

WASHINGTON 2024 Clean Energy Implementation Plan — PROGRESS REPORT —

July 1, 2024

 **PACIFIC POWER.**

PACIFICORP

2024 CLEAN ENERGY IMPLEMENTATION PLAN

PROGRESS REPORT

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I. Introduction

In 2019, Washington passed the Clean Energy Transformation Act (CETA), which 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.¹ CETA requires investor-owned utilities to submit a Clean Energy Implementation Plan (CEIP) every four years to the Washington Utilities and Transportation Commission (WUTC or Commission) that describes the utility's plan to meet CETA's ambitious clean energy targets. Utilities are required to submit annual clean energy progress reports that update the Commission on the utility's progress towards its goals set out in its CEIP, beginning in 2023.

In accordance with Washington Administrative Code (WAC) 480-100-650(3) and (4), PacifiCorp respectfully submits its annual clean energy progress report for the Commission's consideration. PacifiCorp's 2024 Progress Report contains multiple sections to address both the standard reporting requirements for an annual progress report and additional reporting elements as committed to by the company in its settlement of the first CEIP. Section II contains annual clean energy reporting requirements, looking back at the year 2023, while Section III contains both revisions to planning elements from the original CEIP, as well as some updates and reported metrics for the year 2023. Section IV includes additional supporting detail across the company's customer benefit indicators (CBIs) metrics.

As indicated in Table 1 below, PacifiCorp is within 0.2 percent of achieving its interim goal of serving at least 31 percent of Washington retail electric sales with non-emitting and renewable resource generation in 2023. PacifiCorp is reporting 30.8 percent for 2023, which is equivalent to 1,184,120 megawatt-hours (MWh) of renewable energy credit (REC)-generating energy to serve Washington retail sales.²

¹ 2019 WA Laws Ch. 288.

² PacifiCorp's request to lower interim targets for 2023 and subsequent years with its 2023 Biennial CEIP Update is currently pending before the Commission. As a result, the interim targets in this progress report are derived from the company's 2021 Revised CEIP. *In re PacifiCorp's 2021 Revised CEIP*, Docket No. UE-210829, Revised 2021 CEIP, at 11, Figure 1.1. (filed Mar. 13, 2023).

Table 1 – PacifiCorp’s Annual CEIP Report Summary

PacifiCorp CEIP Interim Goal for 2023	31%	
	MWh	% of Retail Sales
Washington Retail Sales	3,850,048	
Washington PURPA Qualifying Facilities (QFs)	5,224	
Retail Sales (QF Adjusted)	3,844,824	
Washington Allocated Renewable Energy and RECs	928,528	24.2%
Washington Allocated BPA Renewable Energy	16,048	0.4%
Washington Allocated BPA Non-Emitting Energy	2,325	0.1%
Total electricity supplied by non-emitting and renewable resources in 2023 (excluding WA-allocated system RECs)	946,601	24.6%
WA-Allocated PacifiCorp System RECs – Reported in RPS	84,600	2.2%
WA-Allocated PacifiCorp System RECs ³	152,619	4.0%
Total electricity supplied by non-emitting and renewable resources in 2023⁴	1,184,120	30.8%

II. 2024 Annual Clean Energy Progress Report

This section includes PacifiCorp’s annual clean energy progress report for 2023 as required by WAC 480-100-650(3) and (4).

A. WAC 480-100-650(3)

PacifiCorp’s responses to the reporting requirements of WAC 480-100-650(3)(a)-(l) are discussed below.

(3) Annual clean energy progress reports. On or before July 1st of each year beginning in 2023, other than in a year in which the utility files a clean energy compliance report, the utility must file with the commission, in the same docket as its most recently filed CEIP, an informational annual clean energy progress report regarding its progress in meeting its targets during the preceding year. The annual clean energy progress report must include, but is not limited to:

(a) Beginning July 1, 2027, and each year thereafter, an attestation for the previous calendar year that the utility did not use any coal-fired resource as defined in this chapter to serve Washington retail electric customer load.

Not applicable.

(b) Conservation achievement in megawatts, first-year megawatt-hour savings, and projected cumulative lifetime megawatt-hour savings.

³ PacifiCorp system RECs include those purchased as bundled energy and RECs under the same transaction on PacifiCorp’s system, but where Washington is not allocated the energy as part of its cost allocation under the company’s Washington Inter-Jurisdictional Allocation Methodology (WIJAM). A cost recovery mechanism for these RECs will need to be established if these RECs are retired at the end of the 2022-2026 compliance period.

⁴ Interim Target Condition 9 (“PacifiCorp will clearly express its 2022-2025 renewable energy target as a percentage of the Company’s Washington retail sales of electricity supplied by renewable resources.”). Reported percentage includes renewable energy as well as non-emitting CETA-qualifying resources.

Conservation achievements for 2023 are provided in PacifiCorp’s 2023 Annual Report on Conservation Acquisition.⁵ Table 2 below is from Table 4 from the revised annual report, which includes savings acquired from PacifiCorp energy efficiency programs, distribution efficiency, production efficiency, and PacifiCorp’s share of Northwest Energy Efficiency Alliance savings. Savings are provided below both at the customer meter/site and at the generator (savings at the generator includes line losses between the customer site/meter and generator). There is additional detail in the annual report on the energy efficiency programs and challenges in 2023 resulting from the lingering effects of the COVID-19 pandemic and adaptive management actions taken by the company.

Table 2 – 2023 Conservation Achievement

Description	Value (at site)	Value (at Generator)
First year Energy Efficiency program MWh savings acquired during 2023	49,362	53,085
Conversion factor: Coincident MW/MWh	0.000179233	0.000179233
Estimated coincident peak MW contribution of 2023 Energy Efficiency acquisitions	8.85	9.51
Estimated Lifecycle Energy Efficiency program MWh savings from savings acquired in 2023	535,121	575,423

PacifiCorp also filed its 2022-2023 Biennial Conservation Report, which includes 2022-2023 conservation achievements relative to the Commission-approved targets.⁶ The report details adjustments relative to the annual report conservation achievements for Home Energy Reports energy savings in 2022 and 2023 and an adjustment to Northwest Energy Efficiency Alliance energy savings for 2022. Table 3 below shows the 2022, 2023, and 2022-2023 conservation achievements with adjustments.

⁵Available at: <https://www.utc.wa.gov/casedocket/2021/210830/docsets>.

⁶Available here: <https://www.utc.wa.gov/casedocket/2021/210830/docsets>. Note, the company has requested that the Commission approve the company’s 2022-2023 Biennial Conservation Report in Docket No. UE-210830. The company’s BCP contains more detail on this issue, and if approved, would establish the relevant 2022-2023 conservation targets for CEIP purposes, because the company’s targets are derived from the biennial conservation planning process.

Table 3 – 2022-2023 Conservation Achievement (with adjustments)

Description	2022		2023		2022 + 2023	
	Value (at site)	Value (at generator)	Value (at site)	Value (at generator)	Value (at site)	Value (at generator)
First year Energy Efficiency program MWh savings acquired (with adjustments from Biennial Conservation Report)	37,550	40,375	49,411	53,137	86,961	93,512
Conversion factor: MW/MWh	0.000167664	0.000167664	0.000179233	0.000179233		
Estimated coincident peak MW contribution of Energy Efficiency acquisitions	6.30	6.77	8.86	9.52	15.15	16.29
Estimated Lifecycle Energy Efficiency program MWh savings from savings acquired	391,739	421,189	535,170	575,476	926,909	996,665

(c) Demand response program achievement and demand response capability in megawatts and megawatt hours.

PacifiCorp launched two demand response programs to customers in 2023. As shown in Table 4, demand response program achievement and capacity for 2023 was 4.9 megawatts (MW). The programs also achieved 251 MWh of available energy.

Table 4 – Demand Response Capacity and Energy

Program	MW at Site ^a	MWh at Site ^b	MW at Generation	MWh at Generation
Irrigation Load Control (ILC)	4.3	222.3	4.6	239.4
Commercial and Industrial Demand Response (CIDR)	0.3	11.2	0.3	12.0
Optimal Time Rewards (OTR) ^c	n/a	n/a	n/a	n/a
Total	4.6	233.5	4.9	251.4

^a MW values are based on sum of available capacity across all programs.

^b MWh values are calculated as available capacity multiplied by the maximum available hours as stipulated in program filing.

^c OTR was not launched to customers in 2023.

(d) Renewable resource capacity in megawatts, and renewable energy usage in megawatt hours and as a percentage of electricity supplied by renewable resources.

Please see confidential workpaper “210829-PAC-WP-CEIP-3(d)-3(e)-3(g)-4(b)(ii)-4(c)-7-1-24 (C).xlsx” for renewable resource capacity in MW, renewable energy usage in MWh, and the calculation showing percentage of electricity supplied by renewable resources. Renewable energy usage is supported by RECs allocated to Washington from PacifiCorp’s system, consistent with the Washington Inter-Jurisdictional Allocation Methodology (WIJAM), and reflects renewable and non-emitting energy portions of purchases from Bonneville Power Administration (BPA).

PacifiCorp system RECs include those purchased as bundled energy and RECs under the same transaction on PacifiCorp’s system, but where Washington is not allocated the energy as part of its cost-allocation under the WIJAM (nor is any other state). A cost recovery mechanism for these RECs will need to be established if these RECs are retired at the end of the 2022-2026 compliance period to demonstrate compliance with Washington’s interim targets.

(e) All renewable energy credits and the program or obligation for which they were used (e.g., voluntary renewable programs, renewable portfolio standard, clean energy transformation standards).

Information on RECs and the program or obligation for which they are used are detailed in confidential workpaper “210829-PAC-WP-CEIP-3(d)-3(e)-3(g)-4(b)(ii)-4(c)-7-1-24 (C).xlsx”. The “DetailC – WA CEIP 2023 (CONF)” tab, column G indicates whether the REC usage is for the renewable portfolio standard, CETA, or voluntary Blue Sky program.

(f) Verification and documentation of the retirement of renewable energy credits for all electricity from renewable resources used 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 of the renewable energy are tracked through contract language.

Please refer to PacifiCorp’s 2024 Annual Renewable Portfolio Standard Report for the updated Western Renewable Energy Generation Information System (WREGIS) report showing 2023 RECs held for retirement in compliance with the 2023 Renewable Portfolio Standard (Docket No. UE-240405).⁷ Additionally, refer to confidential workpapers “210829-PAC-CEIP-WP-WREGISHydro3(f)-7-1-24 (C).xlsx” and “210829-PAC-CEIP-WP-WREGISSystemREC3(f)-7-1-24 (C).xlsx” for WREGIS reports showing RECs held in PacifiCorp’s WREGIS sub-account for CETA compliance to be retired at the end of the 2022-2025 compliance period.

(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.

Non-emitting energy reported for 2023 is from Washington’s allocation of BPA purchases. Non-emitting share of BPA purchases is from nuclear energy reported in BPA’s 2023 fuel mix,⁸ while the renewable portion of BPA’s fuel mix is accounted for under section (d). The total number of MWh from BPA’s nuclear mix is 2,325 MWh which is 0.1 percent of Washington retail sales. For details see confidential workpaper, “210829-PAC-WP-CEIP-3(d)-3(e)-3(g)-4(b)(ii)-4(c)-7-1-24 (C).xlsx”.

(h) The utility’s greenhouse gas content calculation pursuant to RCW 19.405.070.

(i) An electronic link to the utility’s most recently filed fuel mix disclosure report as required by RCW 19.29A.140.

(j) Total greenhouse gas emissions in metric tons of CO₂e.

⁷ Available here: <https://www.utc.wa.gov/casedocket/2024/240405>.

⁸ Available here: <https://www.bpa.gov/-/media/Aep/power/fuel-mix/2023-bpa-fuel-mix.pdf>

Because greenhouse gas (GHG) emissions reporting is no longer required by Washington law,⁹ the fuel mix disclosure reporting has not been initiated by the Washington State Department of Commerce. PacifiCorp’s most recently filed fuel mix disclosure report is for calendar year 2022 and is available on the Department of Commerce’s website.¹⁰

(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 intermediate owners of the non-emitting electric generation, and an appropriate company executive of the utility; the utility may not transfer ownership of the nonpower attributes after claiming them in any compliance report.

This section is not applicable for the current progress report.

(l) Other information the company agreed to or was ordered to report in the most recently approved CEIP or biennial CEIP update.

Section III: Additional Reporting, below, includes, among other things, reporting agreed to in settlement and approval of PacifiCorp’s 2021 Revised CEIP.¹¹

B. WAC 480-100-650(4)

PacifiCorp’s responses to the reporting requirements of WAC 480-100-650(4)(a)-(d) are discussed below.

(4) Data and contract reporting. Each utility must file its annual clean energy progress report based on an analysis that identifies and considers the source and characteristics of the electricity a utility claims to meet compliance obligations under WAC 480-100-610, including electricity that is produced, purchased, sold, or exchanged.

(a) Unless otherwise ordered by the commission, the analysis and supporting data provided in the filing must include data in an hourly format for:

(i) Total Washington retail sales.

Per Order 01 in Docket No. UE-210829, PacifiCorp is not required to report hourly Washington retail sales. Please see confidential workpaper “210829-PAC-CEIP-WP-RetailSales(a)(i)-7-1-24 (C).xlsx” reporting monthly retail sales.

(ii) Retail sales for customers participating in a voluntary renewable energy purchase program in alignment with RCW 19.405.020 (36)(b).

⁹ 2024 WA Laws Ch. 83 (repealing RCW 19.405.070 and RCW 19.405.020(22)).

¹⁰ Available here: <https://www.commerce.wa.gov/wp-content/uploads/2024/06/CY2022-Energy-Washington-State-Electric-Utility-Fuel-Mix-Disclosure-Report-with-Utility-Fuel-Mix-Summary.pdf>

¹¹ Per Commission Order 06, issued October 25, 2025, in Docket No. UE-210829.

PacifiCorp’s Blue Sky participants in Washington for 2023 included 7,070 residential and 222 nonresidential customers. The total generation for the Blue Sky program in Washington for 2023 was 16,865 MWh.

Currently, there are limited voluntary renewable energy purchase program options in Washington. Although bundled energy and REC deals are allowed under Schedule 73,¹² there are no customers currently participating in this type of agreement.

(iii) Total electricity production for all renewable and non-emitting generation owned, contracted, or controlled by the utility.

For non-QF electricity production meeting the above criteria see workpaper “210829-PAC-CEIP-WP-RenNonEGen4(a)(iii)-7-1-24 (C).xlsx”. The data in these files shows the total company hourly MW for energy production from resources and contracts allocated to Washington under the WIJAM. To convert the total company MWh to Washington’s share, multiply by the appropriate 2023 allocation factor.

(iv) Generation from qualifying facilities as described in RCW 19.405.020(36)(a).

For generation from QFs meeting the above criteria see confidential workpaper “210829-PAC-CEIP-WP-QFGen(YakimaTieton)4(a)(iv)-7-1-24 (C).xlsx”. The data in these files shows the total company hourly MW for energy production from resources and contracts allocated to Washington under the WIJAM. To convert the total company MWh to Washington’s share, multiply by the appropriate 2023 allocation factor.

(v) All electricity sold or transferred for all bundled sales of electricity from renewable and non-emitting sources. For the purposes of this subsection, bundled electricity is electricity that is sold with all its nonpower attributes in the same transaction.

For bundled energy sales of electricity from renewables and non-emitting sources see workpaper “210829-PAC-CEIP-WP-BundledSales4(a)(v)-7-1-24 (C).xlsx”. The data in this file shows the total company hourly MW for energy production from resources and contracts allocated to Washington under the WIJAM. To convert the total company MWh to Washington’s share, multiply by the appropriate 2023 allocation factor.

(vi) All electricity sales in which the electricity was sold by that utility in a wholesale market sale without its associated nonpower attributes.

For sales without associated nonpower attributes see workpaper “210829-PAC-CEIP-WP-Sales4(a)(vi)-7-1-24 (C).xlsx”. The data in this file shows the total company hourly MW for energy production from resources and contracts allocated to Washington under the WIJAM. To convert the total company MWh to Washington’s share, multiply by the appropriate 2023 allocation factor.

¹² Tariff available here: https://www.pacificpower.net/content/dam/pcorp/documents/en/pacificpower/rates-regulation/washington/rates/073_Renewable_Energy_Rider_Optional_Bulk_Purchase_Option.pdf

(b) Unless otherwise ordered by the commission, the utility must include in its filing the following:

(i) Total monthly megawatt-hours of sales, purchases, and exchanges by counter party of electricity sales in which the electricity was sold by that utility in a wholesale market sale without its associated nonpower attributes. Any contract in which the utility sells electricity in a wholesale market sale without its associated nonpower attributes must include terms stating the seller is not transferring any of the nonpower attributes and the buyer may not represent in any form that the electricity has any nonpower attributes associated with it and that the buyer must include such provision in any sale of the electricity in any subsequent sale it makes.

For sales without nonpower attributes see response to question 4(a)(vi). For purchases without nonpower attributes see confidential workpaper “210829-PAC-CEIP-WP-PurchWithoutNonPowerAtt4(b)(i)-7-1-24 (C).xlsx”. The data in this file shows the total company monthly MW for energy production from resources and contracts allocated to Washington under the WIJAM. To convert the total company MWh to Washington’s share, multiply by the appropriate 2023 allocation factor.

For exchanges without nonpower attributes see confidential workpaper “210829-PAC-CEIP-WP-MonthlyExchanges4(b)(i)-(ii)-7-1-24 (C).xlsx”. The data in this file shows the total company hourly MW for energy production from resources and contracts allocated to Washington under the WIJAM. To convert the total company MWh to Washington’s share, multiply by the appropriate 2023 allocation factor.

(ii) Total monthly megawatt-hours of sales, purchases, and exchanges of bundled electricity from renewable or non-emitting generation. For the purposes of this subsection, bundled electricity is electricity that is sold with all of its nonpower attributes in the same transaction.

Please see confidential workpaper “210829-PAC-WP-CEIP-3(d)-3(e)-3(g)-4(b)(ii)-4(c)-7-1-24 (C).xlsx” for monthly MWh of purchase and sales of bundled electricity from renewable or non-emitting generation. There are no exchanges of bundled renewable or non-emitting generation. There are no exchanges that include all nonpower attributes.

Bundled renewable energy claims reflect cost allocation of system energy under WIJAM,¹³ and allocation of RECs to Washington. RECs used for compliance are not otherwise claimed by any other state on PacifiCorp’s system, claimed under customer renewable tariffs or associated with electricity delivered, reported, or claimed as a zero-emission specified source or assigned the emissions rate of the renewable generating facility under a GHG program.

(iii) All purchase contracts longer than one month that source the electricity delivered from coal fueled generation.

Not applicable.

¹³ E.g., *In re PacifiCorp’s 2023 PCAM*, Docket No. UE-230482 (filed June 15, 2023) (requesting cost recovery of bundled renewable energy claims based on cost allocation of system energy under WIJAM) (available here: <https://www.utc.wa.gov/casedocket/2023/230482>).

(iv) Beginning January 1, 2026, all existing or new purchase contracts longer than one month with documentation that none of the electricity delivered is sourced from coal fueled generation.

Not applicable.

(v) Any data provided to the Western power pool's resource adequacy program or its successor.

PacifiCorp has not committed to the binding phase of WRAP until at least 2027.

(c) A utility may use an unbundled REC as an alternative compliance option, as provided in RCW 19.405.040 (1)(b), only if the utility demonstrates that there is no double counting of any nonpower attribute associated with that REC. This subsection sets only the minimum requirements necessary to demonstrate that no double counting has occurred. The commission may require the utility to produce other evidence or take specific actions as the commission determines necessary to ensure that there is no double counting of nonpower attributes.

(i) Except as provided in (c)(iii) of this subsection, a utility may use an unbundled REC for alternative compliance only if the utility demonstrates:

(A) The associated electricity was sold, delivered, or transferred without fuel sources or nonpower attributes and under a contract or transaction term expressly stating the fuel source or nonpower attributes are not included; and

(B) The associated electricity was not delivered, reported, or claimed as a zero-emission specified source or assigned the emissions rate of the renewable generating facility under a greenhouse gas (GHG) program.

(ii) A utility's demonstration under this section may be met by documentation that the entity providing the unbundled REC:

(A) Provides contract, confirmation, or other transaction terms that comply with the requirements of (c)(i)(A) and (B) of this subsection;

(B) Was a party to or otherwise has knowledge of the transaction in which the associated electricity was sold or transferred and attests to (c)(i)(A) and (B) of this subsection; or

(C) Obtained the unbundled REC from an entity that attests that it and all previous owners of the REC transferred the REC using transaction terms complying with the requirements of (c)(ii)(A) or (B) of this subsection.

(iii) To claim and retire an unbundled REC for alternative compliance where the Washington-eligible RECs were created by renewable electricity marketed by the Bonneville Power Administration a utility must demonstrate the REC was not associated with electricity from a system sale from the Bonneville Power Administration directly into a state with a GHG program and to an entity regulated by the state greenhouse gas program. The RECs are calculated based on the same vintage year as the year in which the electricity was imported to the state with the greenhouse gas program.

(iv) For the purposes of (c) of this subsection, "greenhouse gas program" includes any governmental program outside of Washington that caps or limits greenhouse gas emissions or requires the purchase, surrender, or retirement of greenhouse gas allowances if the scope of the greenhouse gas program includes electricity imported from outside the governmental jurisdiction and does not require the retirement of RECs for such imported electricity.

Please see confidential workpaper “210829-PAC-WP-CEIP-3(d)-3(e)-3(g)-4(b)(ii)-4(c)-7-1-24 (C).xlsx” for 2023 generated PacifiCorp system RECs that the company has set aside in a WREGIS sub-account for alternative compliance with 2022-2025 Interim Targets. While the electricity associated with these RECs may have been sold with all its nonpower attributes in the same transaction to PacifiCorp, only when the associated energy is cost-allocated under WIJAM are RECs considered bundled and eligible for CETA compliance.¹⁴

(d) For the purposes of reporting and compliance, the storage of electricity has the following impacts:

(i) The eligibility of renewable or nonemitting electricity is not affected by the use of storage resources.

(ii) Except for storage resources located on the customer side of a retail meter, any electrical consumption or loss resulting from the charging, holding, and discharging of storage resources is not considered retail electric load as defined in RCW 19.405.020(36).

(iii) Any electrical consumption or loss resulting from the charging, holding, and discharging of storage resources located on the customer side of a retail meter is considered retail electric load for the purpose of compliance with chapter 19.405 RCW.

Not applicable.

III. Additional Reporting

PacifiCorp provides the following additional information consistent with the company’s commitments from its 2021 Revised CEIP. This includes additional discussion regarding the company’s Interim Targets, Customer Benefit Indicators (CBIs), Specific Actions, and Public Participation. Additional supporting data specific to CBIs can be found in Section IV.¹⁵

A. Interim Targets

Regarding Interim targets, PacifiCorp agreed to: (1) demonstrate “how its interim targets 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;”¹⁶ (2) “clearly express its 2022-2025 renewable energy target as a percentage of the company’s Washington retail sales of electricity supplied by renewable resources;”¹⁷ and (3) “provide a sensitivity

¹⁴ *Id.*

¹⁵ CEIP Full Multi-Party Agreement and Settlement Testimony, filed September 22, 2023 in Docket No. UE-210829, available at:

<https://apiproxy.utc.wa.gov/cases/GetDocument?docID=592&year=2021&docketNumber=210829>.

¹⁶ Interim Target Condition 2; WAC 480-100-610(4)(c), -640(2)(a)(ii).

¹⁷ Interim Target Condition 9.

analysis from the CEIP portfolio that removes the Natrium demonstration project from the preferred portfolio in 2028 that identifies resource alternatives and system impacts.”¹⁸

Regarding Interim Target Condition 2, the company believes that the following documents would be relevant in any determination of whether the company is adequately complying with WAC 480-100-610 and -640. These include: (1) the company’s CBI report card, which is available on the company’s website and was filed as the workpaper “210829-PAC-CEIP-WP-Report Card Metrics-7-1-24.xlsx”;¹⁹ (2) annual CEIP progress reports; and (3) future rate proceedings that seek rate recovery of Washington-specific CETA compliance costs. Currently, PacifiCorp believes that the most appropriate review of whether the company is demonstrating that its interim targets ensure customers are benefiting from the transition to clean energy is by reviewing above-referenced documents (1) and (2): Comparing PacifiCorp’s information in its annual CBI report card, to what percentage of interim targets were achieved in the annual CEIP progress report. This allows the Commission and stakeholders to review progress on specific CBIs and metrics, while at the same time observe trends on these topics as PacifiCorp progresses towards meeting its interim goals each year.

If, after review of these documents, additional mechanisms (whether CBIs, metrics, or others) are necessary to adequately inform the Commission of PacifiCorp’s compliance with WAC 480-100-610 and -640, stakeholders should raise those issues when adjudicating specific CEIPs or CEIP Biennial Updates. This would ensure appropriate stakeholder engagement and Commission review.

In the future, PacifiCorp also believes it will be necessary to review above-referenced document(s) (3), rate proceedings to recover Washington-specific CETA compliance costs. This would allow the Commission and stakeholders to review not only relevant CBI information and progress towards achieving interim targets, but also PacifiCorp’s specific investment decisions that result in CETA compliance costs. However, because PacifiCorp currently forecasts *de minimis* costs to comply with CETA in the current four-year progress period, and because the company does not have a pending rate proceeding to recover Washington-specific CETA compliance costs, PacifiCorp does not believe that this third category is as relevant to determine if the company is adequately complying with WAC 480-100-610(4)(c) and -640(2)(a)(ii) at this time.

Regarding Interim Target Condition 9, please refer to Table 1 in the Introduction, as well as Tables 1.1 and 1.2 of PacifiCorp’s 2023 Biennial CEIP Update.

Regarding Interim Target Condition 11, PacifiCorp has conducted the required Natrium sensitivity analysis based on the latest available information and modeling in the 2023 IRP Update.²⁰ As this sensitivity analysis assumes the removal of the shared Natrium resource from the preferred portfolio, an alternative portfolio is determined for all states, and Washington’s

¹⁸ Interim Target Condition 11.

¹⁹ Available here: <https://www.pacifiCorp.com/energy/washington-clean-energy-transformation-act-equity.html>.

²⁰ The 2023 IRP Update was filed as an informational update to the 2023 Integrated Resource Plan (IRP) on April 1, 2024, in Docket No. UE-200420.

resource share of that alternative portfolio incorporates the social cost of greenhouse gas (SC-GHG) emissions as a cost adder as specified in RCW 19.280.030(3).²¹ This results in additional SC-GHG cost-effective situs wind being added specifically for Washington in three locations, sized to provide equivalent energy value to Washington's SG share of the Natrium nuclear reactor in 2030. Under SC-GHG conditions, Yakima, Borah, and Goshen each receive a share of approximately 59 MW of additional wind resources.²²

This new No Natrium portfolio is then run under the SC-GHG price-policy scenario to evaluate performance assuming CEIP cost conditions, and under the medium gas, medium CO₂ (MM) price assumption to examine impacts under future expected conditions.

Table 5 reports that adding situs-assigned renewables selected under SC-GHG to replace Washington's share of Natrium energy value in 2030 is a net benefit for Washington compared to the No Nuclear variant studies from the 2023 IRP Update under both MM and SC-GHG price policy conditions.²³ The situs-assigned renewables also do not achieve a lower total system present value revenue requirement compared to the 2023 IRP Update integrated preferred portfolio which includes Natrium. PacifiCorp views this outcome as intuitive and relatively minor given Washington's 6.44 percent share of Natrium in 2030.

²¹ WAC 480-100-620(11)(j).

²² See confidential workpaper "210829-PAC-CEIP-WP-STUnitsCalcWASitus-7-1-24 (C).xlsx".

²³ See workpaper "210829-PAC-CEIP-WP-NoNuclearPVRRTTable-7-1-24.xlsx".

Table 5 - No Natrium Sensitivity Analysis PVRR Matrix

Study	PVRR (\$millions)	Net (Benefit)/Cost (\$ millions) compared to Preferred Portfolio	Net (Benefit)/Cost (\$ millions) to Comparator Study
IRP Update Preferred Portfolio (MM)	32,807	-	-
No Nuclear+WA Situs (MM)	33,429	622	(35)
No Nuclear (MM)	33,464	657	-
No Nuclear+WA Situs (SC-GHG)	48,439	15,632	(54)
No Nuclear (MM.SC-GHG)	48,493	15,686	-

Supporting details for each of the portfolios summarized in the above Table 5 are included in the accompanying workpapers:

- For the 2023 IRP Update Preferred Portfolio under MM, see “210829-PAC-CEIP-WP-ST-MM-PP(LT.56000-56174)-7-1-24 (C).xlsb”.
- For the No Natrium study required by Interim Target Condition 11 containing all Washington resources selected under SC-GHG and run under MM, see “210829-PAC-CEIP-WP-ST-MM-NoNuc-WASitus(LT.72165-72187)-7-1-24 (C).xlsb”.
- For the No Natrium sensitivity from the 2023 IRP Update run under MM, see “210829-PAC-CEIP-WP-ST-MM-NoNuc(LT.57069-57513)-7-1-24 (C).xlsb”.
- For the No Natrium study required by Interim Target Condition 11 which contains all Washington resources selected under SC-GHG and run under SC-GHG, see “210829-PAC-CEIP-WP-ST-SC-NoNuc-WASitus(LT.72165-72166)-7-1-24 (C).xlsb”.
- For the No Natrium sensitivity from the 2023 IRP Update selected in MM and run under SC-GHG, see “210829-PAC-CEIP-WP-ST-MM.SC-NoNuc(LT.57069-57597)-7-1-24 (C).xlsb”.

B. Customer Benefit Indicators

Consistent with CBI Settlement Conditions 1-14 from PacifiCorp’s 2021 Revised CEIP, the company includes additional reporting on several CBI-related issues. This includes: (1) reporting on CBI and related metrics;²⁴ (2) amending the CBI for residential customer disconnections,²⁵ for households experiencing high energy burden,²⁶ for culturally and linguistically responsive outreach and program communication,²⁷ for participation in company energy efficiency

²⁴ CBI Conditions 1 and 11.

²⁵ CBI Conditions 2-3.

²⁶ CBI Condition 4.

²⁷ CBI Condition 5.

programs and billing assistance programs,²⁸ and for frequency and duration of energy outages;²⁹ (3) adding new CBIs and metrics to the Energy Benefits CBI;³⁰ and (4) adding desired goals, objectives, targets, or directionality for each CBI.³¹ While CBI Condition 13 directs PacifiCorp to choose two CBIs to track for a subset of the company's Named Communities, this commitment is due either in this filing or in 2025.³² PacifiCorp will respond to this commitment next year in its 2025 CEIP filing.

Consistent with CBI Condition 11, PacifiCorp has developed a publicly available report card, available on its website,³³ which includes all and baseline data and metrics that the company reports specific to CBIs. In addition to this report card, PacifiCorp's 2023 Results for each of its CBIs and metrics, as well as a discussion on Vulnerable Population Workshops, can be found in the following sub-sections.

i. 2023 Results

PacifiCorp's CBIs and metrics are shown in Table 6. Following the table are the 2023 results for each CBI and metric, and a comparison to baseline results.

Consistent with CBI Condition 9, PacifiCorp incorporated additional detail in its CBI and metric summary table (Table 6). This includes:

- A separate column that indicates the desired goal, objective, target, or directionality for each CBI (see second column of Table 6);
- A separate column that indicates specific actions that are relevant to meeting each CBI goal (as referenced in Appendix C of PacifiCorp's 2021 Clean Energy Implementation Plan), objective, target, or directionality; and,
- A separate column that indicates specific metrics agreed to in the Full Multi-Party Settlement.

²⁸ CBI Condition 6.

²⁹ CBI Condition 8.

³⁰ CBI Condition 7.

³¹ CBI Condition 9.

³² CBI Condition 13.

³³ Available at: <https://www.pacificorp.com/energy/washington-clean-energy-transformation-act-equity.html>.

Table 6- PacifiCorp CBIs and Metrics

CBI		Benefit Categories	Metric(s)	Specific Actions	CEIP Settlement CBI Condition
1	Increase culturally and linguistically responsive outreach and program communication including increased availability of translation services for all PacifiCorp Programs, including credit, collection, and payment	<ul style="list-style-type: none"> Reduction of burdens Non-energy benefit 	<ul style="list-style-type: none"> a. Number of topics addressed in outreach in non-English languages b. Number of impressions from non-English outreach c. Percentage of responses to surveys in Spanish d. Number of programs for which PacifiCorp provides translation services or translated material e. Number of languages PacifiCorp uses for translated material 	<ul style="list-style-type: none"> Focus improvements on delivery of programs and communications to customers including Named Communities Improve language accessibility Expand outreach to Named Communities Improve educational resources 	Cond. 5
2	Increase 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"> a. Number of workshops on energy related programs b. Headcount of staff supporting program delivery in Washington who are women, minorities, and/or can show disadvantage^[1] c. Number of public charging stations in Named Communities 	Residential – Home Energy Savings program <ul style="list-style-type: none"> Enhanced incentives for windows in multi-family (renters), initial focus in Highly Impacted Communities. Direct install residential lighting in multi-family units (renters), focus in Highly Impacted Communities General purpose lamp buy-down in “dollar stores” in Highly Impacted Communities. Direct install duct sealing in manufactured and single-family homes, focus in Highly Impacted Communities. Promote new construction offerings for multi-family (renters) and single-family units, focus in Highly Impacted Communities. 	-

				<ul style="list-style-type: none"> Non-electric, non-natural gas upgrades – enhanced incentive for customers in Highly Impacted Community to replace non-electric/non-natural gas heating with ductless heat pump. Enhanced incentives for select heating, ventilation, and air conditioning (HVAC) measures for customers in Highly Impacted Communities. <p>Residential – Low Income Weatherization</p> <ul style="list-style-type: none"> Increase funds available for repairs Permit installation of electric heat to replace permanently installed electric heat, space heaters or any fuel source except natural gas with adequate combustion air. <p>Business – Wattsmart Business program</p> <ul style="list-style-type: none"> Enhanced incentives for small businesses in Highly Impacted Communities. Target a portion of company initiated proactive outreach to small businesses located in Highly Impacted Communities. Higher vendor incentives for completed small business projects in Highly Impacted Communities. <p>Establish EV Grant Program</p>	
3	Increase 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 	<p>a. Number and percentage of households/businesses, including Named Communities, who participate in company energy/efficiency programs</p> <p>b. Dollar value of energy/ efficiency expenditures^[2]</p> <p>c. Number and percentage of households that participate in billing assistance programs</p> <p>d. Number and percentage of households/businesses who participate/enroll in demand response, load management, and behavioral programs</p>	<p>Specific Actions for 2023 to increase Named Community participation in energy efficiency programs included:</p> <p>Residential – Home Energy Savings program</p> <ul style="list-style-type: none"> Enhanced incentives for windows in multi-family (renters), initial focus in Highly Impacted Communities. Direct install residential lighting in multi-family units (renters), focus in Highly Impacted Communities General purpose lamp buy-down in “dollar stores” in Highly Impacted Communities. Direct install duct sealing in manufactured and single-family homes, focus in Highly Impacted Communities. 	Cond. 6

			<p>e. Dollar value of demand response, load management, and behavioral programs expenditures^[2]</p> <p>f. Number of residential appliances and equipment rebates provided to Named Community customers (where known)</p> <p>g. Number of residential rebates provided to customers residing in rental units</p> <p>h. Investment and/or energy efficiency savings in rental residential housing stock</p>	<ul style="list-style-type: none"> Promote new construction offerings for multi-family (renters) and single-family units, focus in Highly Impacted Communities. Non-electric, non-natural gas upgrades – enhanced incentive for customers in Highly Impacted Community to replace non-electric/non-natural gas heating with ductless heat pump. Enhanced incentives for select HVAC measures for customers in Highly Impacted Communities. <p>Residential – Low Income Weatherization</p> <ul style="list-style-type: none"> Increase funds available for repairs Permit installation of electric heat to replace permanently installed electric heat, space heaters or any fuel source except natural gas with adequate combustion air. <p>Business – Wattsmart Business program</p> <ul style="list-style-type: none"> Enhanced incentives for small businesses in Highly Impacted Communities. Target a portion of company initiated proactive outreach to small businesses located in Highly Impacted Communities. Higher vendor incentives for completed small business projects in Highly Impacted Communities. <p>Specific Actions for 2023 identified to increase participation in energy programs included development and implementation of the following new demand response programs:</p> <ul style="list-style-type: none"> Irrigation Load Control Commercial and Industrial Demand Response Residential Bring your own Thermostat and Water Heater Direct Load Control Time of Use pilots 	
4	Increase efficiency of	<ul style="list-style-type: none"> Energy benefit 	a. Number of households and small businesses that participate in	Specific Actions for 2023 to increase Named Community participation in energy efficiency programs included:	-

	housing stock and small businesses, including low-income housing		<p>company energy/efficiency programs</p> <p>b. Dollar value of energy efficiency expenditures ^[2]</p>	<p>Residential – Home Energy Savings program</p> <ul style="list-style-type: none"> Enhanced incentives for windows in multi-family (renters), initial focus in Highly Impacted Communities. Direct install residential lighting in multi-family units (renters), focus in Highly Impacted Communities General purpose lamp buy-down in “dollar stores” in Highly Impacted Communities. Direct install duct sealing in manufactured and single-family homes, focus in Highly Impacted Communities. Promote new construction offerings for multi-family (renters) and single-family units, focus in Highly Impacted Communities. Non-electric, non-natural gas upgrades – enhanced incentive for customers in Highly Impacted Community to replace non-electric/non-natural gas heating with ductless heat pump. Enhanced incentives for select HVAC measures for customers in Highly Impacted Communities. <p>Residential – Low Income Weatherization</p> <ul style="list-style-type: none"> Increase funds available for repairs Permit installation of electric heat to replace permanently installed electric heat, space heaters or any fuel source except natural gas with adequate combustion air. <p>Business – Wattsmart Business program</p> <ul style="list-style-type: none"> Enhanced incentives for small businesses in Highly Impacted Communities. Target a portion of company initiated proactive outreach to small businesses located in Highly Impacted Communities. Higher vendor incentives for completed small business projects in Highly Impacted Communities. 	
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5	Increase renewable energy resources and reduce emissions	<ul style="list-style-type: none"> Environmental 	<p>a. Amount of renewables/non-emitting resources serving Washington</p> <p>b. Amount of Washington allocated greenhouse gas emission from Washington allocated resources</p>	<ul style="list-style-type: none"> Procurement of the following specific or successor resources: <ul style="list-style-type: none"> Anticline Cedar Springs IV Rock Creek I Rock Creek II Boswell Springs Cedar Creek Hornshadow I & II Green River I & II Portland/N. Coast Proxy Renewable Willamette Proxy Renewable Borah Hemingway Proxy Renewable Washington QF Renewable Resource Various Battery Resources 	-
6	Decrease households experiencing high energy burden	<ul style="list-style-type: none"> Cost reduction Reduction of burden 	<p>a. Number and percent of customers experiencing high energy burden by: highly impacted communities, vulnerable populations, low-income bill assistance (LIBA) and Low-Income Weatherization (LIWx) participants, and other residential customers; and average excess burden per household. High energy burden is defined as greater than or equal to six percent of household annual income.</p>	<p>Specific Actions for 2023 to increase Named Community participation in energy efficiency programs included:</p> <p>Residential – Home Energy Savings program</p> <ul style="list-style-type: none"> Enhanced incentives for windows in multi-family (renters), initial focus in Highly Impacted Communities. Direct install residential lighting in multi-family units (renters), focus in Highly Impacted Communities General purpose lamp buy-down in “dollar stores” in Highly Impacted Communities. Direct install duct sealing in manufactured and single-family homes, focus in Highly Impacted Communities. Promote new construction offerings for multi-family (renters) and single-family units, focus in Highly Impacted Communities. 	Cond. 4

				<ul style="list-style-type: none"> Non-electric, non-natural gas upgrades – enhanced incentive for customers in Highly Impacted Community to replace non-electric/non-natural gas heating with ductless heat pump. Enhanced incentives for select HVAC measures for customers in Highly Impacted Communities. Residential – Low Income Weatherization <ul style="list-style-type: none"> Increase funds available for repairs Permit installation of electric heat to replace permanently installed electric heat, space heaters or any fuel source except natural gas with adequate combustion air.	
7	Improve indoor air quality	<ul style="list-style-type: none"> Public health Non-energy benefit 	a. Number and percent of households using wood as primary or secondary heating b. Number and percent of non-electric to electric conversions for LIWx program	Residential – Home Energy Savings <ul style="list-style-type: none"> Non-electric, non-natural gas upgrades – enhanced incentive for customers in Highly Impacted Community to replace non-electric/non-natural gas heating with ductless heat pump. This measure (with a lower incentive) will also be available for customers who do not reside in a Highly Impacted Community. Residential – Low Income Weatherization <ul style="list-style-type: none"> Permit installation of electric heat to replace permanently installed electric heat, space heaters or any fuel source except natural gas with adequate combustion air. 	-
8	Reduce frequency and duration of energy outages	<ul style="list-style-type: none"> Energy resiliency Risk reduction Energy benefit 	a. SAIDI, SAIFI, CAIDI, and CEMI ^[3] scores (rolling 7-year average) at area level including and excluding major events	Continue evaluation of reliability improvement projects across the service territory targeted toward locations with more frequent or longer duration outages.	Cond. 8

9	Reduce residential customer disconnections	<ul style="list-style-type: none"> Energy security 	<p>a. Number and percentage of residential electric disconnections for nonpayment by month, measured by location and demographic information (zip code/census tract, known low income (KLI) customers, Vulnerable Populations (where known), Highly Impacted Communities, and for all customers in total)</p> <p>b. Residential arrearages as reported pursuant to Commission Order 04 (Appendix A Third Revised Term Sheet, Section J, Part 8 a-c)</p>	<p>The company has no updates for specific actions for 2023, though consistent with the company's general electric case, continues to work on specific actions with stakeholder groups.</p>	Cond. 2, 3
10	Increase Named Community clean energy	<ul style="list-style-type: none"> Energy Benefits 	<p>a. Total MWh of distributed energy resources 5 MW and under, where benefits and control of resource accrue to members of Named Communities</p> <p>b. Total MWs of energy storage resources 5 MW and under, where benefits and control of the resource accrue to members of Named Communities</p> <p>c. Number (i.e., sites, projects, and/or households) of distributed renewable generation resources and energy storage resources, where benefits and control of the resource accrue to members of Named Communities, including storage/backup/emergency powered centers for emergencies.</p>	<p>Specific Actions for 2023 to increase Named Community participation in energy efficiency programs included:</p> <p>Residential – Home Energy Savings program</p> <ul style="list-style-type: none"> Enhanced incentives for windows in multi-family (renters), initial focus in Highly Impacted Communities. Direct install residential lighting in multi-family units (renters), focus in Highly Impacted Communities General purpose lamp buy-down in “dollar stores” in Highly Impacted Communities. Direct install duct sealing in manufactured and single-family homes, focus in Highly Impacted Communities. Promote new construction offerings for multi-family (renters) and single-family units, focus in Highly Impacted Communities. Non-electric, non-natural gas upgrades – enhanced incentive for customers in Highly Impacted Community to replace non-electric/non-natural gas heating with ductless heat pump. 	Cond. 7

			<p>d. Total MWh of energy savings from EE programs, where benefits and control of the savings accrue to members of Named Communities</p> <p>e. Where known, for a), b), c), and d) above, PacifiCorp will specify whether the Named Community resources are highly impacted communities (HIC) and/or vulnerable population and/or KLI</p>	<ul style="list-style-type: none"> Enhanced incentives for select HVAC measures for customers in Highly Impacted Communities. <p>Residential – Low Income Weatherization</p> <ul style="list-style-type: none"> Increase funds available for repairs Permit installation of electric heat to replace permanently installed electric heat, space heaters or any fuel source except natural gas with adequate combustion air. <p>Business – Wattsmart Business program</p> <ul style="list-style-type: none"> Enhanced incentives for small businesses in Highly Impacted Communities. Target a portion of company initiated proactive outreach to small businesses located in Highly Impacted Communities. Higher vendor incentives for completed small business projects in Highly Impacted Communities. 	
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^[1] In this metric, program delivery is defined as related to energy efficiency programs, with exception to the low-income weatherization program.

^[2] Energy efficiency expenditures include customer, partner, and direct install incentive payments and exclude all other administrative or program costs.

^[3] System Average Interruption Duration Index (SAIDI), System Average Interruption Frequency Index (SAIFI), Customer Average Interruption Duration Index (CAIDI), Customers Experiencing Multiple Interruptions (CEMI).

Increase Culturally and Linguistically Responsive Outreach and Program Communication Including Increased Availability of Translation Services

Consistent with CBI Condition 5, PacifiCorp is expanding the CBI of Increase Culturally and Linguistically Responsive Outreach and Program Communication to be the following:

- Increase Culturally and Linguistically Responsive Outreach and Program Communication including increased availability of translation services.

Furthermore, PacifiCorp is adding additional metrics for this CBI to include the following:

- Number of programs for which PacifiCorp provides translation services or translated materials (see Table 10); and,
- Number of languages PacifiCorp uses for translated materials (see Table 10).

The purpose of this CBI is to more appropriately engage with customers to reduce burdens and increase non-energy benefits for Washington customers. For this CBI, PacifiCorp is tracking outreach in non-English languages and the percentage of PacifiCorp survey responses received in Spanish. These metrics capture the breadth and effectiveness of our outreach in languages other than English and our ability to receive feedback from customers that prefer languages other than English.

Table 7 shows the programs and topics for which PacifiCorp conducted outreach in a non-English language in 2020, 2022, and 2023, with the number of communication channels used for each. Communications in Spanish continued to evolve in 2023. For example, PacifiCorp produced a new multicultural earned media campaign in 2023 using local Spanish-speaking influencers in the community to raise awareness about its Wattsmart® energy efficiency programs. The campaign achieved positive results and will continue and evolve for 2024. In addition, all of the curriculum and outreach materials for the company’s energy education school program are now available in Spanish.

Table 7 - Non-English Communication Channels Used, by Program or Topic

Program or Topic	Language	2020	2022	2023
Billing Options / Customer Service	Spanish	4	1	2
Energy Assistance (LIBA)	Spanish	5	10	5
Wattsmart Residential	Spanish	3	9	11
Wattsmart Business	Spanish		9	9
Energy Efficiency Education	Spanish	1	1	1
Wildfire Safety/Resilience	Spanish	1	3	2
Safety/Preparedness	Spanish	1	3	4
Planning for the Future	Spanish	2	4	3
Energy Resource Center	Spanish	0	1	1
Regulatory/CEIP	Spanish	0	2	6
Total		17	43	44

* Note: PacifiCorp has a dedicated call center team of Spanish-speaking representatives. For customers who may speak other languages, the company's call center can assist with questions in 73 languages.

PacifiCorp also tracked impressions, or similar units, for our Spanish advertising and promotion activity for energy efficiency programs (not including LIWx) by channel, as shown in Table 8. Since 2020, the company has continued to evolve and expand its communications available in Spanish.

Table 8 - Energy Efficiency Program Communications Impressions for Spanish Advertising

Channel	2020	2022	2023
Social media ads (Facebook, Instagram, and/or Twitter)	4,442,397 impressions	1,891,133 impressions	2,105,358 impressions
Online advertising or digital display	7,378,735 impressions	3,533,851 impressions	1,657,891 impressions
Television	971,646 impressions	450 spots	1,167,843 impressions
Radio	8,617,814 impressions	825 target rating points	4,188,791 impressions
Newspaper/Magazine	854,312 impressions	200,000 readers and 7,000 subscribers	259,467 impressions
Email	115,165 emails	300,000 emails	125,792 emails
Direct mail	5,142 pieces	5,000 pieces	4,884 pieces
Cinema screens	Not used	12 screens	Not used
Bill Inserts	Not used	60,000 pieces	218,985 pieces
Community Events	<i>Not used</i>	<i>Not used</i>	72 Events 154 classrooms ^a

^a A total of 3,665 students were reached through the energy education program, with all materials available in Spanish.

PacifiCorp has consistently improved engagement with Spanish-speaking customers and customers in HICs for company survey activities since 2019, as shown in Table 9. These improvements have occurred as PacifiCorp has improved its outreach approach by issuing email invitations, conducting pre-survey notifications in Spanish via email and social media, conducting surveys over the phone and online in English and Spanish, and adding incentives to encourage broader participation. For details refer to workpaper “210829-PAC-CEIP-WP-SpanishResponses-7-1-24.xlsx”.

Table 9 - Percentage of Spanish Version Respondents to PacifiCorp Surveys

Year	Survey Title	HIC ^[1]		All Customers	
		Count	Percent	Count	Percent
2019	Residential Survey, Spanish Version	18	2.9%	42	1.2%
2021	Residential Survey, Spanish Version	31	5.2%	68	1.9%
2021	CETA Public Survey, Spanish Version	Unknown	Unknown	133	6.2%
2023	CETA Public Survey, Spanish Version	72	10.7%	126	3.4%
2023	Residential Survey, Spanish Version	54	5.4%	117	2.4%

^[1] Baseline values updated since 2021 draft CEIP to account for WDOH update to EHD in July 2022.

Table 10 – Number of Programs for which PacifiCorp Provides Translation Services or Translated Materials

Program	Number of Languages Used for Translated Materials	Format (e.g. telephone translation, brochure, notice, website)
Billing Options / Customer Service	73*	Telephone
Billing Options / Customer Service	1	Website, bill message
Energy Assistance (LIBA)	1	Advertising, social media, brochures
Wattsmart Residential	1	Advertising, bill inserts, emails, social media, brochures
Wattsmart Business	1	Advertising, emails, direct mail, brochures
Energy Efficiency Education	1	Brochures
Wildfire Safety/Resilience	9	Advertising, website, email, brochures
Safety/Preparedness	1	Social media, website, email
Planning for the Future	1	Advertising
Energy Resource Center	1	Website, brochures
Regulatory/CEIP	1	Website, meetings, meeting materials
Total	91	

* Note: PacifiCorp has a dedicated call center team of Spanish-speaking representatives. For customers who speak other languages, the company’s call center can assist with questions in 73 languages.

Increase Community-Focused Efforts and Investment

The purpose of this CBI is to focus on clean energy investments, so communities more equitably receive benefits. To evaluate this CBI, PacifiCorp tracks three metrics:

- The number of program workshops delivered, and the proportion of those workshops delivered in HICs.
- The number of staff offering our energy efficiency programs that are disadvantaged.
- The number of public electric-vehicle (EV) chargers in Pacific Power’s Washington service area and proportion in HICs.

Table 11 shows the number of workshops³⁴ PacifiCorp or its program delivery teams delivered in HIC and non-HIC locations for 2020, 2022, and 2023. Workshops delivered in 2023 included annual Wattsmart Business vendor program trainings (two), Clean Building Accelerator informational “coffee chats” (one),³⁵ Clean Building Accelerator training workshops (a series of four for a defined cohort of businesses), Clean Building Accelerator Elevation Seminars (a series of two for defined cohorts of businesses), a presentation at a Central Washington Hispanic Chamber of Commerce Meet and Greet (one), a presentation at Yakima Southwest Rotary (one), Luminaire Level Lighting Controls training for Wattsmart Business Vendors (series of two, one in person, one online), and a presentation at the Sustainable Living Center Public Workshop Series on Energy Savings and Solar (one). See Table 28 for workshop details.

Table 11 – Workshops on Energy-Related Programs in Washington

Location	2020	2022^[1]	2023^[2]
HIC Location	1	13	10
Non-HIC Location	1	17	12
Total	2	19	14

^[1] In 2022, Pacific Power hosted 11 online workshops that were counted as both HIC and non-HIC locations, based on the location of the participants.

^[2] In 2023, Pacific Power hosted 8 online workshops that were counted as both HIC and non-HIC locations, based on the location of the participants.

In addition to tracking workshops, PacifiCorp also tracked the number of staff from disadvantaged groups supporting program delivery for Home Energy Savings and Wattsmart Business energy efficiency programs in Washington. The headcounts, shown in Table 12, 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

³⁴ Workshops include presentations on energy related programs to an audience (either in person or online). In addition to workshops, the energy efficiency program delivery team provided energy related program information to the public by staffing tables/booths at multiple events in communities served by PacifiCorp.

³⁵ “Coffee chats” are intended to provide information on Wattsmart Business Clean Buildings Accelerator so businesses can determine if they wish to join an accelerator cohort. The majority of the “coffee chats” took place in 2022 for the second cohort of businesses, so this is part of the reason why there were fewer workshops in 2023 relative to 2022.

in outreach, technical and back-office functions. Programs experienced an increase of seven female and four minority employees over the 2020 to 2023 timeframe.

Table 12 – Number of Staff from Disadvantaged Groups Support Program Delivery in Washington

Disadvantaged Group	All Employees / Staff		
	2020	2022	2023
Women	17	15	24
Minority	3	3	7
Can show disadvantage in some other way	1	1	1

Table 13 shows the number of public EV chargers in the company’s Washington service area as of October 2021, May 2023, and May 2024; broken out by census tracts on Tribal lands (a subset of HIC tracts), census tracts designated HIC or non-HIC, and for all of PacifiCorp’s service area. For additional details, please refer to workpaper “210829-PAC-CEIP-WP-ChargingStations-7-1-24.xlsx”.

PacifiCorp has made significant progress in the development of EV programs; however, the increase from 2021 to 2024 does not yet reflect Pacific Power EV program activity. During 2022 and 2023, the company developed a Transportation Electrification Plan (TEP) consisting of a portfolio of programs that address multiple customer segments and barriers to EV adoption. The TEP is designed to enable a rapid transition to EVs and to distribute benefits equitably across all customer segments. The TEP was acknowledged in October 2022 and program applications were shared with stakeholders and the WUTC in 2023. PacifiCorp plans to launch two new programs by Q3 2024, a Named Communities grant program focused on providing grant funding to organizations that support transportation electrification and benefit Named Communities as well as a technical assistance services that will help commercial customers understand how to install EV infrastructure and act as a key advisor during the energization journey.

Table 13 - Public Charging Stations in Washington Service Area³⁶

Area	October 2021	May 2023	May 2024
All HIC ^[1]	4	10	18
Tribal Lands	0	3	3
Non-HIC	37	40	52
Total Service Area	41	50	70

^[1] Baseline values updated since 2021 draft CEIP to account for WDOH update to EHD in July 2022.

³⁶ Source: US. Department of Energy, Alternative Fuels Data Center, Alternative Fuels Data Center: Electric Vehicle Charging Station Locations (energy.gov) (May 2023).

Increase Participation in Company Energy and Efficiency Programs and Billing Assistance Programs

Consistent with CBI Condition 6, PacifiCorp is adding an additional metric for the CBI of Participation in company energy efficiency programs and billing assistance programs. PacifiCorp is tracking both number and percentage for the metrics of participation in energy efficiency and bill assistance programs (See Table 12, Table 13, and Table 15). Furthermore, within this filing, PacifiCorp is adding the following metrics:

- Number of residential appliance and equipment rebates provided to Named Community customers (where known) (see Report Card – CBI Condition 6);
- Number of residential rebates provided to customers residing in rental units (see Table 17); and,
- Investment and/or energy efficiency savings in rental residential housing stock (see Table 17).

PacifiCorp has existing programs designed to help customers lower their energy costs and reduce energy burden, and they also provide energy and non-energy benefits. In its draft CEIP, PacifiCorp committed to several actions such as increasing funding or expanding programs to address issues raised by the Equity Advisory Group (EAG), such as the availability of repair funding under the LIWx Program. Since filing its draft CEIP, all energy program-related actions are either completed or ongoing (see Specific Actions, subsection iii). The 2023 results for PacifiCorp’s metrics under this CBI show significant increase in most cases, which is an indicator that PacifiCorp’s activity is driving greater participation in energy programs and investment in Named Communities. Note that some data provided previously for 2020 and 2022 has been updated; the data in Tables 14-16 is the best available data at this time. For expenditure and participation details, please refer to confidential workpaper “210829-PAC-CEIP-WP-ProgramExpendituresParticipation-7-1-24 (C).xlsx”.

Consistent with CBI Condition 6, PacifiCorp is tracking the “number and percentage” in its metrics for participation in energy efficiency programs. As shown in Table 14, from 2020 to 2023, participation in each of PacifiCorp’s energy efficiency programs increased in almost all cases, especially among customers located in an HIC. Table 14 presents the annual participation rate of each energy efficiency program, as a percentage of all participating households and businesses. Table 16 shows the program expenditures, calculated as the incentives to customers and participating vendors or direct installation costs where the installation is provided and not an incentive payment, which also increased substantially year-over-year. For Wattsmart Business the focus of the company’s actions are on small businesses, and this category has seen increases from 2020 to 2023 for both the number of businesses and expenditures, see Table 14 and Table 16, respectively. Participation in Wattsmart Business (not including small business) is the only participation metric that decreased from 2020 to 2023.

Table 14 - Number of Households and Businesses Who Participated in Energy Efficiency Programs^a

Energy / Efficiency Program	Tribal Lands			HIC ^d			All		
	2020	2022	2023	2020	2022	2023	2020	2022	2023
Low-Income Weatherization	4	16	11	12	30	42	40	141	95
Home Energy Savings ^b	35	48	280	131	318	1,378	909	2,503	4,031
Wattsmart Business ^c	16	13	7	78	86	59	212	191	198
Wattsmart Small Business	2	18	24	31	106	166	43	138	244
1. Very Small Business (<= 30k kWh)	N/A	4	10	N/A	38	58	N/A	46	89
2. Small Business (<= 145k kWh)	N/A	12	13	N/A	58	83	N/A	75	121
3. Small Business (<= 200k kWh)	N/A	2	1	N/A	7	13	N/A	12	19
4. Small Business (<= 300k kWh)	N/A	0	0	N/A	2	9	N/A	2	13
5. Small Business (> 300 kWh, < 20,000 sq. ft.)	N/A	0	0	N/A	1	3	N/A	3	4
Totals	57	95	322	252	537	1,643	1,204	2,965	4,561

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

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

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

^d HIC for a specific customer project is defined at the time of the project. In 2020-2022 the data for highly impacted communities aligned with Washington State Department of Health's initial scoring (December 2019, version 1.1). In 2023, the data for highly impacted communities aligned with either the initial scoring or the updated scoring (July 2022, version 2.0) depending on the timing of the specific project.

Table 15 - Percent of Households and Businesses Who Participated in Energy Efficiency Programs

Energy / Efficiency Program	Tribal Lands			All HIC			All Customers		
	2020	2022	2023	2020	2022	2023	2020	2022	2023
Low-Income Weatherization	7%	17%	3%	5%	6%	3%	3%	5%	2%
Home Energy Savings	61%	51%	87%	52%	59%	84%	75%	84%	88%
Wattsmart Business	28%	14%	2%	31%	16%	4%	18%	6%	4%
Wattsmart Small Business	4%	19%	7%	12%	20%	10%	4%	5%	5%
1. Very Small Business (<= 30k kWh)	N/A	4%	3%	N/A	7%	4%	N/A	2%	2%
2. Small Business (<= 145k kWh)	N/A	13%	4%	N/A	11%	5%	N/A	3%	3%
3. Small Business (<= 200k kWh)	N/A	2%	0%	N/A	1%	1%	N/A	0%	0%
4. Small Business (<= 300k kWh)	N/A	0%	0%	N/A	0%	1%	N/A	0%	0%
5. Small Business (> 300 kWh, < 20,000 sq. ft.)	N/A	0%	0%	N/A	0%	0%	N/A	0%	0%
Totals	100%	100%	100%	100%	100%	100%	100%	100%	100%

Consistent with CBI Condition 6, PacifiCorp continues to engage its Demand-Side Management (DSM) Advisory Group, EAG, and Low-Income Advisory Group, surfacing strategies to

increase the number of participating households in Named Communities in energy efficiency and billing assistance programs.

Advisory group members have identified local radio stations as a key source of information, especially for Spanish speakers in community. PacifiCorp has partnered with these entities to provide Spanish program advertising to increase low income and energy efficiency program participation. Local radio stations transmit information across the counties PacifiCorp serves in Washington and can be the main source for resources and communications where internet access is still a barrier. Additionally, cinema advertising and church pamphlets have also been identified within both the Low Income and Equity Advisory Group spaces as channels where the company can reach those harder to reach in communities including those in Named Communities and HICs. Since these strategies were suggested, the company has implemented them either as pilot activities or regular outreach practices within each program.

PacifiCorp will continue to engage its advisory groups to surface best practices and new strategies to increase the number of participating households in Named Communities in energy efficiency and billing assistance programs to better serve under resourced and underserved customers.

Table 16 - Amount of Expenditures from Energy Efficiency Programs^a

Energy / Efficiency Program	Tribal Lands			All HIC ^d			All		
	2020	2022	2023	2020	2022	2023	2020	2022	2023
Low-Income Weatherization	\$23,805	\$89,449	\$83,878	\$84,837	\$160,076	\$374,477	\$295,907	\$637,517	\$963,969
Home Energy Savings^b	\$33,877	\$88,647	\$228,233	\$119,155	\$305,915	\$1,106,241	\$855,941	\$1,619,949	\$3,041,091
Wattsmart Business^c	\$465,446	\$279,391	\$31,802	\$1,075,987	\$2,048,657	\$636,164	\$2,485,993	\$3,455,821	\$4,364,950
Wattsmart Small Business	\$4,740	\$179,212	\$173,649	\$151,014	\$1,462,492	\$1,869,985	\$228,158	\$1,827,348	\$2,486,333
1. Very Small Business (<= 30k kWh)	N/A	\$22,380	\$46,945	N/A	\$213,674	\$348,566	N/A	\$263,234	\$482,746
2. Small Business (<= 145k kWh)	N/A	\$124,594	\$121,820	N/A	\$833,304	\$1,035,628	N/A	\$996,981	\$1,351,338
3. Small Business (<= 200k kWh)	N/A	\$32,238	\$4,884	N/A	\$263,995	\$196,254	N/A	\$349,370	\$269,866
4. Small Business (<= 300k kWh)	N/A	\$0	\$0	N/A	\$133,800	\$242,674	N/A	\$133,800	\$331,502
5. Small Business (> 300 kWh, < 20,000 sq. ft.)	N/A	\$0	\$0	N/A	\$17,720	\$46,864	N/A	\$83,963	\$50,881
Total	\$527,867	\$636,699	\$517,562	\$1,430,992	\$3,977,141	\$3,986,867	\$3,865,999	\$7,540,635	\$10,856,342

^a Energy efficiency expenditures include customer incentives, partner incentives or direct installation costs in cases where an installation of measures is provided and not incentives.

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

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

^d HIC for a specific customer project is defined at the time of the project. In 2020-2022 the data for highly impacted communities aligned with Washington State Department of Health's initial scoring (December 2019, version 1.1). In

2023, the data for highly impacted communities aligned with either the initial scoring or the updated scoring (July 2022, version 2.0) depending on the timing of the specific project.

Table 17 – Residential Rebates Provided to Customers Residing in Rental Units for 2023

Number ^a	Estimated Savings (kWh/Yr)
474	286,631

^a Number is based on estimates from 2023 Residential Survey results.

Table 18 shows participation results for behavioral programs, and demand response and load management programs. Participation in the Home Energy Reports (HER) program, PacifiCorp’s residential behavioral program, decreased from 2020 to 2023, for both HIC customers and overall. This decline represents normal attrition over time as customers move or drop out of the program. To protect the statistical rigor of the program, new participants must be added in structured waves of treatment (participant) and control (non-participant) groups. PacifiCorp implemented a new wave in 2023, targeted to the remaining 10,260 customers in Washington that had not yet been offered the program. This was intended to back-fill attrition since the last wave in 2021. The trend of decreasing participation is expected to continue through attrition and the lack of replacement customer availability. Because HER does not offer customer incentives, the expenditures from the program remained at \$0 for all years. For participation details, please refer to confidential workpaper “210829-PAC-CEIP-WP-ProgramExpendituresParticipation-7-1-24 (C).xlsx”.

In 2023, the company made substantial progress building out its portfolio of demand response programs, as described in the specific actions in the 2021 CEIP, and the 2023 CEIP Biennial Report. The WUTC approved the Irrigation Load Control program on August 25, 2022, and the Commercial and Industrial Demand Response program on January 16, 2023. Both programs launched to customers in early 2023, and both had enrolled customers and issued incentives in 2023. In addition, both programs were used for curtailment events in 2023. Three programs anticipated in the CEIP and CEIP Biennial Update – Optimal Time Rewards (residential smart thermostats and water heaters), Residential Electric Vehicle Managed Charging, and Battery Demand Response – were not yet launched to customers in 2023, and therefore did not contribute to the values shown in Table 18.

Table 18 - Number of Households and Business Who Participate in Demand Response, Load Management and Behavioral Programs^a

Program	Unit	HIC			All		
		2020 ^b	2022	2023	2020	2022	2023
Behavioral (Home Energy Reports) ^c	Count	14,859	13,187	11,941	53,102	48,518	43,506
	Expenditures	n/a	n/a	n/a	n/a	n/a	n/a
Demand Response / Load Management	Count	0	0	52	0	2	133
	Expenditures	\$0	\$0	\$3,143	\$0	\$0	\$20,164

^a Number represents unique residential and commercial sites.

^b Baseline values updated since 2021 draft CEIP to account for WDOH update to EHD in July 2022.

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

PacifiCorp’s proposed modifications to the eligibility requirements and benefits for LIBA went into effect in August 2021. Changes included removing the enrollment cap and applying the discount rate to the total net amount billed, rather than only usage in excess of 600 kWh. As shown in Table , participation in LIBA continued to increase in 2023. The estimated percentage of eligible households that participated in 2023 showed a corresponding increase, ranging from 1 to 4 percentage points across the three groups. For participation details, please refer to confidential workpaper “210829-PAC-CEIP-WP-ProgramExpendituresParticipation-7-1-24 (C).xlsx”.

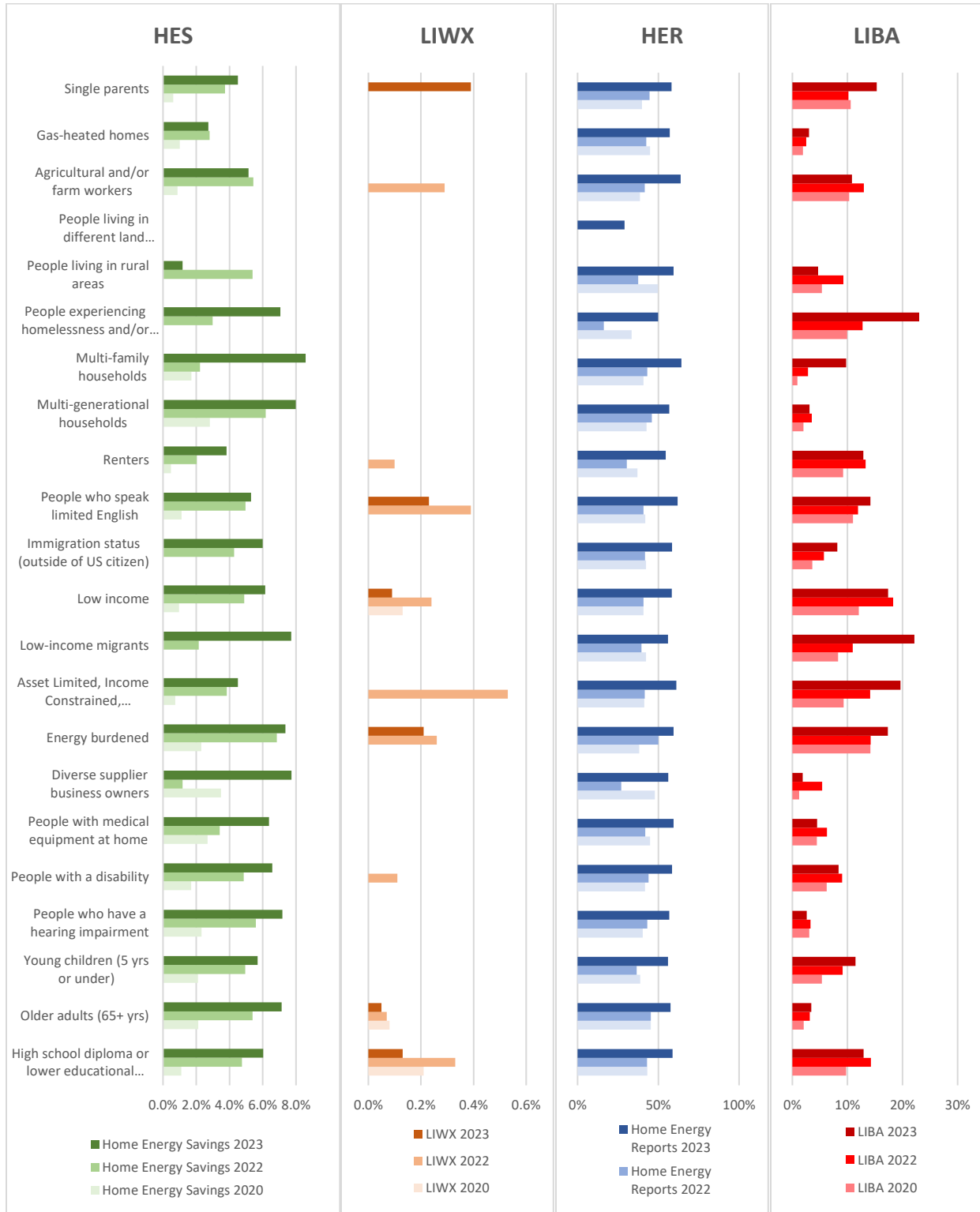
Table 19 – Percentage of Households Who Participate in LIBA

	Tribal Lands			All HIC			All		
	2020	2022	2023	2020 ^[1]	2022	2023	2020	2022	2023
Participating Households	686	875	900	2,739	4,358	4,864	5,954	9,103	9,975
Percent of Eligible Households	25.5%	35.0%	36.5%	21.3%	35.3%	39.7%	20.2%	30.9%	33.9%

^[1] Baseline values updated since 2021 draft CEIP to account for WDOH update to EHD in July 2022.

Figure 1 shows energy efficiency and bill assistance participation by vulnerable population. These results are based on survey responses that identify members of specific vulnerable populations, merged with program tracking data to determine the proportion of each population that participated in a specific program. The 2020 to 2023 trends among vulnerable populations generally corresponded to trends among all customers, showing increasing participation by most groups in each program. Of note, low response rates can produce unreliable results for vulnerable populations with small sample sizes. As such, analysis for LIWx participation is unreliable due to the low response rate in the 2023 Residential Survey (1 out of 4,852 respondents (0.02 percent)). As a comparison, the HES response rate is higher (311 of 4,852 respondents (6.4 percent)). Please refer to confidential workpaper “210829-PAC-CEIP-WP-SurveyOutputs-7-1-24 (C).xlsx” for source data for Figure 1.

Figure 1 - Participation in Energy and Efficiency Programs by Vulnerable Populations, 2020 and 2022



Improve 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 program participation rates, PacifiCorp is tracking program incentive expenditures for HIC and all customers, to monitor this CBI. See Table 18 and Table 19 above.

Increase Renewable Energy Resources and Decrease Emissions

As shown in Figure 2, and consistent with the information shown in Table 1, PacifiCorp’s renewable and non-emitting electricity as a percentage of Washington retail sales (in other words, CETA-compliant energy) increased from 21.9 percent in 2020, to 31.0 percent in 2022, and 30.8 percent in 2023. This increase between 2020 and 2022 is partially attributed to Washington customers’ increased allocation of PacifiCorp’s CETA-qualifying system renewables, reflective of a change in cost allocation methodology that came into effect in 2021. 2022 and 2023’s percentage renewable and non-emitting remained relatively constant, reflecting the same renewable resource allocation and total resource generation. While there are expected fluctuations in individual variable energy resource production (such as wind, solar, and hydro) the total renewable and non-emitting generation remained relatively constant between these years.

Figure 2 - Washington Percentage of Retail Sales Served by Renewable and Non-Emitting Energy Resources

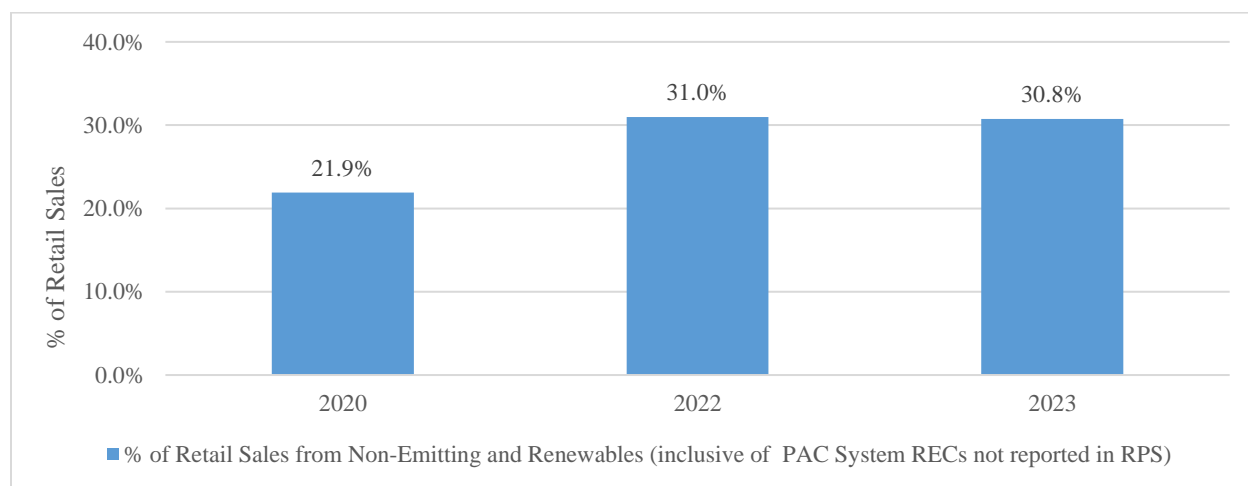
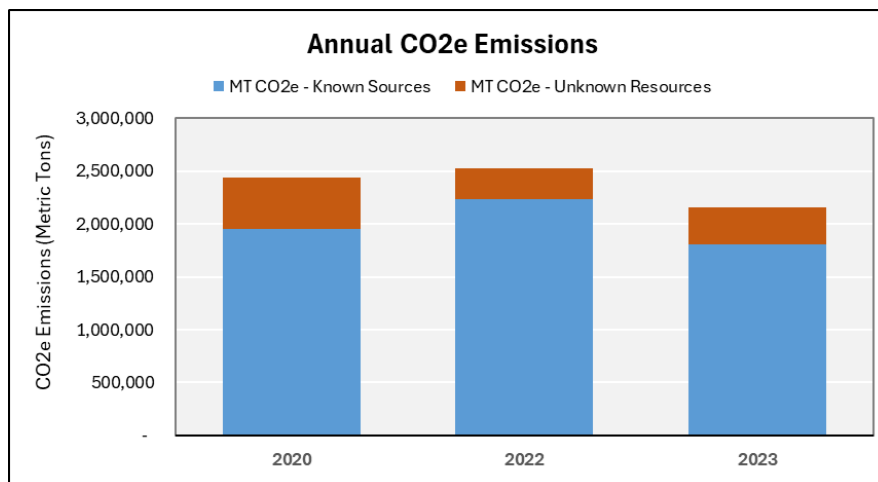


Figure 3 shows a decrease in Washington-allocated emissions between 2022 and 2023. While generation from Washington-allocated renewable and non-emitting resources remained constant between 2022 and 2023, emissions have shown a decline, attributed to a greater reliance on market purchases than in 2022. Market purchases have, to some extent, supplanted specified generation from higher-emitting plants. For example, coal supply shortages across the West contributed to lower generation from coal plants in the region, and the coal-fired generation serving Washington. CETA requires utilities to eliminate coal in their allocation to Washington

customers who will no longer be allocated coal in their supply mix by 2025; in 2025 and beyond, emissions from these sources will also be eliminated.

Figure 3- Washington Allocated Greenhouse Gas Emissions from Washington Allocated Resources Per RCW 19.405.070, WAC 194-40-060 and WAC 480-100-650



Decrease Households Experiencing High Energy Burden

According to the American Council for an Energy-Efficient Economy (ACEEE), households with high energy burden are those that spend a disproportionate amount of their income, six percent or more, on home energy costs.³⁷ Energy burden is calculated as the average annual housing energy costs divided by the average annual household income. PacifiCorp relied on survey data and census data to estimate energy burden for different subgroups of customers. When aggregating these results and aligning them with our service area, PacifiCorp excluded natural gas expenditures.

Table 20 shows the mean energy burden, and the number and percent of customers experiencing high energy burden (energy burden above 6 percent) and average excess energy burden³⁸ among customers living in HICs, customers living on Tribal lands, LIBA participants, LIWx participants, Known Low Income (KLI) customers³⁹, and all customers, in 2020, 2022, and 2023. For most groups, both the mean energy burden and the percentage of customers with high energy burden remains below 2020 baseline levels for 2023. This change is correlated with increasing participation in PacifiCorp programs designed to increase efficiency, reduce energy usage, and reduce energy bills. The exceptions to this trend are LIBA participants and KLI customers. Since 2020, participation in the LIBA program has significantly increased. This means more customers

³⁷ Drenthobl, 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>

³⁸ Average excess energy burden is calculated as the difference between energy burden for those who meet the definition of energy burden and the threshold of energy burden, six percent. Only those who meet or exceed six percent of their annual household income spent on energy bills are considered for this metric.

³⁹ KLI customers are defined as those who have received energy assistance during the prior two years.

with a higher risk of being energy burden due to limited income are included in LIBA participants' energy burden metrics. LIBA participants are a subset of KLI customers, so an increase of energy-burdened LIBA participants is reflected in KLI metrics.

Figure 4 illustrates the percentage of customers within each vulnerable population experiencing high energy burden in 2020, 2022, and 2023. Of PacifiCorp's 22 vulnerable populations, five exhibited declines in the percent of customers experiencing high energy burden (See Table 30 and confidential workpaper "210829-PAC-CEIP-WP-SurveyOutputs-7-1-24 (C).xlsx" for additional detail on customers experiencing high energy burden among Named Communities).

The increase in the percentage of customers experiencing high energy burden across various vulnerable populations is likely due to an increase in non-response for income levels. The survey used to produce 2022 results (2023 CETA Public Survey) had an income non-response rate of 20.7 percent of survey respondents, while the survey used to produce 2023 results (2023 Residential Survey) had an income non-response rate of 24.1 percent. The lack of survey respondent income information effects energy burden calculations, as PacifiCorp requires survey respondents to self-report income so that energy burden estimates can be calculated. Income non-response decreases the effective sample size of energy burden customers and outliers, and highly burdened customers become more impactful in the metrics.

Consistent with CBI Condition 4, Table 20 provides the number and percent of household with high energy burden and average excess burden per household for all PacifiCorp customers, KLI customers, and Named Communities (HICs and vulnerable populations).

Table 20 – Customers Experiencing High Energy Burden for Washington Service Area^[1]

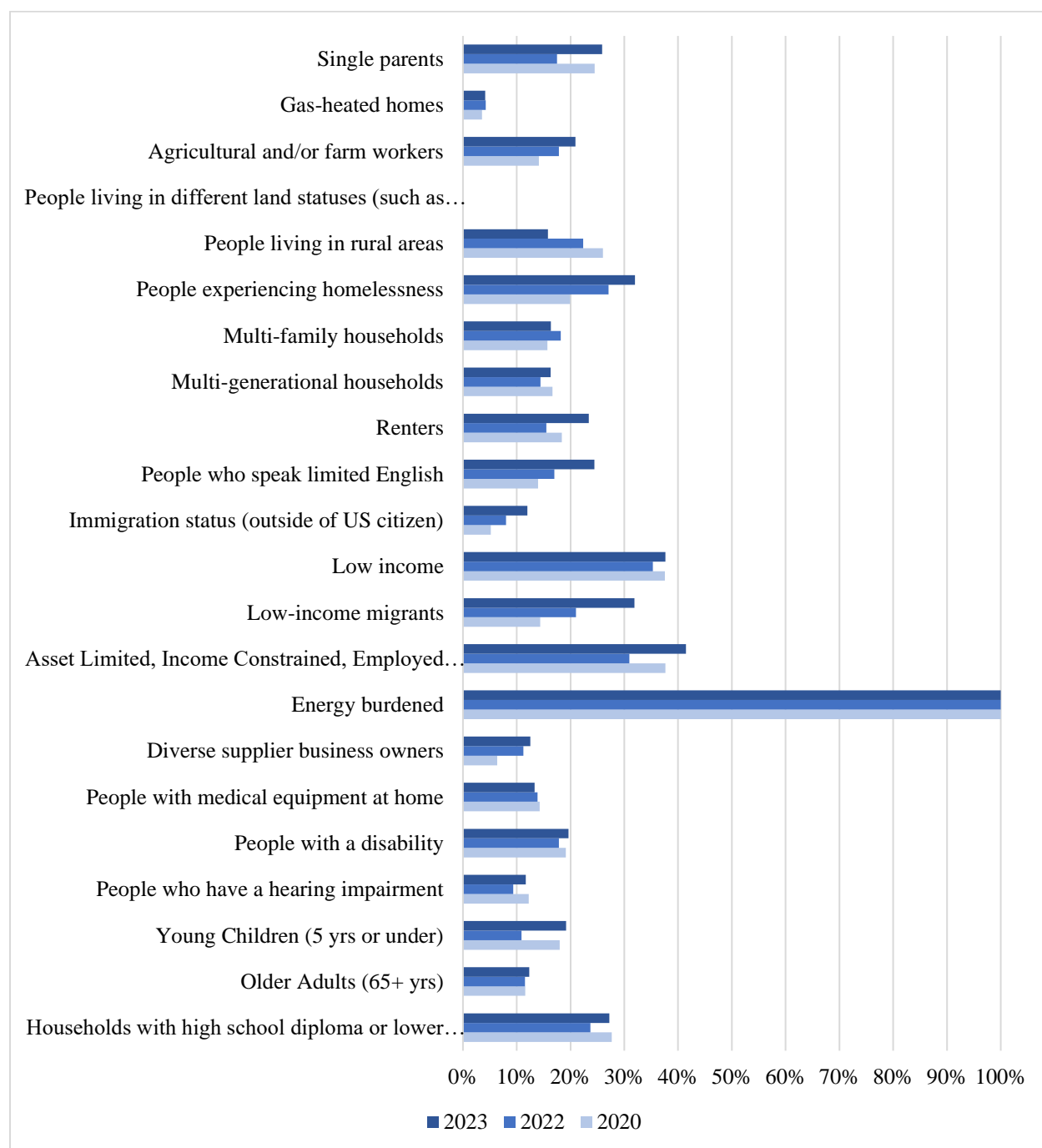
Population	2020				2022				2023			
	Mean Energy Burden (%)	No.	Percent	Average Excess Energy Burden	Mean Energy Burden (%)	No.	Percent	Average Excess Energy Burden	Mean Energy Burden (%)	No.	Percent	Average Excess Energy Burden
All HIC ^{[1][2]}	4.7%	6,471	21.3%	6.7%	4.0%	5,368	17.4%	5.6%	4.5%	6,015	19.4%	8.2%
Tribal Lands	6.1%	2,103	30.0%	7.8%	4.1%	1,356	19.1%	6.7%	4.8%	1,201	17.1%	10.7%
LIBA Participants ^[3]	5.7%	1,676	28.1%	10.7%	4.9%	2,054	22.6%	11.9%	6.4%	3,912	39.2%	10.8%
LIWx Participants ^[3]	7.8%	20	51.2%	6.1%	6.4%	56	39.7%	5.6%	6.3%	39	42.9%	10.2%
KLI	7.3%	1,616	38.5%	7.8%	6.1%	1,678	27.8%	7.2%	7.3%	3,164	41.0%	6.8%
All Customers	3.7%	14,750	13.2%	7.8%	3.4%	12,445	11.0%	6.7%	3.7%	15,688	13.8%	6.9%

^[1] Sources: PacifiCorp Residential Survey (2021 and 2023) and CETA Public Survey (2023) for self-reported household income; customer billing records from 2020 and 2022.

^[2] Baseline values updated since 2021 draft CEIP to account for WDOH update to EDH in July 2022.

^[3] Implementation agencies for LIBA and LIWx provided PacifiCorp with a sample of verified household income levels for 2020 participants and 2022 participants. PacifiCorp also used customer billing records from 2020 and 2022.

Figure 4 - Proportion of Vulnerable Population Experiencing High Energy Burden



Improve Indoor Air Quality

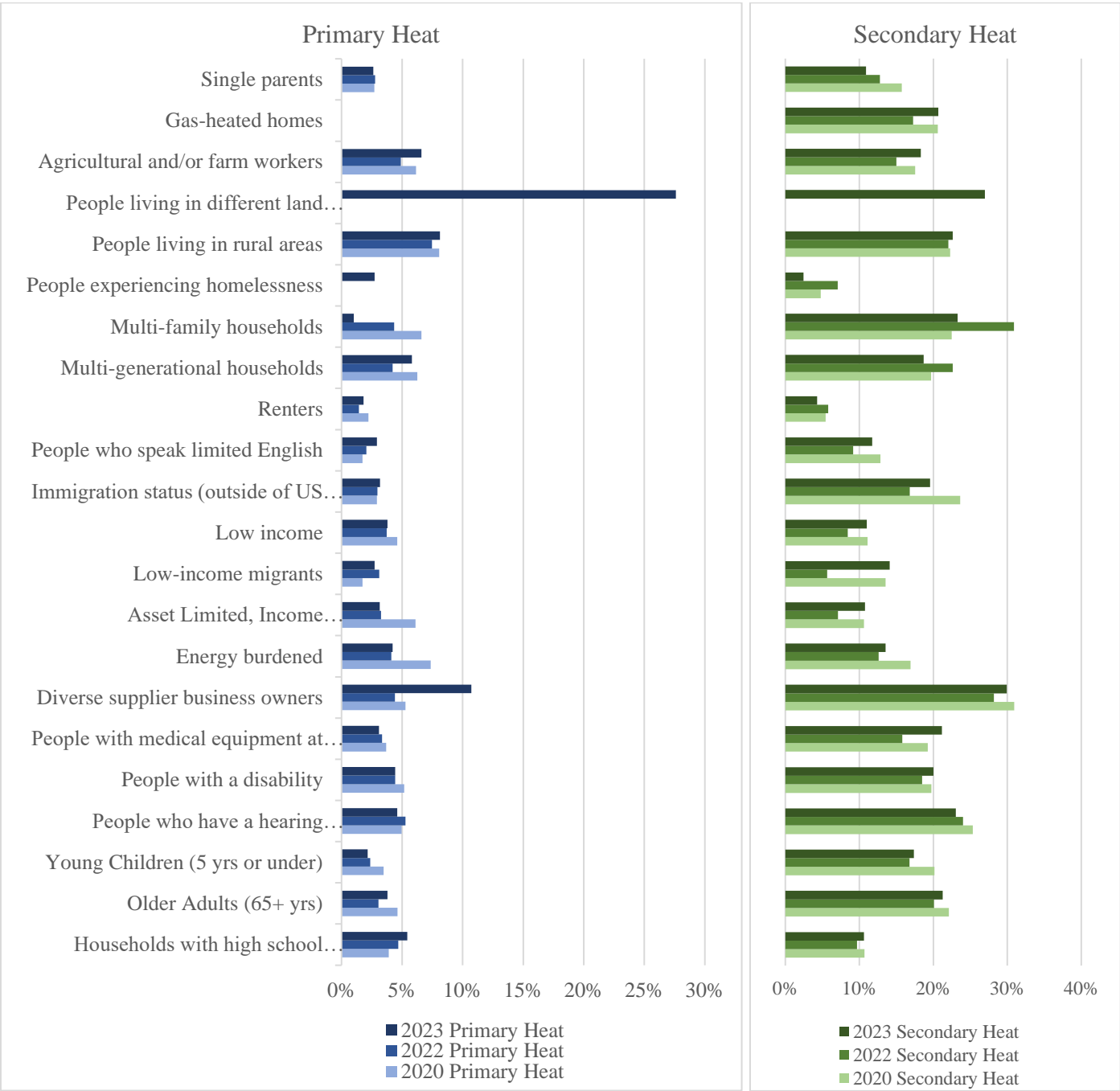
PacifiCorp identified wood heating, and its associated indoor air quality impacts, as a public health threat for vulnerable populations in the Washington service area. Table 21 shows that, at the level of HICs, Tribal lands, and all households, use of wood as either a primary or secondary heating fuel has mixed results from 2022 to 2023 but shows a general decrease in usage since 2020. The exception to these results is households in HICs, where there is a slightly higher use of wood for primary and secondary heating than between 2020 and 2022.

As with other metrics, vulnerable populations exhibited mixed results. As shown in Figure 5, use of wood as a primary heating fuel decreased for eight of the 22 vulnerable populations from 2022 to 2023. Use of wood as a secondary fuel decreased for eight of 22 vulnerable populations. As one of its CEIP utility actions, PacifiCorp added incentives to the Home Energy Savings Program for switching from non-electric and non-gas heating equipment to electric in 2022. In 2023, three single family homes in highly impacted communities participated in the fuel switching heat pump conversion measure (additional detail for this metric is shown in Table 31 in Section IV). Additional detail for this metric can also be found in confidential workpaper “210829-PAC-CEIP-WP-SurveyOutputs-7-1-24 (C).xlsx”.

Table 21 - Number of Households Using Wood as Primary or Secondary Heating Source

Segment	2020			2022			2023		
	Pop.	Primary Heat	Secondary Heat	Pop.	Primary Heat	Secondary Heat	Pop.	Primary Heat	Secondary Heat
HICs	30,450	3.6%	13.1%	30,815	2.9%	8.7%	32,309	3.7%	13.6%
Tribal Lands	7,003	4.2%	22.5%	7,087	6.2%	15.0%	7,017	2.9%	19.3%
All Households	112,000	4.2%	20.3%	113,342	3.4%	17.7%	114,013	3.8%	19.5%

Figure 5 - Percentage of Households Using Wood as Primary or Secondary Heating Source, by Vulnerable Populations^[1]



^[1]Data for Vulnerable Population 19 – People Living in Different Land Status is unavailable for years 2020 and 2022.

PacifiCorp is also tracking the number of homes that are converted from heating with non-regulated combustion fuels such as propane, oil, or wood, to electric heat through the LIWx Program. In 2020, customers with non-electric heating did not qualify for a heating system conversion under Schedule 114, which controls the eligible measures through the program. In February 2022, Schedule 114 was modified to allow this conversion. Despite this, as shown in Table 22, no projects were completed by the end of 2023.

Table 22 – Non-Electric to Electric Heating Conversion for LIWx Program

	Tribal Lands			HIC			All		
	2020	2022	2023	2020	2022	2023	2020	2022	2023
Number of Households Converted	0	0	0	0	0	0	0	0	0
Percent of Households Converted	0%	0%	0%	0%	0%	0%	0%	0%	0%

Reduce Frequency and Duration of Energy Outages

Consistent with CBI Condition 8, PacifiCorp is expanding the metric of SAIDI, SAIFI, and CAIDI at area level including and excluding major events, to also include data for the frequency of customer outages for Vulnerable Populations (where available, see Table 25). PacifiCorp is also adding the following metric:

- The frequency of outages using the IEEE index Customers Experiencing Multiple Interruptions (CEMI) 4 (see Table 24). A threshold of four was used consistent with a typical range of three to five for this metric.

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 sustained outage duration for each customer served.
- **System Average Interruption Frequency Index (SAIFI):** The average number of sustained interruptions a customer may experience.
- **Customer Average Interruption Duration Index (CAIDI):** The average outage duration any given customer would experience.
- **Customers Experiencing Multiple Interruptions (CEMI) 4:** The number of customers experiencing more than four sustained interruptions during the specific period.

PacifiCorp calculated these metrics for both HICs and non-High-Impact Communities (non-HIC), both including major events (ME) and excluding ME in Washington. Typically, including MEs can indicate the system's resilience while excluding MEs can indicate reliability. PacifiCorp calculated these metrics over an extended timeframe to measure resilience and reliability over a long period of time to account for weather and other miscellaneous events that

can skew values. PacifiCorp compared a rolling seven-year average for each metric, both including and excluding MEs, as shown in Table 23. PacifiCorp calculated these metrics for each census tract in Washington at the transformer level. This data was aggregated to each tract using geospatial software and total customer minutes interrupted (CMI) and customers interrupted (CI) were calculated for each tract. Once aggregated, PacifiCorp calculated SAIDI, SAIFI, and CAIDI on an annual basis for HIC and non-HIC census tracts. In addition, a state-wide average was calculated per year to gauge the performance of HIC versus non-HIC tracts against the state.

Deviations in scores provided in Table 23 are a result of the annual variations in reliability attributable to changes in weather and other outage drivers.

Table 23 – SAIDI, SAIFI, and CAIDI Seven-Year Averages

	Non-HIC				HIC				WA			
	Avg. 2014-2020	Avg. 2016-2022	Avg. 2017-2023	Change	Avg. 2014-2020 ^[1]	Avg. 2016-2022	Avg. 2017-2023	Change	Avg. 2014-2020	Avg. 2016-2022	Avg. 2017-2023	Change
SAIDI ME Included	197.38	200.84	199.61	-1.23	182.06	163.60	156.57	-7.03	193.07	190.37	187.51	-2.86
SAIDI ME Excluded	119.30	124.37	126.97	2.60	114.03	102.24	99.13	-3.11	117.82	118.15	119.14	1.00
SAIFI ME Included	1.26	1.32	1.29	-0.03	1.30	1.24	1.09	-0.14	1.27	1.30	1.24	-0.06
SAIFI ME Excluded	0.87	0.90	0.93	0.03	0.95	0.88	0.83	-0.05	0.90	0.90	0.90	0.01
CAIDI ME Included	153.20	148.00	149.97	1.97	140.20	127.53	133.98	6.45	150.32	143.68	147.04	3.36
CAIDI ME Excluded	135.36	136.25	133.04	-3.21	123.60	119.15	121.94	2.79	131.33	131.46	131.65	0.18

^[1] Baseline values updated since 2021 draft CEIP to account for WDOH update to EHD in July 2022.

Table 24 - SAIDI, SAIFI, CAIDI, and CEMI4 by Area^[1]

	Walla Walla		Yakima		Sunnyside		WA
	non-HIC	HIC	non-HIC	HIC	non-HIC	HIC	
SAIDI ME Included	202.26	300.33	201.41	139.51	186.18	213.75	187.51
SAIDI ME Excluded	95.94	289.36	150.05	84.50	89.14	131.72	119.14
SAIFI ME Included	1.23	2.35	1.35	0.85	1.14	2.12	1.24
SAIFI ME Excluded	0.74	2.17	1.08	0.73	0.68	1.08	0.90
CAIDI ME Included	146.21	139.94	147.48	150.46	167.27	102.86	147.04
CAIDI ME Excluded	131.72	158.12	139.64	123.27	134.52	120.72	131.65
CEMI4 ME Included	0.11	0.36	0.13	0.06	0.09	0.14	0.12
CEMI4 ME Excluded	0.05	0.29	0.11	0.04	0.04	0.05	0.08

^[1] Seven year rolling average index, 2017-2023.

Table 25– SAIDI, SAIFI, CAIDI and CEMI4 by Vulnerable Population^[1]

Vulnerable Population	SAIDI ME Included	SAIDI ME Excluded	SAIFI ME Included	SAIFI ME Excluded	CAIDI ME Included	CAIDI ME Excluded	CEMI4 ME Included	CEMI4 ME Excluded
Households with high school diploma or lower educational attainment	99.89	103.71	1.01	1.01	99.22	102.85	0.05	0.05
Older Adults (65+ yrs)	107.12	110.78	1.01	1.01	106.17	109.71	0.05	0.05
Young Children (5 yrs or under)	105.52	106.75	1.01	1.01	104.38	105.57	0.04	0.04
People who have a hearing impairment	107.93	111.16	1.00	1.00	107.47	110.65	0.06	0.06
People with a disability	107.10	109.50	1.00	1.00	106.66	109.03	0.06	0.06
People with medical equipment at home	108.71	112.39	1.01	1.01	108.03	111.61	0.05	0.05
Diverse supplier business owners	103.89	104.88	1.00	1.00	104.27	105.27	0.03	0.03
Energy burdened	112.95	116.33	1.01	1.01	111.85	115.12	0.05	0.05
Asset Limited, Income Constrained, Employed (ALICE)	95.57	97.02	1.01	1.02	94.27	95.43	0.04	0.04
Low-income migrants	106.33	105.40	1.00	1.00	106.33	105.40	0.11	0.11
Low income	103.06	106.63	1.01	1.01	101.90	105.27	0.04	0.04
Immigration status (outside of US citizen)	104.36	106.22	1.00	1.01	103.86	105.68	0.08	0.08
People who speak limited English	95.75	96.84	1.01	1.01	95.18	96.16	0.08	0.08
Renters	96.20	100.42	1.01	1.01	95.72	99.69	0.03	0.03
Multi-generational households	108.58	111.78	1.01	1.01	107.74	110.83	0.06	0.05
Multi-family households	91.17	94.98	1.00	1.00	91.17	94.78	0.04	0.04
People experiencing homelessness	110.17	110.17	1.04	1.04	106.06	106.06	0.02	0.02
People living in rural areas	60.16	60.16	1.02	1.02	59.17	59.17	0.02	0.02
People living in different land statuses (trust vs. fee land)	245.17	245.17	1.00	1.00	245.17	245.17	0.58	0.58
Agricultural and/or farm workers	96.36	98.00	1.01	1.01	95.71	97.16	0.05	0.05
Gas-heated homes	99.94	102.28	1.01	1.01	99.12	101.41	0.02	0.01
Single parents	101.67	105.82	1.01	1.01	100.78	104.75	0.08	0.07

^[1] One-year average index, 2023.

Additional detail for this metric can also be found in confidential workpaper “210829-PAC-CEIP-WP-ResilienceScores-7-1-24 (C).xlsx”.

Decrease Residential Customer Disconnections

Consistent with CBI Condition 2,⁴⁰ PacifiCorp has replaced its original metric for the CBI of Decrease Residential Customer Disconnections within this filing. PacifiCorp is replacing the metric of Number of Residential Customer Disconnections Including Disconnections within Named Communities with the following metric:

- Number and percentage of residential electric disconnection for nonpayment by month, measured by location and demographic information (zip code/census tract, KLI customers, Vulnerable Populations (where known), HICs, and for all customers in total.

Please see PacifiCorp’s Report Card – CBI Condition 2 for the number and percentage of residential electric disconnection for nonpayment by month, measured by location and demographic information (zip code/census tract, KLI customers, Vulnerable Populations (where known), HICs, and for all customers in total. Of note, disconnection data is not available for vulnerable populations, as the necessary demographic data is not documented at the time of disconnection. Detail on disconnections can also be found in confidential workpaper “210829-PAC-CEIP-WP-Disconnects-7-1-24 (C).xlsx”.

Consistent with CBI Condition 3, PacifiCorp is adding an additional metric for the CBI of Decrease Residential Customer Disconnections within this filing. PacifiCorp is adding the following metric:

- Residential arrearages as reported pursuant to Commission Order 04 (Appendix A Third Revised Term Sheet, Section J, Part 8 a-c in Docket No. U-200281 (arrearage data for Section J, Part 2 is reported quarterly by zip code).

Please refer to PacifiCorp’s Quarterly COVID-19 data reports for arrearage data as reported pursuant to Commission Order 04.⁴¹

Increase Named Community Clean Energy

Consistent with CBI Condition 7, PacifiCorp is adding the CBI of Increase Named Community Clean Energy.

Furthermore, consistent with CBI Condition 7, PacifiCorp is adding the following metrics for this CBI:

1. Total MWh of distributed energy resources, 5 MW and under, where benefits and control of the resource accrue to members of Named Communities (see Table 26 and Table 27).

⁴⁰ PacifiCorp’s CBI Report Card is attached as workpaper “210829-PAC-CEIP-WP-ReportCardMetrics-7-1-24.xlsx”.

⁴¹ Available at <https://www.utc.wa.gov/casedocket/2020/200281/docsets>.

2. Total MW of energy storage resources, 5 MW and under, where benefits and control of the resource accrue to members of Named Communities (see Table 26 and Table 27).
3. Number of distributed renewable generation resources and energy storage resources, where benefits and control of the resource accrue to members of Named Communities, including storage/backup/emergency powered centers for emergencies (see Table 26 and Table 27).
4. Total MWh of energy savings from EE programs, where benefits and control of the savings accrue to members of Named Communities (see Table 26 and Table 27).
5. Where known, for 1, 2, 3, and 4 above, PacifiCorp will specify whether the Named Community resources are HIC and/or vulnerable population and/or KLI (see Table 26 and Table 27).
6. For vulnerable populations, where known, PacifiCorp will specify Named Community resources broken down by the sensitivity factors and/or socioeconomic factors that led the customer or community to be designated vulnerable. Please see column one of Table 26 and Table 27 for the sensitivity and/or socioeconomic factors that lead the community to be designated as vulnerable.

Table 26 - Distributed Energy Resources, Energy Storage and Energy Savings from Energy Efficiency Programs for Highly Impacted Communities, 2023

GEOID	Distributed Energy Resources Affiliated with Systems 5 MW and Under		Energy Storage 5 MW and Under		Total MWh of Energy Savings from Energy Efficiency Programs
	Number	MWh	Number	MW	
53071920000	30	503	0	0.000	1,577
53077000100	12	1,014	0	0.000	939
53077001201	11	118	1	0.010	119
53077001202	9	216	0	0.000	598
53077001300	10	445	0	0.000	671
53077001400	6	128	0	0.000	701
53077001501	8	253	0	0.000	357
53077001502	9	66	0	0.000	496
53077000200	3	27	0	0.000	440
53077002102	70	925	1	0.004	672
53077000300	11	213	0	0.000	1,005
53077000500	36	382	0	0.000	305
53077000600	6	70	0	0.000	224
53077000700	28	307	0	0.000	416
53077940001	42	697	0	0.000	260
53077940002	14	550	0	0.000	105
53077940003	24	356	1	0.010	116
53077940004	5	56	0	0.000	211
53077940005	12	255	0	0.000	142
53077940006	7	62	0	0.000	92
Total	353	6,642	3	0.023	9,444

Table 27 – Distributed Energy Resources, Energy Storage and Energy Savings from Energy Efficiency Programs for Vulnerable Populations, 2023

Vulnerable Population	Distributed Energy Resources Affiliated with Systems 5 MW and Under		Energy Storage 5 MW and Under		Total MWh of Energy Savings from Energy Efficiency Programs
	Number	MWh	Number	MW	
Households with high school diploma or lower educational attainment	18	252	1	0.02	127
Older adults (65+ yrs)	180	2,388	9	0.17	371
Young children (5 yrs or under)	20	299	0	0.00	70
People who have a hearing impairment	66	903	2	0.03	121
People with a disability	104	1,492	5	0.12	214
People with medical equipment at home	74	1,079	4	0.10	105
Diverse supplier business owners	11	148	1	0.01	17
Energy burdened	7	112	0	0.00	98
Asset Limited, Income Constrained, Employed (ALICE)	5	67	0	0.00	47
Low-income migrants	2	11	0	0.00	11
Low income	21	294	0	0.00	210
Immigration status (outside of US citizen)	22	341	2	0.08	37
People who speak limited English	18	291	2	0.08	62
Renters	2	23	0	0.00	32
Multi-generational households	48	738	4	0.11	94
Multi-family households	6	99	1	0.06	21
People experiencing homelessness	0	0	0	0.00	2
People living in rural areas	9	110	0	0.00	16
People living in different land statuses (trust vs. fee land)	0	0	0	0.00	0
Agricultural and/or farm workers	9	170	0	0.00	32
Gas-heated homes	103	1,166	4	0.04	47
Single parents	7	113	0	0.00	28
Known Low-income customers	1	9	0	0.00	61

For additional information on distributed energy resources and storage, please see confidential workpaper “210829-PAC-CEIP-WP-DistributedEnergyResources-7-1-24 (C).xlsx”.

ii. **Vulnerable Population Workshops**

Consistent with CBI Condition 14, PacifiCorp has initiated a workshop process as part of the CEIP Engagement Series to review and improve the company's approach to identify and track vulnerable populations. The initial Vulnerable Population Workshop occurred on June 18, 2024, with additional workshops expected to occur throughout 2024. The June 18, 2024, workshop provided background on PacifiCorp's service territory, the company's existing vulnerable population approach and the vulnerable population methodology utilized by peer utilities in Washington. Please see workshop materials available at [Clean Energy Plan Engagement Series February 24, 2023 \(pacificorp.com\)](https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/ceip/CEIP_Meeting_2024-February_24_2023_(pacificorp.com).42).⁴² The workshop was held online, open to the general public, and promoted on the company's website.

The objective of the workshop was to provide foundational understanding about PacifiCorp's approach to defining Named Communities and vulnerable populations, and to solicit feedback from stakeholders on the benefits and limitations of that approach compared to other utilities' approach. The workshop agenda included a review of the process PacifiCorp staff followed to establish the EAG, and then work with the EAG to identify the set of socio-economic and demographic vulnerability factors that make up PacifiCorp's current definition of vulnerable populations. The agenda also covered PacifiCorp's understanding of the key differences between the territory-wide assessment of vulnerable populations that the company has used, and the geographically focused approach adopted in other jurisdictions. Finally, workshop facilitators used a series of discussion questions to elicit feedback from stakeholders in attendance.

C. **Specific Actions**

This section provides updates on the company's supply- and demand-side resource actions taken over the past two-year period, and also updates the company's Revised CEIP Specific Actions Chapter consistent with Settlement Condition Interim Target 7. As discussed below, the company has procured substantial non-emitting and renewable resources and taken significant steps to improve or expand its demand side resource programs and opportunities.

iii. **Revised CEIP Specific Actions**

PacifiCorp agreed to "rewrite its specific actions chapter to demonstrate how each specific action clearly addresses each provision of WAC 480-100-640(5) and (6), including each specific action's general location, proposed timing and estimated cost; whether it will be located in a highly impacted community; whether a supply-side or demand-side resource will be governed by, serve, or benefit highly impacted communities or vulnerable populations; how each action impacts applicable CBIs (including direction and magnitude); how each action demonstrates progress toward or is consistent with the standards in WAC 480-100-610; how each action is consistent with the proposed interim and specific targets, the utility's IRP, and its resource

⁴² Website:

https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/ceip/CEIP_Meeting_2024-06_June_2024_Slides.pdf.

adequacy requirements; and how each action helps the utility meet the clean energy transformation standards at the lowest reasonable cost.”⁴³

Please refer to the workpaper “210829-PAC-CEIP-WP-AppendixCUpdated-7-1-24.xlsx” for an update to and expansion upon the originally filed Appendix C in the Revised 2021 CEIP – this includes expanded information regarding each specific action and updates to reflect progress made towards these originally planned specific actions.

iv. Specific Resources

PacifiCorp agreed to provide, as “part of its CEIP workpapers . . . a list of all the resources (including generating units, conservation, demand response, and any other resource types) that it allocates to serve Washington customers throughout that CEIP, the fuel source for each resource, and a yearly breakdown of the forecasted MWh allocated to Washington from that resource.”⁴⁴

Please see confidential workpaper “210829-PAC-CEIP-WP-WAGenBiennialCEIP-7-1-24 (C).xlsx” which includes the list of all resources on a per-unit basis and the MWh that were projected to serve Washington customers in the most recent update to the CEIP, the 2023 Biennial CEIP Update.⁴⁵

v. Supply-Side Resource Actions

Because the company currently has a *de minimis* incremental cost to comply with CETA for 2023, there are no specific supply-side resource actions that need to be revised from the company’s Revised CEIP Specific Actions chapter. However, the company has procured material supply-side system resources with varying commercial operation dates. These resources include: Anticline; Cedar Springs IV; Rock Creek I; Rock Creek II; Boswell Springs; Cedar Creek; Hornshadow I & II; and Green River I & II. Additional actions are ongoing to procure additional generation and battery resources, consistent with proxy resource needs identified.

The company also notes that while it has cancelled the 2022 all-source request for proposals for various reasons that have been discussed in other forums, the company plans to propose additional supply-side procurement strategies in the 2025 CEIP to continue to meet system and Washington-specific resource needs.

vi. Demand-Side Resource Actions

In this sub-section, the company provides updates on its demand-side resource actions, including regarding energy efficiency, related communications, residential programs, low-income weatherization, non-residential programs, participation tracking and reporting, and demand response.

⁴³ Interim Target Condition 7.

⁴⁴ Revised 2021 CEIP, Transparency Condition 7.

⁴⁵ 2023 Biennial CEIP, filed November 1, 2023, in Docket No. UE-210829.

Energy Efficiency

Since the original CEIP filing, increasing Named Community participation has been integrated into energy efficiency program designs and delivery. The focus areas in 2023 included reaching households and small businesses located in HICs and reaching Vulnerable Populations such as renters, people who speak limited English, and low-income households. PacifiCorp defined specific actions for 2023 in its plans (2021 CEIP and 2023 Annual Conservation Plan⁴⁶) to help increase benefits to Named Communities and achieve goals informed by our EAG.

See workpaper “210829-PAC-CEIP-WP-AppendixCUpdated-7-1-24.xlsx”, tab “CEIP Energy Efficiency” for a table that demonstrates how each specific energy efficiency action for 2023 addresses the provisions of WAC 480-100-640(5) and (6), including each specific action’s general location, proposed timing and estimated cost; whether it will be located in a highly impacted community; whether a demand-side resource will be governed by, serve, or benefit highly impacted communities or vulnerable populations; how each action impacts applicable CBIs (including direction and magnitude); how each action demonstrates progress toward or is consistent with the standards in WAC 480-100-610; how each action is consistent with the proposed interim and specific targets, the utility’s IRP, and its resource adequacy requirements; and how each action helps the utility meet the clean energy transformation standards at the lowest reasonable cost. Some specific actions have evolved based on performance and advisory group feedback since the initial 2021 CEIP. “210829-PAC-CEIP-WP-AppendixCUpdated-7-1-24.xlsx”, tab “CEIP Energy Efficiency”, includes the specific energy efficiency actions in place or planned for each year from 2022-2025.

In 2023, most of the actions delivered energy savings for customers (saving customers money and reducing energy burden), delivered energy savings results toward the company’s energy efficiency specific targets, and resulted in a cost-effective portfolio of programs (excluding Low Income Weatherization from the analysis).⁴⁷

As anticipated, several of the actions to reach more Named Community households and small businesses resulted in additional costs (CETA incremental costs). The table in the workpaper “210829-PAC-CEIP-WP-AppendixCUpdated-7-1-24.xlsx” on tab “CEIP Energy Efficiency” includes results of each specific action in 2023 and the CETA incremental cost for the actions for 2023. The results of the actions can also be seen in the CBI Metrics provided in Table above. Below are highlights:

- As a result of **Home Energy Savings** specific utility actions, the number of households located in a Highly Impacted Community who participated increased from 131 in 2020, to 318 in 2022, to 1,378 in 2023.

⁴⁶ Docket No. UE-210830.

⁴⁷ Cost-effectiveness results are available in the 2023 Annual Report on Conservation Acquisition and the 2022-2023 Biennial Conservation Report in Docket No. UE-210830.

- As a result of **Wattsmart Business** utility actions focused on small businesses, the number of small businesses located in a Highly Impacted Community who participated increased from 31 in 2020, to 106 in 2022, to 166 in 2023.

The specific Utility Actions in the 2022-2023 DSM Business Plan and the 2021 CEIP (both filed in 2021) and updated in the revised 2021 CEIP and 2023 Annual Conservation Plan (Docket No. UE-210830) are listed below with results for each specific action for 2023 (**in bold**). This information is also in the revised 2023 Annual Conservation Report (filed in Docket No. UE-210830; refer to the CEIP – Utility Actions section).

Communications

Utility Actions from the 2022-2023 DSM Business Plan filed in 2021:

Through the programs identified in the 2021 IRP preferred portfolio – including energy efficiency and demand response – PacifiCorp can deliver programs with an increased equity focus utilizing more effective communication strategies to reach its Named Communities.

- Improve culturally and linguistically responsive outreach and marketing to increase awareness of energy and conservation programs.
- Expand in-language services across written, spoken, and visual services.
 - As appropriate, include Spanish versions of collateral and/or posters at community events where Pacific Power is sponsoring. Have interpreters and translated materials at public meetings.

Update to utility actions for 2023 filed in the 2023 Annual Conservation Plan:

- Continue to support programs with an increased equity focus using effective communication strategies to reach Named Communities.
- Continue to increase culturally and linguistically responsive outreach and marketing to increase awareness of energy and conservation programs.
- Continue to expand in-language services across written, spoken, and visual services.
 - As appropriate, include Spanish versions of collateral and/or posters at community events that Pacific Power is sponsoring. Have interpreters and translated materials at public meetings.

2023 Activity:

PacifiCorp has made progress in our efforts to expand and enhance outreach to underserved and diverse communities. PacifiCorp worked with a multicultural marketing agency to develop communications strategies to best reach the Hispanic community in the Yakima area. The multicultural earned media plan included relevant messaging, working closely with local influencers and media partners trusted by the community all while engaging communities where they are. Radio interviews, influencer Facebook posts, and print content drove awareness and traffic to the Spanish Wattsmart landing page, where customers are empowered to use insights and make changes to reduce their costs and lowering their footprint.

Residential

Home Energy Savings:

The following utility actions defined in the 2022-2023 Demand-side Management Business Plan and CEIP (both filed in 2021) are either complete or continuing:

Utility Actions from the 2022-2023 DSM Business Plan filed in 2021, with 2023 status updates in bold:

- Enhanced incentives for windows in multi-family units were added to the program in 2022. Initial focus will be on buildings in highly impacted communities. ***(The enhanced incentives were added to the program effective January 1, 2022. In 2023, 4100 sq. ft. of windows received the enhanced incentive, achieving 73,301 kWh of savings. This utility action is ongoing.)***
- Continue direct install residential lighting in multi-family units. Continue focus on HICs. ***(In 2023 the direct install lighting implementer installed 493 LEDs in multifamily units and common spaces. Seven multifamily buildings benefited from the program, and 34,076 kWh savings were achieved. This utility action is ongoing in 2024.)***
- Maintain and expand if possible general-purpose lamp buydown in “dollar stores” in HICs. This will be the only retail lighting buy down offer. ***(Ended during 2023 following the direction of the Regional Technical Forum. Prior to ending, this action achieved 11,634 kWh savings. To replace this utility action the program will serve customers in highly impacted communities and vulnerable populations with no cost bulb offers delivered through community organizations.)***
- Continue manufactured home direct install duct sealing and lighting. Continue focus on HICs. ***(Ongoing efforts to provide direct install duct sealing and lighting to manufactured homes with a focus on HICs. In 2023 this program led to 1,349 direct install duct sealings, achieving 1,169,608 kWh savings, and 2,687 direct install LEDs, achieving 185,885 kWh savings.)***
- Continue promoting new construction offerings for multifamily and single-family units. Continue focus on HICs. ***(Ongoing effort to recruit and engage builders and raters with a focus on HICs. Program saw a small uptick in new home projects but none located in HICs.)***
- Non-Electric, Non-Natural Gas Upgrades in Named Communities. ***(Ongoing with changes for 2023.)***
 - 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 multi-family residences.

Customers in HICs 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. *(Ongoing: In 2023, 3 single family homes in HICs participated in the fuel switching heat pump conversion measure.)*

Update for 2023:

The above utility actions were implemented and will continue in 2023 with the following improvements and additions:

- Non-electric, non-natural gas upgrades in Named Communities to improve the offer for residential customers in HICs who use non-electric and non-natural gas fuel sources in their primary heating systems by offering an enhanced incentive to replace their system with ductless heat pump(s). This measure will be offered at a higher incentive rate than the typical ductless heat pumps measure, and will be available in single family, manufactured homes, and multifamily residences. Customers in HICs will be eligible for this enhanced incentive and customer eligibility criteria will be available on the program website. This measure (with a lower incentive) will also be available for customers who do not reside in a HICs.
 - The program will use Regional Technical Forum-deemed values for ductless heat pump installations modified to reflect the existing/prior system fuel type.

(Ongoing: In 2023, 3 single family homes in HICs participated in the fuel switching heat pump conversion measure.)

- Enhanced incentives for customers in HICs for the following HVAC measures
 - Ductless heat pump replacing heating oil/wood/propane heating (as described above);
 - Ductless heat pump replacing electric heating;
 - Federal standard heat pump conversion;
 - 9.0+ heating seasonal performance factor heat pump conversion.

(Ongoing: A total of 241 households in HICs received enhanced incentives for heat pumps in 2023 achieving 462,288 kWh energy savings and \$564,600 in incentives.)

- Ramp up single-family home direct install duct sealing. Focus in HICs.

(New: In 2023, the Home Energy Savings program began transitioning from a manufactured home direct-install focus to a combined manufactured home and single-

family home direct install effort. 251-single family households located in HICs and 46 non-HIC households received no cost duct sealing achieving 386,141 kWh savings.)

Low Income Weatherization

The following utility actions defined in the 2022-2023 Demand-side Management Business Plan and CEIP (both filed in 2021) are either complete or continuing:

Utility Actions from the 2022-2023 DSM Business Plan filed in 2021:

- 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. 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.

To implement the above utility actions, the company submitted a filing with the Commission on December 21, 2021, to make changes to Schedule 114 and received approval for the following, effective February 1, 2022:

- *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.*

In 2022, the combined total annual reimbursement on repair cost was five percent of the annual reimbursement on energy efficient measures installed by the four weatherization partner agencies. There were no installations of ductless heat pumps to replace any non-electric fuel source.

Update to utility actions for 2023 (in 2023 Annual Conservation Plan) with 2023 status updates **in bold**.

To implement the above utility actions, the company submitted a filing with the Commission on December 21, 2021, to make changes to Schedule 114 and received approval for the following effective February 1, 2022:

- 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.

In 2023, the combined total annual reimbursement on repair cost was two percent of the annual reimbursement on energy efficient measures installed by the four weatherization partner agencies. There were no installations of ductless heat pumps to replace any non-electric fuel source.

Non-residential

Wattsmart Business

The Wattsmart Business utility actions were defined in the 2022-2023 Demand-side Management Business Plan and CEIP (both filed in 2021); the actions were updated in the 2023 Annual Conservation Plan (filed in 2022). Below are the utility actions for 2023 and the 2023 status updates/results (**in bold**).

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. ***(Implemented with the program changes effective January 1, 2022, and continued in 2023. Annual energy savings for small business lighting projects completed in 2023 with small businesses in Named Communities and very small businesses totaled almost four million kWh.)***
 - 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.
 - ***This was implemented with the program changes effective January 1, 2022, and continued in 2023.***
 - ***Incentives for very small businesses and small businesses located in HICs were set higher than the regular small business lighting incentives. The incentive cap for very small businesses and small businesses located in HICs is 100 percent of project costs rather than the 90 percent cap for the regular small business offer. This reduced the out-of-pocket cost for lighting retrofits and made it easier for customers to move forward with vendor project proposals.***
- Target a portion of company initiated proactive outreach to small businesses located in HICs. Continue to tie proactive outreach to approved small business vendor capacity to respond to customer inquiries.
 - ***Continued the postcard campaign in 2023 that focused on hard-to-reach small business customers. Approved small business lighting vendors who signed a non-***

disclosure agreement were provided with customer lists (containing business name, address, phone number only) to allow them to connect with customers who received a postcard from Pacific Power containing an introduction to the program and an approved vendor. The intent is to improve efficiency of the approved vendors sales processes and boost small business participation.

- *Co-branded shirts are made available to vendors who participated in the postcard campaign. These shirts help in promoting vendor credibility with small business customers.*
- *Co-branded leave-behind postcards were provided to approved vendors to share with customers that included a QR Code for information in English and Spanish.*
- Offer approved small business lighting vendors a higher vendor incentive for completed lighting retrofit projects with small businesses located in HICs.
 - *Implemented in 2022 and continued in 2023.*
 - *Vendor incentives of \$500 per project were paid in 2023 for 107 completed small business lighting retrofits for small businesses located in HICs.*
 - *The \$500 per project vendor incentive was also available for completed lighting projects for very small businesses. The vendor incentive for completed lighting projects for other small businesses (not very small and not in a HIC) was \$300 per completed project.*
- Create a new offer within the small business program including enhanced incentives for select non-lighting measures. (*New offer was added effective January 1, 2023. One ductless heat pump project was completed in 2023 and annual kWh savings was 6,122.*)
 - Incentives offered to small businesses for these non-lighting measures will be higher than those offered to larger businesses. Incentives offered to select very small businesses and Named Community small businesses will be higher than those offered to small businesses not meeting the very small and Named Community criteria.
 - *The following efforts were made in 2023 to promote the offer:*
 - *Sent postcard to small businesses who previously participated in a lighting project. Outreach staff followed up via phone with 77 customers to generate interest in the incentives.*
 - *Outreach efforts to previous lighting participants to promote potential non-lighting measures.*
 - *Created handouts for customers and trade allies for outreach staff to use on visits.*
 - *E-blast sent to relevant trade allies to promote the program and offer a \$50 spiff (gift card) for referrals to non-lighting program.*
- Continue development of program materials in Spanish.
 - *Program materials in Spanish were updated in 2023 for the program effective January 1, 2024, including the [Wattsmart Business overview](#), [Small Business](#)*

Lighting handout, Wattsmart Business brochure including incentive tables, and the program Application.

- Continue and increase outreach to Latinx and Tribal community groups.
 - *Program outreach staff were featured in multicultural marketing campaigns with Spanish radio and television interviews. Created a [new Spanish website landing page](#) to support the multicultural marketing campaign.*
 - *Outreach staff attended various multi-cultural community events including the Yakima Taco Fest.*
 - *Presented Home Energy Savings and Wattsmart Business at Southwest Yakima Rotary and Central Washington Hispanic Chamber of Commerce.*
 - *Full-time Diversity & Community Outreach Coordinator continued with focus on Small Business outreach in customer's native language.*
 - *Reached out to over 300 customers within HICs.*
 - *Attended Central Washington Hispanic Chamber of Commerce Meet and Greets and Board of Directors Meetings monthly through 2023.*
 - *Attended Equity, Diversity, and Inclusion Committee Meeting - monthly through 2023.*

Participation Tracking and Reporting

The participation and tracking utility actions were defined in the 2022-2023 Demand-side Management Business Plan and CEIP (both filed in 2021); the actions were updated in the 2023 Annual Conservation Plan (filed in 2022). Below are the utility actions for 2023 and the 2023 status updates/results (**in bold**).

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

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

In addition, the HIC tracking will also include tracking for participants located on Tribal lands (based on census tract data).

The above actions were implemented in 2023.

Demand Response

PacifiCorp has taken strides to build out a portfolio of programs to develop resources that contribute to the company's specific target for demand response. Since the original CEIP, PacifiCorp received approval for Schedule 106, which is an enabling demand response tariff that supports multiple market driven programs. Schedule 106 provides a regulatory framework that includes a fast and flexible change process while at the same time enabling transparent customer information for the benefit of all stakeholders. Each new demand response program will use Schedule 106 for enablement, communication, and tracking. PacifiCorp has enabled three demand response programs to date under Schedule 106: Irrigation Load Control; Commercial and Industrial Demand Response; and Optimal Time Rewards. The annual report discussing activity within each of these programs and achievements to date is being filed concurrently with this document, in Docket No. UE-220550.

In addition to the active customer programs, the company has also launched pilot time-of-use rate options in Washington for residential, non-residential, and irrigation customers. PacifiCorp expects to file reviews of these pilots later in 2024.

PacifiCorp continues to develop two additional programs, Electric Vehicle Managed Charging and a Batteries Demand Response program.

Electric Vehicle Managed Charging

In 2023, PacifiCorp filed the managed charging application with the WUTC. Currently, PacifiCorp is working to launch this activity in our service area.

Batteries

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

D. Public Participation

Consistent with Miscellaneous Condition 2, PacifiCorp published a publicly available and regularly updated list of its Washington EAG members and their organizations or community affiliations on its website. This list can be found within PacifiCorp's [Washington Clean Energy Transformation Act & Equitable Distribution of Benefits \(pacifiCorp.com\)](https://www.pacificorp.com/content/dam/pacifiCorp/documents/en/pacifiCorp/energy/ceip/PP%20WA%20EAG%20Member%20List%2021-24.pdf) webpage.⁴⁸

⁴⁸ Available here:

[https://www.pacificorp.com/content/dam/pacifiCorp/documents/en/pacifiCorp/energy/ceip/PP %20WA %20EAG %20Member %20List 21-24.pdf](https://www.pacificorp.com/content/dam/pacifiCorp/documents/en/pacifiCorp/energy/ceip/PP%20WA%20EAG%20Member%20List%2021-24.pdf).

IV. Supporting Detail for CBI Metrics

This section provides more granular detail on the CBI metric values presented earlier in this document.

Table 28 - Details for Workshops on Energy Related Programs in Washington, 2023

Workshop	Sector	Focus	Date	Location	HIC Location	Non-HIC Location	Total Count
Clean Buildings Accelerator Coffee chat	Business	Energy efficiency	1/12/2023	Online	1	1	1
Clean Buildings Accelerator, first cohort, Elevation Seminar 1	Business	Energy efficiency	1/19/2023	Online	1	1	1
Clean Buildings Accelerator, second cohort, Workshop 1 - Accelerator Kickoff	Business	Energy efficiency	1/25/2023	Online	1	1	1
Clean Buildings Accelerator, second cohort, Workshop 2 - Energy Bootcamp	Business	Energy efficiency	3/1/2023	Online	1	1	1
Wattsmart vendor program training	Business, Residential	Energy efficiency	3/14/2023	Marcus Whitman Hotel, Walla Walla		1	1
Wattsmart vendor program training	Business, Residential	Energy efficiency	3/15/2023	Convention Center 10 N 8th St, Yakima, WA	1		1
Central Washington Hispanic Chamber of Commerce Meet and Greet presentation	Business	Energy efficiency	3/29/2023	Yakima Valley Mall, Upstairs Mezzanine, 2529 Main St, Union Gap, WA	1		1
Clean Buildings Accelerator, second cohort, Workshop 3 - O&M Ramp Up	Business	Energy efficiency	3/29/2023	Online	1	1	1
Clean Buildings Accelerator, second cohort, Workshop 4 - Engagement	Business	Energy efficiency	4/26/2023	Online	1	1	1
Yakima Southwest Rotary	Business, Residential	Energy efficiency	7/25/2023	Zesta Cucina, 5110 Tieton Drive, Yakima		1	1
Hands-on training for Wattsmart Business lighting vendors - Luminaire Level Lighting Controls	Business	Energy efficiency	9/19/2023	Pacific Power, 500 N Keys Road, Yakima		1	1
Follow-up virtual training for Wattsmart Business lighting vendors - Luminaire Level Lighting Controls	Business	Energy efficiency	9/26/2023	Online	1	1	1
Clean Buildings Accelerator, first and second cohorts, Elevation seminar	Business	Energy efficiency	9/27/2023	Online	1	1	1
Sustainable Living Center Public Workshop Series - Energy Savings & Solar - Presentation	Residential	Energy efficiency	10/10/2023	Online (target audience for Sustainable Living Center is Walla Walla area)		1	1
Total					10	12	14

Table 29 - Percentage of Vulnerable Populations Who Participated in Energy Efficiency Programs, 2023

Vulnerable Population		Home Energy Savings			LIWx			Home Energy Reports			LIBA		
		2020	2022	2023	2020	2022	2023	2020	2022	2023	2020	2022	2023
1	High school diploma or lower educational attainment	1.1%	4.8%	6.0%	0.2%	0.3%	0.1%	43%	43%	59%	10%	14%	13%
2	Older adults (65+ yrs)	2.1%	5.4%	7.1%	0.1%	0.1%	0.1%	45%	45%	57%	2%	3%	3%
3	Young children (5 yrs or under)	2.1%	5.0%	5.7%	0.0%	0.0%	0.0%	39%	37%	56%	5%	9%	11%
4	People who have a hearing impairment	2.3%	5.6%	7.2%	0.0%	0.0%	0.0%	40%	43%	57%	3%	3%	3%
5	People with a disability	1.7%	4.9%	6.6%	0.0%	0.1%	0.0%	42%	44%	58%	6%	9%	8%
6	People with medical equipment at home	2.7%	3.4%	6.4%	0.0%	0.0%	0.0%	45%	42%	59%	4%	6%	5%
7	Diverse supplier business owners	3.5%	1.2%	7.7%	0.0%	0.0%	0.0%	48%	27%	56%	1%	5%	2%
8	Energy burdened	2.3%	6.8%	7.4%	0.0%	0.3%	0.2%	38%	50%	59%	14%	14%	17%
9	Asset Limited, Income Constrained, Employed (ALICE)	0.7%	3.8%	4.5%	0.0%	0.5%	0.0%	41%	42%	61%	9%	14%	20%
10	Low-income migrants	0.0%	2.2%	7.7%	0.0%	0.0%	0.0%	42%	40%	56%	8%	11%	22%
11	Low income	1.0%	4.9%	6.2%	0.1%	0.2%	0.1%	41%	41%	58%	12%	18%	17%
12	Immigration status (outside of US citizen)	0.0%	4.3%	6.0%	0.0%	0.0%	0.0%	42%	42%	58%	4%	6%	8%
13	People who speak limited English	1.1%	5.0%	5.3%	0.0%	0.4%	0.2%	42%	41%	62%	11%	12%	14%
14	Renters	0.5%	2.0%	3.8%	0.0%	0.1%	0.0%	37%	30%	55%	9%	13%	13%
15	Multi-generational households	2.8%	6.2%	8.0%	0.0%	0.0%	0.0%	43%	46%	57%	2%	4%	3%
16	Multi-family households	1.7%	2.2%	8.6%	0.0%	0.0%	0.0%	41%	43%	64%	1%	3%	10%
17	People experiencing homelessness and/or without permanent housing	0.0%	3.0%	7.1%	0.0%	0.0%	0.0%	33%	16%	50%	10%	13%	23%
18	People living in rural areas	0.0%	5.4%	1.2%	0.0%	0.0%	0.0%	50%	38%	59%	5%	9%	5%
19	People living in different land statuses (such as land trust vs. fee patent that have different regulatory requirements)	No data	No data	0.0%	No data	No data	0.0%	No data	No data	29%	No data	No data	0%
20	Agricultural and/or farm workers	0.9%	5.4%	5.2%	0.0%	0.3%	0.0%	39%	42%	64%	10%	13%	11%
21	Gas-heated homes	1.0%	2.8%	2.7%	0.0%	0.0%	0.0%	45%	43%	57%	2%	3%	3%
22	Single parents	0.6%	3.7%	4.5%	0.0%	0.0%	0.4%	40%	45%	58%	11%	10%	15%

Table 30 – Customers Experiencing High Energy Burden, by Vulnerable Population

Vulnerable Population		2020					2022					2023				
		High Energy Burden				Average Excess Energy Burden	High Energy Burden				Average Excess Energy Burden	High Energy Burden				Average Excess Energy Burden
		Mean Energy Burden (%)	Pop.	Percent	% of Pop EB Standard Error		Mean Energy Burden (%)	Pop.	Percent	% of Pop EB Standard Error		Mean Energy Burden (%)	Pop.	Percent	% of Pop EB Standard Error	
1	High school diploma or lower educational attainment	6.3%	14,750	28%	0.01	9%	5.0%	12,445	24%	0.01	6%	6.0%	14,960	27%	0.01	8%
2	Older adults (65+ yrs)	3.4%	1,896	12%	0.01	7%	3.2%	1,909	12%	0.01	6%	3.4%	2,058	12%	0.01	5%
3	Young children (5 yrs or under)	5.2%	1,540	18%	0.03	12%	3.4%	944	11%	0.02	7%	5.0%	1,671	19%	0.02	10%
4	People who have a hearing impairment	3.3%	2,040	12%	0.02	6%	3.0%	1,573	9%	0.01	5%	3.2%	2,160	12%	0.01	4%
5	People with a disability	4.5%	2,940	19%	0.02	8%	3.9%	2,776	18%	0.01	5%	4.7%	3,066	20%	0.01	8%
6	People with medical equipment at home	3.4%	2,512	14%	0.02	5%	3.8%	2,579	14%	0.02	8%	3.5%	2,508	13%	0.01	5%
7	Diverse supplier business owners	2.3%	2	6%	0.04	1%	2.6%	3	11%	0.04	2%	4.4%	3	13%	0.04	16%
8	Energy burdened	13.8%	14,750	100%	-	8%	12.7%	12,445	100%	-	7%	12.9%	15,688	100%	-	7%
9	Asset Limited, Income Constrained, Employed (ALICE)	7.1%	12,992	38%	0.03	7%	6.0%	11,417	31%	0.03	6%	8.0%	15,385	41%	0.03	8%
10	Low-income migrants	4.0%	318	14%	0.05	3%	4.9%	776	21%	0.04	5%	6.8%	793	32%	0.06	8%
11	Low income	7.3%	5,061	38%	0.02	8%	6.7%	4,820	35%	0.02	7%	7.2%	5,208	38%	0.02	7%
12	Immigration status (outside of US citizen)	2.3%	983	5%	0.02	3%	2.7%	1,536	8%	0.02	5%	3.6%	2,314	12%	0.02	8%
13	People who speak limited English	3.5%	5,114	14%	0.03	4%	3.9%	6,295	17%	0.02	6%	5.3%	9,181	24%	0.02	7%
14	Renters	4.4%	7,404	18%	0.02	6%	3.8%	6,334	16%	0.01	6%	5.0%	9,684	23%	0.02	7%
15	Multi-generational households	4.1%	521	17%	0.02	8%	3.6%	456	14%	0.02	5%	4.0%	519	16%	0.02	6%
16	Multi-family households	4.4%	514	16%	0.05	9%	3.1%	604	18%	0.05	3%	4.7%	547	16%	0.04	9%
17	People experiencing homelessness	3.1%	143	20%	0.10	1%	4.1%	232	27%	0.11	4%	7.1%	291	32%	0.10	11%
18	People living in rural areas	5.3%	966	26%	0.05	7%	4.3%	846	22%	0.04	5%	6.0%	598	16%	0.03	17%
19 ^[1]	People living in different land statuses (such as land trust vs. fee patent that have different regulatory requirements)	--	--	--	--	--	--	--	--	--	--	2.0%	0	0%	0.00	N/A
20	Agricultural and/or farm workers	4.3%	2,391	14%	0.03	8%	4.4%	3,057	18%	0.03	8%	4.9%	3,598	21%	0.03	7%
21	Gas-heated homes	1.9%	992	4%	0.01	6%	1.9%	1,208	4%	0.01	8%	2.0%	1,188	4%	0.01	6%
22	Single parents	5.1%	2,186	24%	0.03	7%	4.2%	1,578	17%	0.03	7%	6.0%	2,374	26%	0.03	10%
	Known Low-income customers	7.3%	1,616	38.5%	0.05	8%	6.1%	1,678	27.8%	0.04	7%	7.3%	3,164	41.0%	0.03	7%
	HIC	4.7%	6,471	21.3%	0.02	7%	4.0%	5,368	17.4%	0.02	6%	4.8%	6,015	19.4%	0.02	8%

Table 31 – Number of Households Using Wood as Primary or Secondary Heating Source Among Customers within Vulnerable Populations

Vulnerable Population		2020			2022			2023		
		n	Primary Heat	Secondary Heat	n	Primary Heat	Secondary Heat	n	Primary Heat	Secondary Heat
1	Households with high school diploma or lower educational attainment	57,143	3.9%	10.7%	54,524	4.7%	9.7%	54,919	5.4%	10.6%
2	Older Adults (65+ yrs)	16,391	4.6%	22.1%	16,587	3.1%	20.1%	16,665	3.8%	21.3%
3	Young Children (5 yrs or under)	8,554	3.5%	20.2%	8,657	2.4%	16.8%	8,719	2.2%	17.4%
4	People who have a hearing impairment	16,666	5.0%	25.3%	16,846	5.3%	24.0%	18,473	4.6%	23.1%
5	People with a disability	15,358	5.2%	19.8%	15,542	4.4%	18.5%	15,610	4.4%	20.0%
6	People with medical equipment at home	17,595	3.7%	19.3%	18,584	3.4%	15.8%	18,800	3.1%	21.2%
7	Diverse supplier business owners	26	5.3%	30.9%	29	4.4%	28.2%	27	10.7%	29.9%
8	Energy burdened	14,750	7.4%	16.9%	12,447	4.1%	12.6%	15,683	4.2%	13.5%
9	Asset Limited, Income Constrained, Employed (ALICE)	34,525	6.1%	10.6%	36,889	3.3%	7.1%	37,108	3.2%	10.8%
10	Low-income migrants	2,218	1.7%	13.5%	3,696	3.1%	5.6%	2,485	2.7%	14.1%
11	Low income	13,484	4.6%	11.1%	13,646	3.7%	8.5%	13,830	3.8%	11.0%
12	Immigration status (outside of US citizen)	18,908	2.9%	23.6%	19,134	3.0%	16.8%	19,287	3.2%	19.6%
13	People who speak limited English	36,635	1.7%	12.8%	37,074	2.1%	9.2%	37,564	2.9%	11.7%
14	Renters	40,328	2.2%	5.5%	40,811	1.4%	5.8%	41,365	1.8%	4.3%
15	Multi-generational households	3,129	6.3%	19.7%	3,167	4.2%	22.6%	3,181	5.8%	18.7%
16	Multi-family households	3,281	6.6%	22.5%	3,320	4.3%	30.9%	3,341	1.0%	23.3%
17	People experiencing homelessness	717	0.0%	4.8%	857	0.0%	7.1%	910	2.7%	2.5%
18	People living in rural areas	3,712	8.1%	22.3%	3,786	7.5%	22.0%	3,790	8.1%	22.6%
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	No data	No data	159	27.6%	27.0%
20	Agricultural and/or farm workers	16,921	6.2%	17.5%	17,123	4.9%	15.0%	17,205	6.6%	18.3%
21	Gas-heated homes	28,090	0.0%	20.6%	28,426	0.0%	17.3%	28,621	0.0%	20.7%
22	Single parents	8,925	2.7%	15.8%	9,032	2.8%	12.8%	9,178	2.6%	10.9%