan was drafted by the company and reviewed by Staff during the fourth quarter of 2022, and represents the strategy PacifiCorp has used in meeting its obligations under the Settlement.

Settlement terms: The Company will refile its CEIP using the P02-SCGHG portfolio as the basis of the CEIP portfolio and include a thorough, detailed explanation of how this portfolio applied only a SCGHG cost adder to every Washington allocated resource that was included in the portfolio. The refiled CEIP should include accompanying workpapers that illustrate the inputs and outputs that went into the portfolio, along with a step-by-step roadmap as part of the detailed explanation. The refiled CEIP should additionally include accompanying workpapers that illustrate the inputs and outputs that went into P02-MM-CETA portfolio, along with a step-by-step roadmap as part of the detailed explanation indicating how the P02-SCGHG portfolio was incorporated into the P02-MM-CETA portfolio. Parties acknowledge that using P02-SCGHG is non-precedential and that this settlement does not prevent any party from arguing in favor of a different methodology for incorporating SCGHGs as a cost adder in future proceedings.

Revised Clean Energy Implementation Plan (CEIP): The terms of the Settlement Agreement dictate that the Company use a portfolio that differs from the 2021 IRP Preferred Portfolio (P02-MM-CETA) as the CEIP portfolio, and requires that the social cost of greenhouse gas (SCGHG) carbon price assumption is the base assumption for all portfolios considered within the CEIP, for Washington-allocated resources. While the SCGHG assumption was considered for Washington-allocated resources in the originally filed CEIP, the P02-MM (medium carbon price) portfolio was also considered as a base for all other states' resources, thus informing the final system Preferred Portfolio that was presented in the CEIP.

In the Revised CEIP, the Company will replace the alternative lowest reasonable cost portfolio, P02-SCGHG-MM, with **P02-SCGHG**. The new CEIP portfolio will be called **P02-SC-CETA** and will replace the Preferred Portfolio, P02-MM-CETA. The portfolio changes in the Revised CEIP will impact the incremental cost calculation and the estimated interim targets of non-emitting and renewable energy generation for the 2021-2045 period. The long-term resources allocated to Washington customers will remain unchanged in the CEIP planning window 2022-2025. Any small Washington-allocated resource differences that result from switching from P02-MM-CETA to P02-SC-CETA are a direct result of reliability needs, and only occur in the out years, after 2030.

This change of portfolios will have an important impact on the narrative of the Revised CEIP as it will focus the discussion on Washington-allocated resource decisions and costs without the context of the rest of the system.¹ It is assumed that the SCGHG planning assumptions have no impact on the selection of other states' resources. The impacts of using the P02-SCGHG

¹ Exception: Appendix F, which also describes portfolios relevant to developing the dispatch of the 2021 IRP preferred portfolio under expected conditions.

portfolio, a system-wide portfolio developed using the social cost of greenhouse gas (SCGHG) dispatch cost assumption, will only be applied to Washington-allocated resource decisions and will not impact the resource selections, or retirements, for any other of PacifiCorp's states.

By replacing the base carbon price assumption with the SCGHG price curve, P02-SCGHG will become the "alternative lowest reasonable cost portfolio" – the portfolio that would result in an absence of CETA clean-energy targets, that is required by law to include the SCGHG planning assumption. Except where necessary for settlement compliance, we will only present the Washington-allocated resource portfolio and disregard any other resources that are not included in Washington customer rates. This Washington-allocated SCGHG portfolio resources and generation profile will then be assessed against the CETA clean-energy requirements, namely the 2030 and 2045 requirements for clean energy generation (i.e. does Washington-allocated non-emitting and renewable energy generation meet 80-100 percent of Washington retail sales?). Any compliance shortfall in those years will be addressed with an additional Washington-situs non-emitting resource. The final resulting portfolio P02-SC-CETA will include the Washington-allocated portfolios selected in P02-SCGHG, and any additional situs resources necessary for CETA-compliance.

Summary of narrative/filing changes for the Revised CEIP document:

A. Refile Analysis

1. The alternative lowest cost portfolio is defined as the Washington-allocated resources in P02-SCGHG.
2. Test the alternative lowest reasonable cost portfolio for CETA target compliance.
3. Add Washington-allocated resources necessary to achieve CETA target compliance. This is the "CEIP portfolio" (developed as P02-SC-CETA).
4. Create reports and workpapers for the CEIP portfolio (LT, MT and ST)
5. Calculate incremental cost of CETA by comparing the CEIP portfolio to the alternative lowest reasonable cost portfolio.

B. Narrative / Filing Changes

1. Remove any references to non-Washington resources outside of A.1 above through the entire document
2. Executive Summary
 - a. Drafting changes to denote the refile
3. Chapter 1 – Interim and Specific Targets
 - a. Describe the process "A" above
 - b. Describe each resource decision for the CEIP portfolio made in step A.3 as needed with elaboration provided in Appendix F
4. Chapter 2 – CBIs
 - a. Reviewed – no changes
5. Chapter 3 – Specific Actions
 - a. Reviewed – no changes
6. Chapter 4 – Incremental Cost Calculation
 - a. Present new incremental cost calculation and tables
 - b. Remove informational calculations

7. Chapter 5 – Public Participation – no changes
 - a. Reviewed – no changes
8. Chapter 6 – Annual Reporting
 - a. Reviewed – no changes
9. Appendices and workpapers
 - a. Substitute workpapers, edit references to materials changed or removed.
 - b. Addition of Appendices E and F to meet the detailed requirements of the settlement.

APPENDIX F

APPENDIX F - ORIGINAL AND REFILED RESOURCE SELECTION AND EVALUATION STEPS

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Overview

PacifiCorp’s 2021 CEIP complied with CETA’s SCGHG requirements by analyzing Washington-specific resource decisions under SCGHG generation cost assumptions, and then analyzing the resulting portfolio under expected MM conditions. This analysis revealed that the portfolio selections for Washington customers using SCGHG, labeled “P02-SCGHG,” were virtually identical to the resource selections in the Company’s least-cost, least-risk expected case, labeled “P02-MM,” that served as the basis for the 2021 IRP preferred portfolio. This led the Company to use P02-MM as the basis of the preferred portfolio, and incorporate Washington resource selections from the P02-SCGHG portfolio, to arrive at a final CETA portfolio, labeled “P02-MM-CETA.”

Using P02-MM as the basis for the preferred portfolio, while still incorporating Washington resources selections from the SCGHG portfolio, provided several advantages. First, resource selections for all other states were not impacted. Second, resources selected for Washington would be represented as dispatched under expected real-world conditions, because at the time the Company filed the 2021 CEIP (and for the foreseeable future), Washington customer rates do not reflect the SCGHG. P02-MM mitigated misrepresenting portfolio performance and operational risk that otherwise would occur under SCGHG. Third, evaluating resources under expected conditions avoided artificially depressing the dispatch of emitting resources, which in turn accelerates and increases the need for additional renewables for real-world CETA compliance and reduces compliance risk.

This means that P02-MM, when adjusted for CETA compliance, was less costly, less risky, and resulted in higher renewable selections for the state compared to P02-SCGHG.

That said, this Revised CEIP presents another reasonable interpretation of CETA, where the entirety of “P02-SC-CETA” is adopted for evaluating dispatch, emissions and incremental costs that result from applying the SCGHG as a dispatch adder. While the resulting preferred portfolio from P02-SC-CETA is largely unchanged from P02-MM-CETA, the assumed operations of resources are different due to applying the SCGHG as a dispatch adder for all purposes. This results in two primary differences between the Company’s 2021 CEIP and Revised CEIP: (1) incremental costs are higher in the Revised CEIP, and (2) renewable incremental resources to achieve compliance with CETA targets are reduced in size and delayed in the Revised CEIP.

This means that under P02-SC-CETA, Washington customers have higher costs, receive less renewable resources, and these resources are delayed several years, compared to P02-MM-CETA.

Consistent with the Complaint Settlement, this Appendix F: (1) details the data inputs, outputs, and provides a roadmap for the Company’s initial 2021 CEIP P02-MM-CETA portfolio; and (2) details the data inputs, outputs, and provides a roadmap for the Company’s 2021 Revised CEIP P02-SC-CETA portfolio.

P02-MM-CETA Data Inputs, Outputs and Roadmap

In this section, the Company details the data inputs, outputs, and provides a roadmap for the Company's initial 2021 CEIP P02-MM-CETA portfolio.

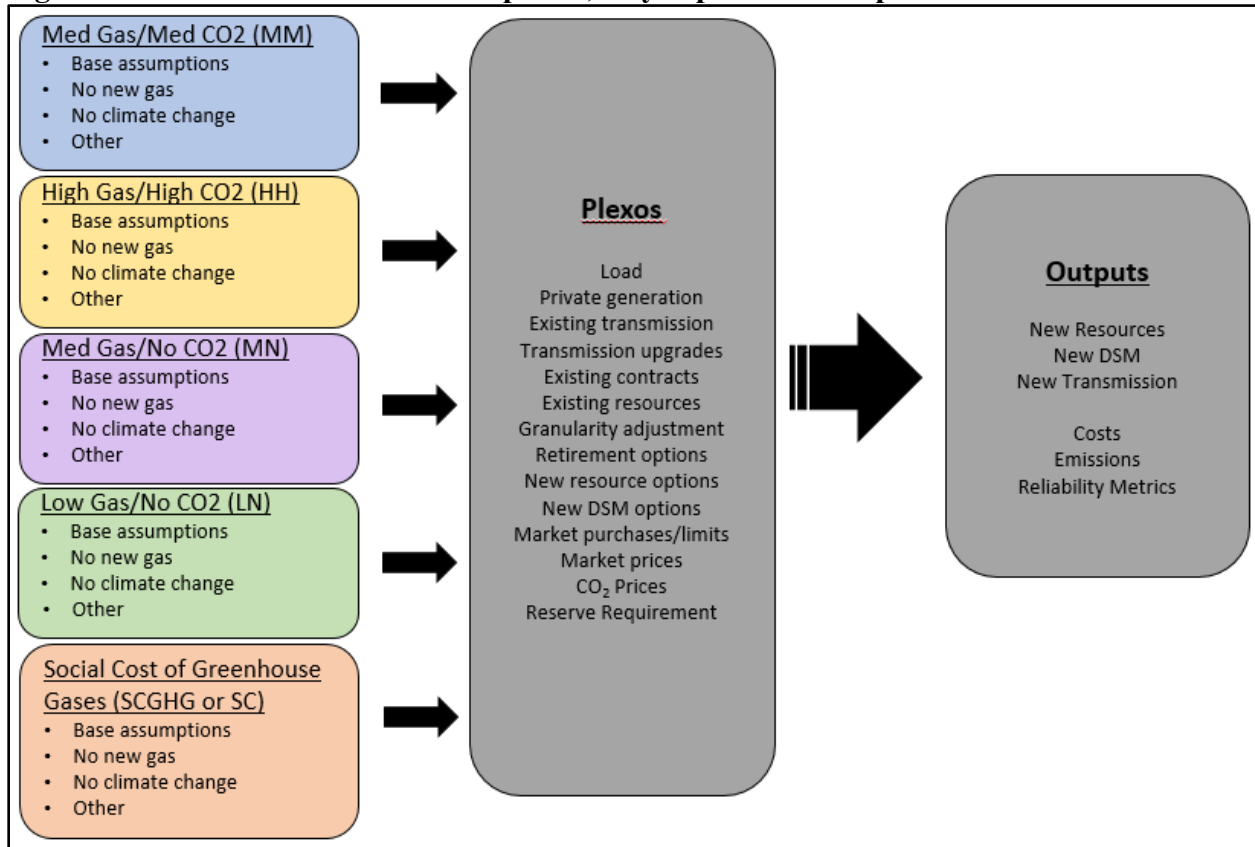
Each portfolio in the 2021 IRP was evaluated for cost and risk among three natural gas price scenarios (low, medium, and high) and three CO₂ price scenarios (zero, medium, high). An additional CO₂ policy scenario was developed to evaluate performance assuming a price signal that aligns with the social cost of greenhouse gas (SCGHG) as defined by CETA. Taken together, there were five distinct price-policy scenarios (medium gas/medium CO₂, medium gas/zero CO₂, high gas/high CO₂, low gas/zero CO₂, and the social cost of greenhouse gases). Of the five, two were relevant for the development of the P02-MM-CETA preferred portfolio used for resource selections in both the 2021 IRP and the CEIP: medium gas/medium CO₂, and the SCGHG.

In the naming conventions of the 2021 IRP, each price-policy scenario includes two parts that were carried into the CEIP. As shown below in Figure F.1, "MM" represents Medium Natural Gas and Medium CO₂ cost assumptions. These medium values were the assumptions used in the 2021 IRP "expected" case, P02-MM. SCGHG also constitutes a distinct price-policy scenario, and does not use any other CO₂ price assumptions. Likewise, the MM price-policy scenario uses only the medium CO₂ carbon price adder for MM studies.

The SCGHG price-policy studies in the 2021 IRP coupled the SCGHG carbon price adder with the medium natural gas price component to describe the SCGHG price-policy scenario, whereas the MM price-policy studies in the 2021 IRP coupled the medium carbon price adder with the medium natural gas price component to describe the MM price-policy scenario. These two price-policy scenarios were used to create two unique portfolios called "P02-MM" and "P02-SCGHG." Both of these portfolios were used to create the CEIP portfolio, "P02-MM-CETA."¹

¹ Supporting workpapers for the P02-MM-CETA portfolio include the LT summary: "210829-PAC-WP-LT 18609 21IRP 20yr P02-MM-CETA-12-31-21 (C).xlsx", ST cost summary: "210829-PAC-WP-ST Cost Summary -P02-MMGR-CETA ST Split Run Cost Data LT 18609 ST 19709 12-31-21 (C).xlsx", and MT cost summary "210829-PAC-WP-MT Cost Summary -P02-MMGR-CETA MT Split Run Cost Data LT 18609 MT 18631 12-31-21 (C).xlsx".

Figure F.1 – 2021 IRP Plexos Assumptions, Key Inputs and Outputs²



These model inputs and outputs, a roadmap for how P02-SCGH was incorporated in P02-MM-CETA, how portfolio and resource selections occurred, how identified shortfalls were resolved, and a summary of P02-MM-CETA portfolio development, can be found below.

Model Inputs and Outputs

Base Inputs

All IRP models are configured and loaded with the best available information at the time a model run is produced. Figure F.1 includes the primary base assumptions for Plexos as inputs prior to running models. These inputs, such as load, private generation, existing transmission, etc., vary only for specific sensitivities and variants noted in the 2021 IRP. For the two relevant studies used to develop P02-MM-CETA for the CEIP there are no differences in base assumptions with the exception of the SCGHG price-policy scenario. All model inputs are included in workpapers included with the original filing, and are included again in this refiling for completeness. Additional input workpapers are provided and noted where appropriate below to fulfill on the terms of the settlement. Among the included workpapers is the entire 2021 IRP Plexos database.

Outputs are also provided in workpapers accompanying the 2021 IRP and original CEIP filings. As with inputs, these output files are provided again for completeness.

² Figure adapted from materials presented in the 2021 IRP public input meeting held September 17, 2020.

SCGHG Inputs

The Company’s initial CEIP applied the SCGHG as a dispatch adder input to the P02-SCGHG portfolio used to select Washington resources in the initial CEIP. Plexos inputs for the SCGHG dispatch adder, extracted directly from Plexos, are provided in the confidential workpaper “210829-PAC-WP-P02-SCGHG ST (30497-Emissions by Generator) 3-13-2023 (C).xlsx” on the “Emissions Results” tab. These inputs are applied to all emitting resources on a dollars per pound basis, where the model calculates the amount of emissions based on fuel usage. The workpaper also illustrates that the reported emissions cost for every resource is directly attributable the SCGHG dispatch adder and no other emissions cost. The same analysis is provided for the P02-MM case in the confidential workpaper “210829-PAC-WP-P02-MMGR Prod Port 20yr ST 4Blk-Mo (19667-Emissions by Generator) 3-13-2023 (C).xlsx”, demonstrating that the CO₂ cost under the expected case also ties out exactly to the total emission cost for each resource.

P02-SCGHG Roadmap for Inclusion in P02-MM-CETA

Resource selections for all studies were performed using the Plexos suite of models, all of which contribute to final resource selections. As a backdrop to the portfolio selection discussion to follow, Figure F.2 shows the three types of Plexos models and their uses.

Figure F.2 – Plexos Models used in Resource Selection³

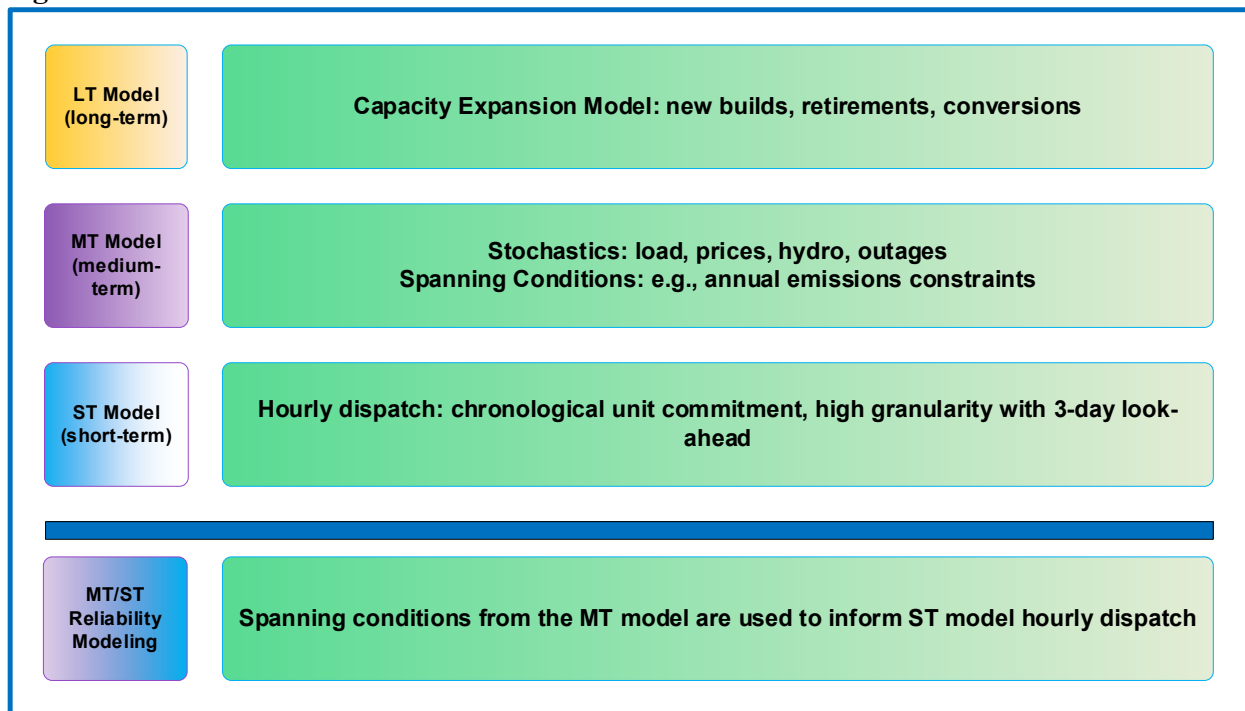
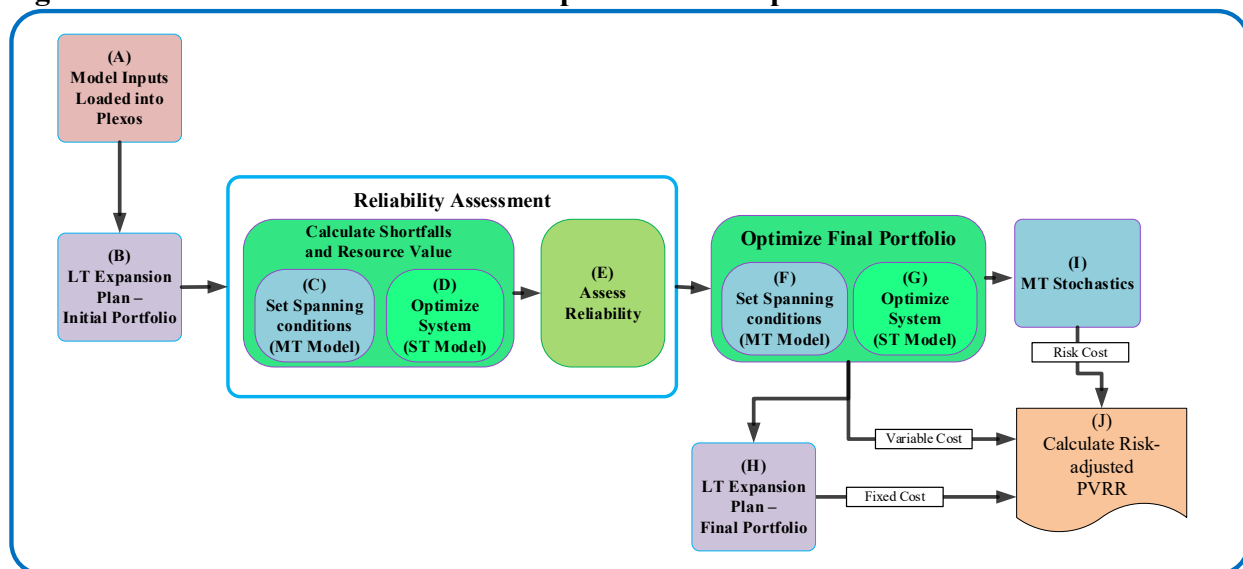


Figure F.3 illustrates the functions of the three Plexos models used to incorporate the SCGHG dispatch adder in the P02-SCGHG portfolio selections in the original CEIP filing. The SCGHG dispatch adder as used for resource selection is applicable in Step B (LT Expansion Plan – Initial Portfolio) and also in Step E (Assess Reliability).

³ Figure adapted from materials presented in the 2021 IRP public input meeting held June 25, 2021

Figure F.3 – SCGHG in Portfolio Development Roadmap⁴



Each step in P02-SCGHG portfolio development is detailed below, with additional focus provided for steps B and E as directly relevant to CEIP compliance in the original filing through the incorporation of the SCGHG dispatch adder.

Step (A) – Model Input Loaded into Plexos

As noted under the Base Inputs sub-section above, key modeling elements and inputs used in both the CEIP and 2021 IRP include the following:

- Transmission System;
- Transmission Costs;
- Resource Adequacy;
- Granularity and Reliability Adjustments;
- New Resource Options, including demand-side management, wind and solar resources, non-emitting resources, energy storage resources, and market purchases;
- Capital Costs; and
- General Assumptions, including study period and date conventions, inflation rates, discount factors, CO2 price scenarios, and wholesale electricity and natural gas forecasts.

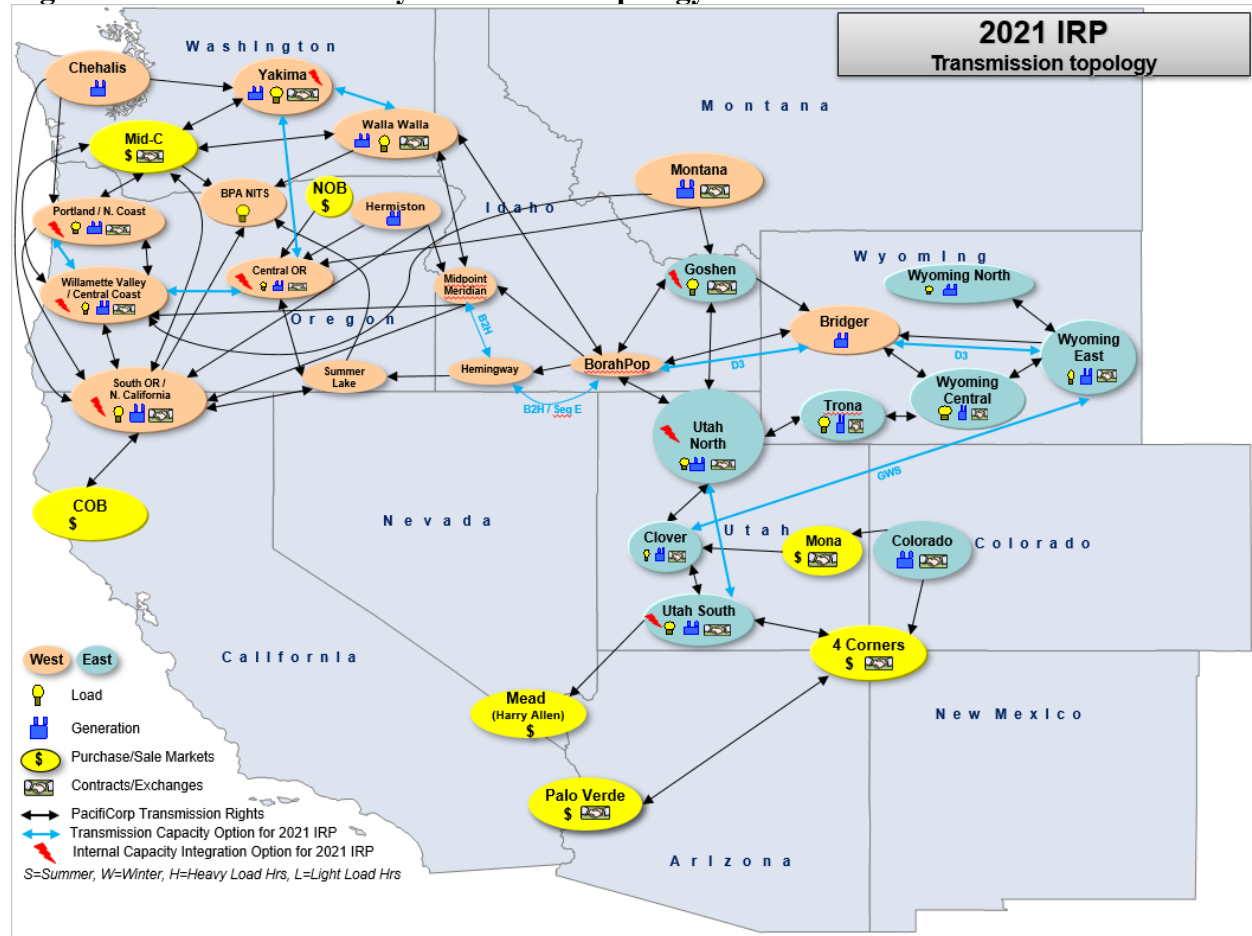
These elements and inputs are discussed from the perspective of the 2021 IRP, because that is where each was developed.

Transmission System

PacifiCorp uses a transmission topology that captures major load centers, generation resources, and market hubs interconnected via firm transmission paths. Transfer capabilities across transmission paths are based upon the firm transmission rights of PacifiCorp’s merchant function, including transmission rights from PacifiCorp’s transmission function and other regional transmission providers.

⁴ Adapted from Chapter 1, Figure 1.2 – Portfolio Production Process provided in both the IRP and original CEIP.

Figure F.4 – Transmission System Model Topology



Transmission Costs

In developing resource portfolios for the 2021 IRP, PacifiCorp included modeling to endogenously select transmission options, in consideration of relevant costs and benefits. These costs are influenced by the type, timing, location, and amount of new resources as well as any assumed resource retirements, as applicable, in any given portfolio.

Resource Adequacy

In its 2021 IRP, PacifiCorp established a 13% hourly capacity reserve margin requirement for each topology location containing load in the LT model. The capacity reserve margin applies in all periods and must be met by available resources within that area or imports from adjacent areas with excess resources available, subject to transmission constraints. This treatment is an improvement on a traditional planning reserve margin which accounts only for peak load capacity met by an estimated firm capacity contribution. Additionally, the 2021 IRP directly modeled operating reserve requirements in expansion plan model runs, which ensures that expansion resources selected to CRM requirements will also meet operating contingency spin and non-spin reserve requirements. Taken together, these reliability requirements ensure that PacifiCorp has sufficient OR resources to meet load in all periods, recognizing the uncertainty for load fluctuation and extreme weather conditions, fluctuation of variable generation resources, a

possibility for unplanned resource outages, and reliability requirements to carry sufficient contingency and regulating reserves.

Granularity and Reliability Adjustments

As detailed during the 2021 IRP public-input process, the granularity adjustment reflects the difference in economic value between an hourly 8760 cost calculation in ST modeling, and the four-block per month representation used in the LT model.

This adjustment is needed because resources with high variable costs that are rarely dispatched may provide a large value in a few intervals in the ST study, while not dispatching in any of the 4 LT model blocks. Also, storage resources allow for arbitrage among high value and low value hours in each day; however, the four-block granularity smooths out many of the storage arbitrage opportunities.

In parallel with the granularity adjustment, the reliability adjustment addresses unmet capacity needs by hour in the LT model portfolio selection. Much of the peak load hour requirements in mid-afternoon in the summer are adequately met by solar resources. However, resource requirements are driven by portfolio-dependent net load peaks (load less renewable resource output), which are harder for the LT model to identify.

While the granularity and reliability adjustments help direct the LT model to more cost-effective resources and a more reliable portfolio, the LT model cannot guarantee reliability at an hourly operational level. Marginal benefits decline as any resource type becomes a larger share of a portfolio, as it saturates the need in the hours it is available. A similar effect occurs with storage, where each incremental MW of system storage capacity must cover a longer duration.

As a consequence of the performance limitations of capacity expansion optimization, the ST model is leveraged to refine the portfolio to achieve a final balanced and reliable mix of resources, as described under the Cost and Risk Analysis section of this analysis, further below.

New Resource Options

New resource options include including demand-side management, wind and solar resources, non-emitting resources, energy storage resources, and market purchases. Each is discussed below.

Demand-Side Management

Energy efficiency (Class 2 DSM) resources are characterized with supply curves that represent achievable technical potential of the resource by state, by year, and by measures specific to PacifiCorp's service territory. For modeling purposes, these data are aggregated into cost bundles. Each cost bundle of the energy efficiency supply curves specifies the aggregate energy savings profile of all measures included within the cost bundle. Each cost bundle has both a summer and winter capacity contribution based on aggregate energy savings during on-peak hours in July and December aligning with periods where PacifiCorp is most likely to exhibit capacity shortfalls.

Demand response (Class 1 DSM) resources, representing direct load control capacity resources, are also characterized with supply curves representing achievable technical potential by state and by year for specific direct load control program categories (i.e., air conditioning, irrigation, and commercial curtailment). Operating characteristics include variables such as total number of hours per year and hours per event that the demand response resource is available.

Wind and Solar Resources

Certain wind and solar resources are dispatchable by the model up to fixed energy profiles that vary by day and month. The fixed energy profiles for wind and solar resources represent expected monthly generation levels such that half of the time actual monthly generation would fall below expected levels, and half of the time actual monthly generation would be above expected levels assuming no curtailments.

The ability for wind and solar resources, to reliably meet demand over time is impacted by the forecasted profiles, along with mix of other resources in the portfolio. The use of resource availability to meet requirements in all periods allows the model to endogenously account for declining capacity contribution due to the increasing penetration of resources with similar dispatch patterns.

Non-Emitting Resources

Two non-CO₂-emitting thermal resources are considered: advanced nuclear projects and non-emitting peaking units. Advanced nuclear resources are characterized by continuous operation and substantial storage in the form of heat stored as molten salt. In contrast, non-emitting peaking resources are designed to run infrequently to support system reliability by dispatching only when needed to meet shortfalls. The non-emitting peaking resource is assumed to use a non-CO₂ emitting fuel such as hydrogen.

Energy Storage Resources

Energy storage resources are distinguished from other resources by the following three attributes:

- Energy take – generation or extraction of energy from a storage reservoir for a specified period;
- Energy return – energy used to fill (or charge) a storage reservoir; and
- Storage cycle efficiency – an indicator of the energy loss involved in storing and extracting energy over the course of the take-return cycle.

Modeling energy storage resources requires specification of the size of the storage reservoir, defined in gigawatt-hours. The model dispatches a storage resource to optimize energy used by the resource subject to constraints such as storage-cycle efficiency, the daily balance of take and return energy, and variable costs (for example, the cost of natural gas for expanding air with gas turbine expanders).

Market Purchases

Market purchases are transactions by the company's front office represent short-term firm agreements for physical delivery of power. PacifiCorp is active in the western wholesale power

markets and routinely makes short-term firm market purchases for physical deliveries on a forward basis (i.e., future months or quarters, balance of month, day-ahead, and hour-ahead). These transactions are used to balance PacifiCorp's system as market and system conditions become more certain when the time between an effective transaction date and real time delivery is reduced. Balance of month and day-ahead physical firm market purchases are most routinely acquired through a broker or an exchange, such as the Intercontinental Exchange (ICE). Hour-ahead transactions can also be made through an exchange. For these types of transactions, the broker or the exchange provides a competitive price. Non-brokered transactions can also be used to make firm market purchases among a wide range of forward delivery periods.

From a modeling perspective, it is not feasible to incorporate all of the short-term firm physical power products, which differ by delivery pattern and delivery period, that are available through brokers, exchanges, and non-brokered transactions. However, considering that PacifiCorp routinely uses these types of firm transactions, which obligate the seller to back the transaction with reserves when balancing its system, it is important that the contribution of short-term firm market purchases is accounted for in the portfolio-development process. For capacity expansion optimization modeling, market purchases contribute capacity toward meeting the 2021 IRP's capacity reserve margin and supply energy to meet system needs.

Capital Costs

Annual capital recovery factors are used to convert capital investment dollars into nominal levelized revenue requirement costs. All capital costs evaluated in the IRP are converted to nominal levelized revenue requirement costs. Use of nominal levelized revenue requirement costs is an established methodology for analyzing capital-intensive resource decisions among resource alternatives that have unequal lives and/or when it is not feasible to capture operating costs and benefits over the entire life of any given resource. To achieve this, the nominal levelized revenue requirement method spreads the return of investment (book depreciation), return on investment (equity and debt), property taxes and income taxes over the life of the investment. The result is an annuity or annual payment that remains constant such that the PVRR is identical to the PVRR of the nominal requirement when using the same nominal discount rate.

General Assumptions

General assumptions include study period and date conventions, inflation rates, discount factors, CO₂ price scenarios, and wholesale electricity and natural gas forecasts. Each is discussed below.

Study Period and Date Conventions

PacifiCorp executes its 2021 IRP models for a 20-year period beginning January 1, 2021 and ending December 31, 2040. Future IRP resources reflected in model simulations are given an in-service date of January 1st of a given year, except for coal unit natural gas conversions, which are given an in-service date of June 1st of a given year, recognizing the desired need for these alternatives to be available during the summer peak load period.

Inflation Rates

The 2029 IRP simulations and cost data reflect PacifiCorp’s corporate inflation rate schedule unless otherwise noted. A single annual escalation rate value of 2.155 percent is assumed. This escalation rate reflects the average of annual inflation rate projections for the period 2021 through 2040, using PacifiCorp’s September 2020 inflation curve. PacifiCorp’s inflation curve is a straight average of forecasts for the Gross Domestic Product inflator and the Consumer Price Index.

Discount Factor

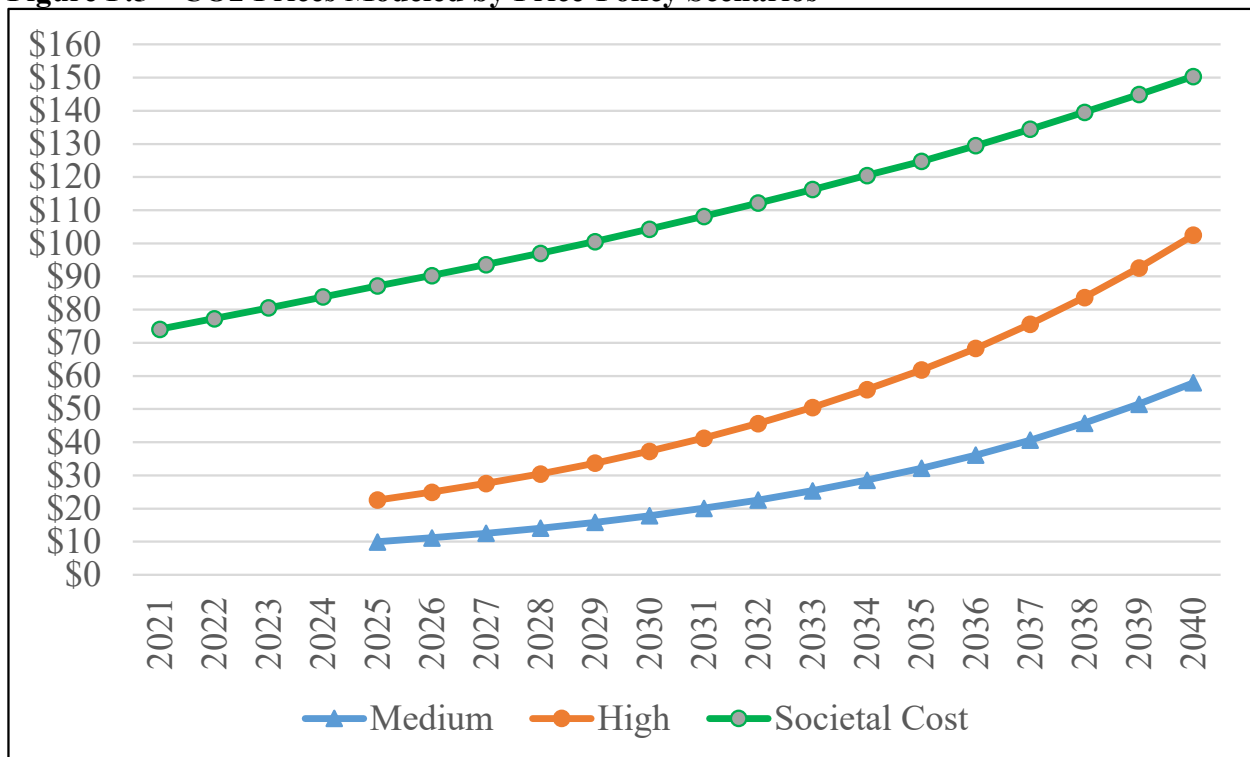
The discount rate used in present-value calculations is based on PacifiCorp’s after-tax weighted average cost of capital (WACC). The value used for the 2021 IRP is 6.88 percent. The use of the after-tax WACC complies with the Public Utility Commission of Oregon’s IRP guideline 1a, which requires that the after-tax WACC be used to discount all future resource costs. PVRR figures reported in the 2021 IRP are reported in 2021 dollars.

CO2 Price Scenarios

PacifiCorp used four different CO2 price scenarios in the 2021 IRP—zero, medium, high, and a price forecast that aligns with the social cost of greenhouse gases. The medium and high scenario are derived from expert third-party multi-client “off-the-shelf” subscription services. Both scenarios apply a CO2 price as a tax beginning 2025.

PacifiCorp also incorporated the social cost of greenhouse gas in compliance with RCW 19.280.030. Social cost of greenhouse gas emissions are assumed to start in 2021.

Figure F.5 – CO2 Prices Modeled by Price-Policy Scenarios



Wholesale Electricity and Natural Gas Forward Prices

For 2021 IRP modeling purposes, five electricity price forecasts were used: the official forward price curve (OFPC) and four scenarios. Unlike scenarios, which are alternative spot price forecasts, the OFPC represents PacifiCorp’s official quarterly outlook. The OFPC is compiled using market forwards, followed by a market-to-fundamentals blending period that transitions to a pure fundamentals-based forecast.

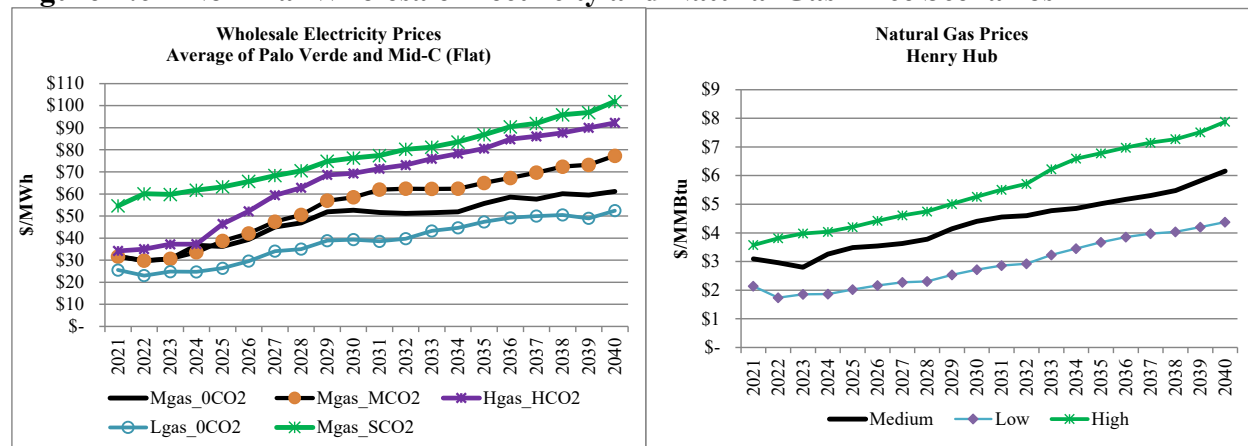
At the time PacifiCorp’s 2021 IRP modeling inputs were prepared, the March 2021 OFPC was the most current OFPC available. For both gas and electricity, starting with the prompt month, the front 36 months of the OFPC reflects market forwards at the close of a given trading day. As such, these 36 months are market forwards as of March 2021. The blending period (months 37 through 48) is calculated by averaging the month-on-month market forward from the prior year with the month-on-month fundamentals-based price from the subsequent year. The fundamentals portion of the natural gas OFPC reflects an expert third-party multi-client “off-the-shelf” price forecast. The fundamentals portion of the electricity OFPC reflects prices as forecast by AURORAXMP (Aurora), a WECC-wide market model. Aurora uses the expert third-party natural gas price forecast to produce a consistent electricity price forecast for market hubs in which PacifiCorp participates. PacifiCorp updates its natural gas price forecasts each quarter for the OFPC and, as a corollary, the electricity OFPC is also updated.

Scenarios pairing medium gas prices with alternative CO2 price assumptions reflect OFPC forwards through April 2024 before transitioning to a pure fundamentals forecast. Scenarios using high or low gas prices, regardless of CO2 price assumptions, do not incorporate any market forwards since scenarios are designed to reflect an alternative view to that of the market. As such, the low and high natural gas price scenarios are purely fundamental forecasts. Low and high natural gas price scenarios are also derived from expert third-party multi-client “off-the-shelf” subscription services.

PacifiCorp’s OFPC for electricity and each of its five scenarios were developed from one of three (medium, low, high) underlying expert third-party natural gas price forecasts in conjunction with one of four CO2 price scenarios. The OFPC used in the 2021 IRP does not assume any CO2 policy or tax in conjunction with its medium gas price forecast. However, PacifiCorp’s 2021 IRP “medium case” price forecast is not the OFPC but a scenario that couples medium gas with a medium CO2 price, applied for forecasting purposes as a tax. Thus, the 2021 IRP medium case differs from that of the March 2021 OFPC by assuming a medium CO2 price starting in 2025. This medium CO2 price serves as a proxy for a potential future CO2 policy.

Figure F.6 summarizes the five wholesale electricity price forecasts and three natural gas price forecasts used in the base and scenario cases for the 2021 IRP.

Figure F.6 – Nominal Wholesale Electricity and Natural Gas Price Scenarios



Step (B) – LT Expansion Plan (Initial Portfolio)

The PLEXOS Long-Term planning model (LT model) is used to produce optimized resource portfolios with sufficient capacity to be reliable on a 20-year aggregated granularity basis. As discussed under inputs, the LT model uses all relevant loaded inputs to mathematically minimize operating costs for existing and prospective new resources, subject to system load balance, reliability, and other constraints. Over the 20-year planning horizon, the model optimizes resource additions subject to resource costs and load constraints.

These constraints include seasonal loads, operating reserves and regulation reserves plus a minimum capacity reserve margin for each load area represented in the model.

The initial resource portfolio employs operating reserve requirements, including contingency reserves, which are calculated as 3% of load and 3% of generation. The capacity reserve margin in the CEIP was set at a “floor” of 13% at each load area in the topology, as provided in Figure F.4, above.

In the event that an early retirement of an existing generating resource is assumed or selected for a given planning scenario, the LT model will select additional resources as required to meet loads plus reliability requirement in each period and location.

To accomplish these optimization objectives, the LT model performs a least-cost dispatch for existing and potential planned generation, while considering cost and performance of existing contracts and new DSM alternatives within PacifiCorp’s transmission system. Resource dispatch is based on representative data blocks for each of the 12 months of every year. Dispatch also determines optimal electricity flows between zones and includes spot market transactions for system balancing. The model minimizes the system PVRR, which includes the net present value cost of existing contracts, market purchase costs, market sale revenues, generation costs (fuel, fixed and variable operation and maintenance, decommissioning, emissions, unserved energy, and unmet capacity), costs of DSM resources, amortized capital costs for existing coal resources and potential new resources, and costs for potential transmission upgrades.

The social cost of greenhouse gases is applied such that the price for the SCGHG is reflected in market prices and dispatch costs for the purposes of developing each portfolio (i.e., incorporated into capacity expansion optimization modeling). Aligned with Washington staff suggested treatment, system operations also include the SCGHG dispatch adder to determine optimized dispatch for SCGHG price-policy studies, presenting the risk that this operational assumption will not be aligned with actual market forces (i.e., market transactions at the Mid-Columbia market do not reflect the social cost of greenhouse gases and PacifiCorp does not directly incur emission costs at the price assumed for the social cost of greenhouse gases).

Plexos’s core functionality inherently applies the CO₂ emission cost that has been input into the model on a dollars-per-pound basis as a factor in determining an optimal portfolio. In the P02-SCGHG case, the CO₂ emissions cost is the SCGHG dispatch adder cost⁵. In PO-SCGHG study, this dispatch adder costs effectively replaces the expected medium CO₂ cost. As a consequence of this core model functionality, Washington resource selections are made with the SCGHG dispatch adder incorporated throughout the P02-SCGHG price-policy study. Note that while the P02-MM price-policy study does not include the SCGHG dispatch adder as its CO₂ cost, it is combined with the P02-SCGHG study to analyze Washington resources to arrive at the P02-MM-CETA preferred portfolio.

Step (C) – Set Spanning Conditions (Initial Portfolio)

After completion of the LT initial portfolio, the MT and ST models are run consecutively in order to evaluate any LT model reliability shortfalls.

The MT model serves two significant functions in 2021 IRP modeling. The first is to set “spanning conditions” for use in the ST model, and the second is to generate stochastic risk analysis. The first of these two functions is addressed in Step (C).

Spanning conditions are constraints that must be observed across periods of time that extend beyond the ST model’s ability to “see” as it chronologically optimizes several days of hourly data at a time (e.g., an annual emissions limit). The MT model is able to determine for each month how each spanning condition is allocated for the ST model’s use. The result is that even though the ST model is focused on hourly details and cannot simultaneously account for limitations that span across every hour in a year, the model is nonetheless incented to appropriately adhere to an annual constraint.

The spanning conditions result of Step (C) is automatically transmitted to the ST model for Step (D) when the MT model completes.

Step (D) – Optimize System (Initial Portfolio)

The ST model uses the same common input assumptions described for the LT model with additional spanning condition data provided by the MT model. The ST model begins with a portfolio from the LT model that has not yet been refined to reflect the reliability needs of a particular study (e.g., a particular sensitivity or price-policy scenario). In this step, the ST model is run at an hourly level for 20 years in order to retrieve two critical pieces of data: 1) shortfalls

⁵ Refer to the workpaper “210829-PAC-WP-ST Cost Summary -P02-SCGR ST -SCGHG Only in Emissions 3-13-2023 (C).xlsx” for SCGHG as modeled in Plexos.

by hour, and 2) the value of every potential resource to the system. These two pieces of information serve as the basis of the reliability assessment in Step (E).

Step (E) – Assess Reliability

When assessing reliability, the Company examines shortfalls, resource values, portfolio refinements, and applying reliability assessment workpapers. Each is described below.

Shortfalls

The ST model data generated in Step (D) is used to determine the most cost-effective resource additions needed to meet reliability shortfalls, leading to a reliability-modified portfolio. Shortfalls are calculated for the P02-SCGHG and P02-MM portfolios based directly on model outcomes and are summarized annually in the workpapers “210829-PAC-WP-Shortfalls - P02-SC 2025_ST_output_3980 3-13-2023 (C).xlsx” and “210829-PAC-WP-Shortfalls - P02-MM 2025_ST_output_3700 3-13-2023 (C).xlsx” respectively.⁶

Resource Value

Plexos calculates a locational marginal price (LMP) specific to each area in each hour that is based on supply and demand in that area and available imports and exports on transmission links to adjacent areas. This is also known as a shadow price. Plexos also calculates the marginal price specific to ancillary services (i.e., operating reserves) in each hour. Plexos then multiplies these prices by a generator’s energy and operating reserve provision for each hour and reports the total as a resource’s estimated revenue. In an organized market, this would represent the expected payments based on market-clearing prices.

When variable costs (such as fuel, emissions, and VOM) are subtracted out, the result is a resource’s “net revenue”. Net revenue provides a clear model-optimized assessment of every resource’s value to the system, which is then used to assess resource additions needed to preserve reliable operation of the system.

While the net revenue approach is demonstrably superior to past resource value measures, especially as it is evaluated simultaneously for all potential resources, net revenue has limitations that should be acknowledged. Net revenue represents the value of the last MW of capacity from a given resource – as resources grow larger, the average value from the first MW of capacity to the last MW of capacity will tend to be somewhat higher than the reported marginal value. Conversely, adding more of a particular resource will result in declining values. While marginal prices will be very high in hours with supply shortfalls, this only indirectly contributes to reliable operation by helping to identify beneficial replacement resources. Once sufficient resources are added, shortfalls will mostly be eliminated and marginal prices will again reflect the variable cost of an available resource.

The calculation of net value⁷ can be seen in workpapers titled “210829-PAC-WP-Resource options and Granularity_3632 MMGR 3-13-2023 (C).xlsx” and “210829-PAC-WP-Resource options and Granularity_3632-SCGR 3-13-2023 (C).xlsx” for the MM and SCGHG cases respectively.

⁶ All years from 2025-2040 have been provided for reference. MM shortfalls include files with the final four numbers from 3684-3700. SCGHG files include those from 3980-3995.

⁷ Measured in cost/kW-year

Portfolio Refinements

While a large number of resource options are evaluated, new generation resources are mostly restricted to two circumstances: replacement resources at retiring generators, and new resources at locations with interconnection or transmission upgrade options.

These interconnection and transmission upgrade options are limited and can be expensive. Replacing existing thermal generators with resources that provide only a portion of their interconnection capacity in “firm” capacity creates a need for additional interconnection capacity elsewhere, and a key strategy is maximizing the “firmness” of each MW of interconnection capacity to provide greater value. For this reason, the modeling of combined solar and storage resources now reflects storage with capacity equal to 100% of solar nameplate, and four-hour duration—up from 25% of solar capacity in the 2019 IRP, and 50% of capacity as discussed early in the 2021 IRP public-input process. This allows a collocated solar resource to shift more energy accumulated during periods of high solar radiance, increasing its effective capacity contribution.

Applying Reliability Assessment Workpapers

The Reliability Assessment leverages two different data sources from the LT and ST model runs. The first source for reviewing reliability is the hourly shortfall data provided by ST Runs. These runs provide annual hourly shortfall data, which is then reviewed and processed to assess system level reliability. The hourly shortfall results for the MM and SCGHG initial cases can be found in the provided workpapers as noted above. These sets of analysis provide the IRP group with the maximum annual shortfall on the system in any given hour. These figures are reviewed both in aggregate (looking at monthly or annual maximum shortages) and more granularly (reviewing the number of consecutive hours of shortfall) to determine the best course of action to address resource adequacy issues.

The next data source leveraged to determine reliability additions or adjustments is a review of the economics of each possible resource which could have been included in any portfolio to determine which set of options represents the lowest cost, least risk, and feasible, grouping of resources. The economic results for the MM and SCGHG cases can be found in the provided workpapers as noted above. Where at all possible, the lowest cost resource is selected to replace either a higher cost resource, or to be included in the portfolio should there be the ability to add additional resources at a given location, limited by interconnection limits and other constraints.

Reviewing the reliability adjustments for the MM case, the first data set shows shortfalls occurring in 2034, then starting again in 2037 and extending through the end of the study horizon. A snapshot of MM reliability adjustments can be seen on the “Final MM Vs. Initial MM” tab of the “210829-PAC-WP-Pre-Reliability to Reliability Summary workpaper 3-13-2023 (C).xlsx” workpaper. On this tab, one significant change includes the selection 402 MW of Non-Emitting Peaker in 2033 supplanting 218 MW of Utah North Solar Plus Storage. The economics in this case show that the average cost of the Non-Emitting Peaker in Utah North is \$96/kw-Year, versus \$93/kw-Year for the Solar plus Storage resource. Given the relative equivalence of these two resources, shortfall duration became the deciding factor between the two. In the 2038-2040 timeframe, where the east side of the system had a maximum hourly shortfall of 3,124 MW, shortfalls lasted up to 16 hours, with a number of those hours during the nighttime. As

such, the ST model data demonstrated a greater need for firm capacity, long duration resources and given the generally equivalent economics, the Non-Emitting Peaker was determined to be the best option for a least cost, most reliable resource. Utah North Nuclear can be seen on the above referenced tab to be the most expensive option, and 4-hour storage, while the least expensive option, did not adequately contribute to long duration shortfalls in the later periods of the study.

The same type of analysis was completed for the major 2038 and 2040 changes. In 2038, Jim Bridger Solar plus storage is supplanted by Non-Emitting Peaker and Nuclear. While the Solar Plus Storage resource was economically stronger than the other options, duration and size of shortfalls again necessitated larger firm resources to replace Solar and Storage items.

The Social Cost of Greenhouse Gas (SCGHG) portfolio underwent the same process as above. On the “Final SC vs. Initial SC” tab in the above referenced workpaper, the resource changes, shortfalls and relative economics are shown. Ultimately, in the SCGHG case, the major adjustments were to include Non-Emitting Peaker, Stand Alone Storage and Solar Plus Storage resources instead of Wind resources. Additional reliability determinations prompted delays in the timing of Coal retirements and the inclusion of those associated resources. Shortfalls begin in 2025 in this case and continue through the remainder of the horizon. Due to the timing of shortfalls and the company’s ongoing RFP process, no new, non-RFP resources were allowed to be included prior to 2026. As such, resolving 2025 shortfalls necessitated delaying coal plant retirements, and for this IRP cycle, the coal plants which were initially selected to retire in this time frame were only eligible to continue to the end of their life in 2028. Additionally, A significant amount of Wind in 2026 was replaced by Solar plus Storage resources. A review of the economics shows that the Wind resources were somewhat stronger than the Solar Plus Storage options. Again, as in the MM case, a review of the duration and timing of shortfalls was necessary here. A combination of multiple hours of shortfall, and timing which would coincide with solar radiance led to Solar Plus Storage presenting a stronger reliability addition than other options in this period.

Other major adjustments in the SCGHG portfolio include a shift in timing of nuclear resources from 2029 to later and the removal of a geothermal option, which are based on updated assumptions provided to the IRP team after the initial run was completed. The assumed start date of geothermal resources moved from 2026 to 2030, and costs were adjusted. Nuclear options were initially assumed to all begin in 2028 with the Natrium demonstration project, but further data from the developer led to any additional nuclear options beginning no earlier than 2030. The addition of Wind, a Non-Emitting Peaker and Solar plus Storage in 2030, and the addition of Solar Plus Storage in 2037 is again related to shifts in timing of Coal plant retirements as discussed above. Similar to the MM Case, 2038 adjustments were related to the Jim Bridger plants and options, and in this case the Nuclear Plant under SCGHG assumptions was the most economic option.

During the 2021 IRP cycle, assumptions were made which restricted the nameplate capacity of resource additions to the nameplate capacity of retiring coal units, or the maximum allowable transmission capacity of a given line. This assumption meant that additional surplus resources were not eligible to be added behind the meter at existing locations, and that resources could only be added in the exact configurations provided to the IRP team. This is being adjusted in the 2023 IRP, so that resource additions are constrained by actual generation instead of nameplate

capacity added. This will enable the model to more flexibly meet reliability needs on an initial basis and give the model a larger set of resource combinations from which to select.

Step (F) – Set Spanning Conditions (Final Portfolio)

The MT model is then run again with the modified portfolio to establish a new set of optimized spanning conditions for use by the ST model. There is no difference in the execution of the MT model in this step as opposed to Step (C), above. Only the post-reliability assessment portfolio is different.

Step (G) – Optimize System (Final Portfolio)

The ST model is then run again with the modified portfolio to calculate an initial PVRR. This initial PVRR is risk-adjusted on the basis of stochastic modeling using the results of Step (I), below. There is no difference in the execution of the ST in this step as opposed to Step (D), above. Only the post-reliability assessment portfolio is different.

Step (H) – LT Expansion Plan (Final Portfolio)

The LT model is then run again with the modified post-reliability portfolio locked-in. The portfolio is not re-optimized. This step is performed to generate a comprehensive dataset from the LT model for portfolio reporting and to establish the fixed costs of the portfolio for use in the final risk-adjusted PVRR.

Step (I) – MT Stochastics

The MT model uses the same common input assumptions described for LT and ST models with additional data provided by the LT and ST model results (e.g., the capacity expansion portfolio). While the LT and ST models supply an optimized portfolio for each case, the MT model is able to bring the advantages of stochastic-driven risk metrics to the evaluation of the studies. While deterministic ST system cost results are the most precise available due to the hourly granularity, the MT model provides the necessary data to calculate a stochastic risk metric for each case, which is then added to the ST system cost outcomes to produce the risk-adjusted PVRR for each case. These include cost and risk analyses; stochastic model parameter estimations; and stochastic portfolio performance measures. Each of these are detailed below.

Cost and Risk Analysis

Once unique resource portfolios are developed using the LT and ST models, additional modeling is performed to produce metrics that support comparative cost and risk analysis among the different resource portfolio alternatives. Stochastic risk modeling of resource portfolio alternatives is performed with the MT model.

The stochastic simulation in the MT model produces a dispatch solution that accounts for chronological commitment and dispatch constraints. The MT simulation incorporates stochastic risk in its production cost estimates by using the Monte Carlo sampling of stochastic variables, which include load, wholesale electricity and natural gas prices, hydro generation, and thermal unit outages.

The stochastic parameters used in the MT model for the 2021 IRP are developed with a short-run mean reverting process, whereby mean reversion represents a rate at which a disturbed variable returns to its expected value. Stochastic variables may have log-normal or normal distribution as appropriate. The log-normal distribution is often used to describe prices because such distribution is bounded on the low end by zero and has a long, asymmetric "tail" reflecting the possibility that prices could be significantly higher than the average. Unlike prices, load generally does not have such skewed distribution and is generally better described by a normal distribution. Volatility and mean reversion parameters are used for modeling the volatilities of the variables, while accounting for seasonal effects. Correlation measures how much the random variables tend to move together.

Stochastic Model Parameter Estimation

Stochastic parameters are developed with econometric modeling techniques. The short-run seasonal stochastic parameters are developed using a single period auto-regressive regression equation (commonly called an AR(1) process). The standard error of the seasonal regression defines the short run volatility, while the regression coefficient for the AR(1) variable defines the mean reversion parameter. Loads and commodity prices are mean-reverting in the short term. For instance, natural gas prices are expected to hover around a moving average within a given month and loads are expected to hover near seasonal norms. These built-in responses are the essence of mean reversion. The mean reversion rate tells how fast a forecast will revert to its expected mean following a shock. The short-run regression errors are correlated seasonally to capture inter- variable effects from informational exchanges between markets, inter-regional impacts from shocks to electricity demand and deviations from expected hydroelectric generation performance. The stochastic parameters are used to drive the stochastic processes of the following variables:

- Representative natural gas prices for PacifiCorp's east and west balancing authority areas;
- Electricity market prices for Mid-C, COB, Four Corners, and Palo Verde;
- Loads for California, Idaho, Oregon, Utah, Washington and Wyoming regions; and
- Hydro generation.

Volume II, Appendix H – Stochastic Parameters discusses the methodology for developing the stochastic parameters for the 2021 IRP.

For unplanned thermal outages, PacifiCorp assumes a uniform distribution around an expected rate. For existing units, the expected unplanned outage rates by unit are based on its historical performance. For new resources, the unplanned outage rates are as specified for those resources as listed in the 2021 IRP supply-side resource table in Volume I, Chapter 7 – Resource Options. Table F.1 through Table F.8 summarize updated stochastic parameters and seasonal price correlations for the 2021 IRP.

Table F.1 – Short-Term Load Stochastic Parameters

Short-Term Volatility	CA/OR without Portland	Portland	ID	UT	WA	WY
Winter 2021 IRP	0.045	0.041	0.038	0.023	0.052	0.016
Spring 2021 IRP	0.039	0.038	0.066	0.030	0.039	0.018
Summer 2021 IRP	0.043	0.059	0.057	0.051	0.053	0.017
Fall 2021 IRP	0.041	0.037	0.045	0.033	0.042	0.018
Short-Term Mean Reversion	CA/OR without Portland	Portland	ID	UT	WA	WY
Winter 2021 IRP	0.154	0.165	0.177	0.281	0.147	0.226
Spring 2021 IRP	0.214	0.242	0.258	0.519	0.157	0.272
Summer 2021 IRP	0.197	0.265	0.148	0.307	0.212	0.234
Fall 2021 IRP	0.290	0.277	0.198	0.202	0.234	0.241

Table F.2 – Short-Term Gas Price Parameters

Short-Term Volatility	East Gas	West Gas
Winter 2021 IRP	0.115	0.166
Spring 2021 IRP	0.091	0.203
Summer 2021 IRP	0.099	0.131
Fall 2021 IRP	0.101	0.171
Short-Term Mean Reversion	East Gas	West Gas
Winter 2021 IRP	0.061	0.031
Spring 2021 IRP	0.160	0.140
Summer 2021 IRP	0.503	0.287
Fall 2021 IRP	0.046	0.022

Table F.3 – Short-Term Electricity Price Parameters

Short-Term Volatility	Four Corners	COB	Mid-Columbia	Palo Verde
Winter 2021 IRP	0.132	0.163	0.198	0.121
Spring 2021 IRP	0.172	0.288	0.630	0.138
Summer 2021 IRP	0.220	0.339	0.260	0.202
Fall 2021 IRP	0.174	0.173	0.160	0.150
Short-Term Mean Reversion	Four Corners	COB	Mid-Columbia	Palo Verde
Winter 2021 IRP	0.089	0.070	0.090	0.086
Spring 2021 IRP	0.180	0.258	0.461	0.151
Summer 2021 IRP	0.312	0.395	0.196	0.146
Fall 2021 IRP	0.197	0.178	0.120	0.163

Table F.4 – Winter Season Price Correlation

	Natural Gas East	Four Corners	COB	Mid - Columbia	Palo Verde	Natural Gas West
Natural Gas East	1.000					
Four Corners	0.413	1.000				
COB	0.377	0.620	1.000			
Mid - Columbia	0.320	0.540	0.757	1.000		
Palo Verde	0.492	0.791	0.586	0.564	1.000	
Natural Gas West	0.344	0.235	0.302	0.288	0.248	1.000

Table F.5 – Spring Season Price Correlation

	Natural Gas East	Four Corners	COB	Mid - Columbia	Palo Verde	Natural Gas West
Natural Gas East	1.000					
Four Corners	0.197	1.000				
COB	0.141	0.339	1.000			
Mid - Columbia	0.102	0.424	0.638	1.000		
Palo Verde	0.223	0.630	0.327	0.276	1.000	
Natural Gas West	0.563	0.195	0.215	0.168	0.097	1.000

Table F.6 – Summer Season Price Correlation

	Natural Gas East	Four Corners	COB	Mid - Columbia	Palo Verde	Natural Gas West
Natural Gas East	1.000					
Four Corners	0.066	1.000				
COB	0.161	0.224	1.000			
Mid - Columbia	0.116	0.233	0.797	1.000		
Palo Verde	0.056	0.440	0.453	0.542	1.000	
Natural Gas West	0.674	0.035	0.103	0.075	-0.003	1.000

Table F.7 – Fall Season Price Correlation

	Natural Gas East	Four Corners	COB	Mid - Columbia	Palo Verde	Natural Gas West
Natural Gas East	1.000					
Four Corners	0.207	1.000				
COB	0.251	0.289	1.000			
Mid - Columbia	0.225	0.279	0.596	1.000		
Palo Verde	0.165	0.609	0.401	0.435	1.000	
Natural Gas West	0.359	0.129	0.203	0.226	0.160	1.000

Table F.8 – Hydro Short-Term Stochastic

	Short Term Volatility	Short-Term Mean Reversion
Winter 2021 IRP	0.274	0.722
Spring 2021 IRP	0.189	0.433
Summer 2021 IRP	0.210	1.149
Fall 2021 IRP	0.298	0.368

Figures F.7 and F.8 show annual electricity prices at the first, 10th, 25th, 50th, 75th, 90th, and 99th percentiles for Mid-C and Palo Verde market hubs based on a Monte Carlo simulation using short-term volatility and mean reversion parameters. For Mid-C electricity prices, differences between the first and 99th percentiles range from \$27.18/MWh to \$69.57/MWh during the 20-year study period. For Palo Verde electricity prices, the difference between the first and 99th percentiles range from \$31.08/MWh to \$88.59/MWh.

Figure F.7 – Simulated Annual Mid-C Electricity Market Prices

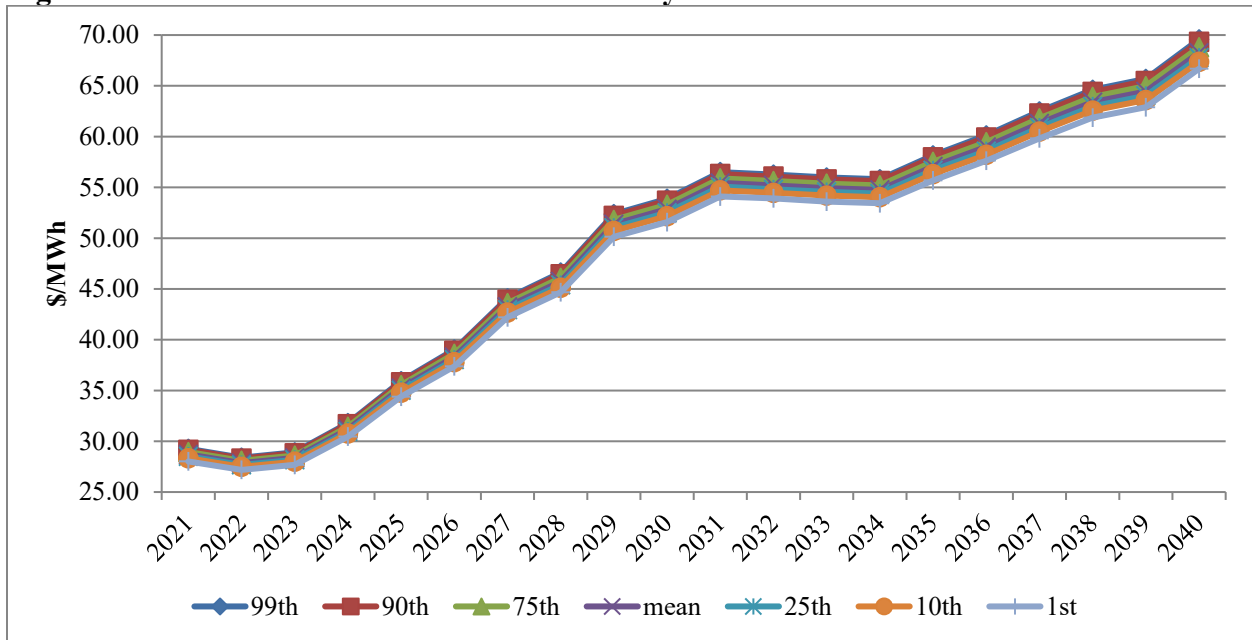


Figure F.8 – Simulated Annual Palo Verde Electricity Market Prices

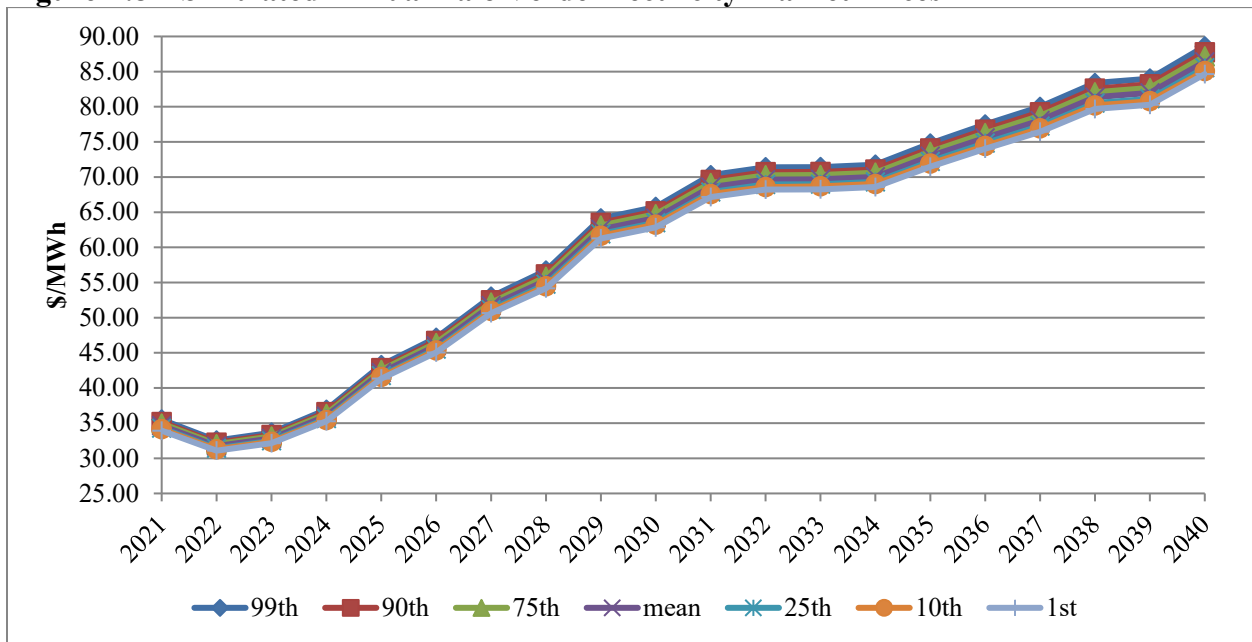


Figure F.9 and Figure F.10 show annual electricity prices at the first, 10th, 25th, 50th, 75th, 90th, and 99th percentiles for west and east natural gas prices. For west natural gas prices, differences between the first and 99th percentiles range from \$2.71/ Million British thermal units (MMBtu) to \$5.25/MMBtu during the 20-year study period. For east natural gas prices, differences between the first and 99th percentiles range from \$2.61/MMBtu to \$6.01/MMBtu.

Figure F.9 – Simulated Annual Western Natural Gas Market Prices

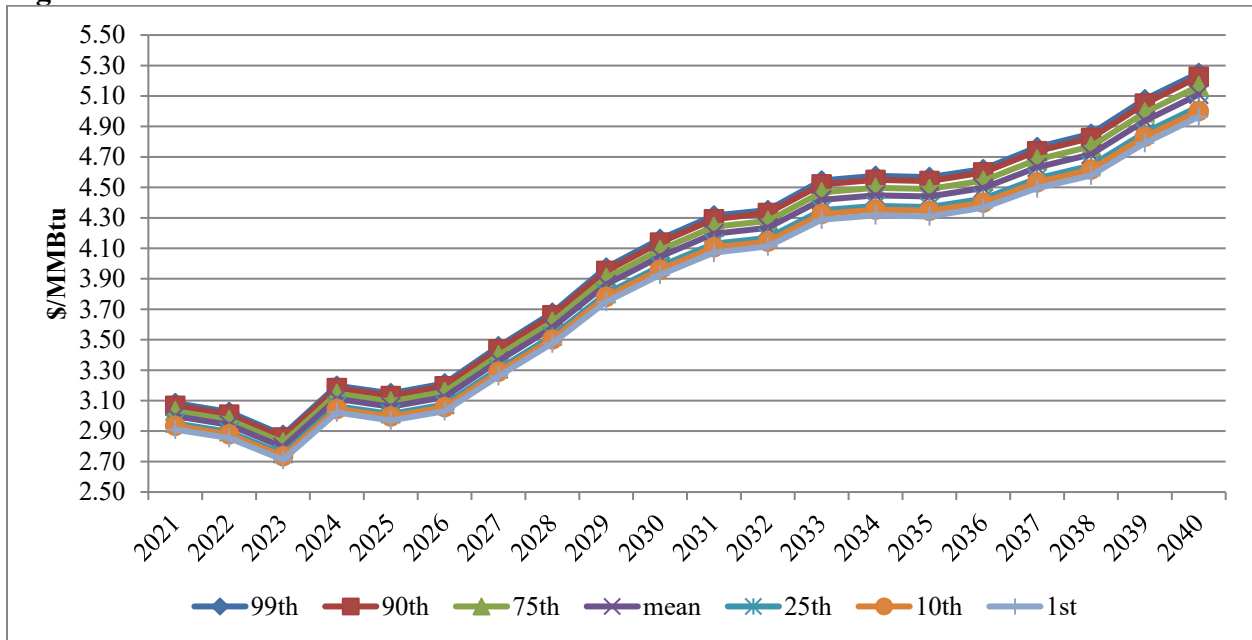
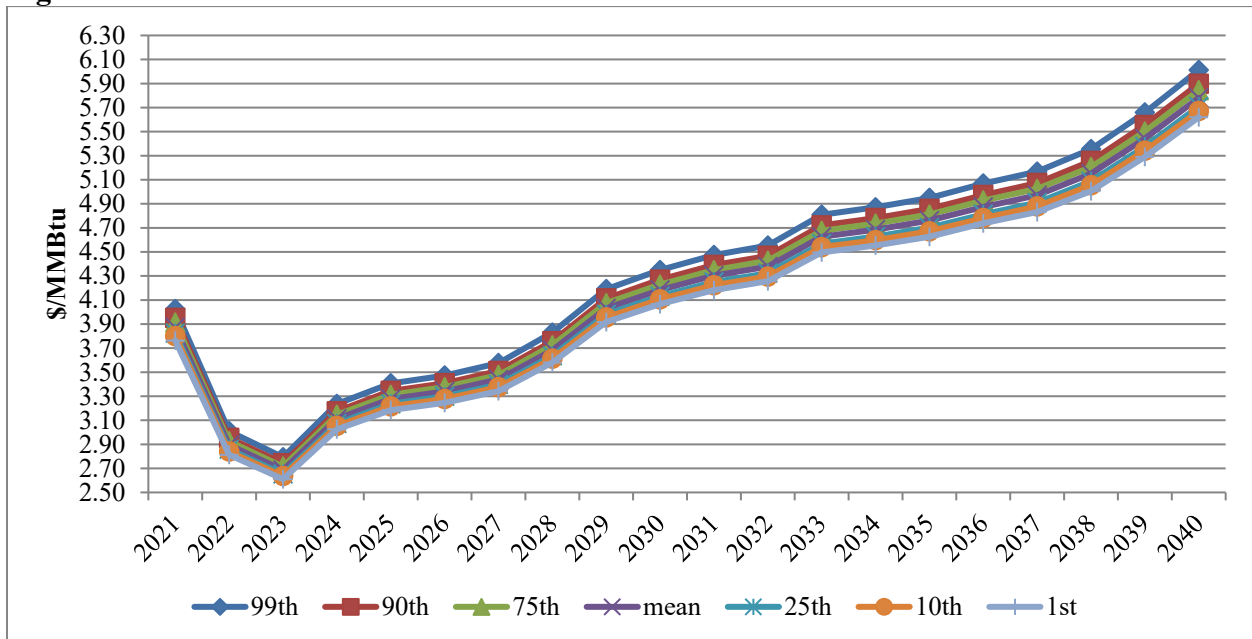


Figure F.10 - Simulated Annual Eastern Natural Gas Market Prices



Figures F.11 through F.17 show annual loads by load area and for PacifiCorp’s system at the first, 10th, 25th, 50th, 75th, 90th, and 99th percentiles based on a Monte Carlo simulation using short-term volatility and mean reversion parameters. For Idaho load, the annual differences between the first and 99th percentiles range from 154 gigawatt-hours (GWh) to 165 GWh. For Utah load, the annual difference ranges from 830 GWh to 1,069 GWh. For Wyoming load, the annual difference ranges from 150 GWh to 177 GWh. For Oregon load, annual differences range from 423 GWh to 545 GWh. California load, annual differences range from 27 GWh to 29 GWh

For Washington load, the annual difference ranges from 160 GWh to 187 GWh. For PacifiCorp’s system load, the annual difference ranges from 1,430 GWh to 1,731 GWh.

Figure F.1 - Simulated Annual Idaho Load

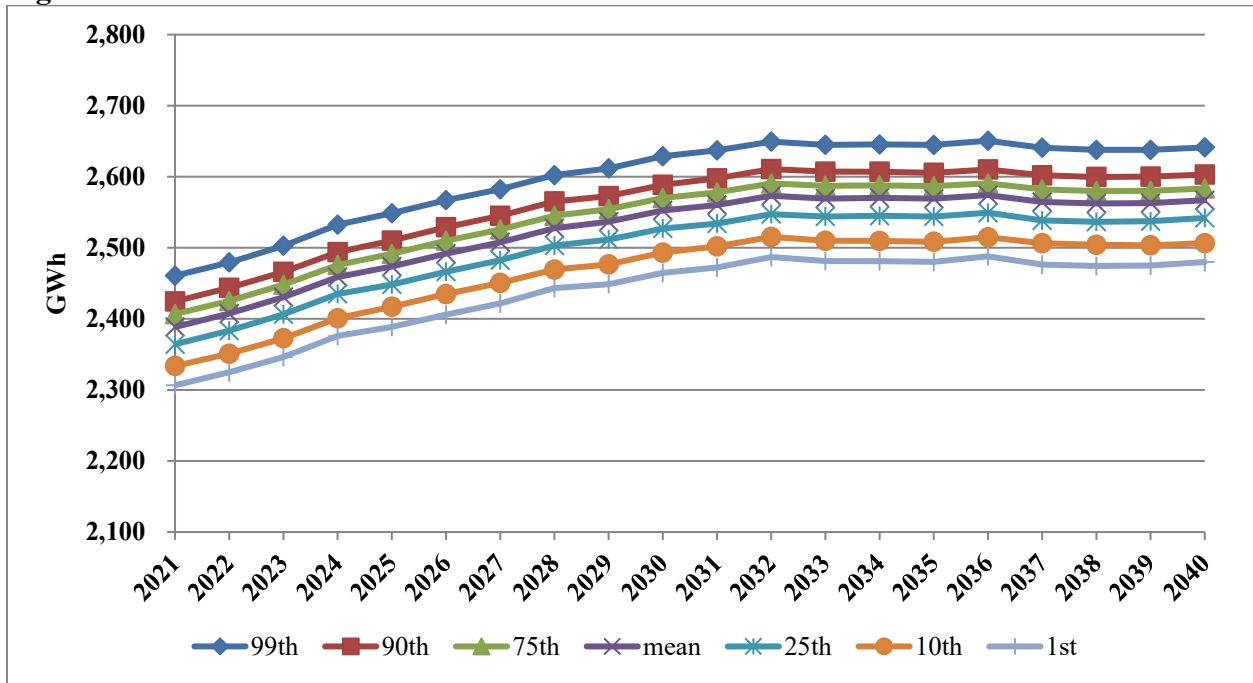


Figure F.2 - Simulated Annual Utah Load

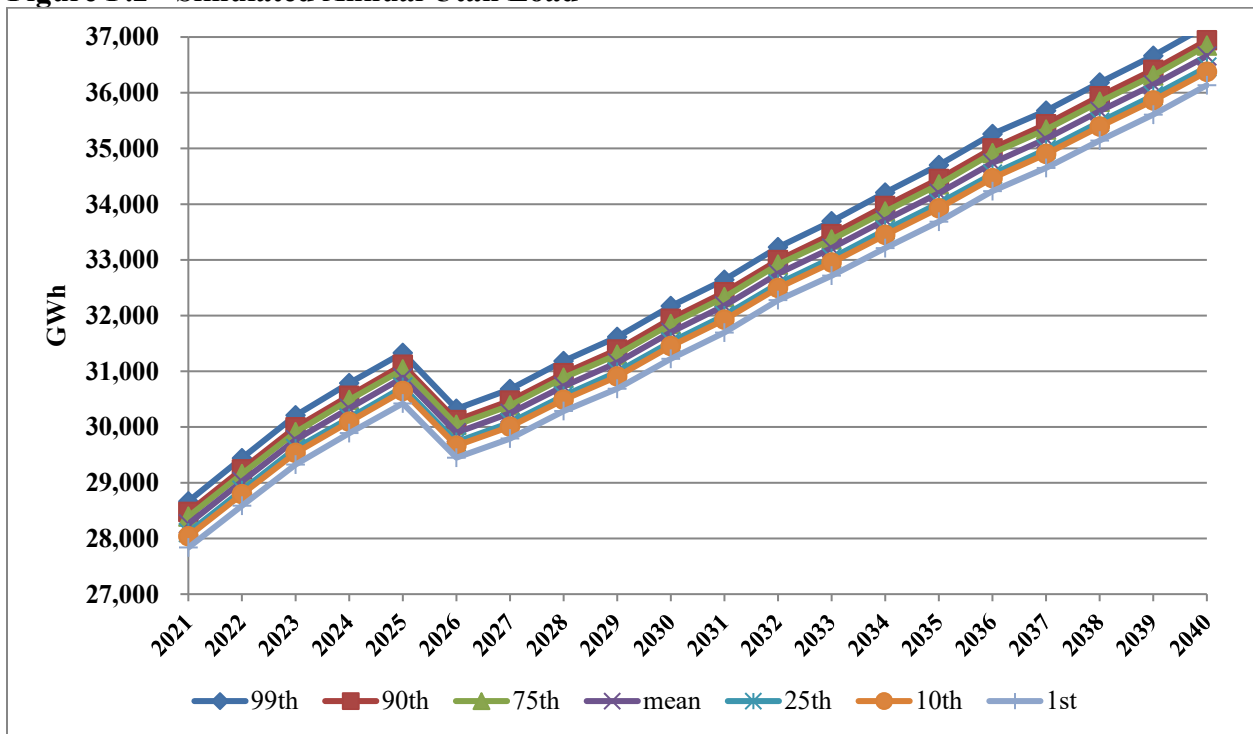


Figure F.3 - Simulated Annual Wyoming Load

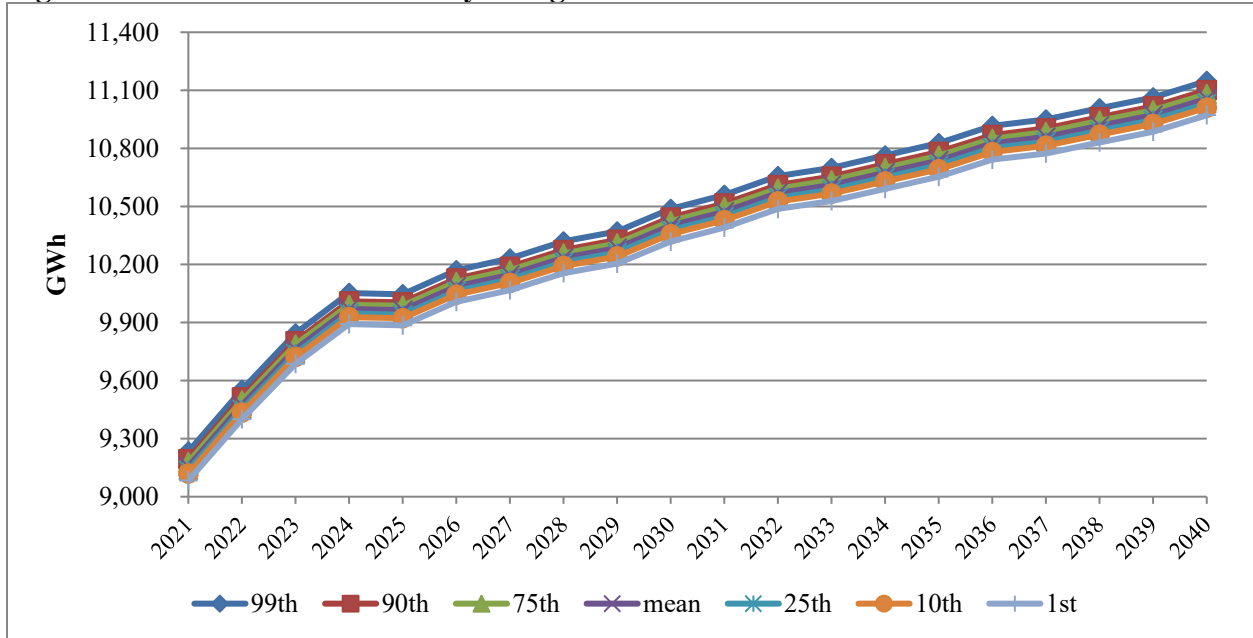


Figure F.4 - Simulated Annual Oregon Load

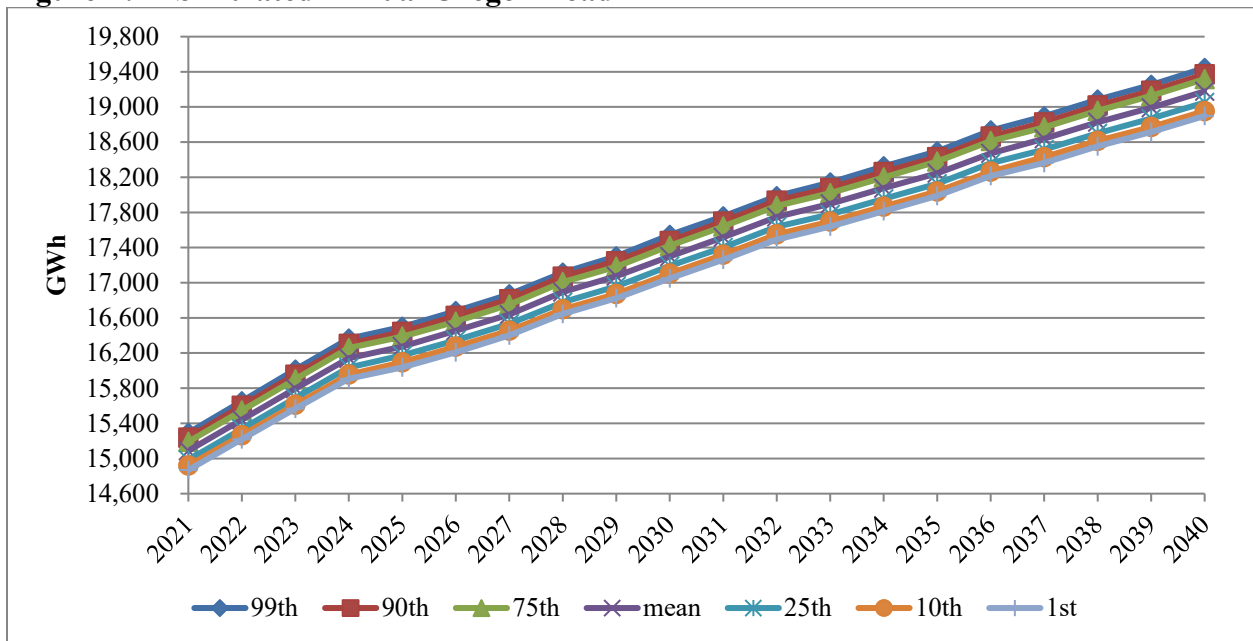


Figure F.5 - Simulated Annual Washington Load

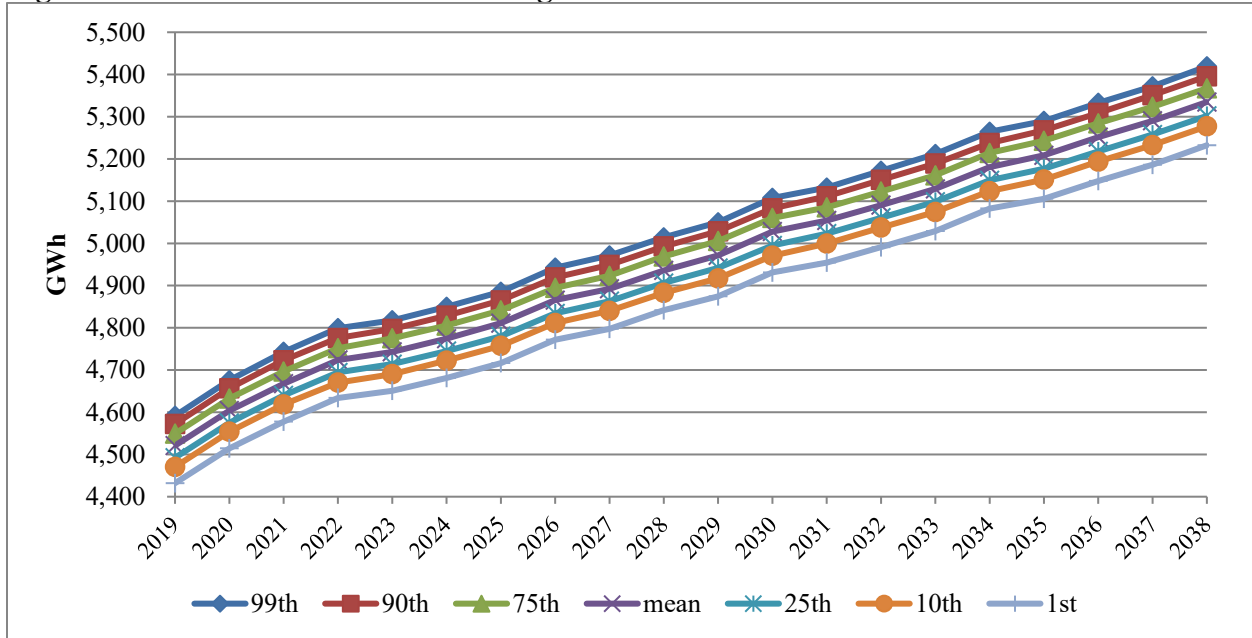


Figure F.6 - Simulated Annual California Load

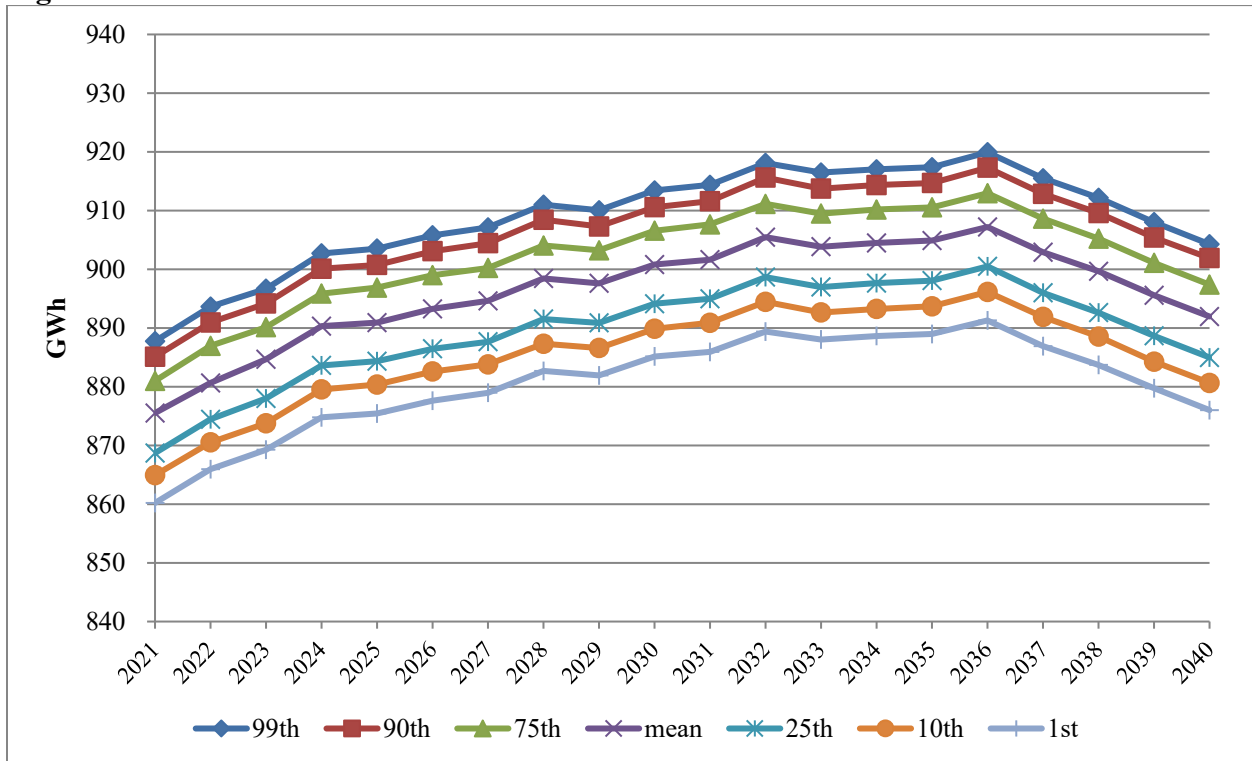


Figure F.7 - Simulated Annual System Load

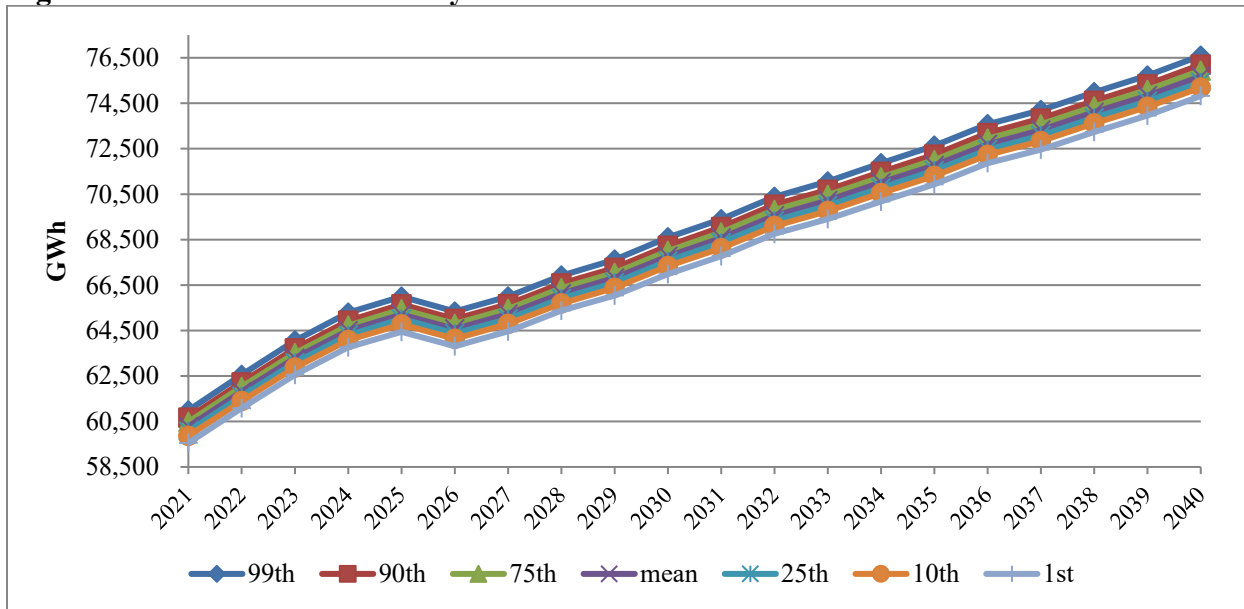
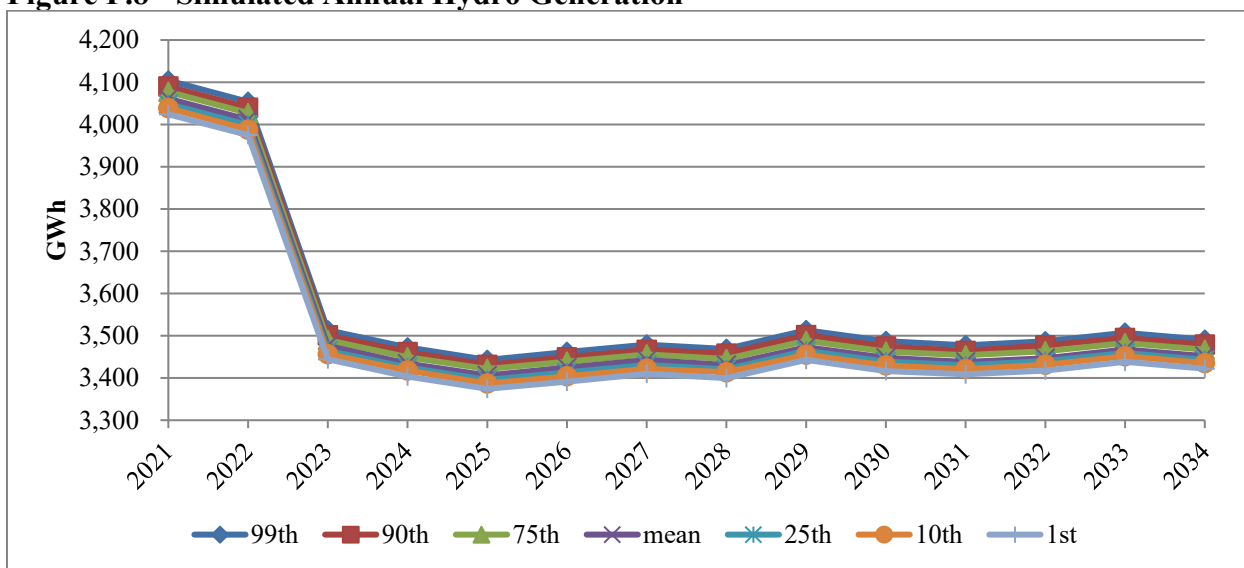


Figure F.18 shows hydro generation at the first, 10th, 25th, 50th, 75th, 90th, and 99th percentiles based on a Monte Carlo simulation using short-term volatility and mean reversion parameters. PacifiCorp can dispatch its hydro generation on a limited basis to meet load and reserve obligations. The parameters developed for the hydro stochastic process approximate the volatility of hydro conditions as opposed to variations due to dispatch. The drop in 2021 is due to the assumed decommissioning of the Klamath River projects. Annual differences in hydro generation between the first and 99th percentiles range from 68 GWh to 80 GWh.

Figure F.8 - Simulated Annual Hydro Generation



Monte Carlo Simulation

During model execution, the MT model makes time-path-dependent Monte Carlo draws for each stochastic variable based on input parameters. The Monte Carlo draws are percentage deviations

from the expected forward value of each variable. The Monte Carlo draws of the stochastic variables among all resource portfolios modeled are the same, which allows for a direct comparison of stochastic results among all resource portfolios being analyzed. In the case of natural gas prices, electricity prices, and regional loads, the MT model applies Monte Carlo draws on a daily basis. In the case of hydroelectric generation, Monte Carlo draws are applied on a weekly basis.

Stochastic Portfolio Performance Measures

Stochastic simulation results for each unique resource portfolio are summarized, enabling direct comparison among resource portfolio results during the preferred portfolio selection process. The cost and risk stochastic measures reported from the MT model include:

- Stochastic mean PVRR
- Upper-tail Mean PVRR
- 5th, 90th and 95th percentile PVRR
- Standard deviation
- Risk-adjustment (5% of the 95th percentile)

Stochastic Mean PVRR

The stochastic mean PVRR is the average of system net variable operating costs among 50 iterations, combined with the nominal levelized capital costs and fixed costs corresponding to the LT model for any given resource portfolio. The net variable cost from stochastic simulations, expressed as a net present value, includes system costs for fuel, variable O&M, long term contracts, system balancing market purchase expenses and sales revenues, reserve deficiency costs, and ENS costs applicable when available resources fall short of load obligations. Capital costs for new and existing resources are calculated on a nominal-levelized basis. Other components in the stochastic mean PVRR include CO₂ emission costs for any scenarios that include a CO₂ price assumption. The stochastic mean PVRR, limited by performance constraints of the MT model, is not used directly in portfolio selection; instead, the more granular ST PVRR serves as the base measure of net system cost, modified appropriately by stochastic risk.

Upper-Tail Mean PVRR

The upper-tail mean PVRR is a measure of high-end stochastic cost risk. This measure is derived by identifying the Monte Carlo iterations with the three highest production costs on a net present value basis. The portfolio's fixed costs, taken from the LT model, are added to these three production costs, and the arithmetic average of the resulting PVRRs is computed.

5th and 95th Percentile PVRR

The 5th and 95th percentile PVRRs are also reported from the 50 Monte Carlo iterations. These measures capture the extent of upper-tail (high cost) and lower-tail (low cost) stochastic outcomes. As described above, the 95th percentile PVRR is used to derive the high-end cost risk premium for the risk-adjusted mean PVRR measure. The 5th percentile PVRR is reported for informational purposes.

Production Cost Standard Deviation

To capture production cost volatility risk, PacifiCorp uses the standard deviation of the stochastic production cost from the 50 Monte Carlo iterations. The production cost is expressed as a net present value of annual costs over the period 2021 through 2040. This measure meets Oregon IRP guidelines to report a stochastic measure that addresses the variability of costs in addition to a measure addressing the severity of bad outcomes.

Risk-Adjustment

The MT model outcomes of the 50 stochastic samples are used to calculate a risk-adjustment measuring the relative risk of low-probability, high-cost outcomes. This measure is calculated as five percent of system variable costs from the 95th percentile. This metric expresses a low-probability portfolio cost outcome as a risk premium based on 50 Monte Carlo simulations for each resource portfolio and applied to the hourly-granularity deterministic PVRR. The rationale behind the risk-adjusted PVRR is to have a consolidated cost indicator for portfolio ranking, combining the most precise available system cost and high-end cost-risk concepts.

Step (J) – Calculate Risk-adjusted PVRR

As illustrated in Figure F.3, the calculation of the final PVRR for any study is performed by adding together the fixed costs from the LT model run in Step (H), the stochastic risk-adjustment from the MT model in Step (I), and the ST hourly granularity resulting PVRR from Step (G).

Portfolio and Resource Selections

Overview

The company incorporated the SCGHG dispatch adder in its Plexos modeling in the case identified as “P02-SCGHG” in Steps (B) and (E) as detailed above. The results of this study were compared to the results of the expected case, “P02-MM,” which was the least-cost, least-risk initial portfolio. Because both portfolios contained resource selections for all states, and because the resources allocated to Washington were 95 percent,⁸ for Washington resource selections regardless of whether the analysis began with P02-SCGHG and removed non-Washington factors or started with P02-MM for the system and added Washington factors. regardless of whether the analysis began with P02-SCGHG and removed non-Washington factors or started with P02-MM for the system and added Washington factors.

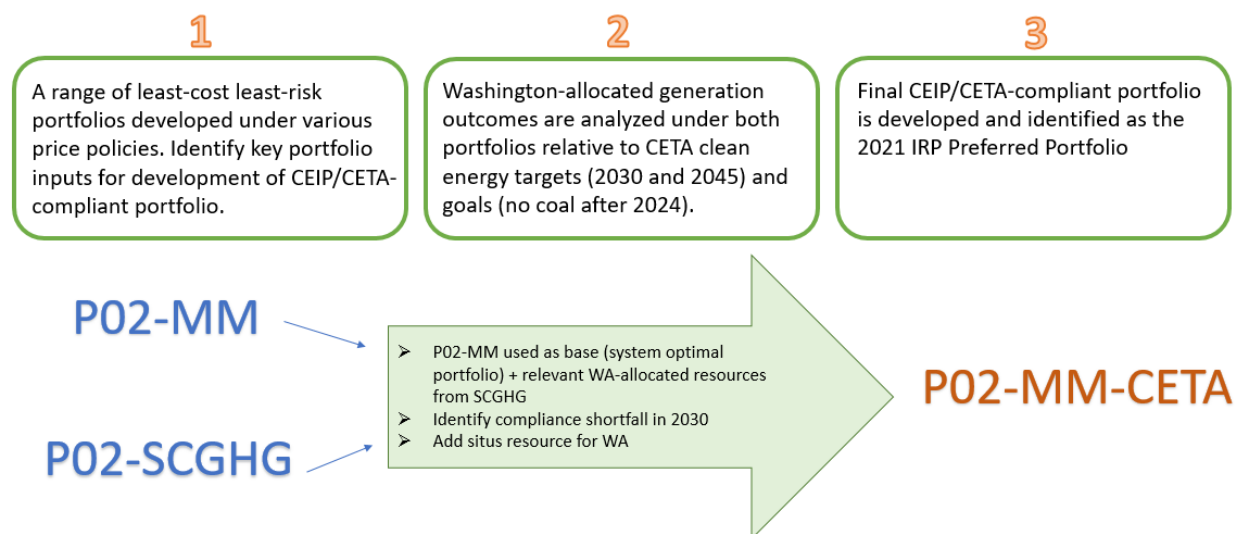
Incorporating P02-SCGHG into P02-MM-CETA

P02-MM entered the final evaluations as the top-performing portfolio for preferred portfolio selection on a systemwide basis. As Washington benefits from PacifiCorp’s systemwide optimization, and five other states would use P02-MM’s non-Washington allocated resource selections, PacifiCorp elected to label its preferred portfolio P02-MM-CETA once all CETA requirements had been met. Washington resource selections included in the preferred portfolio to meet CETA compliance included P02-SCGHG demand-side and supply-side resources, with only minor adjustments to meet identified CETA target deficiencies and improve portfolio

⁸ Refer to workpaper for a comparison of Washington-allocated installed capacity of resources between P02-MM and P02-SCGHG “10829-PAC-WP-Compare - P02-SC vs P02-MM WA Allocated Capacity 3-13-2023.xlsx”.

diversity. Figure F.18 illustrates the integration process transforming the completed P02-MM and P02-SCGHG portfolio into the 2021 IRP preferred portfolio, which was also the CETA-compliant portfolio in the original CEIP filing.

Figure F.18 – Development of CETA-Compliant Portfolio⁹



P02-MM was subsequently evaluated using the targets established by CETA. While P02-MM was evaluated for compliance shortfalls, this was done with both P02-SCGHG demand-side resource selections and P02-SCGHG supply-side resources as a necessary step in creating P02-MM-CETA. The reason the modified P02-MM was evaluated against CETA targets and not P02-SCGHG is because PacifiCorp’s intent was to evaluate compliance with CETA targets under expected operational conditions, which cannot be done using the P02-SCGHG study.¹⁰

CETA establishes specific targets for utilities serving customers in Washington including:

- By 2025, utilities remove coal-fueled generation from Washington’s allocation of electricity;¹¹
- By 2030, Washington retail sales are carbon-neutral;
 - 80 percent from long-term system resources;¹² and
 - 20 percent from alternative compliance using purchase of Unbundled Renewable Energy Credits (RECs);¹³

⁹ Adapted from presentation materials developed for the October 5, 2022 technical conference, see supporting file file “210829-PAC SCGHG Settlement Workshop FINAL (C).pdf”.

¹⁰ This is evident in the 2021 IRP description of how the CETA compliance shortfall was identified for year 2030. Please refer to the 2021 IRP, Chapter 9 – Modeling and Portfolio Selection Results, page 290, paragraph 5, “This shortfall includes lower capacity requirements from incremental demand-side management resources specific to Washington identified from the P02-SCGHG portfolio.” The purpose of this statement was to make clear that the only material difference between the P02-MM and P02-SCGHG portfolios of Washington-allocated resources was included in P02-MM prior to assessing the shortfall. While P02-SCGHG resources were also included, the differences were not material.

¹¹ RCW 19.405.030(1)(a).

¹² RCW 19.405.040(1)(a)(ii) (requires utilities to “use electricity from renewable resources and non-emitting electric generation in an amount equal to one hundred percent of the utilities retail electric loads over each multiyear compliance period.”).

¹³ RCW 19.405.020(38).

- By 2045, Washington’s retail sales are 100 percent renewable and non-carbon-emitting

Evaluating P02-MM against these targets required certain modeling assumptions to account for uncertainties related to the future of interjurisdictional cost allocation among the PacifiCorp states and resolution of outstanding CETA implementation issues. PacifiCorp currently allocates costs and benefits, including resource costs and benefits, to Washington according to the Washington Inter-Jurisdictional Allocation Methodology (WIJAM). The WIJAM expires December 31, 2023, and negotiations are underway among all six states to determine the next inter-jurisdictional allocation methodology. In addition to future inter-jurisdictional uncertainty, certain CETA implementation issues remain unresolved.¹⁴

In addition to assumptions regarding how energy is allocated across PacifiCorp’s six-state system, PacifiCorp also made assumptions regarding the amount of renewable and non-emitting resources that is eligible to apply toward the 80 percent “primary” compliance obligation. For purposes of meeting primary compliance, PacifiCorp assumed that eligible generation was limited to energy generated from long-term resources located on PacifiCorp’s system where both the energy and RECs were: 1) acquired at the same time; and 2) allocated to Washington customers under the applicable interjurisdictional allocation mechanism.

By 2025, PacifiCorp will remove all coal-fired generation from Washington’s allocation of electricity. By 2030, the Chehalis natural gas-fueled plant is the only Washington-located thermal resource operating on the system; all other existing and new resources in the P02-MM top-performing portfolio are renewable or non-emitting. Thus, all system energy allocated to Washington from a renewable or non-emitting resource contributes to meeting the CETA targets.¹⁵ This includes the renewable and non-emitting resources in the P02-MM top-performing portfolio as well as the energy efficiency and renewable Washington resource selections indicated by P02-SCGHG.

Identified Shortfalls

Upon evaluating the 2030 CETA target, a shortfall of roughly 69 MW of annual capacity was identified in 2030 (the highest shortfall year), with significantly smaller shortfalls identified in the years between 2030-2033. Under a four-year compliance window for the time period 2030 – 2033, an average annual shortfall of 49 MW was identified. This shortfall was addressed with a Washington-situs assigned 160 MW wind and solar resource co-located with storage located in Yakima, Washington.¹⁶

This shortfall also included lower capacity requirements from incremental demand-side management resources specific to Washington identified from the P02-SCGHG portfolio and the

¹⁴ For existing resources and new resources added through the end of 2023, the energy from system resources was allocated to states consistent with the 2020 Protocol and Washington Inter-Jurisdictional Allocation Methodology. For resources added to the system in 2024 and beyond, assignment of energy, costs and benefits followed a potential framework, subject to the ongoing Multi-State Process discussions, that enables compliance with CETA (and Oregon law) through reassignment of certain thermal resources. These resource allocation assumptions are used to assess the generation and allocation of Renewable Energy Credits (REC) state Renewable Portfolio Standard (RPS) compliance.

¹⁵ This is limited to system energy where Washington is also allocated the associated RECs.

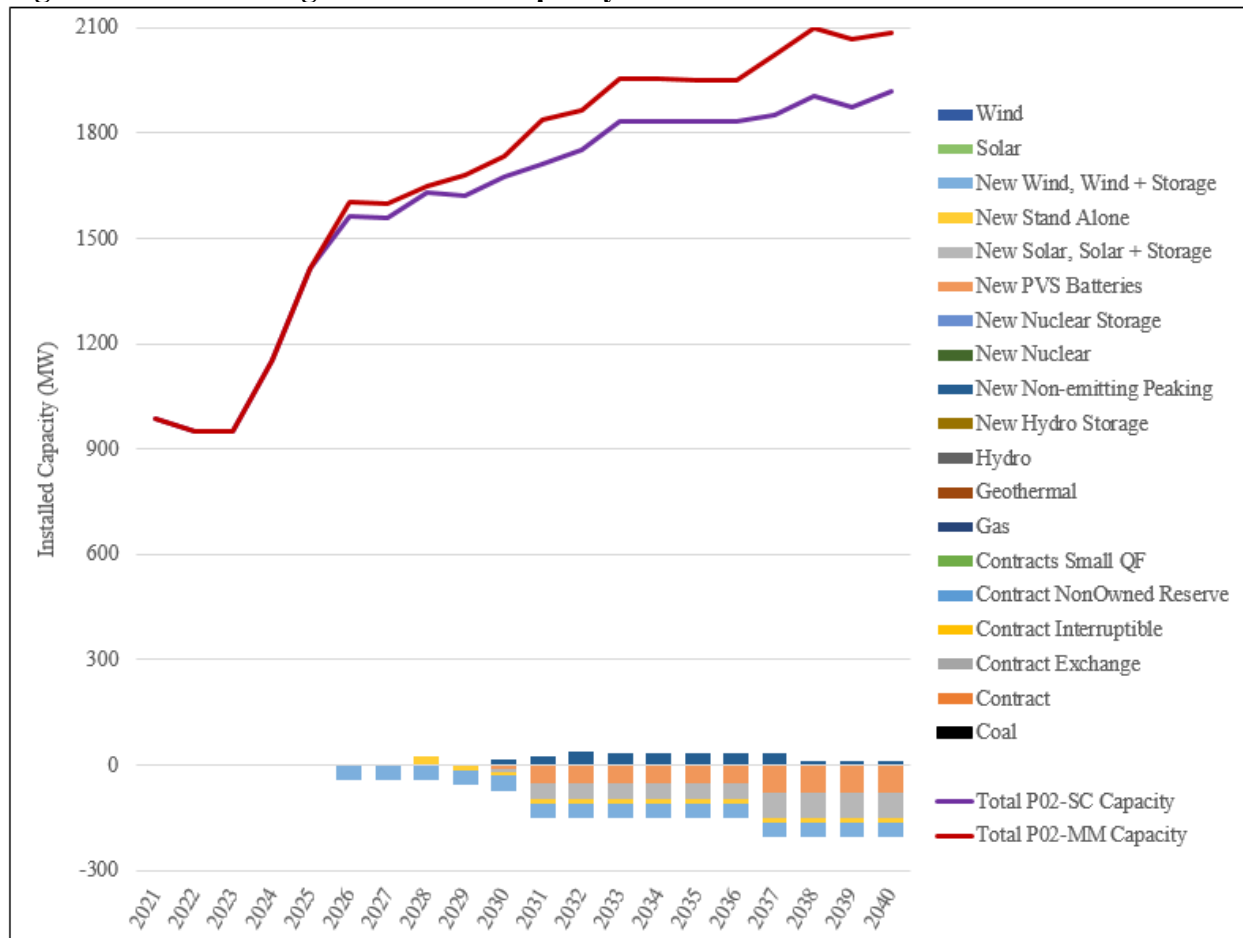
¹⁶ Supporting confidential workpaper is “210829-PAC-WP-P02-MM Initial WA Resource Alloc 3-13-2023 (C).xlsx”.

dispatch under the medium gas, medium CO₂ price-policy assumption of Washington selected resources identified in P02-SCGHG. In 2030, there was a reconfiguration of 160 MW of system solar collocated with storage located in Yakima, Washington in P02-MM, the top-performing portfolio, to become a Washington-situs assigned 160 MW resource that also includes wind, collocated with the solar and storage resource. This Washington-situs assigned resource maximizes usage of transmission interconnection availability at this location.

These additions to P02-MM to achieve CETA requirements resulted in P02-MM-CETA.¹⁷ As CETA establishes a target in 2045 that retail sales are 100 percent renewable or non-emitting that is outside of the 20-year IRP planning horizon, extrapolation was done that shows the P02-MM-CETA preferred portfolio meets the requirements. The P02-MM-CETA results in a PVRR(d) relative to P02-MM of \$164m.

P02-SCGHG and P02-MM (including DSM imported from P02-SCGHG) are identical during the current CEIP period from 2022-2025, as illustrated in Figure F.19.¹⁸

Figure F.19 – Washington Installed Capacity for P02-SCGHG less P02-MM



¹⁷ Original CEIP targets established for P02-MM-CETA can be found in supporting confidential workpaper “210829-PAC-WP-P02-MM-CETA WA Allocation Target Development 3-13-2023(C).xlsx”.

¹⁸ Source data and figure can be found in workpaper “210829-PAC-WP-Compare - P02-MM vs P02-MM WA Allocated Capacity 3-13-2023.xlsx”.

As explained during 2021 IRP and CEIP development and narrated in the CEIP executive summary, this is primarily because in the near-term PacifiCorp had already taken significant actions overwhelmingly aligned with CETA in the current CEIP panning window, and remains aligned until the year 2030 even without consideration of the SCGHG dispatch adder. While this holds true for Washington resources, the selection of non-Washington resources show greater disparity between the P02-MM and P02-SCGHG cases. This is because while PacifiCorp has in recent IRPs only added non-emitting resources and has retired coal resources, virtually all of the remaining emitting resources which would be impacted by the application SCGHG are allocated to states other than Washington. For reasons of this non-Washington applicability, the need to meet final targets and also to address diversity needs under conditions of systemwide coal retirement analysis, the Company also adopted a small number of portfolio changes in P02-MM-CETA. Table F.9 lists these final adjustments made for P02-MM-CETA.

Table F.9 - P02-MM-CETA Supply-side Resource Changes from P02-SCGHG¹⁹

In P02-MM-CETA, not in SCGHG	In P02-SCGHG, not in P02-MM-CETA
Yakima hybrid solar addition ¹	Dave Johnston Non-emitting ²
Yakima hybrid wind addition ¹	Willamette Valley Non-emitting ²
Yakima hybrid storage addition ¹	Southern Oregon Wind ³
Hunter PVS solar ⁴	
Hunter PVS storage ⁴	

- 1 - Driven by need for final adjustment to meet targets
- 2 - Driven by reliability needs under heavy coal retirement
- 3 - Driven by reconciliation and diversity under heavy coal retirement
- 4 - Timing change driven by heavy coal retirement

Summary of P02-MM-CETA Portfolio Development

PacifiCorp’s compliance strategy in the original CEIP flowed directly from the 2021 IRP preferred portfolio strategy. The company continues to believe that this interpretation of Washington SCGHG authorities was both reasonable and beneficial to Washington customers. Much of the explanation of this strategy was provided in the 2021 IRP, and not in the originally filed CETA document. This decision to leave much of the detail for portfolio development in the IRP was based on the notion that as the CEIP aligns with the IRP, and the IRP included the required precursor CEAP, and the IRP/CEAP preceded the CEIP in timing, including comprehensive detail in the CEIP was unnecessary and would run counter to the goal of filing a CEIP that would be accessible to the public. PacifiCorp chose instead to devote the majority of its attention to other elements of the CEIP, using the already established IRP preferred portfolio as a starting point.

P02-SC-CETA Data Inputs, Outputs and Roadmap

In this section, the Company details the data inputs, outputs, and provides a roadmap for the Company’s 2021 CEIP P02-SC-CETA portfolio.

¹⁹ Source data and table can be found in workpaper: “210829-SCGHG Settlement Workshop Portfolio Compares - Graph 3-13-2023.xlsx”.

There are few differences between the development of P02-MM-CETA and the P02-SC-CETA portfolios. However, these slight differences have ramifications for eventual CETA target compliance and costs to PacifiCorp’s Washington customers: Washington customers receive smaller renewable resources, several years later, compared to P02-MM-CETA.

Each of the settlement requirements for the new P02-SC-CETA portfolio is detailed below, including references to any identical sections of the roadmap narrative already described above.

P02-SCGHG Portfolio as the Basis of the CEIP Portfolio

PacifiCorp removed P02-MM-CETA as the basis for the CEIP portfolio, and replaced it with the P02-SC-CETA portfolio.

This is a new portfolio that was not developed for the 2021 IRP. While the company developed the P02-SCGHG portfolio in the initial CEIP, the additional steps which result in appending “-CETA” to the study names were not performed. Appending “-CETA” indicates that the portfolio has been adjusted for final CETA target compliance beyond the resource selections occurring as part of the roadmap illustrated in Figure F.3. P02-SCGHG is a price-policy study that fully incorporated the SCGHG dispatch cost adder in all resource selections. However, as with the P02-MM study, final CETA target compliance could not be achieved without additional resource considerations. As with P02-MM, in order to reach the “-CETA” status of full compliance, additional resources were required to be added in 2030 and beyond. That said, P02-SCGHG and P02-MM (including DSM imported from P02-SCGHG) are identical during the current CEIP period from 2022-2025.

Model Inputs and Outputs

Base Inputs

All IRP models are configured and loaded with the best available information at the time a model run is produced. Noted in Figure F.1 are the primary base assumptions for Plexos as inputs prior to running models. These inputs, such as load, private generation, existing transmission, etc., vary only for specific sensitivities and variants noted in the 2021 IRP. For the single relevant study used to develop P02-SC-CETA for the refiled CEIP there are no differences in base assumptions compared to any other study with the exception of the SCGHG price-policy scenario. All model inputs are included in workpapers included with the original filing, and are included again in this refiling for completeness. Additional input workpapers are provided and noted where appropriate below to fulfill on the terms of the settlement. Among the included workpapers is the entire 2021 IRP Plexos database which contains the P02-SCGHG study that serves as the basis for P02-SC-CETA.

Outputs are also provided in workpapers accompanying the 2021 IRP and original CEIP filings. As with inputs, these output files are provided again for completeness. As P02-SC-CETA is a new study, all of the appropriate additional workpapers, such as model report output files for the LT, MT and ST models, have been included in workpapers.

SCGHG Inputs

As detailed in section (1a) Model Inputs and Outputs - SCGHG Inputs, Plexos inputs for the SCGHG dispatch adder, extracted directly from Plexos, are provided in the workpaper “210829-PAC-WP-P02-SCGHG ST (30497-Emissions by Generator) 3-13-2023 (C).xlsx” on the “Emissions Results” tab. The critical component of this workpaper is provided here in Table F.10. As shown in this table, emissions costs for each Washington resource are derived entirely from the SCGHG dispatch adder, ensuring that there are no conflating emissions costs applied.

Table F.10 - SCGHG Dispatch Adder Applied to Thermal Resource Emissions Cost

	Production (ton)	Model Reported Cost (\$000)	Emissions cost/lb	Emissions cost per ton	Calculated Emission total cost (\$000)	Delta
Washington Emitting Resources	31,411,009	3,257,125	0.0451	90.2	3,257,125	0
Percentage of emissions cost accounted for by SCGHG dispatch adder						100%

P02-SCGHG Roadmap for Inclusion in P02-SC-CETA

PacifiCorp used the P02-SCGHG study as the basis for Washington resources in its P02-MM-CETA preferred portfolio, and does so again for the new P02-SC-CETA portfolio. The roadmap in Figure F.3 describing the application of the SCGHG dispatch adder in P02-SCGHG initial study, and therefore in the P02-SC-CETA final CEIP portfolio, is therefore unchanged. The application of the roadmap steps to the development of the P02-SCGHG portfolio is likewise identical. For this reason, the roadmap Steps A-J are not repeated here.

Instead, this section picks up where the roadmap leaves off, and identifies remaining CETA target shortfalls in the P02-SCGHG study and explains the resolution of those shortfalls through additional renewables added to the portfolio in 2030 and beyond.

Identified Shortfalls

P02-SCGHG does not result in a CETA compliant portfolio: the portfolio is 14 MWs short of annual capacity for the 2030 CETA target, and 28 MWs short of annual capacity for the 2045 CETA target.²⁰

Due to the SCGHG dispatch adder’s inevitable depression of CO2 emissions, shortfalls are lower in the P02-SCGHG than in P02-MM, leading to a reduced need for renewables over the 20-year study period. As a consequence, while shortfalls are smaller overall, they are distributed in a way that leads to breaking up CETA-target resource additions over multiple years. This distribution of target deficiencies results in net smaller renewable additions and a delay in achieving 100% CETA target compliance. In the P02-MM-CETA portfolio, the addition of a 160 MW renewable

²⁰ Supporting confidential workpaper is “210829-PAC-WP-P02-SCGHG WA Initial Target Development 3-13-2023 (C).xlsx”.

resource in 2030 resolved all subsequent deficiencies and achieved 100% emissions reduction by the year 2038. In the P02-SC-CETA study, additions are made of the following type, location, size and timing as summarized in Table F.11.²¹

Table F.11 – P02-SC-CETA Resource Additions for CETA Compliance

Incremental Resource	Fiscal Year	Build Capacity (MW)
Yakima hybrid solar addition	2030	80
Yakima hybrid wind addition	2030	80
Yakima hybrid storage addition	2030	80
Yakima hybrid solar addition	2040	55
Yakima hybrid wind addition	2040	55
Yakima hybrid storage addition	2040	55

As can be seen in refiling Chapter 1, Figure 1.1 – Interim Targets, 100% compliance is instead achieved in year 2040, as there are cost savings associated with optimizing resource size according the schedule of deficiencies.

In 2030, there was a reconfiguration of 80 MW of system solar collocated with storage located in Yakima, Washington in P02-MM, the top-performing portfolio, to become a Washington-situs assigned 80 MW resource that also includes wind, collocated with the solar and storage resource. This Washington-situs assigned resource maximizes usage of transmission interconnection availability at this location. There is an additional reconfiguration of 55 MW in 2040 to bring the total installed capacity of the Washington-situs assigned wind, collocated with solar and storage resource to 135 MW.

These portfolio differences to P02-SCGHG to meet the requirements of CETA result in the CEIP Portfolio, P02-SC-CETA. As CETA establishes a target in 2045 that retail sales are 100 percent renewable or non-emitting that is outside of the 20-year IRP planning horizon, extrapolation was done that shows the P02-SC-CETA CEIP portfolio meets the requirements. The P02-SC-CETA results in an incremental cost relative to P02-SCGHG of \$2.56 million on average annually.

Conclusion

The development of the P02-SC-CETA portfolio simplifies portfolio analysis compared to the 2021 IRP preferred portfolio by eliminating the steps of integrating Washington’s resources with the rest of the system, and by retaining the SCGHG price-policy scenario throughout the analysis. While more straightforward, this approach increases the margin of error for CETA compliance under real-world conditions expected to prevail, and invites the risk identified in the 2021 IRP:

²¹ Supporting data can be found in workpaper “210829-PAC-WP-P02-SC-CETA Installed Capacity 03-13-2023.xlsx”.

Aligned with Washington staff suggested treatment, system operations also include the SC-GHG once the portfolios are determined, presenting the risk that this operational assumption will not be aligned with actual market forces (i.e., market transactions at the Mid-Columbia market do not reflect the social cost of greenhouse gases and PacifiCorp does not directly incur emission costs at the price assumed for the social cost of greenhouse gases).²²

P02-SC-CETA presents another reasonable interpretation of Washington’s SCGHG authorities, and the identified impacts lie outside of the current four-year CEIP window. The Company looks forward to additional feedback and the continued discussion for how to best apply the SCGHG dispatch adder.

²² 2021 IRP, Chapter 8 – Modeling and Portfolio Evaluation Approach, page 226