



# ADVICE LETTER SUMMARY

## ENERGY UTILITY



MUST BE COMPLETED BY UTILITY (Attach additional pages as needed)

Company name/CPUC Utility No.: PacifiCorp (U 901E)

Utility type:

- ELC       GAS       WATER  
 PLC       HEAT

Contact Person: Pooja Kishore

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E-mail: californiadockets@pacificorp.com

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### EXPLANATION OF UTILITY TYPE

ELC = Electric      GAS = Gas      WATER = Water  
 PLC = Pipeline      HEAT = Heat

(Date Submitted / Received Stamp by CPUC)

Advice Letter (AL) #: 747-E

Tier Designation: Tier 2

Subject of AL: Biennial Budget Advice Letter (BBAL) for 2025-2026 Energy Efficiency Programs

Keywords (choose from CPUC listing): Biennial Budget Advice Letter - BBAL, Energy Efficiency Programs

AL Type:  Monthly  Quarterly  Annual  One-Time  Other: Biennial

If AL submitted in compliance with a Commission order, indicate relevant Decision/Resolution #: D.21-12-034

Does AL replace a withdrawn or rejected AL? If so, identify the prior AL: No.

Summarize differences between the AL and the prior withdrawn or rejected AL:

Confidential treatment requested?  Yes  No

If yes, specification of confidential information:

Confidential information will be made available to appropriate parties who execute a nondisclosure agreement. Name and contact information to request nondisclosure agreement/ access to confidential information:

Resolution required?  Yes  No

Requested effective date: 1/1/25

No. of tariff sheets: N/A

Estimated system annual revenue effect (%): N/A

Estimated system average rate effect (%): N/A

When rates are affected by AL, include attachment in AL showing average rate effects on customer classes (residential, small commercial, large C/I, agricultural, lighting).

Tariff schedules affected: N/A

Service affected and changes proposed<sup>1</sup>: N/A

Pending advice letters that revise the same tariff sheets: N/A

<sup>1</sup>Discuss in AL if more space is needed.

**Protests and all other correspondence regarding this AL are due no later than 20 days after the date of this submittal, unless otherwise authorized by the Commission, and shall be sent to:**

CPUC, Energy Division  
Attention: Tariff Unit  
505 Van Ness Avenue  
San Francisco, CA 94102  
Email: [EDTariffUnit@cpuc.ca.gov](mailto:EDTariffUnit@cpuc.ca.gov)

Name: Pooja Kishore  
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Title:  
Utility Name:  
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## ENERGY Advice Letter Keywords

Affiliate	Direct Access	Preliminary Statement
Agreements	Disconnect Service	Procurement
Agriculture	ECAC / Energy Cost Adjustment	Qualifying Facility
Avoided Cost	EOR / Enhanced Oil Recovery	Rebates
Balancing Account	Energy Charge	Refunds
Baseline	Energy Efficiency	Reliability
Bilingual	Establish Service	Re-MAT/Bio-MAT
Billings	Expand Service Area	Revenue Allocation
Bioenergy	Forms	Rule 21
Brokerage Fees	Franchise Fee / User Tax	Rules
CARE	G.O. 131-D	Section 851
CPUC Reimbursement Fee	GRC / General Rate Case	Self Generation
Capacity	Hazardous Waste	Service Area Map
Cogeneration	Increase Rates	Service Outage
Compliance	Interruptible Service	Solar
Conditions of Service	Interutility Transportation	Standby Service
Connection	LIEE / Low-Income Energy Efficiency	Storage
Conservation	LIRA / Low-Income Ratepayer Assistance	Street Lights
Consolidate Tariffs	Late Payment Charge	Surcharges
Contracts	Line Extensions	Tariffs
Core	Memorandum Account	Taxes
Credit	Metered Energy Efficiency	Text Changes
Curtable Service	Metering	Transformer
Customer Charge	Mobile Home Parks	Transition Cost
Customer Owned Generation	Name Change	Transmission Lines
Decrease Rates	Non-Core	Transportation Electrification
Demand Charge	Non-firm Service Contracts	Transportation Rates
Demand Side Fund	Nuclear	Undergrounding
Demand Side Management	Oil Pipelines	Voltage Discount
Demand Side Response	PBR / Performance Based Ratemaking	Wind Power
Deposits	Portfolio	Withdrawal of Service
Depreciation	Power Lines	



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Portland, Oregon 97232

October 9, 2024

***VIA ELECTRONIC FILING***

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Energy Division  
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Email: [edtariffunit@cpuc.ca.gov](mailto:edtariffunit@cpuc.ca.gov)

**Re: PacifiCorp (U 901-E) Advice Letter No. 747-E  
Biennial Budget Advice Letter (BBAL) for 2025-2026 Energy Efficiency Programs**

**PURPOSE**

PacifiCorp, d/b/a Pacific Power (PacifiCorp or Company), submits Advice Letter No. 747-E in compliance with California Public Utilities Commission (CPUC or Commission) Decision (D.) 21-12-034, which directs the Company to submit a Tier 2 advice letter containing the budget for the next two calendar years' energy efficiency program funding levels.

Through this filing, PacifiCorp requests that the Commission approve its forecasted budget of \$2,020,362 for 2025-2026 energy efficiency programs,<sup>1</sup> effective January 1, 2025.

**BACKGROUND**

**I. Regulatory Requirements**

On December 31, 2020, PacifiCorp filed Application (A.) 20-12-018 to continue its energy efficiency programs beyond 2021. On December 20, 2021, the Commission issued D.21-12-034 approving Application (A.) 20-12-018 and authorizing PacifiCorp to continue administering its energy efficiency programs from 2022-2026 and to continue its surcharge to fund public purpose programs. The Decision modified the interval at which budget advice letters must be provided from annually to biennially and ordered PacifiCorp to file its first BBAL on September 1, 2022.

On August 12, 2024, PacifiCorp submitted a request for an extension of time from September 1, 2024 to October 11, 2024 to submit the BBAL, as directed by Ordering Paragraph 4 of D.21-12-034 (Decision). On September 3, 2024, the request was granted by Executive Director Rachel Peterson.

**Ordering Paragraphs.** In Ordering Paragraphs 2 and 4 of D.21-12-034, for this Biennial Budget Advice Letter for 2025-2026, the Commission directed PacifiCorp as follows:

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<sup>1</sup> PacifiCorp's approved programs are Home Energy Savings (Schedule D-118), Home Energy Reports (Schedule S-191) and Wattsmart Business (Schedule A-140). The forecasted budget does not include the potential addition of a fuel switching pilot.

Ordering Paragraph 2 requires PacifiCorp to begin reporting using the Total System Benefit metric adopted in D.21-05-031 starting in plan year 2023.

Ordering Paragraph 4 requires PacifiCorp to file Tier 2 budget advice letters in September 2022 and September 2024, following the requirements in Section 5.4 of the Decision.

1. Section 5.4.1 includes the following review criteria:

- a. Forecasted energy savings shall meet the energy savings goals adopted in D.21-12-034 for the program years;
- b. A projected budget for the program years covered by the budget advice letter, and demonstration that the cumulative budget will remain under the total budget cap authorized in D.21-12-034;
- c. The Total System Benefit (TSB) metric of the portfolio shall be included, but will not be considered a basis for the rejection of the budget advice letters;<sup>2</sup>
- d. Cost-effectiveness ratios, for both the Total Resource Cost (TRC) and Program Administrator Cost (PAC), shall be included for the entire portfolio, but these overall portfolio TRC and PAC ratios will not be a basis for rejection of the budget advice letters;
- e. Cost-effectiveness ratios shall also be calculated on only the resource acquisition portion of the portfolio, and must exceed 1.0 on a forecast basis;
- f. Portfolio shall be divided into resource acquisition, market support and equity segments;
- g. Ensure that budgets classified as market support or equity programs are tracked against the 30 percent budget cap adopted for Investor-Owned Utility (IOU) portfolios, as discussed in Section 3 of D.21-05-031; and
- h. Ensure the filing conforms to portfolio level metrics requirements as prescribed in D.18-05-041 and other subsequent Commission guidance and decisions related to metrics submissions and filings not covered by the review criteria above.

2. Section 5.4.2 relates to updating cost-effectiveness inputs to align with the large IOUs.

- a. By the time of its 2024 filing for the 2025 and 2026 program year, PacifiCorp will update the inputs it uses for its cost effectiveness model to include the incremental cost methodology utilized by IOUs and use the Commission's avoided cost calculator adjusted for PacifiCorp and statewide workpapers/ Electronic Technical Reference Manual (eTRM)<sup>3</sup> incremental costs. AEG reviewed activity in Rulemaking 22-11-013 and found that the CPUC issued a proposed decision to adopt updates to the Avoided Cost Calculator, beginning with the 2024 Avoided Cost Calculator.<sup>[1]</sup> The proposed decision would set aside remaining issues related to the 2024 Avoided Cost Calculator for the scope of the successor to the proceeding, in August 2024 or later. At the time of AEG's review, the 2024 Avoided Cost Calculator was not available and a final decision adopting it had not yet been issued. Therefore, because it was the most recently approved version available, on June 25, 2024, PacifiCorp informed Energy Division staff that it

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<sup>2</sup> Additional information on the TSB calculation is available in the TSB Technical Guidance Manual at <https://pda.energydataweb.com/api/view/2560/FINAL%20TSB%20Tech%20Guidance%20102521.pdf>.

<sup>3</sup> See Electronic Technical Resource Manual <http://www.caltf.org/etrm-overview>.

<sup>[1]</sup> Proposed Decision in Rulemaking 22-11-013 approving updates to the Avoided Cost Calculator.

planned to use the 2022 Avoided Cost Calculator version 1b to perform cost-effectiveness analysis supporting this 2025-2026 BBAL.

- b. By September 1, 2025, when PacifiCorp files its application for program years 2027-2030, it will be prepared to utilize the framework utilized by the IOUs, including the cost effectiveness tool (CET) and Four-Year Portfolio filings template.<sup>4</sup>

**Assumptions for 2025-2026.** D.21-12-034 approved PacifiCorp's continued use of the previously approved program change process to keep its programs updated and aligned with statewide workpapers through the budget advice letter process. Only eTRM net-to-gross (NTG) values approved as of September 1, 2024 were used in this BBAL. For deemed measures covered by a statewide workpaper in the eTRM, only eTRM deemed values available as of September 1, 2024 were used in this BBAL.

**Program change process.** D.21-12-034 defined the process for program changes. PacifiCorp will use this program change process to seek stakeholder feedback and file a Tier 1 Advice Letter to seek public comment prior to posting a 45-day notice of the program changes for 2025 on the program website.

**Cost Effectiveness Methodology and Tools.** D.21-12-034 includes provisions to allow PacifiCorp to continue to use its Company specific cost effectiveness modeling tool through 2026. In A.20-12-018, PacifiCorp offered to continue to document appropriate adjustments to its modeling tool in a separate report as part of its budget advice letters, to ensure continued alignment with related Commission decisions. Should aforementioned proceedings or other Commission orders update the cost-benefit assessment method or parameters, PacifiCorp would keep its tool updated and demonstrate compliance.

## II. Filing Contents

PacifiCorp's advice letter is organized as follows:

- 2025-2026 Forecast Savings and Estimated Expenditures
- 2025-2026 Projected Overall Portfolio Metrics
- 2025-2026 Projected Cost-Effectiveness
- 2025 Program Changes
- Verification of Prior Year Savings (2023)
- Breakdown of 2024 Year-to-Date Expenses as of June 30, 2024
- Attachments
  - Attachment 1 – PacifiCorp's Cost Category Reporting Descriptions
  - Attachment 2 – Overall Portfolio Metrics – Hard-to-Reach Reporting Descriptions

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<sup>4</sup> See D.21-05-031, Attachment A – Application Guidance Template – Part II: Four-Year Portfolio, as updated.

- Attachment 3 – Cost-Effectiveness Analysis
- Attachment 4 – BBAL spreadsheet including 2025 and 2026 program data as well as Electronic Technical Reference Manual (eTRM) Net-to-Gross Values by Measure
- Attachment 5 – Description of PacifiCorp Cost-Effectiveness Modeling Tool
- Attachment 6 – Applied Energy Group Review of PacifiCorp California Energy Efficiency Cost-Effectiveness Model
- Attachment 7 – PacifiCorp’s Program Change Process

### **III. Staff Engagement**

PacifiCorp appreciates the support and guidance provided by Staff of the Energy Division’s Energy Efficiency branch as the Company prepared this filing. The Company worked with Energy Division Staff during preparation of the 2020, 2021-2022, 2023-2024, and in preparing this BBAL for 2025-2026. Below is a summary of Staff engagement:

#### **Overall Portfolio Metrics Reporting**

In addition to ongoing e-mail communication, the Company met with Staff in 2019 to discuss overall portfolio metrics reporting. As a follow-up, PacifiCorp provided its cost category reporting descriptions to Staff (included in this filing as Attachment 1). The 2024 year-to-date and 2025-2026 forecast expenditures in this BBAL are categorized using the descriptions in Attachment 1.

#### **eTRM Alignment**

Based on communication with Staff, the Company confirmed for deemed measures that are in PacifiCorp programs but not in a statewide workpaper, PacifiCorp can use other sources such as the Northwest’s Regional Technical Forum (RTF).

This BBAL aligns with eTRM statewide workpapers available on the eTRM website as of September 1, 2024. Once the program changes for 2025 are effective, these values will be used for 2025.<sup>5</sup>

#### **Version of Avoided Cost Calculator**

At the time of the avoided cost calculator update and incorporation into the Company’s cost effectiveness modeling tool, the 2024 Avoided Cost Calculator was not available and a final decision adopting it had not yet been issued. Therefore, on June 25, 2024, PacifiCorp informed Energy Division staff that it planned to use the 2022 Avoided Cost Calculator version 1b to perform cost-effectiveness analysis supporting its 2025-2026 BBAL. Additional information on this and the Company’s decision is provided in the Cost-Effectiveness section below (Section III).

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<sup>5</sup> Measures with an effective date on or after the 2025 program changes are implemented will use the values in the statewide workpapers available on the eTRM website as of September 1, 2024.

#### **IV. Potential for Participation Variation**

Due to the small size and footprint of PacifiCorp's California service area,<sup>6</sup> there is a lack of forecast diversity for energy efficiency programs and there can be variations in participation from year to year, particularly in the Wattsmart Business program.

#### **DISCUSSION**

In 2023 the Company began to offer Home Energy Savings as an equity program and Wattsmart Business as a resource acquisition program. In 2024, the Company filed Tier 1 Advice Letter No. 706-E-A for implementing a Home Energy Reports equity program for Hard-to-Reach (HTR) and Tribal customers. The Company's forecast resource acquisition total resource cost and program administrator cost benefit/cost ratios meet or exceed 1.0 in 2025 and 2026.

The Company is currently forecasting to be on track to meet 61 percent of the 2022-2026 energy savings target and expenditures are forecasted to be 83 percent of the 2022-2026 total authorized budget in D.21-12-034.

In compliance with D.21-12-034, PacifiCorp provides verification of 2023 savings results and the breakdown of forecast expenses, which shows the percentage associated with incentive payments, program evaluation and administrative expenses. The forecast 2025-2026 administrative expenses are less than or equal to the 10 percent cap provided in D.21-12-034. Equity program segment expenses are less than or equal to the cap of 30 percent of overall expenditures approved in D.21-12-034. PacifiCorp also provides the overall portfolio metrics for the 2025-2026 forecast.

In calculating its TRC and PAC, PacifiCorp used only eTRM net-to-gross values approved for 2025-2026 as of September 1, 2024. For deemed measures covered in a statewide workpaper, PacifiCorp used only the deemed values available in the statewide workpapers in the eTRM as of September 1, 2024. As provided for in D.21-12-034, PacifiCorp updated and used its cost-effectiveness model, which uses the same adopted CETs and parameters applicable to the large IOUs to assess cost-effectiveness relative to PacifiCorp's electric system.

#### **I. 2023-2024 Forecast Savings and Estimated Expenditures<sup>7</sup>**

Table 1 (displayed below in two parts) shows the 2025 and 2026 savings forecast (net savings at the generator) and estimated 2025 and 2026 expenditures (spending budget request). Table 1 was compiled using a sample BBAL provided by Staff.<sup>8</sup>

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<sup>6</sup> PacifiCorp serves over 45,000 retail customers in California.

<sup>7</sup> The 2025-2026 projections are based on best available information. Due to the small size of PacifiCorp's service area in California, there is a lack of forecast diversity for energy efficiency programs and there can be variations in participation from year to year, particularly in the Wattsmart Business program.

<sup>8</sup> Detailed footnotes in Table 1 are not included in this filing, as they are not applicable to PacifiCorp.





Table 1 Continued - 2025-2026 Net Savings Forecast and Estimated Expenditures

Portfolio									
Residential	\$ 288,426	178,595	131	22	\$293,004	201,850	148	19	
Commercial	\$ 449,851	740,976	544	294	\$433,108	684,459	503	234	
Industrial	\$ 105,278	124,807	92	50	\$150,489	189,924	140	65	
Agricultural	\$ 143,093	168,515	124	67	\$157,113	191,399	141	65	
Emerging Tech									
Public									
WE&T									
Finance									
OBF Loan Pool									
<b>PA Subtotal (does not include ESA budget and savings)</b>	<b>\$ 986,648</b>	<b>1,212,893</b>	<b>891</b>	<b>432</b>	<b>\$1,033,714</b>	<b>1,267,632</b>	<b>931</b>	<b>384</b>	
CPUC Savings Goal ( w/o C&S)									
Forecast savings as % of CPUC Savings Goal (w/o C&S)									
Total EM&V <sup>5</sup>	0%				\$0				
PA EM&V	-				\$0				
ED EM&V									
Portfolio Forecasted Total System Benefit (TSB)	\$ 1,044,903				\$ 1,035,050				
Portfolio Forecasted Total Resource Cost -TRC (w/o C&S and w/ EM&V)	0.84				0.72				
Portfolio Forecasted Portfolio Administrator Cost (PAC)	0.89				0.84				
Portfolio Forecasted Ratepayer Impact Measure (RIM)	0.36				0.34				
Codes and Standards	-				\$0				
PA Spending Budget Request <sup>1</sup>	\$ 986,648				\$1,033,714				
(LESS) PA Pre-2020 Uncommitted and Unspent Carryover Balance <sup>2</sup>	0				\$0				
CEC AB 841 Program Funding									
Applicable percentage (70% and 60%) of difference between funding limitation and 2020 budget <sup>3</sup>									
PA 2020 and Beyond Uncommitted and Unspent Carryover Balance <sup>4</sup>									
CEC AB 841 Total Program Funding	0				\$0				
PA Revenue Requirement Request (Cost Recovery)	\$ 986,648				\$1,033,714				
% of Equity and Market Support Program Budgets to PA Spending Budget Request	29.23%				28%				
PA Authorized Budget Cap (D.18-05-041)									
For CCA & RENS in IOU Service Territory Only--(IOU PA Only to complete)									
REN Budget Recovery Request	0				\$0				
BayREN PY Budget Recovery Request (excl. REN Uncommitted/Unspent)	0				-				
SoCal REN PY Budget Recovery Request (excl. REN Uncommitted/Unspent)	0				-				
3CREN PY Budget Recovery Request (excl. REN Uncommitted/Unspent)	0				-				
RCEA PY Budget Recovery Request (excl. REN Uncommitted/Unspent)	0				-				
CCA Budget Recovery Request	0				\$0				
MCE PY Budget Recovery Request (excl. REN Uncommitted/Unspent)	0				-				
Lancaster PY Budget Recovery Request (excl. REN Uncommitted/Unspent)	0				-				
Redwood Coast Energy Authority (excl. REN Uncommitted/Unspent)	0				-				
San Jose Clean Energy (excl. REN Uncommitted/Unspent Carryover)	0				-				
<b>Total PA (IOU+CCAs+RENs) Recovery Budget</b>	<b>\$ 986,648</b>				<b>\$1,033,714</b>				

**A. Estimated 2025-2026 Savings and Expenditures Compared to Targets and Authorized Budget**

Including the current forecast for energy savings in 2024 and the projected energy savings for 2025-2026, the cumulative energy savings for 2022-2026 are forecasted to be 61 percent of the 2022-2026 energy savings target adopted in D.21-12-034.

The targets approved in D.21-12-034 are based on a higher level of Wattsmart Business participation than identified by third-party consultants Applied Energy Group (AEG) in A.20-12-018. At this time, there are no large Wattsmart Business projects in the forecast for 2025-2026, and some higher participation measures such as high bay/low bay commercial lighting and irrigation Well Pump Variable Frequency Drives (VFDs) were removed to help achieve a cost-effective resource acquisition portfolio.

*Table 2 - Estimated Savings Compared to Targets from Application*

2022-2026 Savings Targets (Gross MWh at Generator) - from D.21-12-034						
	2022	2023	2024	2025	2026	Total
Home Energy Savings	84	156	259	399	573	1,471
Home Energy Reports	-	-	-	-	-	-
Wattsmart Business	1,917	2,269	2,584	2,917	3,315	13,003
<b>Total MWH</b>	<b>2,001</b>	<b>2,425</b>	<b>2,843</b>	<b>3,316</b>	<b>3,888</b>	<b>14,474</b>
2025-2026 Biennial Budget Advice Letter Updated MWH (Gross MWh at Generator)						
	2022	2023	2024	2025	2026	Total
Home Energy Savings	10	154	106	181	204	655
Home Energy Reports	-	-	-	-	-	-
Wattsmart Business	2,552	1,077	1,334	1,593	1,686	8,242
<b>Total MWH</b>	<b>2,563</b>	<b>1,231</b>	<b>1,440</b>	<b>1,774</b>	<b>1,890</b>	<b>8,898</b>
2025-2026 Biennial Budget Advice Letter Updated MWH as Percent of Savings Target in Decision D.21-12-034						
	2022	2023	2024	2025	2026	Total
Home Energy Savings	12%	98%	41%	45%	36%	45%
Home Energy Reports						
Wattsmart Business	133%	47%	52%	55%	51%	63%
<b>Total MWH</b>	<b>128%</b>	<b>51%</b>	<b>51%</b>	<b>53%</b>	<b>49%</b>	<b>61%</b>

Including the current forecast for expenditures in 2024, the projected expenditures for program years 2025-2026, the cumulative expenditures for 2022-2026 are forecasted to remain under the total budget cap authorized in D.21-12-034. Note - the percent of costs (83 percent) is higher than the percent of savings (61 percent) in part because the costs for Home Energy Savings as an equity program are higher per kWh than for Home Energy Savings as a resource acquisition program as proposed in A.20-12-018. The additional cost to set up and implement Home Energy Reports as an equity program that is not forecasted to achieve savings also has an impact on the cost to savings ratio.

Table 3 - Estimated Expenditures Compared to Authorized Budget

2022-2026 Expenditures from AEG to Achieve Targets (budget approved in D21-12-.34)						
	2022	2023	2024	2025	2026	Total
Home Energy Savings	\$ 38,781	\$ 71,640	\$ 106,643	\$ 163,849	\$ 236,198	\$ 617,110
Home Energy Reports	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Wattsmart Business	\$ 785,739	\$ 954,453	\$ 1,088,248	\$ 1,233,775	\$ 1,411,173	\$ 5,473,388
<b>Total Expenditures</b>	<b>\$ 824,520</b>	<b>\$ 1,026,094</b>	<b>\$ 1,194,891</b>	<b>\$ 1,397,624</b>	<b>\$ 1,647,370</b>	<b>\$ 6,090,498</b>

2025-2026 Biennial Budget Advice Letter Updated Expenditures for 2022-2026						
	2022	2023	2024	2025	2026	Total
Home Energy Savings - equity	\$ 37,787	\$ 146,032	\$ 151,717	\$ 260,375	\$ 268,047	\$ 863,958
Home Energy Reports - equity	\$ -	\$ 122,124	\$ 78,228	\$ 79,026	\$ 117,549	\$ 396,927
Wattsmart Business - resource acquisition	\$ 941,586	\$ 504,902	\$ 649,960	\$ 829,398	\$ 855,269	\$ 3,781,115
<b>Total Expenditures</b>	<b>\$ 979,373</b>	<b>\$ 773,058</b>	<b>\$ 879,905</b>	<b>\$ 1,168,799</b>	<b>\$ 1,240,865</b>	<b>\$ 5,042,000</b>

2025-2026 Biennial Budget Advice Letter Updated Expenditures as Percent of Expenditures in D.2						
	2022	2023	2024	2025	2026	Total
Home Energy Savings	97%	204%	142%	159%	113%	140%
Home Energy Reports						
Wattsmart Business	120%	53%	60%	67%	61%	69%
<b>Total Expenditures</b>	<b>119%</b>	<b>75%</b>	<b>74%</b>	<b>84%</b>	<b>75%</b>	<b>83%</b>

## B. Portfolio Segmentation

As directed in D.21-12-034, the portfolio will be divided into resource acquisition, market support and equity segments.

### Resource Acquisition Segment – Wattsmart Business

The primary purpose of Wattsmart Business is resource acquisition, and it will be offered as a resource acquisition program. It does contain both equity and market support elements. For example, the program includes enhanced incentives for the smallest business customers on Schedule A-25 (less than 20 kilowatts (kW)) to increase participation for these hard-to-reach business customers. The program includes market support for trade allies who supply and/or install energy efficiency upgrades.

### Equity Segment – Home Energy Savings

The portfolio segmentation provisions in D.21-12-034 allow PacifiCorp to retain and improve the Home Energy Savings program rather than further reducing and/or canceling it as would have been necessary without the portfolio segmentation provisions.

Given the rural nature of PacifiCorp’s service area in California, the relatively large population of lower income residential customers, and the cost-effectiveness issues for residential energy efficiency measures, Home Energy Savings was modified and offered as an equity program in 2023-2024. This allowed the Company to increase the offerings available for the residential sector and reach more participants. The program delivers resource acquisition savings and includes market support for trade allies who supply and/or install energy efficiency upgrades.

Equity Segment – Home Energy Reports

Advice Letter No. 706-E-A was approved by the Commission to implement a Home Energy Reports program for Hard-to-Reach and Tribal customers beginning in 2024. The addition of Home Energy Reports was done so while maintaining budget and equity caps.

Market Support Segment

Given the orders related to fuel switching measure, there is potential for this to be in the equity segment. Given the 30 percent budget cap for equity and market support programs, PacifiCorp will defer potentially proposing market support programs until following through on the orders related to fuel switching measures.

For more information on proposed Home Energy Savings and Wattsmart Business program changes, refer to the 2025 Program Changes section (Section IV).

Table 4 below shows forecasted expenditures<sup>9</sup> for programs classified as market support or equity programs total 30 percent of the 2025-2026 forecasted expenditures and do not exceed the 30 percent budget cap adopted for IOU portfolios, as discussed in Section 5.4.1 of D.21-12-034.

*Table 4 - Projected Equity Expenditures as Percent of Overall 2025-2026 Projected Expenditures*

<b>Projected Equity Expenditures as Percent of Overall 2025-2026 Projected Expenditures</b>				
	<b>2025</b>	<b>2026</b>	<b>2025+2026</b>	<b>% of 2025-2026 Total</b>
Home Energy Savings - equity	\$ 260,375	\$ 268,047	\$ 528,422	22%
Home Energy Reports	\$ 79,026	\$ 117,549	\$ 196,575	8%
Wattsmart Business - resource acquisition	\$ 829,398	\$ 855,269	\$ 1,684,667	70%
<b>Total Expenditures</b>	\$ 1,168,799	\$ 1,240,865	\$ 2,409,663	<b>100%</b>

**C. Budget Recovery**

Revenue collected to fund PacifiCorp’s energy efficiency programs is managed through the collection of the Public Purpose Charge (Schedule S-191) and tracked in the Company’s Demand Side Management Balancing Account.

D.21-12-024 approved PacifiCorp’s request to continue to file a Tier 2 advice letter for future proposed adjustments to the Public Purpose Charge to keep the balancing account in balance.<sup>10</sup>

“It is reasonable to approve PacifiCorp’s request to continue to request adjustments to its surcharge collection rates via the Tier 2 advice letter process through 2026.”<sup>11</sup>

The Company completed a preliminary review of the current Demand Side Management Balancing Account balance as of August 30, 2024 including forecast expenditures and revenue through December 31, 2024. Based on this review, PacifiCorp is projecting to over-collect \$2.1 million through its Public Purpose Charge (Schedule S-191) by the end of 2026. Based on this

<sup>9</sup> Expenditure forecasts shown include evaluation expenses.

<sup>10</sup> *In Application of PacifiCorp (U901E), an Oregon Company, to Continue its Energy Efficiency Programs and the Surcharge to Fund Public Purpose Programs*, A. 20-12-018, D.21-12-034, p. 32, Conclusion of Law ¶2.

<sup>11</sup> D.21-12-024, Conclusions of Law, Paragraph 2 (p. 31).

estimate and given the potential for a new program fuel switching pilot which is not yet accounted for/budgeted for in this analysis, the Company anticipates the need for a rate adjustment. The Company will review the balancing account again once potential costs for the fuel switching pilot are developed and as needed, will file for an adjustment to the Surcharge collection rate via a Tier 2 Advice Letter authorized in D.18-11-033 and continued in D.21-12-034.<sup>12</sup>

Table 5 below shows the 2025 and 2026 savings forecasts (gross savings at the generator) and estimated expenditures.<sup>13</sup>

*Table 5 - 2025 and 2026 Gross Savings Forecast and Estimated Expenditures*

Program	2025 Forecast			2026 Forecast		
	kWh/Yr Savings (gross at site)	kWh/Yr Savings (gross at generation)	Expenditures	kWh/Yr Savings (gross at site)	kWh/Yr Savings (gross at generation)	Expenditures
Home Energy Savings	166,183	180,773	\$ 213,586	187,786	204,272	\$ 221,144
Home Energy Reports	-	-	\$ 74,840	-	-	\$ 71,860
<b>Residential Total</b>	<b>166,183</b>	<b>180,773</b>	<b>\$ 288,426</b>	<b>187,786</b>	<b>204,272</b>	<b>\$ 293,004</b>
Wattsmart Business - Commercial	977,522	1,061,901	\$ 449,851	915,470	994,493	\$ 433,108
Wattsmart Business - Industrial	230,000	249,614	\$ 105,278	350,000	379,848	\$ 150,489
Wattsmart Business - Irrigation	258,701	281,410	\$ 143,093	286,201	311,324	\$ 157,113
<b>Wattsmart Business Total</b>	<b>1,466,223</b>	<b>1,592,926</b>	<b>\$ 698,222</b>	<b>1,551,671</b>	<b>1,685,665</b>	<b>\$ 740,710</b>
Portfolio - EM&V			\$ 182,151			\$ 207,151
Portfolio - DSM Central			\$ -			
Portfolio - TRL			\$ -			
<b>Portfolio - Total</b>			<b>\$ 182,151</b>			<b>\$ 207,151</b>
<b>Total Energy Efficiency</b>	<b>1,632,406</b>	<b>1,773,698</b>	<b>\$ 1,168,799</b>	<b>1,739,457</b>	<b>1,889,937</b>	<b>\$ 1,240,865</b>

Tables 6 and 7 below show the 2025-2026 expenditure forecast with a breakdown of expenses, including at minimum, the following categories: incentive payments, program evaluation, and administrative expenses.<sup>14</sup>

The forecast 2025-2026 administrative expenses are less than or equal to the 10 percent cap provided in D.21-12-034. For the other cost categories, D.21-12-034 indicates PacifiCorp should strive to meet the IOU Energy Efficiency Policy Manual Version 6 budget category percentages for the October 2024 biennial budget advice filing:

- Direct Implementation – Non-Incentives: 20 percent
- Marketing, Education and Outreach: 6 percent
- Program Evaluation: 4 percent

This continues to be a challenge and, for this biennial budget advice letter, PacifiCorp prioritized portfolio segmentation and cost effectiveness objectives over the direction of striving to achieve budget category target percentages.

<sup>12</sup> See D.21-12-034, Conclusion of Law ¶ 2, p. 32.

<sup>13</sup> Table 2 is presented in the same format used in PacifiCorp’s past annual reports.

<sup>14</sup> Refer to Attachment 1 for PacifiCorp’s Cost Category Reporting Descriptions

Table 6 - 2025-2026 Portfolio Level Forecast Expenditures - Breakdown by Cost Category

	2025 Energy Efficiency Cap and Forecast Expenditures			2026 Energy Efficiency Cap and Forecast Expenditures		
	Forecast Expenditures	% of Total	Cap %	Forecast Expenditures	% of Total	Cap %
Administrative Costs	\$ 118,859	10%	<b>10%</b>	\$ 118,859	10%	<b>10%</b>
Incentive Payments	\$ 265,536	23%		\$ 289,032	23%	
Direct Implementation - non-incentives	\$ 650,004	56%		\$ 673,574	54%	
IOUs administered marketing, education and outreach	\$ 20,864	2%		\$ 20,864	2%	
Program Evaluation	\$ 113,536	10%		\$ 138,536	11%	
<b>Total</b>	<b>\$ 1,168,799</b>	<b>100%</b>		<b>\$ 1,240,865</b>	<b>100%</b>	

Table 7 - 2025-2026 Program Level Forecast Expenditures - Breakdown by Cost Category

	2025 Forecast Expenditures						2026 Forecast Expenditures					
	Home Energy Savings Forecast Expenditures (a)	Home Energy Report Forecast Expenditures (b)	Wattsmart Business Forecast Expenditures (c)	Portfolio Forecast Expenditures (d)	Total Forecast Expenditures (a+b+c+d)	% of Total	Home Energy Savings Forecast Expenditures (a)	Home Energy Report Forecast Expenditures (b)	Wattsmart Business Forecast Expenditures (c)	Portfolio Forecast Expenditures (d)	Total Forecast Expenditures (a+b+c+d)	% of Total
Administrative Costs	\$ 14,436	\$ 14,186	\$ 90,237		\$ 118,859	10%	\$ 14,436	\$ 14,186	\$ 90,237		\$ 118,859	10%
Incentive Payments	\$ 59,264	\$ -	\$ 206,272		\$ 265,536	23%	\$ 66,776	\$ -	\$ 222,256		\$ 289,032	23%
Direct Implementation - non-incentives	\$ 145,764	\$ 64,840	\$ 439,400		\$ 650,004	56%	\$ 145,924	\$ 78,363	\$ 449,287		\$ 673,574	54%
IOUs administered marketing, education and outreach	\$ 191	\$ -	\$ 20,674		\$ 20,864	2%	\$ 191	\$ -	\$ 20,674		\$ 20,864	2%
Program Evaluation	\$ -	\$ -	\$ -	\$ 113,536	\$ 113,536	10%	\$ -	\$ -	\$ -	\$ 138,536	\$ 138,536	11%
<b>Total</b>	<b>\$ 219,655</b>	<b>\$ 79,026</b>	<b>\$ 756,582</b>	<b>\$ 113,536</b>	<b>\$ 1,168,799</b>	<b>100%</b>	<b>\$ 227,327</b>	<b>\$ 92,549</b>	<b>\$ 782,453</b>	<b>\$ 138,536</b>	<b>\$ 1,240,865</b>	<b>100%</b>

## II. 2023-2024 Projected Overall Portfolio Metrics

### A. Capturing Energy Savings

First year annual and lifecycle ex-ante (pre-evaluation) electric and demand savings (gross and net) are identified in Tables 8-10 below.

Table 8 - Projected 2025-2026 First Year Annual Gross and Net kWh Savings<sup>15</sup>

Projected 2025 First Year Annual Gross and Net kWh Savings					Projected 2026 First Year Annual Gross and Net kWh Savings				
Program	First Year Annual Gross kWh Savings at Site	First Year Annual Net kWh Savings at Site	First Year Annual Gross kWh Savings at Generator	First Year Annual Net kWh Savings at Generator	Program	First Year Annual Gross kWh Savings at Site	First Year Annual Net kWh Savings at Site	First Year Annual Gross kWh Savings at Generator	First Year Annual Net kWh Savings at Generator
Home Energy Savings	166,183	164,181	180,773	178,595	Home Energy Savings	187,786	185,560	204,272	201,850
Home Energy Reports	0	0	0	0	Home Energy Reports	0	0	0	0
Wattsmart Business	1,466,223	952,014	1,592,926	1,034,298	Wattsmart Business	1,551,671	981,025	1,685,665	1,065,782
<b>Total</b>	<b>1,632,406</b>	<b>1,116,195</b>	<b>1,773,698</b>	<b>1,212,893</b>	<b>Total</b>	<b>1,739,457</b>	<b>1,166,585</b>	<b>1,889,937</b>	<b>1,267,632</b>

Table 9 - Projected 2025-2026 Lifecycle Gross and Net kWh Savings<sup>16</sup>

Projected 2025 Lifecycle Gross and Net kWh Savings					Projected 2026 Lifecycle Gross and Net kWh Savings				
Program	Lifecycle Gross kWh Savings at Site	Lifecycle Net kWh Savings at Site	Lifecycle Gross kWh Savings at Generator	Lifecycle Net kWh Savings at Generator	Program	Lifecycle Gross kWh Savings at Site	Lifecycle Net kWh Savings at Site	Lifecycle Gross kWh Savings at Generator	Lifecycle Net kWh Savings at Generator
Home Energy Savings	1,991,263	1,319,447	2,163,148	1,433,342	Home Energy Savings	2,316,449	1,543,478	2,516,405	1,676,711
Home Energy Reports	0	0	0	0	Home Energy Reports	0	0	0	0
Wattsmart Business	13,556,565	9,294,331	14,728,433	10,097,747	Wattsmart Business	14,072,909	9,511,365	15,288,470	10,333,109
<b>Total</b>	<b>15,547,827</b>	<b>10,613,778</b>	<b>16,891,581</b>	<b>11,531,089</b>	<b>Total</b>	<b>16,389,358</b>	<b>11,054,843</b>	<b>17,804,875</b>	<b>12,009,820</b>

Table 10 - Projected 2025-2026 Gross and Net kW Savings<sup>17</sup>

Projected 2025 Gross and Net kW Savings					Projected 2026 Gross and Net kW Savings				
Program	Gross kW Savings at Site	Net kW Savings at Site	Gross kW Savings at Generator	Net kW Savings at Generator	Program	Gross kW Savings at Site	Net kW Savings at Site	Gross kW Savings at Generator	Net kW Savings at Generator
Home Energy Savings	122	121	133	131	Home Energy Savings	138	136	150	148
Home Energy Reports	-	-	-	-	Home Energy Reports	-	-	-	-
Wattsmart Business	1,077	699	1,170	759	Wattsmart Business	1,140	721	1,238	783
<b>Total</b>	<b>1,199</b>	<b>820</b>	<b>1,302</b>	<b>891</b>	<b>Total</b>	<b>1,278</b>	<b>857</b>	<b>1,389</b>	<b>931</b>

<sup>15</sup> Net savings include realization rates and NTG ratios.

<sup>16</sup> Lifecycle savings is without discount rate.

<sup>17</sup> Kilowatt (kW) savings is not additive over the measure life since it is time independent and therefore lifecycle impacts are reported consistent with first year kW savings. Totals may be off due to rounding.



## **B. Disadvantaged Communities**

Based on the PacifiCorp service area map in Figure 1 and the Disadvantaged Communities Map in Figure 2 below, PacifiCorp serves Tribal lands which are designated as disadvantaged communities by CalEnviroScreen 4.0. PacifiCorp will track participation by customers located on Tribal lands.

The Company does not serve businesses or homes in disadvantaged communities, as identified by the California Environmental Protection Agency (CalEPA) pursuant to Health and Safety Code Section 39711.<sup>18</sup> For reference, see the map of PacifiCorp's service area in California and the CalEPA map in Figure 3 below.

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<sup>18</sup> [https://leginfo.legislature.ca.gov/faces/codes\\_displaySection.xhtml?lawCode=HSC&sectionNum=39711](https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=HSC&sectionNum=39711).

Figure 1 - PacifiCorp Service Area in California

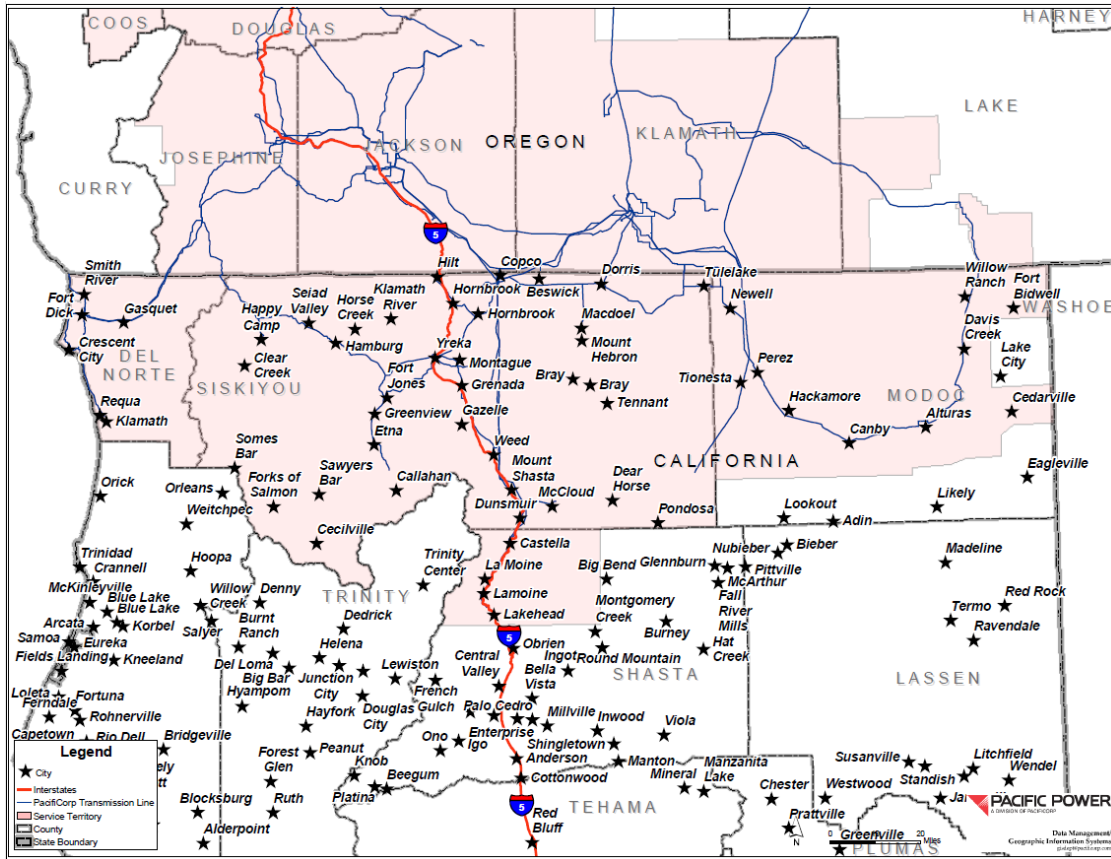


Figure 2 - Disadvantaged Communities Map<sup>19</sup>

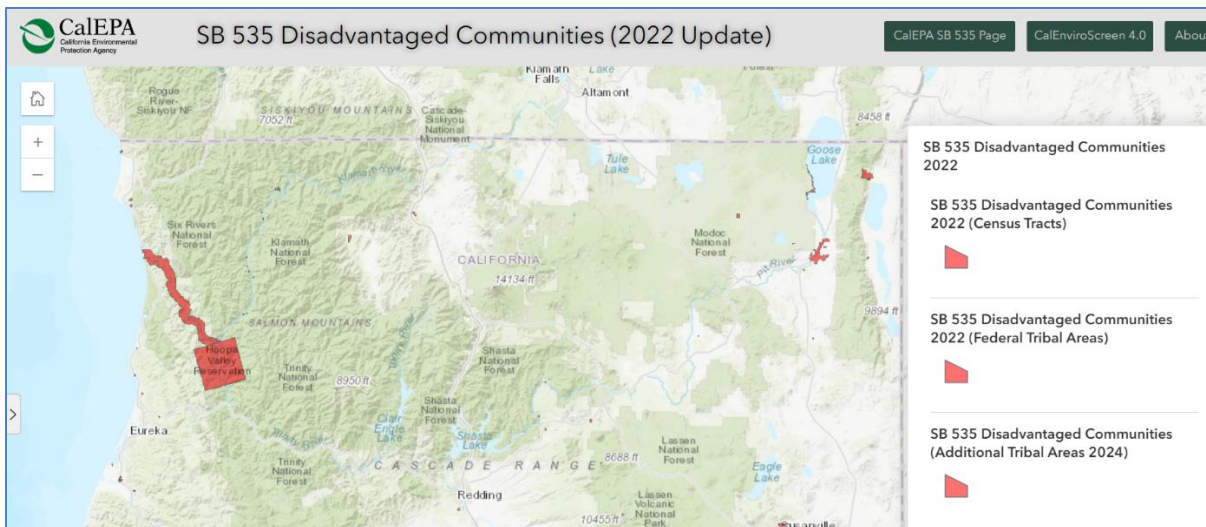
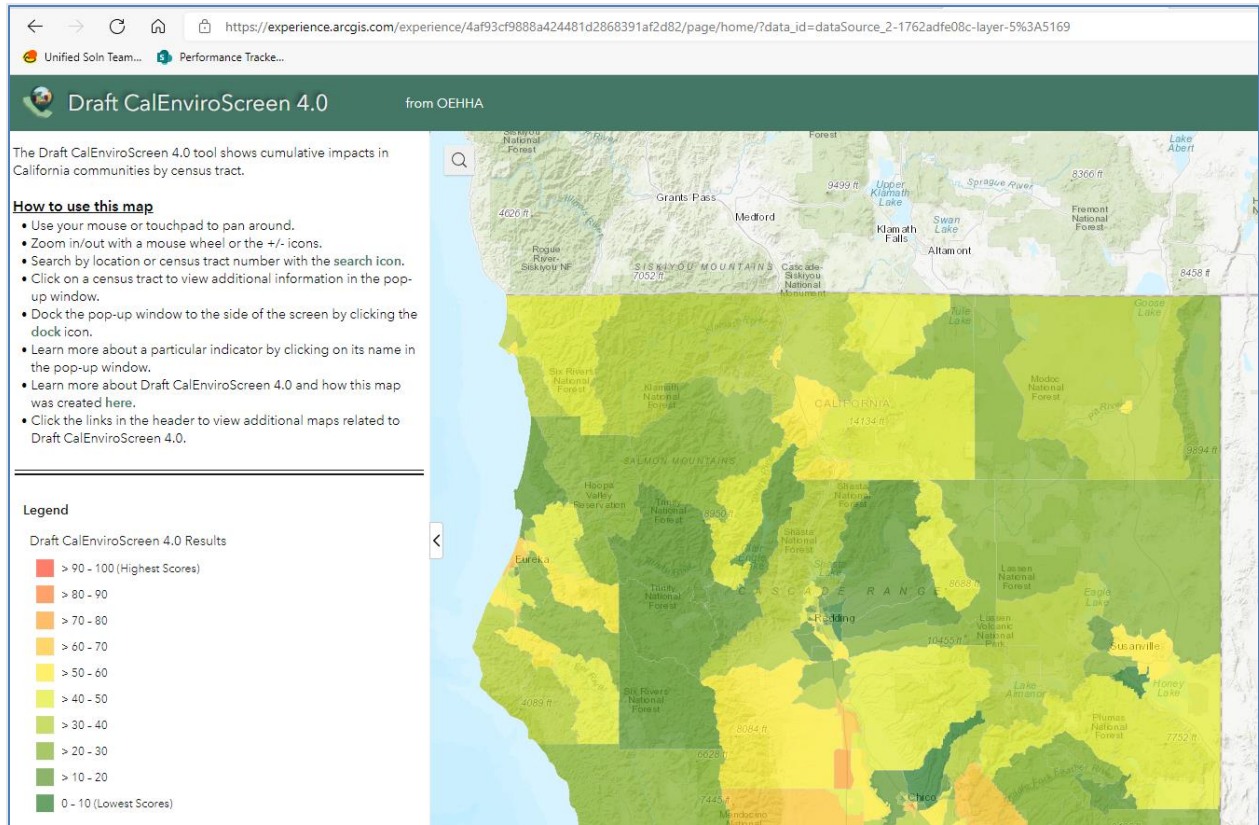


Figure 3 - CalEnviroScreen Map<sup>20</sup>



<sup>19</sup> <https://experience.arcgis.com/experience/1c21c53da8de48f1b946f3402fbae55c/page/SB-535-Disadvantaged-Communities/> - This map shows the disadvantaged communities designated by CalEPA for the purpose of SB 535. These areas represent the 25% highest scoring census tracts in CalEnviroScreen 4.0, census tracts previously identified in the top 25% in CalEnviroScreen 3.0, census tracts with high amounts of pollution and low populations, and federally recognized tribal areas as identified by the Census in the 2021 American Indian Areas Related National Geodatabase.

<sup>20</sup> <https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40>

### **C. Environmental Justice and Social Justice Communities**

Environmental Justice and Social Justice Communities include, but are not limited to:<sup>21</sup>

- Disadvantaged communities, as identified by CalEPA's [CalEnviroScreen tool](#) (see Figure 3 above);
- All Tribal lands;
- Low-income households (Household incomes below 80 percent of the area median income); and
- Low-income census tracts (Census tracts where aggregated household incomes are less than 80 percent of area or state median income).

The Company serves customers from transformers located on Tribal lands, low-income households and customers located in low-income census tracts.

In compliance with the orders in D.21-12-034, PacifiCorp submitted Tier 1 Advice Letter No. 706-E-A to implement a Home Energy Reports program for hard-to-reach and Tribal customers in California. Upon Commission approval Home Energy Reports was launched in January 2024 as an Equity program. PacifiCorp will also review the San Joaquin Valley Disadvantaged Community Pilot evaluation(s) once available. PacifiCorp will submit a Tier 2 advice letter within six months after the San Joaquin Valley Disadvantaged Communities fuel switching pilot evaluation is filed if it decides to commence its fuel switching pilot.

PacifiCorp agrees these types of programs will enhance offerings to PacifiCorp customers and have positive impacts from the standpoint of the Commission's Environmental and Social Justice policies.

### **D. Hard-to-Reach Markets**

First year annual and lifecycle ex-ante (pre-evaluation) electric and demand savings (gross and net) in hard-to-reach markets are provided in Tables 11-13 below.

Attachment 2 of this filing provides descriptions by program for how PacifiCorp is currently collecting data to identify Hard-to-Reach participants.

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<sup>21</sup> <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/infrastructure/disadvantaged-communities>

Table 11 - Hard-to-Reach Markets – Projected 2025-2026 First Year Annual Gross and Net kWh Savings

Hard-to-Reach Markets - Projected 2025 First Year Annual Gross and Net kWh Savings					Hard-to-Reach Markets - Projected 2026 First Year Annual Gross and Net kWh Savings				
Program	First Year Annual Gross kWh Savings at Site	First Year Annual Net kWh Savings at Site	First Year Annual Gross kWh Savings at Generator	First Year Annual Net kWh Savings at Generator	Program	First Year Annual Gross kWh Savings at Site	First Year Annual Net kWh Savings at Site	First Year Annual Gross kWh Savings at Generator	First Year Annual Net kWh Savings at Generator
Home Energy Savings	73,577	58,933	79,928	64,020	Home Energy Savings	82,081	65,437	89,167	71,086
Home Energy Reports	0	0	0	0	Home Energy Reports	0	0	0	0
Wattsmart Business	236,264	189,242	256,857	205,729	Wattsmart Business	263,764	210,279	286,771	228,613
<b>Total</b>	<b>309,840</b>	<b>248,175</b>	<b>336,785</b>	<b>269,750</b>	<b>Total</b>	<b>345,845</b>	<b>275,717</b>	<b>375,938</b>	<b>299,699</b>

Table 12 - Hard-to-Reach Markets - Projected 2025-2026 Lifecycle Gross and Net kWh Savings

Hard-to-Reach Markets - Projected 2025 Lifecycle Gross and Net kWh Savings					Hard-to-Reach Markets - Projected 2026 Lifecycle Gross and Net kWh Savings				
Program	Lifecycle Gross kWh Savings at Site	Lifecycle Net kWh Savings at Site	Lifecycle Gross kWh Savings at Generator	Lifecycle Net kWh Savings at Generator	Program	Lifecycle Gross kWh Savings at Site	Lifecycle Net kWh Savings at Site	Lifecycle Gross kWh Savings at Generator	Lifecycle Net kWh Savings at Generator
Home Energy Savings	559,275	467,457	607,551	507,808	Home Energy Savings	633,970	530,329	688,694	576,107
Home Energy Reports					Home Energy Reports				
Wattsmart Business	2,511,705	2,048,954	2,729,993	2,226,950	Wattsmart Business	2,594,205	2,112,067	2,819,735	2,295,603
<b>Total</b>	<b>3,070,980</b>	<b>2,516,412</b>	<b>3,337,544</b>	<b>2,734,758</b>	<b>Total</b>	<b>3,228,175</b>	<b>2,642,396</b>	<b>3,508,429</b>	<b>2,871,709</b>

Table 13 - Hard-to-Reach Markets – Projected 2025-2026 Gross and Net kW Savings

Hard-to-Reach Markets - Projected 2025 Gross and Net kW Savings					Hard-to-Reach Markets - Projected 2026 Gross and Net kW Savings				
Program	Gross kW Savings at Site	Net kW Savings at Site	Gross kW Savings at Generator	Net kW Savings at Generator	Program	Gross kW Savings at Site	Net kW Savings at Site	Gross kW Savings at Generator	Net kW Savings at Generator
Home Energy Savings	54	43	59	47	Home Energy Savings	60	48	66	52
Home Energy Reports	-	-	-	-	Home Energy Reports	-	-	-	-
Wattsmart Business	173	139	189	151	Wattsmart Business	194	154	211	168
<b>Total</b>	<b>227</b>	<b>182</b>	<b>247</b>	<b>198</b>	<b>Total</b>	<b>254</b>	<b>203</b>	<b>276</b>	<b>220</b>

**E. Cost Per Unit Saved**

The levelized cost of energy efficiency per kWh and kW (both Total Resource Cost and Program Administrator Cost) are provided in Table 14.

*Table 14 - 2025-2026 Forecast Cost per Unit Saved*

Resource Acquisition Portfolio - 2025			Resource Acquisition Portfolio - 2026		
Cost-Effectiveness Test	Levelized \$/kWh	Levelized \$/kW	Cost-Effectiveness Test	Levelized \$/kWh	Levelized \$/kW
Total Resource Cost Test (TRC)	\$0.164	\$914.64	Total Resource Cost Test (TRC)	\$0.163	\$910.18
Program Administrator Cost (PAC)	\$0.140	\$784.55	Program Administrator Cost (PAC)	\$0.139	\$778.44

**III. 2023-2024 Projected Cost Effectiveness**

The Company struggled to achieve all of the objectives at the same time: achieving a forecast resource acquisition TRC of at least 1.0 using NTG and other values from the current statewide workpapers in the eTRM, using the most current Avoided Cost Calculator (2022 1b version), maximizing savings to try to meet the savings targets within the authorized expenditures, keeping utility administration expenses less than 10 percent of overall project expenses and keeping equity/market support projected expenditures within 30 percent of overall projected expenses knowing there is potentially one more equity/market support program coming for which forecast expenditures are not yet known (fuel switching pilot).

While the program has a TRC of 1.0 on paper, the outsourced program delivery team is concerned they may not achieve the proposed level of savings given the reduced budget and measures and challenges in the market and vendor/trade ally availability/priorities. While the Home Energy Savings program is an equity program, the Wattsmart Business program needs to meet or exceed a TRC of 1.0 as a resource acquisition program. This could be achieved on paper, but as mentioned above, not realistically, given the removal of measures and budgets.

The resource acquisition portfolio, including the planned changes for 2025, is projected to meet or exceed 1.0 for both the TRC and PAC perspectives using PacifiCorp’s updated cost-effectiveness model. Results of the model are shown in Tables 15 and 16 below.

1. The first row of the table contains the Home Energy Savings program (equity program segment).
2. The second row of the table contains the Home Energy Reports program (an equity program)
3. The third row contains the Wattsmart Business program (resource acquisition program segment) without portfolio level costs.
4. The fourth row (bolded) contains Wattsmart Business (resource acquisition program segment) including portfolio-level costs. This line is the resource acquisition portfolio and must meet a TRC of 1.0.
5. The fifth row contains the entire portfolio (equity and resource acquisition).



Attachment 3 provides additional cost-effectiveness results from multiple perspectives for 2025 and 2026.

*Table 15 - 2025 Projected Cost Effectiveness*

Program	Program Segment	2025 Forecast TRC benefit cost ratio	2025 Forecast PAC benefit cost ratio	Total System Benefits
Home Energy Savings	Equity	0.50	0.61	\$131,198
Home Energy Reports	Equity	0.00	0.00	\$0
Wattsmart Business	Resource Acquisition	1.19	1.31	\$913,705
<b>Wattsmart Business w/portfolio costs</b>	<b>Resource Acquisition</b>	<b>1.03</b>	<b>1.10</b>	<b>\$913,705</b>
Total Portfolio	Equity + Resource Acquisition	0.84	0.89	\$1,044,903

*Table 16 - 2026 Projected Cost Effectiveness*

Program	Program Segment	2026 Forecast TRC benefit cost ratio	2026 Forecast PAC benefit cost ratio	Total System Benefits
Home Energy Savings	Equity	0.52	0.66	\$145,115
Home Energy Reports	Equity	0.00	0.00	\$0
Wattsmart Business	Resource Acquisition	1.02	1.22	\$889,935
<b>Wattsmart Business w/portfolio costs</b>	<b>Resource Acquisition</b>	<b>0.99</b>	<b>0.90</b>	<b>\$889,935</b>
Total Portfolio	Equity + Resource Acquisition	0.72	0.84	\$1,035,050

### A. Net-to-Gross Ratios

The Company used approved net-to-gross ratios from DEER/eTRM as of September 1, 2024 in the cost-effectiveness assessment for the 2025-2026 forecast. Attachment 4 shows the DEER/eTRM net-to-gross values by program and measure or by measure group.

### B. PacifiCorp Model

D.21-12-034 provided the following guidance to PacifiCorp regarding using its own cost-effectiveness model:

“PacifiCorp utilizes its own company-specific modeling tool to evaluate program implementation cost-effectiveness to assess the impact and value of its energy efficiency programs upon customers.<sup>22</sup> Its analyses and forecasts are prepared by Applied Energy Group (AEG). PacifiCorp contends that its model better fits the small size of its portfolio than the statewide California Energy Data and Reporting System (CEDARS) cost effective tool (CET) utilized by the large IOUs, because the CEDARS CET does not include PacifiCorp’s avoided costs. The Application explains that, to reflect the value of energy efficiency to PacifiCorp’s system while aligning with the Commission’s guidance on

<sup>22</sup> See Application at 13-14. PacifiCorp’s cost-effectiveness tool was created by a third-party consultant, Applied Energy Group (AEG). See also Exhibit D “Review of PacifiCorp California Energy Efficiency Cost-Effectiveness Model” and Exhibit E – “Description of PacifiCorp’s Cost-Effectiveness Model.”

avoided costs, AEG uses the most recent of the avoided cost calculator on the Commission's website, then adjusts inputs to align with PacifiCorp's system to develop hourly values of avoided costs. The adjusted avoided costs are then input into PacifiCorp's modeling tool.

PacifiCorp states that it will submit biannual budget advice letters that include a forecast resource acquisition program TRC and PAC that meets or exceeds 1.0, and that it will conform to metrics requirements adopted by the Commission, including at minimum, incentive payments, program evaluation and administrative expenses.<sup>23</sup>

As previously noted, the Commission permitted PacifiCorp flexibility to align with approaches utilized by the IOUs, with the eventual goal of having PacifiCorp use the CEDARS CET for its cost-effectiveness analysis to achieve uniformity and consistency among the electric utilities which the Commission regulates:

“This said, we find that it is appropriate to permit PacifiCorp to use its cost effectiveness model through 2026 but require incremental measure costs referencing DEER values starting with their budget advice letter filing in September 2024 when truing-up forecast TRC and PAC for program years 2025 and 2026.”

The Company evaluates program implementation cost-effectiveness (both prospectively and retrospectively) under a variety of tests to identify the relative impact and/or value (*e.g.*, near-term rate impact, program value to participants, etc.) to customers and the Company. Program cost-effectiveness is evaluated using a company-specific modeling tool, created by a third-party consultant, Applied Energy Group (AEG).

For this 2025-2026 BBAL filing, the Company also provides results using the adopted TSB metric in accordance with D.21-05-031<sup>24</sup> adopted by the CPUC. The TSB is an expression, in dollar terms, of the lifecycle energy, capacity, and greenhouse gas (GHG) benefits of an energy efficiency measure on an annual basis. In doing so, the CPUC recognized that first-year annual energy savings goals may not capture all of the policy goals and benefits of energy efficiency.

In preparation for the 2025-2026 BBAL filing, PacifiCorp engaged AEG to review recent relevant CPUC guidance regarding energy efficiency cost-effectiveness methodology and tools and to recommend updates to ensure continued alignment with CPUC cost-effectiveness practices. AEG's findings and recommendations from this review are provided in Attachment 6 to this filing. To accurately reflect the value of energy efficiency to PacifiCorp's system while aligning with CPUC avoided cost guidance, AEG recommended using the 2022 version 1b Avoided Cost Calculator Excel file available on the CPUC website and adjusting inputs as appropriate to align with PacifiCorp's system and IRP to develop hourly values of avoided costs. These ACC avoided cost values could then be input to the AEG modeling tool. The recommendations and changes from AEG were incorporated into the cost-effectiveness modeling tool.

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<sup>23</sup> See Application at 21.

<sup>24</sup> See D. 21-05-031, p. 8, at: <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M385/K864/385864616.PDF>



The tool is designed to incorporate PacifiCorp data and values such as avoided costs,<sup>25</sup> and generally follows the methodology specified in California's Standard Practice Manual. PacifiCorp's modeling tool conducts cost effectiveness analysis on all four tests described in the Standard Practice Manual<sup>26</sup> as well as an additional fifth test<sup>27</sup> and the newly integrated TSB metric. The Company's analysis assesses the costs and benefits of demand-side management programs from different stakeholder perspectives, including participants and non-participants.

Given the Commission's direction for PacifiCorp to continue to improve alignment with the large IOUs, AEG and PacifiCorp determined the company should use the most up to date approved avoided cost calculator (ACC). In May 2022, the CPUC issued Decision 22-05-002, which adopted changes to the next version of the ACC, which would be published as the 2022 ACC. On June 26, 2024, the CPUC released its proposed decision to adopt a new 2024 Avoided Cost Calculator. At the time of AEG's review and update of the company's cost effectiveness modeling tool, the 2024 Avoided Cost Calculator was not available on the CPUC website. Because the 2024 Avoided Cost Calculator was not available and a final decision adopting it had not yet been issued, on June 25, 2024, PacifiCorp informed Energy Division staff that it planned to use the 2022 Avoided Cost Calculator version 1b to perform cost-effectiveness analysis supporting its 2025-2026 BBAL.

The Company worked with AEG to update the 2022 1b Avoided Cost Calculator with PacifiCorp-specific inputs and AEG used the resulting values to update the PacifiCorp cost-effectiveness tool. The cost-effectiveness results in this BBAL are from this updated tool, along with the inputs from the Home Energy Savings (an equity program) and Wattsmart Business programs.

Attachment 5 of this filing contains a comprehensive description of PacifiCorp's cost-effectiveness tool.

#### **IV. 2025 Program Changes**

PacifiCorp's Home Energy Savings and Wattsmart Business programs were last updated in 2024 using the approved program change process, with these changes effective September 1, 2024. Below is a brief description of each program and a summary of planned changes for 2025.<sup>28</sup>

##### **A. Program Description**

###### ***Home Energy Savings (Schedule D-118)***

The *Home Energy Savings* program uses the Company's Wattsmart brand for outreach. The program is designed to provide access to and incentives for more efficient products and services

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<sup>25</sup> Avoided costs in the model are from the Avoided Cost Calculator (ACC) available on the CPUC website, adjusted for PacifiCorp system values as described in Attachment 5.

<sup>26</sup> TRC, PAC, Ratepayer Impact (RIM), and Participant Cost Test (PCT).

<sup>27</sup> PacifiCorp TRC (PTRC), total resource cost test with an additional 10 percent added for the non-quantified environmental and non-energy benefits.

<sup>28</sup> The Home Energy Savings and Wattsmart Business programs are ongoing and PacifiCorp anticipates making commitments under the current programs in 2025-2026 for projects that may not be completed until after December 31, 2026.

installed or received by customers in new or existing homes, multi-family housing units or manufactured homes. In 2023, the program began running as an equity program offering new incentives for central brushless fan motors, clothes dryers, ductless heat pumps, heat pump conversions, refrigerators and freezers, room air cleaners, room air conditioners, and smart connected power strips. Additionally, the program re-introduced energy savings kit measures that will be provided to customers at no cost.

Turnkey delivery of Home Energy Savings is outsourced to Resource Innovations, Inc. (formerly Nexant).<sup>29</sup>

### ***Home Energy Reports (Schedule S-191)***

Home Energy Reports (HER) is a residential information-based measure that provides customers with comparisons of their household energy usage to similar residences and recommendations for no- and low-cost changes that households can make to save energy. This information is provided via printed reports mailed to residential customers or digital reports sent via email. Recipients of both types of reporting will also have access to an online customer portal which provides similar information, in addition to the opportunity to personalize messaging. The utilization of both digital and paper reports, as well as an online portal, offer enhanced communication with a tailored, multi-channel approach, providing a platform supportive of continuous improvement.

Delivery of the Home Energy Report Program in California is implemented by Bidgely, Inc. which was procured through a competitive bid process.

### ***Wattsmart Business (Schedule A-140)***

The commercial, industrial and irrigation energy efficiency program is consolidated into a single *Non-Residential Energy Efficiency* program, Schedule A-140.<sup>30</sup> The *Non-Residential Energy Efficiency* program is promoted to the Company's customers as Wattsmart Business.

Wattsmart Business is intended to maximize the efficient use of electricity for new and existing non-residential loads through the installation of energy efficiency measures and energy management protocols. Qualifying measures are measures which, when implemented in an eligible facility, result in verifiable electric energy efficiency improvements.

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<sup>29</sup> Nexant, Inc. (now Resource Innovations, Inc.) was selected in 2019 as part of a Request for Proposals for program delivery services. Resource Innovations was reselected through a competitive process with a 2024 contract year start.

<sup>30</sup> Program details such as incentive tables and program definitions are available on our website at [https://www.pacificpower.net/content/dam/pcorp/documents/en/pacificpower/savings-energy-choices/wattsmart-business/california/CA\\_wattsmartBusiness\\_Definitions\\_Incentive\\_Tables\\_Information.pdf](https://www.pacificpower.net/content/dam/pcorp/documents/en/pacificpower/savings-energy-choices/wattsmart-business/california/CA_wattsmartBusiness_Definitions_Incentive_Tables_Information.pdf).

The program overview is available at

[https://www.pacificpower.net/content/dam/pcorp/documents/en/pacificpower/savings-energy-choices/wattsmart-business/california/CA\\_Overview.pdf](https://www.pacificpower.net/content/dam/pcorp/documents/en/pacificpower/savings-energy-choices/wattsmart-business/california/CA_Overview.pdf).

The program brochure is available at

[https://www.pacificpower.net/content/dam/pcorp/documents/en/pacificpower/savings-energy-choices/wattsmart-business/california/CA\\_wattsmartBusiness\\_Brochure.pdf](https://www.pacificpower.net/content/dam/pcorp/documents/en/pacificpower/savings-energy-choices/wattsmart-business/california/CA_wattsmartBusiness_Brochure.pdf).

Current services and incentives offered through Wattsmart Business include:

- Listed Upgrades: Incentives for lighting, HVAC, irrigation, compressed air and other common equipment upgrades that increase electrical energy efficiency and exceed energy code requirements.
- Custom Analysis: Energy analysis studies, services and incentives for more complex projects.
- Energy Management: Expert facility and process analysis and incentives to help lower energy costs by optimizing a customer's energy use.
- Enhanced incentives for small businesses: Provide enhanced incentives for lighting upgrades installed by an approved Wattsmart Small Business Vendor at an eligible existing small business customer facility.
- Energy Project Manager Co-funding: Available to customers who commit to an annual goal of completing energy projects resulting in at least 1,000,000 kWh/year in energy savings.
- Project Financing: PacifiCorp has teamed with National Energy Improvement Fund (NEIF),<sup>31</sup> an energy efficiency project financing firm, to provide customers with access to third party financing options for instances where funds for project implementation are not available from within the customer's organization.

Wattsmart Business delivery is currently outsourced to Evergreen Energy Partners and Cascade Energy.<sup>32</sup> PacifiCorp communications staff maintains the program website and other marketing functions such as advertising and program collateral.

## **B. Summary of Program Changes for 2025:**

### ***Home Energy Savings (Schedule D-118)***

The conversion to an equity program in 2023 resulted in multiple changes including the addition of new measures including appliances, air conditioning, brushless fan motors, heat pumps, and the reintroduction of energy saving kits and smart thermostats. Home Energy Savings focused on channels and strategies to reach underserved and hard-to-reach customers including offering enhanced incentives for income-qualified customers and customers residing on Tribal lands. As a result of the significant level of program changes that occurred in 2023, 2024 and planned 2025 program changes are primarily limited to alignment with deemed values from eTRM workpapers.

Changes identified for 2025 include the following:

- Modify room air cleaner requirements so that they are no longer available in new construction; the measure will remain available for normal replacement
- Remove faucet aerator, low flow showerhead, and flow restriction valve measures
- Modify ductless heat pump and heat pump conversion measures to align with the programs savings and incentives targets more closely

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<sup>31</sup> Information on financing is available at <https://www.pacificpower.net/savings-energy-choices/business/project-financing.html>.

<sup>32</sup> Evergreen Energy Partners and Cascade Energy were selected as part of Request for Proposals for program delivery services. The current contracts began in 2024.

- Add HSPF2 equivalent values to all applicable HVAC measures

These will be made using the program change process contained in Schedule D-118 and provided at the end of this section.

### ***Wattsmart Business (Schedule A-140)***

Changes identified for 2025 include the following:

- Align with statewide workpapers in the eTRM including removal, addition, or modification of measures. Examples include:
  - T8 TLED Lamp measures in a statewide workpaper that ended will no longer have deemed incentives and may be eligible for incentives under Interior Lighting Custom instead.
  - Remove Electronically Commutated Motors measure
  - Remove Air-Cooled Screw Chiller, Path B, since the statewide workpaper for this measure ended.
- Introduce the following measures:
  - Add new deemed measure for LED Indoor Horticultural Lighting in alignment with new statewide workpaper.
- Although the irrigation category is not cost-effective, retain several irrigation measures to have an offering for irrigation customers.
- Make other minor changes.

These changes will be made using the program change process contained in Schedule A-140 and provided below.

### **C. Program Change Process:**

PacifiCorp will use the approved program change process for 2025 program changes. The approved program change processes for the Home Energy Savings and Wattsmart Business programs are similar. Below is background by program. This background was referenced in PacifiCorp's application for 2018-2020 (A.17-09-010) filed September 15, 2017 and again in Application A.20-12-018 for 2022-2026.

- Home Energy Savings – Appendix J from A.07-07-011 filed July 16, 2007 described the program change process for Home Energy Savings. The relevant text from page 2 of Appendix J is copied below:

“The comprehensive nature of the Program and changing equipment standards indicate that a flexible and market-driven program delivery is required. PacifiCorp is proposing that Schedule D-118 outline the basic program elements, including: customer eligibility, use of a program administrator for delivery, the seasonal nature of selected incentive offers, and that current incentive levels may change. Specific details on all aspects of the program including incentive levels, eligible equipment specifications and dates for incentive availability would be managed by the program administrator using a dedicated program web site with easy links from the Pacific Power web site. Changes

in equipment specifications or incentive levels would be clearly posted on the Web site with at least 45 days advance notice.”

- Wattsmart Business – Exhibit E – Program Change Process from Advice Letter 518-E filed February 24, 2015. (See Attachment 7)

In addition, in D.21-12-034, PacifiCorp’s use of the budget advice letter process to keep its programs updated and aligned with statewide workpapers was approved with modification to require PacifiCorp to file a Tier 1 Advice letter in addition to updating and notifying of program changes through the public website. In compliance with ordering paragraph 3, PacifiCorp will file a Tier 1 Advice Letter on the 2023 program changes. The advice letter will also include a revision to Schedule A-140 to modify the fuel switching language in preparation for potential fuel switching measures.

## V. Verification of Prior Year Savings (2023)

PacifiCorp issued its annual report for 2023 on April 2, 2024.<sup>33</sup>

Table 17 - 2023 Annual Report Table 2 (Gross Savings)

Energy Efficiency Program	kWh Savings (at site)	kWh Savings (at generator)	Investment
Home Energy Savings (Equity Segment)	141,247	153,647	\$ 142,214
Home Energy Reporting (Equity Segment)	0	0	\$ 118,306
<b>Total Residential</b>	<b>141,247</b>	<b>153,647</b>	<b>\$ 260,520</b>
WSB Commercial	113,728	123,545	\$ 53,158
WSB Industrial	614,272	666,657	\$ 248,429
WSB Irrigation	263,529	286,662	\$ 134,584
<b>TOTAL WSB</b>	<b>991,529</b>	<b>1,076,864</b>	<b>\$ 436,172</b>
Portfolio - EM&V			\$ 52,166
Portfolio - DSM Central			\$ 23,872
Portfolio - TRL			\$ 329
<b>Total Energy Efficiency</b>	<b>1,132,777</b>	<b>1,230,511</b>	<b>\$ 773,059</b>

### A. Evaluations and Verification

Evaluations are performed by independent external evaluators to validate energy and demand savings derived from the Company’s energy efficiency programs. The Company adopts industry best practices with regards to principles of operation, methodologies, evaluation methods, definitions of terms, and protocols including those outlined in the National Action Plan for Energy Efficiency Program Impact Evaluation and the California Evaluation Framework guides.

<sup>33</sup> <https://www.pacificorp.com/environment/demand-side-management.html>.

A component of the overall evaluation efforts is aimed at the reasonable verification of installations of energy efficient measures and associated documentation through review of documentation, surveys and/or ongoing onsite inspections.

The Company engages in programmatic verification activities, including inspections, quality assurance reviews, and tracking checks and balances as part of routine program implementation and may rely upon these practices in the verification of installation information for the purposes of savings verifications in advance of more formal impact evaluation results. Evaluation, measurement and verification tasks are segregated within the Company to ensure they are performed and managed by personnel who are not directly responsible for program management.

Table 18 below shows the status of evaluations by program.<sup>34</sup>

*Table 18 - Status of Program Evaluations*

<b>Program</b>	<b>Years Evaluated</b>	<b>Evaluator</b>	<b>Progress Status</b>
Home Energy Savings	2021-2022	ADM	Completed
Home Energy Savings	2019-2020	ADM	Completed
Wattsmart Business	2020-2021	Cadmus	Completed
Wattsmart Business	2018-2019	Cadmus	Completed

## **VI. Breakdown of 2024 Year-to-Date Expenditures as of June 30, 2024**

PacifiCorp provides the detail of 2024 year-to-date<sup>35</sup> expenses in this section, allowing Staff to see the percentage associated with incentive payments, program evaluation and administrative expenses. This process follows Staff guidance established in February 2019 to review Overall Portfolio Metrics reporting that includes cost categories to breakdown YTD expenditure. The descriptions provided to Staff on May 24, 2019 are available in Attachment 1.

<sup>34</sup> Completed evaluation reports are available at <https://www.pacificorp.com/environment/demand-side-management.html>.

<sup>35</sup> Year-to-date expenses include estimates for outsourced delivery work completed in the January-June 2024 period but not invoiced as of June 30, 2024.

Table 19 - 2024 YTD Program Level Expenditures - Breakdown by Cost Category

	2024 YTD Home Energy Savings Expenditures as of 6/30/2024 (a)	2024 YTD Home Energy Reports Expenditures as of 6/30/2024 (b)	2024 YTD Wattsmart Business Expenditures as of 6/30/2024 (c)	2024 YTD Portfolio Expenditures as of 6/30/2024 (d)	2024 YTD Total Expenditures as of 6/30/2024 (a+b+c+d)	Portfolio % of Total
Administrative Costs	\$ 17,704	\$ 5,297	\$ 24,868	\$ 558	\$ 48,426	10%
Incentive Payments	\$ 61,110	\$ -	\$ 43,604	\$ -	\$ 104,714	21%
Direct Implementation - non-incentives IOUs administered marketing, education and outreach	\$ 69,110	\$ 34,114	\$ 166,652	\$ 9,665	\$ 279,541	57%
Program Evaluation	\$ 86		\$ 8,285		\$ 8,371	2%
	\$ 502			\$ 51,800	\$ 52,302	11%
<b>Total</b>	<b>\$ 148,512</b>	<b>\$ 39,411</b>	<b>\$ 243,409</b>	<b>\$ 62,023</b>	<b>\$ 493,354</b>	<b>100%</b>

**PROTEST**

Anyone wishing to protest this filing may do so only electronically. Protests must be received no later than, October 29, 2024. Protests should be submitted to the CPUC Energy Division at:

E-mail: [EDTariffUnit@cpuc.ca.gov](mailto:EDTariffUnit@cpuc.ca.gov)

In addition, protests and all correspondence regarding this advice letter should also be sent electronically to the attention of:

Pooja Kishore  
Regulatory Affairs Manager  
E-mail: [californiadockets@pacificorp.com](mailto:californiadockets@pacificorp.com)

Carla Scarsella  
Deputy General Counsel  
E-mail: [carla.scarsella@pacificorp.com](mailto:carla.scarsella@pacificorp.com)

There are no restrictions on who may file a protest, but the protest shall set forth specifically the grounds upon which it is based and shall be submitted expeditiously.

**EFFECTIVE DATE**

In accordance with the Decision D.21-12-034, Ordering Paragraph 4, this advice letter filing is submitted as a Tier 2 filing. PacifiCorp requests that this advice filing become effective no later than January 1, 2025.

**NOTICE**

In accordance with General Order 96-B, Section 4, a copy of this Advice Letter will be served electronically or via U.S. mail to parties shown on the GO 96-B service list and on the service list for A.20-12-018, copies of which are attached. A request for change of address in the GO 96-B service list should be directed by electronic mail to [californiadockets@pacificorp.com](mailto:californiadockets@pacificorp.com). Advice letter filings may also be accessed electronically at [www.pacificpower.net/regulation](http://www.pacificpower.net/regulation).

PacifiCorp respectfully requests that all data requests regarding this matter be addressed to (with a copy to the Company's counsel):

By email (**preferred**): [datarequest@pacificorp.com](mailto:datarequest@pacificorp.com)

By regular mail: Data Request Response Center  
PacifiCorp  
825 NE Multnomah, Suite 2000  
Portland, OR 97232

Company Counsel: Carla Scarsella  
Deputy General Counsel  
Pacific Power  
825 NE Multnomah, Suite 2000  
Portland, OR 97232  
Telephone: (503) 813-6338  
E-mail: [carla.scarsella@pacificorp.com](mailto:carla.scarsella@pacificorp.com)

Please direct any informal questions to Pooja Kishore, Regulatory Affairs Manager, at (503) 813-7314.

Sincerely,



Matthew McVee  
Vice President, Regulatory Policy and Operations

Enclosures



## ATTACHMENT 1

### PacifiCorp's Cost Category Reporting Descriptions

## **Attachment 1 – PacifiCorp Cost Category Reporting Descriptions**

- 1) Administrative costs
  - a) Fully loaded labor costs for Company staff associated with California demand-side management programs
    - i) Includes costs for internal Company staff labor (e.g. program managers and staff supporting EM&V, reporting, direct implementation)
    - ii) Includes employee expenses associated with programs
    - iii) Includes in-house contractor labor and expenses
    - iv) Includes system setup costs and licensing fees associated with programs or applications
- 2) Incentive Payments (Direct implementation-incentives and rebates)
  - a) Customer incentives
  - b) Partner incentives
  - c) Home Energy Savings - kits
- 3) Direct implementation non-incentives
  - a) Outsourced program delivery costs
  - b) Energy engineering services provided for business customer projects
  - c) Costs for program development work performed by third parties (including cost-effectiveness analysis, measure development)
  - d) Costs for systems and systems maintenance paid to third parties
- 4) IOUs administered marketing, education, and outreach
  - a) Outsourced ad agency costs (development of marketing materials, ad agency costs for media placements)
  - b) Costs for utility administered printing, direct mail, e-blasts
  - c) Internal Company staff labor responsible for marketing
  - d) Customer surveys – DSM Survey
  - e) Tools for customer access to understand their billing data
- 5) Program Evaluation (EM&V)
  - a) Outsourced program evaluation costs (consultant costs only)
  - b) Outsourced costs for cost-effectiveness analysis for evaluations, annual report (consultant costs only)

## ATTACHMENT 2

### Overall Portfolio Metrics – Hard-to-Reach Reporting Descriptions

## **Attachment 2 – Overall Portfolio Metrics – Hard-to-Reach Reporting Descriptions**

The descriptions below for each program explain how PacifiCorp is currently collecting the data used to identify participants who meet the Hard-to-Reach criteria defined in Decision 18-05-041, pages 159-160 (copied at the end of this exhibit).

All participants in all programs meet the geographic criteria.

### **Home Energy Savings**

Data on hard-to-reach criteria is requested from all participants.

#### Language – Primary language spoken is other than English

Data used to identify participants who meet this criterion is based on self-reported information from the participant contact on their incentive application<sup>1</sup>. They answer the question “Is the primary language spoken in the household other than English?”

#### Income – Those customers who qualify for the California Alternative Rates for Energy (CARE)

Data used to identify participants who meet this criterion is based on self-reported information for the household from the participant contact on their incentive application. They answer the question “Is your household eligible for California Alternative Rates for Energy (CARE)?”

#### Housing Type – Multi-family and Mobile Home Tenants (rent and lease)

Data used to identify participants who meet these criteria is based on self-reported information from the participant contact on their incentive application. Participants provide their home type (single-family, multi-family or manufactured home) and answer this question – “Are you a tenant renting or leasing at this location?”

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<sup>1</sup> An example incentive application is available at <https://wattsmartsavings.net/california-residential/savings-application/>

Homeowner and Property Information												
Utility account number										-		
Name on utility account												
Address where product was installed								City		State		ZIP Code
Address where incentive check should be mailed								City		State		ZIP Code
Daytime phone for questions about your application								Email address for questions about your application				
Home type: <input type="checkbox"/> Single family <input type="checkbox"/> Multifamily <input type="checkbox"/> Manufactured												
Home's water heating fuel source (select one)												
<input type="checkbox"/> Electric heat pump water heater				<input type="checkbox"/> Electric				<input type="checkbox"/> Gas		<input type="checkbox"/> Other		
Home's primary cooling source (select one)												
<input type="checkbox"/> Central air conditioner				<input type="checkbox"/> Evaporative cooler				<input type="checkbox"/> Electric heat pump		<input type="checkbox"/> None		
Home's primary heating source (select one)												
<input type="checkbox"/> Electric baseboard			<input type="checkbox"/> Electric ceiling or wall heat			<input type="checkbox"/> Electric furnace			<input type="checkbox"/> Natural gas furnace			
<input type="checkbox"/> Ductless heat pump			<input type="checkbox"/> Electric ducted heat pump			<input type="checkbox"/> Other (please specify): _____						
Does home's primary heating source serve at least 80% of the home's conditioned living space? <input type="checkbox"/> Yes <input type="checkbox"/> No												
Is the primary language spoken in the household other than English? (Select one) <input type="checkbox"/> Yes <input type="checkbox"/> No												
Is your household eligible for California Alternative Rates for Energy? (Select one) <input type="checkbox"/> Yes <input type="checkbox"/> No												
<a href="https://www.pacificpower.net/my-account/payments/bill-payment-assistance/california-care-program.html">https://www.pacificpower.net/my-account/payments/bill-payment-assistance/california-care-program.html</a>												
Are you a tenant renting or leasing at this location? (Select one) <input type="checkbox"/> Yes <input type="checkbox"/> No												

## Home Energy Reports

Home Energy Reports was designed as an equity program that only serves Tribal and Hard-to-Reach communities including CARE, multifamily and manufactured home renters, and language spoken other than English.

PacifiCorp is able to identify HTR customers by utilizing California Alternate Rates for Energy (CARE) program participation data and data on housing type and rent/lease versus own (owner flag data) from the Company's customer information system (CSS). The Company enrolled CARE customers eligible for participation in the HER program at its onset along with Multifamily renters and Manufactured Home renters. Customers residing on Tribal lands were also enrolled in the HER program.

## Wattsmart Business

Data on hard-to-reach criteria is requested for all participants except green motor rewind participants who receive their incentive as a credit at the point of purchase.

Language – Primary language spoken is other than English

Data used to identify participants who meet this criterion is based on self-reported information from the participant contact on their incentive application<sup>2</sup>. They answer the question “Contact primary language spoken is language other than English?” for themselves as the participant contact (not for the business overall).

<b>PARTICIPANT INFORMATION</b>			
<i>(Check will be issued to the participant business name and address listed below unless the payment release section below has been filled out)</i>			
Participant is (check all that apply) <input type="checkbox"/> Customer <input type="checkbox"/> Facility owner <input type="checkbox"/> Tenant/Electricity user			
Participant business name (as shown on IRS Form W-9):			
Mailing address:	City:	State:	Zip:
Contact name:		Contact title:	
Contact telephone number: (   )	Cell number: (   )	Contact email address:	
Contact primary language spoken is other than English? <input type="checkbox"/> Yes <input type="checkbox"/> No			

**Business size – Less than ten employees and/or classified as Very Small – Customers whose annual electric demand is less than 20 kilowatts (kW)**

Data used to identify participants who meet this criterion is based on the rate schedule code for the electric account associated with the project. PacifiCorp may collect information on number of employees in the future.

Examples of rate codes for accounts less than 20KW:

- 06GNSV0025 – CALIFORNIA GENERAL SERVICE (LESS THAN 20 KW)
- 06GNSV025F – CALIFORNIA GENERAL SERVICE, FLAT RATE (LESS THAN 20 KW)
- 06NMT25135 – CA NET METERING GENERAL SERVICE LESS THAN 20 KW
- 06RGNSV025 – RESIDENTIAL USE, SMALL GENERAL SERVICE RATE (LESS THAN 20 KW)
- 06APSV0020 – CALIFORNIA AGRICULTURAL PUMPING
- 06APSV0115 – CA AGRICULTURAL PUMPING TIME-OF-USE PILOT, GHG CREDIT
- 06NMT20135 – CA AGRICULTURAL PUMPING – NET METER
- 06USBR0020 – CALIFORNIA USBR IRR CONTRACTS, ON PROJECT LAND
- 06USBR0115 – CA AGRICULTURAL PUMP TOU PILOT, USBR CUSTS, GHG CR

<sup>2</sup> An example Wattsmart Business incentive application is available at [https://www.pacificpower.net/content/dam/pcorp/documents/en/pacificpower/savings-energy-choices/wattsmart-business/california/CA\\_wattsmartBusiness\\_General\\_Application\\_with\\_address.pdf](https://www.pacificpower.net/content/dam/pcorp/documents/en/pacificpower/savings-energy-choices/wattsmart-business/california/CA_wattsmartBusiness_General_Application_with_address.pdf)

Leased or Rented Facilities – Investments in improvements to a facility rented or leased by a participating business customer

Data used to identify participants who meet this criterion is based on self-reported information from the participant on their incentive application. Participants answer this question for the project site – “Does Participant rent/lease the project site location?”

PROJECT SITE INFORMATION			
Facility /Project name:			
Facility address:		City:	State: Zip:
Commercial/industrial electric account #:	_____ - _____	Rate Schedule:	
Electric meter number – seven or eight digits: (If multiple meters at site only enter one)	_____	Customer name: (As shown on bill)	
Does Participant rent/lease the project site location? <input type="checkbox"/> Yes <input type="checkbox"/> No			

**Reference Information copied from Decision 18-05-041, pages 159-160 -**  
<http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M215/K706/215706139.PDF>

For purposes of administering energy efficiency programs, hard-to-reach customers are defined pursuant to the criteria identified in Resolution G-3497, with one modification. Specifically:

Specific criteria were developed by Staff to be used in classifying a customer as hard-to-reach. Two criteria are considered sufficient if one of the criteria met is the geographic criteria defined below. There are common as well as separate criteria when defining hard-to-reach for residential versus small business customers. The barriers common to both include:

o Those customers who do not have easy access to program information or generally do not participate in energy efficiency programs due to a combination of language, business size, geographic, and lease (split incentive) barriers. These barriers to consider include:

- Language – Primary language spoken is other than English, and/or
- Geographic –
  - Businesses or homes in areas other than the United States Office of Management and Budget Combined Statistical Areas of the San Francisco Bay Area, the Greater Los Angeles Area and the Greater Sacramento Area or the Office of Management and Budget metropolitan statistical areas of San Diego County.
  - Businesses or homes in disadvantaged communities, as identified by CalEPA pursuant to Health and Safety Code Section 39711.

o For small business added criteria to the above to consider:

- Business Size – Less than ten employees and/or classified as Very Small (Customers whose annual electric demand is less than 20 kilowatts, or whose annual gas consumption is less than 10,000 therm, or both), and/or

- Leased or Rented Facilities – Investments in improvements to a facility rented or leased by a participating business customer

- o For residential added criteria to the above to consider:

- Income – Those customers who qualify for the California Alternative Rates for Energy (CARE) or the Family Electric Rate Assistance Program (FERA), and/or

- Housing Type – Multi-family and Mobile Home Tenants (rent and lease)



ATTACHMENT 3  
Cost-Effectiveness Analysis

## **Attachment 3 – Cost Effectiveness Analysis**

### **Program Year 2025:**

- Attachment 3.1 – PY2025 Resource Acquisition Portfolio (Wattsmart Business with Portfolio Costs Memo)
- Attachment 3.2 – PY2025 Total Portfolio including Resource Acquisition and Equity Programs (Portfolio Memo)

### **Program Year 2026:**

- Attachment 3.3 – PY2026 Resource Acquisition Portfolio (Wattsmart Business with Portfolio Costs)
- Attachment 3.4 – PY2026 Total Portfolio including Resource Acquisition and Equity Programs (Portfolio Memo)



## MEMORANDUM

To: Jay Olson, PacifiCorp

From: Eli Morris, Andy Hudson, Julian Graybill Brubaker, Applied Energy Group

Date: October 3, 2024

Re: Cost Effectiveness for the 2025 California Biennial Budget Advice Letter  
– Wattsmart Business Program with Portfolio Costs

AEG estimated the cost-effectiveness of Pacific Power’s Wattsmart Business Program with portfolio costs included in the state of California. This analysis is based on Program Year (PY) 2025 costs and savings estimates provided by Pacific Power for use in Pacific Power’s proposed Biennial Budget Advice Letter (BBAL). The program, including portfolio costs, passes the following cost effectiveness tests: PacifiCorp Total Resource Cost Test (PTRC), the Utility Cost Test (UCT), and the Participant Cost Test (PCT).

The memo provides analysis inputs and results in the following tables:

- Table 1: Cost Effectiveness Analysis Inputs
- Table 1: Wattsmart Business Program – Portfolio Level Costs
- Table 2: Program Costs for the Wattsmart Business Program
- Table 3: Program Savings for the Wattsmart Business Program
- Table 4: Benefit/Cost Ratios for the Wattsmart Business Program
- Table 5: Wattsmart Business Program with Portfolio Level Costs, Cost-Effectiveness Results - PY2025
- Table 6: WSB Program Measure Category Level Cost-Effectiveness Results - PY2025

This cost-effectiveness memo utilizes the following assumptions:

- **Avoided Costs:** AEG used avoided costs derived from the CPUC 2022 1b Avoided Cost Calculator, converted into annual values using load shapes from PacifiCorp’s 2023 IRP.
- **Modeling Inputs:** measure savings, costs, non-energy impacts (NEIs), measure lives, incentive levels, program delivery, and portfolio costs were based on estimates provided by PacifiCorp.
- **Retail Rates:** Utilized up-to-date retail rates provided by PacifiCorp and escalated by inflation for future years.



The following tables summarize cost-effectiveness assumptions and results for the California Wattsmart Business Program. The cost-effectiveness analysis inputs are shown in Tables 1 through Table 4 below:

Table 1: Cost Effectiveness Analysis Inputs

Parameter	Value
Discount Rate	6.77%
Commercial Line Loss	8.63%
Industrial Line Loss	8.53%
Irrigation Line Loss	8.78%
Commercial Energy Rate* (\$/kWh)	\$0.141
Industrial Energy Rate* (\$/kWh)	\$0.113
Irrigation Energy Rate* (\$/kWh)	\$0.154
Energy-to-Capacity Conversion Factor	0.00017898
Inflation Rate <sup>1</sup>	2.27%

Table 2: Wattsmart Business Program – Portfolio Level Costs

Expense	PY2025
Utility Admin	\$41,743
Direct Implementation	\$16,617
Marketing, Education and Outreach	\$0
Program Evaluation	\$72,816
<b>Total</b>	<b>\$131,175</b>

Table 3: Program Costs for the Wattsmart Business Program

Program	Direct Implementation (Non-Incentive) Costs	Utility Administrative Costs	Incentives	Marketing, Education and Outreach	Total Utility Costs	Gross Customer Costs
Wattsmart Business	\$422,783	\$48,494	\$206,272	\$20,674	\$698,222	\$353,372

Table 4: Program Savings for the Wattsmart Business Program

Program	Gross Savings (kWh)	Realization Rate	Adjusted Gross Savings (kWh)	Net to Gross Ratio	Net Savings (kWh)	Measure Life
Wattsmart Business	1,466,223	98%	1,437,915	66%	952,014	11

<sup>1</sup> Future rates determined using a 2.27% annual escalator.



Tables 5 and 6 provide cost-effectiveness results for the overall Wattsmart Business Program.

Table 5: Benefit/Cost Ratios for the Wattsmart Business Program

Program	Segment	PTRC	TRC	UCT	PCT	RIM
Wattsmart Business	Resource Acquisition	1.19	1.08	1.31	3.22	0.41
Wattsmart Business w/portfolio costs	Resource Acquisition	1.03	0.94	1.10	3.22	0.39
<b>Total Portfolio</b>	<b>Total Portfolio</b>	<b>0.84</b>	<b>0.77</b>	<b>0.89</b>	<b>2.79</b>	<b>0.36</b>

Table 6: Wattsmart Business Program with Portfolio Level Costs, Cost-Effectiveness Results - PY2025

Cost-Effectiveness Test	Levelized \$/kWh	Levelized \$/kW	NPV Costs	NPV Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.13	\$746	\$976,498	\$1,005,076	\$28,578	1.03
Total Resource Cost Test (TRC) No Adder	\$0.13	\$746	\$976,498	\$913,705	(\$62,793)	0.94
Utility Cost Test (UCT)	\$0.11	\$633	\$829,398	\$913,705	\$84,307	1.10
Participant Cost Test (PCT)			\$536,282	\$1,724,937	\$1,188,655	3.22
Rate Impact Test (RIM)			\$2,348,063	\$913,705	(\$1,434,358)	0.39
Total System Benefits						\$913,705
Lifecycle Revenue Impacts (\$/kWh)						\$0.00032
Discounted Participant Payback (years)						2.7



Table 7 provides cost-effectiveness results for the measure categories and delivery channels of the Wattsmart Business Program.

Table 7: WSB Program Measure Category Level Cost-Effectiveness Results - PY2025

Program	Delivery Channel	Measure Category	Utility Benefits (\$)	Utility Costs (\$)	Utility Cost Test	TRC Benefits (\$)	TRC Costs (\$)	TRC Test	P-TRC Benefits (\$)	P-TRC Costs (\$)	P-TRC Test	Participant PV Benefits (\$)	Participant PV Costs (\$)	PCT Test	Ratepayer PV Benefits (\$)	Ratepayer PV Costs (\$)	RIM Test
Wattsmart Business	Cascade Energy - Trade ally/project facilitation	Farm and Dairy	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00
Wattsmart Business	Cascade Energy - Trade ally/project facilitation	Industrial - Energy Management	\$10,381	\$17,275	0.60	\$10,381	\$16,978	0.61	\$11,419	\$16,978	0.67	\$20,231	\$1,307	15.48	\$10,381	\$36,555	0.28
Wattsmart Business	Cascade Energy - Trade ally/project facilitation	Refrigeration	\$16,295	\$14,805	1.10	\$16,295	\$15,905	1.02	\$17,924	\$15,905	1.13	\$42,844	\$11,200	3.83	\$16,295	\$53,149	0.31
Wattsmart Business	Cascade MA	Energy management	\$38,364	\$27,819	1.38	\$38,364	\$28,157	1.36	\$42,201	\$28,157	1.50	\$42,571	\$2,750	15.48	\$38,364	\$68,390	0.56
Wattsmart Business	Cascade MA	Site specific commercial	\$48,192	\$40,819	1.18	\$48,192	\$41,819	1.15	\$53,011	\$41,819	1.27	\$127,072	\$32,000	3.97	\$48,192	\$152,891	0.32
Wattsmart Business	ECG Small Business Lighting	Lighting	\$98,650	\$77,553	1.27	\$98,650	\$63,053	1.56	\$108,515	\$63,053	1.72	\$199,295	\$30,000	6.64	\$98,650	\$236,848	0.42
Wattsmart Business	ECG Trade Ally Lighting	Lighting	\$240,891	\$137,558	1.75	\$240,891	\$159,437	1.51	\$264,980	\$159,437	1.66	\$421,136	\$77,035	5.47	\$240,891	\$512,692	0.47
Wattsmart Business	ECG Trade Ally Non-Lighting	Appliances	\$367	\$639	0.57	\$367	\$712	0.51	\$403	\$712	0.57	\$1,749	\$782	2.24	\$367	\$2,219	0.17
Wattsmart Business	ECG Trade Ally Non-Lighting	Food Service	\$3,226	\$2,359	1.37	\$3,226	\$2,823	1.14	\$3,549	\$2,823	1.26	\$6,907	\$1,608	4.30	\$3,226	\$8,766	0.37
Wattsmart Business	ECG Trade Ally Non-Lighting	HVAC	\$62,260	\$36,997	1.68	\$62,260	\$38,211	1.63	\$68,486	\$38,211	1.79	\$120,752	\$15,562	7.76	\$62,260	\$149,619	0.42
Wattsmart Business	ECG Trade Ally Non-Lighting	Motors	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00
Wattsmart Business	ECG Trade Ally Non-Lighting	Refrigeration	\$8,198	\$12,174	0.67	\$8,198	\$12,177	0.67	\$9,017	\$12,177	0.74	\$15,919	\$5,089	3.13	\$8,198	\$25,043	0.33
Wattsmart Business	ECG Trade Ally Non-Lighting	Water Heating	\$125,615	\$93,390	1.35	\$125,615	\$95,156	1.32	\$138,177	\$95,156	1.45	\$279,644	\$12,110	23.09	\$125,615	\$367,534	0.34
Wattsmart Business	Cascade Energy - Trade ally/project facilitation	Compressed air	\$9,543	\$14,505	0.66	\$9,543	\$15,105	0.63	\$10,497	\$15,105	0.69	\$19,725	\$9,600	2.05	\$9,543	\$30,030	0.32
Wattsmart Business	Cascade MA	Energy management	\$8,729	\$11,128	0.78	\$8,729	\$10,878	0.80	\$9,602	\$10,878	0.88	\$13,751	\$1,100	12.50	\$8,729	\$24,078	0.36
Wattsmart Business	Cascade MA	Site specific industrial	\$52,524	\$65,311	0.80	\$52,524	\$68,111	0.77	\$57,777	\$68,111	0.85	\$106,800	\$53,600	1.99	\$52,524	\$148,111	0.35
Wattsmart Business	Cascade Energy - Trade ally/project facilitation	Irrigation - Energy Management	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00
Wattsmart Business	Cascade Energy - Trade ally/project facilitation	Irrigation - irrigation systems	\$166,740	\$125,771	1.33	\$166,740	\$250,991	0.66	\$183,414	\$250,991	0.73	\$263,467	\$261,779	1.01	\$166,740	\$345,187	0.48
Wattsmart Business	Cascade Energy - Trade ally/project facilitation	Irrigation - water distribution equipment	\$14,173	\$9,165	1.55	\$14,173	\$14,147	1.00	\$15,590	\$14,147	1.10	\$17,695	\$9,855	1.80	\$14,173	\$24,840	0.57
Wattsmart Business	Cascade MA	Site specific irrigation	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00



## MEMORANDUM

To: Jay Olson, PacifiCorp

From: Eli Morris, Andy Hudson, Julian Graybill Brubaker, Applied Energy Group

Date: October 3, 2024

Re: Cost Effectiveness for the 2025 California Biennial Budget Advice Letter – Portfolio

AEG estimated the cost-effectiveness of Pacific Power’s Program Portfolio with portfolio costs included in the state of California. This analysis is based on Program Year (PY) 2025 costs and savings estimates provided by Pacific Power for use in Pacific Power’s proposed Biennial Budget Advice Letter (BBAL). The portfolio, which includes equity and resource acquisition programs, passes the Participant Cost Test (PCT).

The memo provides analysis inputs and results in the following tables:

- Table 1: Cost Effectiveness Analysis Inputs
- Table 2: Wattsmart Business Program – Portfolio Level Costs
- Table 3: Program Costs for the Wattsmart Business Program
- Table 4: Program Savings for the Wattsmart Business Program
- Table 5: Benefit/Cost Ratios for the Wattsmart Business Program
- Table 6: Wattsmart Business Program Level Cost-Effectiveness Results - PY2025
- Table 7: WSB Program Measure Category Level Cost-Effectiveness Results - PY2025
- Table 8: Benefit/Cost Ratios for the Wattsmart Business Program
- Table 9: Wattsmart Business Program Level Cost-Effectiveness Results - PY2025
- Table 10: Wattsmart Business Program Measure Category Level Cost-Effectiveness Results - PY2025

This cost-effectiveness memo utilizes the following assumptions:

- **Avoided Costs:** AEG used avoided costs derived from the CPUC 2022 1b Avoided Cost Calculator, converted into annual values using load shapes from PacifiCorp’s 2023 IRP.
- **Modeling Inputs:** measure savings, costs, non-energy impacts (NEIs), measure lives, incentive levels, program delivery, and portfolio costs were based on estimates provided by PacifiCorp.
- **Retail Rates:** Utilized up-to-date retail rates provided by PacifiCorp and escalated by inflation for future years.



The following tables summarize cost-effectiveness assumptions and results for the California Wattsmart Business Program. The cost-effectiveness analysis inputs are shown in Tables 1 through Table 4 below:

Table 1: Cost Effectiveness Analysis Inputs

Parameter	Value
Discount Rate	6.77%
Residential Line Loss	8.78%
Commercial Line Loss	8.63%
Industrial Line Loss	8.53%
Irrigation Line Loss	8.78%
Residential Energy Rate* (\$/kWh)	\$0.118
Commercial Energy Rate* (\$/kWh)	\$0.141
Industrial Energy Rate* (\$/kWh)	\$0.112
Irrigation Energy Rate* (\$/kWh)	\$0.154
Energy-to-Capacity Conversion Factor	0.00017898
Inflation Rate <sup>1</sup>	2.27%

Table 2: Portfolio-Level Costs, Nominal - PY2025

Expense	PY2025
Utility Admin	\$50,115
Direct Implementation	\$18,500
Marketing, Education and Outreach	\$0
Program Evaluation	\$113,536
<b>Total</b>	<b>\$182,151</b>

Table 3: Program-Level Costs by Program, Nominal - PY2025

Program	Direct Implementation (Non-Incentive) Costs	Utility Administrative Costs	Incentives	Marketing, Education and Outreach	Total Utility Costs	Gross Customer Costs
Home Energy Savings	\$143,881	\$10,250	\$59,264	\$191	\$213,586	\$105,971
Home Energy Reporting	\$64,840	\$10,000	\$0	\$0	\$74,840	\$0
Wattsmart Business	\$422,783	\$48,494	\$206,272	\$20,674	\$698,222	\$353,372
<b>Total</b>	<b>\$631,504</b>	<b>\$68,744</b>	<b>\$265,536</b>	<b>\$20,864</b>	<b>\$986,648</b>	<b>\$459,343</b>

<sup>1</sup> Future rates determined using a 2.27% annual escalator.





Table 4: Program-Level Savings by Program, PY2025

Program	Gross Savings (kWh)	Realization Rate	Adjusted Gross Savings (kWh)	Net to Gross Ratio	Net Savings (kWh)	Measure Life
Home Energy Savings	166,183	99%	164,181	70%	115,237	12
Home Energy Reporting	0	100%	0	100%	0	0
Wattsmart Business	1,466,223	98%	1,437,915	66%	952,014	9
<b>Total</b>	<b>1,632,406</b>	<b>98%</b>	<b>1,602,096</b>	<b>67%</b>	<b>1,067,250</b>	<b>9</b>

Tables 5 through Table 8 provide cost-effectiveness results for the overall portfolio and the individual programs and sectors.

Table 5: Benefit/Cost Ratios by Program Type

Program	Segment	PTRC	TRC	UCT	PCT	RIM
Home Energy Savings	Equity	0.55	0.50	0.61	1.43	0.33
Home Energy Reporting	Equity	0.00	0.00	0.00	0.00	0.00
Wattsmart Business	Resource Acquisition	1.19	1.08	1.31	3.22	0.41
Wattsmart Business w/portfolio costs	Resource Acquisition	1.03	0.94	1.10	3.22	0.39
<b>Total Portfolio</b>	<b>Total Portfolio</b>	<b>0.84</b>	<b>0.77</b>	<b>0.89</b>	<b>2.79</b>	<b>0.36</b>

Table 6: Total Portfolio Cost-Effectiveness Results - PY2025

Cost-Effectiveness Test	Levelized \$/kWh	Levelized \$/kW	NPV Costs	NPV Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.16	\$915	\$1,362,606	\$1,149,393	(\$213,213)	0.84
Total Resource Cost Test (TRC) No Adder	\$0.16	\$915	\$1,362,606	\$1,044,903	(\$317,703)	0.77
Utility Cost Test (UCT)	\$0.14	\$785	\$1,168,799	\$1,044,903	(\$123,896)	0.89
Participant Cost Test (PCT)			\$704,536	\$1,965,730	\$1,261,194	2.79
Rate Impact Test (RIM)			\$2,868,993	\$1,044,903	(\$1,824,090)	0.36
Total System Benefits						\$1,044,903
Lifecycle Revenue Impacts (\$/kWh)						\$0.00032
Discounted Participant Payback (years)						3.2



Table 7: C&amp;I Sector Cost-Effectiveness Results - PY2025

Cost-Effectiveness Test	Levelized \$/kWh	Levelized \$/kW	NPV Costs	NPV Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.12	\$645	\$845,323	\$1,005,076	\$159,753	1.19
Total Resource Cost Test (TRC) No Adder	\$0.12	\$645	\$845,323	\$913,705	\$68,383	1.08
Utility Cost Test (UCT)	\$0.10	\$533	\$698,222	\$913,705	\$215,483	1.31
Participant Cost Test (PCT)			\$536,282	\$1,724,937	\$1,188,655	3.22
Rate Impact Test (RIM)			\$2,216,888	\$913,705	(\$1,303,183)	0.41
Total System Benefits						\$913,705
Lifecycle Revenue Impacts (\$/kWh)						\$0.00031
Discounted Participant Payback (years)						2.7

Table 8: Residential Sector Cost-Effectiveness Results - PY2025

Cost-Effectiveness Test	Levelized \$/kWh	Levelized \$/kW	NPV Costs	NPV Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.26	\$1,446	\$260,292	\$144,317	(\$115,975)	0.55
Total Resource Cost Test (TRC) No Adder	\$0.26	\$1,446	\$260,292	\$131,198	(\$129,095)	0.50
Utility Cost Test (UCT)	\$0.21	\$1,186	\$213,586	\$131,198	(\$82,388)	0.61
Participant Cost Test (PCT)			\$168,254	\$240,793	\$72,539	1.43
Rate Impact Test (RIM)			\$395,115	\$131,198	(\$263,917)	0.33
Total System Benefits						\$131,198
Lifecycle Revenue Impacts (\$/kWh)						\$0.00004
Discounted Participant Payback (years)						8.1



Tables 9 and 10 provide cost-effectiveness results for the measure categories by sector.

Table 9: Home Energy Savings Measure Category Level Cost-Effectiveness Results, PY2025

Program	Measure Category	Utility Benefits (\$)	Utility Costs (\$)	Utility Cost Test	TRC Benefits (\$)	TRC Costs (\$)	TRC Test	P-TRC Benefits (\$)	P-TRC Costs (\$)	P-TRC Test	Participant PV Benefits (\$)	Participant PV Costs (\$)	PCT Test	Ratepayer PV Benefits (\$)	Ratepayer PV Costs (\$)	RIM Test
Home Energy Savings	Appliances	\$521	\$2,302	0.23	\$521	\$3,960	0.13	\$573	\$3,960	0.14	\$1,835	\$5,183	0.35	\$521	\$3,727	0.14
Home Energy Savings	Electronics	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00
Home Energy Savings	Energy Kits	\$41,013	\$67,755	0.61	\$41,013	\$66,294	0.62	\$45,114	\$66,294	0.68	\$54,425	\$9,744	5.59	\$41,013	\$112,436	0.36
Home Energy Savings	HVAC	\$81,041	\$129,423	0.63	\$81,041	\$169,117	0.48	\$89,145	\$169,117	0.53	\$167,423	\$137,796	1.22	\$81,041	\$250,586	0.32
Home Energy Savings	Water Heating	\$4,702	\$10,869	0.43	\$4,702	\$12,889	0.36	\$5,172	\$12,889	0.40	\$11,349	\$8,037	1.41	\$4,702	\$19,818	0.24
Home Energy Savings	Whole Home	\$3,921	\$3,236	1.21	\$3,921	\$8,032	0.49	\$4,313	\$8,032	0.54	\$5,762	\$7,494	0.77	\$3,921	\$8,548	0.46



Table 10: Wattsmart Business Program Measure Category Level Cost-Effectiveness Results - PY2025

Program	Delivery Channel	Measure Category	Utility Benefits (\$)	Utility Costs (\$)	Utility Cost Test	TRC Benefits (\$)	TRC Costs (\$)	TRC Test	P-TRC Benefits (\$)	P-TRC Costs (\$)	P-TRC Test	Participant PV Benefits (\$)	Participant PV Costs (\$)	PCT Test	Ratepayer PV Benefits (\$)	Ratepayer PV Costs (\$)	RIM Test
Wattsmart Business	Cascade Energy - Trade ally/project facilitation	Farm and Dairy	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00
Wattsmart Business	Cascade Energy - Trade ally/project facilitation	Industrial - Energy Management	\$10,381	\$17,275	0.60	\$10,381	\$16,978	0.61	\$11,419	\$16,978	0.67	\$20,231	\$1,307	15.48	\$10,381	\$36,555	0.28
Wattsmart Business	Cascade Energy - Trade ally/project facilitation	Refrigeration	\$16,295	\$14,805	1.10	\$16,295	\$15,905	1.02	\$17,924	\$15,905	1.13	\$42,844	\$11,200	3.83	\$16,295	\$53,149	0.31
Wattsmart Business	Cascade MA	Energy management	\$38,364	\$27,819	1.38	\$38,364	\$28,157	1.36	\$42,201	\$28,157	1.50	\$42,571	\$2,750	15.48	\$38,364	\$68,390	0.56
Wattsmart Business	Cascade MA	Site specific commercial	\$48,192	\$40,819	1.18	\$48,192	\$41,819	1.15	\$53,011	\$41,819	1.27	\$127,072	\$32,000	3.97	\$48,192	\$152,891	0.32
Wattsmart Business	ECG Small Business Lighting	Lighting	\$98,650	\$77,553	1.27	\$98,650	\$63,053	1.56	\$108,515	\$63,053	1.72	\$199,295	\$30,000	6.64	\$98,650	\$236,848	0.42
Wattsmart Business	ECG Trade Ally Lighting	Lighting	\$240,891	\$137,558	1.75	\$240,891	\$159,437	1.51	\$264,980	\$159,437	1.66	\$421,136	\$77,035	5.47	\$240,891	\$512,692	0.47
Wattsmart Business	ECG Trade Ally Non-Lighting	Appliances	\$367	\$639	0.57	\$367	\$712	0.51	\$403	\$712	0.57	\$1,749	\$782	2.24	\$367	\$2,219	0.17
Wattsmart Business	ECG Trade Ally Non-Lighting	Food Service	\$3,226	\$2,359	1.37	\$3,226	\$2,823	1.14	\$3,549	\$2,823	1.26	\$6,907	\$1,608	4.30	\$3,226	\$8,766	0.37
Wattsmart Business	ECG Trade Ally Non-Lighting	HVAC	\$62,260	\$36,997	1.68	\$62,260	\$38,211	1.63	\$68,486	\$38,211	1.79	\$120,752	\$15,562	7.76	\$62,260	\$149,619	0.42
Wattsmart Business	ECG Trade Ally Non-Lighting	Motors	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00
Wattsmart Business	ECG Trade Ally Non-Lighting	Refrigeration	\$8,198	\$12,174	0.67	\$8,198	\$12,177	0.67	\$9,017	\$12,177	0.74	\$15,919	\$5,089	3.13	\$8,198	\$25,043	0.33
Wattsmart Business	ECG Trade Ally Non-Lighting	Water Heating	\$125,615	\$93,390	1.35	\$125,615	\$95,156	1.32	\$138,177	\$95,156	1.45	\$279,644	\$12,110	23.09	\$125,615	\$367,534	0.34
Wattsmart Business	Cascade Energy - Trade ally/project facilitation	Compressed air	\$9,543	\$14,505	0.66	\$9,543	\$15,105	0.63	\$10,497	\$15,105	0.69	\$19,725	\$9,600	2.05	\$9,543	\$30,030	0.32
Wattsmart Business	Cascade MA	Energy management	\$8,729	\$11,128	0.78	\$8,729	\$10,878	0.80	\$9,602	\$10,878	0.88	\$13,751	\$1,100	12.50	\$8,729	\$24,078	0.36
Wattsmart Business	Cascade MA	Site specific industrial	\$52,524	\$65,311	0.80	\$52,524	\$68,111	0.77	\$57,777	\$68,111	0.85	\$106,800	\$53,600	1.99	\$52,524	\$148,111	0.35
Wattsmart Business	Cascade Energy - Trade ally/project facilitation	Irrigation - Energy Management	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00
Wattsmart Business	Cascade Energy - Trade ally/project facilitation	Irrigation - irrigation systems	\$166,740	\$125,771	1.33	\$166,740	\$250,991	0.66	\$183,414	\$250,991	0.73	\$263,467	\$261,779	1.01	\$166,740	\$345,187	0.48
Wattsmart Business	Cascade Energy - Trade ally/project facilitation	Irrigation - water distribution equipment	\$14,173	\$9,165	1.55	\$14,173	\$14,147	1.00	\$15,590	\$14,147	1.10	\$17,695	\$9,855	1.80	\$14,173	\$24,840	0.57
Wattsmart Business	Cascade MA	Site specific irrigation	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00



## MEMORANDUM

To: Jay Olson, PacifiCorp

From: Eli Morris, Andy Hudson, Julian Graybill Brubaker, Applied Energy Group

Date: October 3, 2024

Re: Cost Effectiveness for the 2026 California Biennial Budget Advice Letter  
– Wattsmart Business Program with Portfolio Costs

AEG estimated the cost-effectiveness of Pacific Power’s Wattsmart Business Program with portfolio costs included in the state of California. This analysis is based on Program Year (PY) 2026 costs and savings estimates provided by Pacific Power for use in Pacific Power’s proposed Biennial Budget Advice Letter (BBAL). The program, including portfolio costs, passes the following cost effectiveness tests: Utility Cost Test (UCT) and the Participant Cost Test (PCT).

The memo provides analysis inputs and results in the following tables:

- Table 1: Cost Effectiveness Analysis Inputs
- Table 2: Wattsmart Business Program – Portfolio Level Costs
- Table 3: Program Costs for the Wattsmart Business Program
- Table 4: Program Savings for the Wattsmart Business Program
- Table 5: Benefit/Cost Ratios for the Wattsmart Business Program
- Table 6: Wattsmart Business Program with Portfolio Level Costs, Cost-Effectiveness Results - PY2026
- Table 7: WSB Program Measure Category Level Cost-Effectiveness Results - PY2026

This cost-effectiveness memo utilizes the following assumptions:

- **Avoided Costs:** AEG used avoided costs derived from the CPUC 2022 1b Avoided Cost Calculator, converted into annual values using load shapes from PacifiCorp’s 2023 IRP.
- **Modeling Inputs:** measure savings, costs, non-energy impacts (NEIs), measure lives, incentive levels, program delivery, and portfolio costs were based on estimates provided by PacifiCorp.
- **Retail Rates:** Utilized up-to-date retail rates provided by PacifiCorp and escalated by inflation for future years.

The following tables summarize cost-effectiveness assumptions and results for the California Wattsmart Business Program. The cost-effectiveness analysis inputs are shown in Tables 1 through Table 4 below:

Table 1: Cost Effectiveness Analysis Inputs

Parameter	Value
Discount Rate	6.77%
Commercial Line Loss	8.63%
Industrial Line Loss	8.53%
Irrigation Line Loss	8.78%
Commercial Energy Rate* (\$/kWh)	\$0.141
Industrial Energy Rate* (\$/kWh)	\$0.113
Irrigation Energy Rate* (\$/kWh)	\$0.154
Energy-to-Capacity Conversion Factor	0.00017898
Inflation Rate <sup>1</sup>	2.27%

Table 2: Wattsmart Business Program – Portfolio Level Costs

Expense	PY2026
Utility Admin	\$41,743
Direct Implementation	\$0
Marketing, Education and Outreach	\$0
Program Evaluation	\$72,816
<b>Total</b>	<b>\$114,559</b>

Table 3: Program Costs for the Wattsmart Business Program

Program	Direct Implementation (Non-Incentive) Costs	Utility Administrative Costs	Incentives	Marketing, Education and Outreach	Total Utility Costs	Gross Customer Costs
Wattsmart Business	\$439,370	\$48,494	\$219,979	\$20,674	\$728,517	\$367,520

Table 4: Program Savings for the Wattsmart Business Program

Program	Gross Savings (kWh)	Realization Rate	Adjusted Gross Savings (kWh)	Net to Gross Ratio	Net Savings (kWh)	Measure Life
Wattsmart Business	1,516,766	98%	1,488,132	65%	969,352	11

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<sup>1</sup> Future rates determined using a 2.27% annual escalator.

Tables 5 and 6 provide cost-effectiveness results for the overall Wattsmart Business Program.

Table 5: Benefit/Cost Ratios for the Wattsmart Business Program

Program	Segment	PTRC	TRC	UCT	PCT	RIM
Wattsmart Business	Resource Acquisition	1.12	1.02	1.22	3.21	0.39
Wattsmart Business w/portfolio costs	Resource Acquisition	0.99	0.90	1.06	3.21	0.37
<b>Total Portfolio</b>	<b>Total Portfolio</b>	<b>0.79</b>	<b>0.72</b>	<b>0.84</b>	<b>2.73</b>	<b>0.34</b>

Table 6: Wattsmart Business Program with Portfolio Level Costs, Cost-Effectiveness Results - PY2026

Cost-Effectiveness Test	Levelized \$/kWh	Levelized \$/kW	NPV Costs	NPV Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.13	\$723	\$990,617	\$978,928	(\$11,688)	0.99
Total Resource Cost Test (TRC) No Adder	\$0.13	\$723	\$990,617	\$889,935	(\$100,682)	0.90
Utility Cost Test (UCT)	\$0.11	\$615	\$843,076	\$889,935	\$46,859	1.06
Participant Cost Test (PCT)			\$560,120	\$1,796,737	\$1,236,616	3.21
Rate Impact Test (RIM)			\$2,419,833	\$889,935	(\$1,529,898)	0.37
Total System Benefits						\$889,935
Lifecycle Revenue Impacts (\$/kWh)						\$0.00033
Discounted Participant Payback (years)						2.8



Table 7 provides cost-effectiveness results for the measure categories and delivery channels of the Wattsmart Business Program.

Table 7: WSB Program Measure Category Level Cost-Effectiveness Results - PY2026

Program	Delivery Channel	Measure Category	Utility Benefits (\$)	Utility Costs (\$)	Utility Cost Test	TRC Benefits (\$)	TRC Costs (\$)	TRC Test	P-TRC Benefits (\$)	P-TRC Costs (\$)	P-TRC Test	Participant PV Benefits (\$)	Participant PV Costs (\$)	PCT Test	Ratepayer PV Benefits (\$)	Ratepayer PV Costs (\$)	RIM Test
Wattsmart Business	Cascade Energy - Trade ally/project facilitation	Farm and Dairy	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00
Wattsmart Business	Cascade Energy - Trade ally/project facilitation	Industrial - Energy Management	\$12,687	\$24,279	0.52	\$12,687	\$23,870	0.53	\$13,956	\$23,870	0.58	\$27,871	\$1,800	15.48	\$12,687	\$50,841	0.25
Wattsmart Business	Cascade Energy - Trade ally/project facilitation	Refrigeration	\$15,418	\$15,025	1.03	\$15,418	\$16,125	0.96	\$16,959	\$16,125	1.05	\$42,844	\$11,200	3.83	\$15,418	\$53,369	0.29
Wattsmart Business	Cascade MA	Energy management	\$13,665	\$11,353	1.20	\$13,665	\$11,488	1.19	\$15,031	\$11,488	1.31	\$17,028	\$1,100	15.48	\$13,665	\$27,581	0.50
Wattsmart Business	Cascade MA	Site specific commercial	\$23,965	\$24,829	0.97	\$23,965	\$25,429	0.94	\$26,362	\$25,429	1.04	\$66,798	\$19,200	3.48	\$23,965	\$82,627	0.29
Wattsmart Business	ECG Small Business Lighting	Lighting	\$94,647	\$76,613	1.24	\$94,647	\$62,113	1.52	\$104,112	\$62,113	1.68	\$199,295	\$30,000	6.64	\$94,647	\$235,908	0.40
Wattsmart Business	ECG Trade Ally Lighting	Lighting	\$263,613	\$155,349	1.70	\$263,613	\$175,309	1.50	\$289,974	\$175,309	1.65	\$480,687	\$83,880	5.73	\$263,613	\$581,887	0.45
Wattsmart Business	ECG Trade Ally Non-Lighting	Appliances	\$346	\$628	0.55	\$346	\$700	0.49	\$381	\$700	0.54	\$1,749	\$782	2.24	\$346	\$2,207	0.16
Wattsmart Business	ECG Trade Ally Non-Lighting	Food Service	\$3,043	\$2,312	1.32	\$3,043	\$2,777	1.10	\$3,347	\$2,777	1.21	\$6,907	\$1,608	4.30	\$3,043	\$8,719	0.35
Wattsmart Business	ECG Trade Ally Non-Lighting	HVAC	\$59,280	\$36,275	1.63	\$59,280	\$37,489	1.58	\$65,208	\$37,489	1.74	\$120,752	\$15,562	7.76	\$59,280	\$148,897	0.40
Wattsmart Business	ECG Trade Ally Non-Lighting	Motors	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00
Wattsmart Business	ECG Trade Ally Non-Lighting	Refrigeration	\$7,458	\$11,945	0.62	\$7,458	\$11,948	0.62	\$8,204	\$11,948	0.69	\$15,919	\$5,089	3.13	\$7,458	\$24,815	0.30
Wattsmart Business	ECG Trade Ally Non-Lighting	Water Heating	\$117,868	\$91,190	1.29	\$117,868	\$92,956	1.27	\$129,655	\$92,956	1.39	\$279,644	\$12,110	23.09	\$117,868	\$365,334	0.32
Wattsmart Business	Cascade Energy - Trade ally/project facilitation	Compressed air	\$8,596	\$14,725	0.58	\$8,596	\$15,325	0.56	\$9,456	\$15,325	0.62	\$19,725	\$9,600	2.05	\$8,596	\$30,250	0.28
Wattsmart Business	Cascade MA	Energy management	\$11,616	\$17,029	0.68	\$11,616	\$16,654	0.70	\$12,777	\$16,654	0.77	\$20,626	\$1,650	12.50	\$11,616	\$36,455	0.32
Wattsmart Business	Cascade MA	Site specific industrial	\$83,258	\$99,316	0.84	\$83,258	\$105,316	0.79	\$91,584	\$105,316	0.87	\$190,348	\$84,000	2.27	\$83,258	\$253,664	0.33
Wattsmart Business	Cascade Energy - Trade ally/project facilitation	Irrigation - Energy Management	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00
Wattsmart Business	Cascade Energy - Trade ally/project facilitation	Irrigation - irrigation systems	\$152,667	\$127,516	1.20	\$152,667	\$252,736	0.60	\$167,934	\$252,736	0.66	\$263,467	\$261,779	1.01	\$152,667	\$346,932	0.44
Wattsmart Business	Cascade Energy - Trade ally/project facilitation	Irrigation - water distribution equipment	\$12,743	\$9,318	1.37	\$12,743	\$14,300	0.89	\$14,017	\$14,300	0.98	\$17,695	\$9,855	1.80	\$12,743	\$24,992	0.51
Wattsmart Business	Cascade MA	Site specific irrigation	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00





## MEMORANDUM

To: Jay Olson, PacifiCorp

From: Eli Morris, Andy Hudson, Julian Graybill Brubaker, Applied Energy Group

Date: October 3, 2024

Re: Cost Effectiveness for the 2026 California Biennial Budget Advice Letter – Portfolio

AEG estimated the cost-effectiveness of Pacific Power’s Program Portfolio with portfolio costs included in the state of California. This analysis is based on Program Year (PY) 2026 costs and savings estimates provided by Pacific Power for use in Pacific Power’s proposed Biennial Budget Advice Letter (BBAL). The portfolio, which includes equity and resource acquisition programs, passes the Participant Cost Test (PCT).

The memo provides analysis inputs and results in the following tables:

- Table 1: Cost Effectiveness Analysis Inputs
- Table 2: Wattsmart Business Program – Portfolio Level Costs
- Table 3: Program Costs for the Wattsmart Business Program
- Table 4: Program Savings for the Wattsmart Business Program
- Table 5: Benefit/Cost Ratios for the Wattsmart Business Program
- Table 6: Wattsmart Business Program Level Cost-Effectiveness Results - PY2026
- Table 7: WSB Program Measure Category Level Cost-Effectiveness Results - PY2026
- Table 8: Benefit/Cost Ratios for the Wattsmart Business Program
- Table 9: Wattsmart Business Program Level Cost-Effectiveness Results - PY2026
- Table 10: Wattsmart Business Program Measure Category Level Cost-Effectiveness Results - PY2026

This cost-effectiveness memo utilizes the following assumptions:

- **Avoided Costs:** AEG used avoided costs derived from the CPUC 2022 1b Avoided Cost Calculator, converted into annual values using load shapes from PacifiCorp’s 2023 IRP.
- **Modeling Inputs:** measure savings, costs, non-energy impacts (NEIs), measure lives, incentive levels, program delivery, and portfolio costs were based on estimates provided by PacifiCorp.
- **Retail Rates:** Utilized up-to-date retail rates provided by PacifiCorp and escalated by inflation for future years.



The following tables summarize cost-effectiveness assumptions and results for the California Wattsmart Business Program. The cost-effectiveness analysis inputs are shown in Tables 1 through Table 4 below:

Table 1: Cost Effectiveness Analysis Inputs

Parameter	Value
Discount Rate	6.77%
Residential Line Loss	8.78%
Commercial Line Loss	8.63%
Industrial Line Loss	8.53%
Irrigation Line Loss	8.78%
Residential Energy Rate* (\$/kWh)	\$0.118
Commercial Energy Rate* (\$/kWh)	\$0.141
Industrial Energy Rate* (\$/kWh)	\$0.113
Irrigation Energy Rate* (\$/kWh)	\$0.154
Energy-to-Capacity Conversion Factor	0.00017898
Inflation Rate <sup>1</sup>	2.27%

Table 2: Portfolio-Level Costs, Nominal - PY2026

Expense	PY2026
Utility Admin	\$50,115
Direct Implementation	\$18,500
Marketing, Education and Outreach	\$0
Program Evaluation	\$138,536
<b>Total</b>	<b>\$207,151</b>

Table 3: Program-Level Costs by Program, Nominal - PY2026

Program	Direct Implementation (Non-Incentive) Costs	Utility Administrative Costs	Incentives	Marketing, Education and Outreach	Total Utility Costs	Gross Customer Costs
Home Energy Savings	\$143,927	\$10,250	\$66,776	\$191	\$221,144	\$127,161
Home Energy Reporting	\$61,860	\$10,000	\$0	\$0	\$71,860	\$0
Wattsmart Business	\$439,370	\$48,494	\$219,979	\$20,674	\$728,517	\$367,520
<b>Total</b>	<b>\$645,157</b>	<b>\$68,744</b>	<b>\$286,755</b>	<b>\$20,864</b>	<b>\$1,021,521</b>	<b>\$494,681</b>

<sup>1</sup> Future rates determined using a 2.27% annual escalator.



Table 4: Program-Level Savings by Program, PY2026

Program	Gross Savings (kWh)	Realization Rate	Adjusted Gross Savings (kWh)	Net to Gross Ratio	Net Savings (kWh)	Measure Life
Home Energy Savings	187,786	99%	185,560	70%	130,413	12
Home Energy Reporting	0	100%	0	100%	0	0
Wattsmart Business	1,516,766	98%	1,488,132	65%	969,352	9
<b>Total</b>	<b>1,704,552</b>	<b>98%</b>	<b>1,673,692</b>	<b>66%</b>	<b>1,099,765</b>	<b>9</b>

Tables 5 through Table 8 provide cost-effectiveness results for the overall portfolio and the individual *programs* and sectors.

Table 5: Benefit/Cost Ratios by Program Type

Program	Segment	PTRC	TRC	UCT	PCT	RIM
Home Energy Savings	Equity	0.57	0.52	0.66	1.38	0.34
Home Energy Reporting	Equity	0.00	0.00	0.00	0.00	0.00
Wattsmart Business	Resource Acquisition	1.12	1.02	1.22	3.21	0.39
Wattsmart Business w/portfolio costs	Resource Acquisition	0.99	0.90	1.06	3.21	0.37
<b>Total Portfolio</b>	<b>Total Portfolio</b>	<b>0.79</b>	<b>0.72</b>	<b>0.84</b>	<b>2.73</b>	<b>0.34</b>

Table 6: Total Portfolio Cost-Effectiveness Results - PY2026

Cost-Effectiveness Test	Levelized \$/kWh	Levelized \$/kW	NPV Costs	NPV Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.16	\$910	\$1,436,597	\$1,138,554	(\$298,042)	0.79
Total Resource Cost Test (TRC) No Adder	\$0.16	\$910	\$1,436,597	\$1,035,050	(\$401,547)	0.72
Utility Cost Test (UCT)	\$0.14	\$778	\$1,228,671	\$1,035,050	(\$193,622)	0.84
Participant Cost Test (PCT)			\$759,223	\$2,072,436	\$1,313,214	2.73
Rate Impact Test (RIM)			\$3,014,352	\$1,035,050	(\$1,979,303)	0.34
Total System Benefits						\$1,035,050
Lifecycle Revenue Impacts (\$/kWh)						\$0.00033
Discounted Participant Payback (years)						3.4



Table 7: C&amp;I Sector Cost-Effectiveness Results - PY2026

Cost-Effectiveness Test	Levelized \$/kWh	Levelized \$/kW	NPV Costs	NPV Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.11	\$639	\$876,058	\$978,928	\$102,870	1.12
Total Resource Cost Test (TRC) No Adder	\$0.11	\$639	\$876,058	\$889,935	\$13,877	1.02
Utility Cost Test (UCT)	\$0.10	\$531	\$728,517	\$889,935	\$161,418	1.22
Participant Cost Test (PCT)			\$560,120	\$1,796,737	\$1,236,616	3.21
Rate Impact Test (RIM)			\$2,305,274	\$889,935	(\$1,415,339)	0.39
Total System Benefits						\$889,935
Lifecycle Revenue Impacts (\$/kWh)						\$0.00032
Discounted Participant Payback (years)						2.8

Table 8: Residential Sector Cost-Effectiveness Results - PY2026

Cost-Effectiveness Test	Levelized \$/kWh	Levelized \$/kW	NPV Costs	NPV Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.31	\$1,705	\$353,388	\$159,626	(\$193,762)	0.45
Total Resource Cost Test (TRC) No Adder	\$0.31	\$1,705	\$353,388	\$145,115	(\$208,274)	0.41
Utility Cost Test (UCT)	\$0.25	\$1,413	\$293,004	\$145,115	(\$147,889)	0.50
Participant Cost Test (PCT)			\$199,102	\$275,700	\$76,597	1.38
Rate Impact Test (RIM)			\$501,927	\$145,115	(\$356,813)	0.29
Total System Benefits						\$145,115
Lifecycle Revenue Impacts (\$/kWh)						\$0.00006
Discounted Participant Payback (years)						8.6



Tables 9 and 10 provide cost-effectiveness results for the measure categories by sector.

*Table 9: Home Energy Savings Measure Category Level Cost-Effectiveness Results, PY2026*

Program	Measure Category	Utility Benefits (\$)	Utility Costs (\$)	Utility Cost Test	TRC Benefits (\$)	TRC Costs (\$)	TRC Test	P-TRC Benefits (\$)	P-TRC Costs (\$)	P-TRC Test	Participant PV Benefits (\$)	Participant PV Costs (\$)	PCT Test	Ratepayer PV Benefits (\$)	Ratepayer PV Costs (\$)	RIM Test
Home Energy Savings	Appliances	\$457	\$1,956	0.23	\$457	\$3,551	0.13	\$503	\$3,551	0.14	\$1,730	\$4,995	0.35	\$457	\$3,316	0.14
Home Energy Savings	Electronics	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00
Home Energy Savings	Energy Kits	\$41,376	\$66,221	0.62	\$41,376	\$64,637	0.64	\$45,513	\$64,637	0.70	\$58,960	\$10,556	5.59	\$41,376	\$114,625	0.36
Home Energy Savings	HVAC	\$85,773	\$130,972	0.65	\$85,773	\$174,200	0.49	\$94,350	\$174,200	0.54	\$182,487	\$150,165	1.22	\$85,773	\$262,200	0.33
Home Energy Savings	Water Heating	\$5,909	\$13,202	0.45	\$5,909	\$15,895	0.37	\$6,500	\$15,895	0.41	\$15,132	\$10,716	1.41	\$5,909	\$25,134	0.24
Home Energy Savings	Whole Home	\$11,564	\$8,753	1.32	\$11,564	\$23,141	0.50	\$12,721	\$23,141	0.55	\$17,285	\$22,483	0.77	\$11,564	\$24,688	0.47



Table 10: Wattsmart Business Program Measure Category Level Cost-Effectiveness Results - PY2026

Program	Delivery Channel	Measure Category	Utility Benefits (\$)	Utility Costs (\$)	Utility Cost Test	TRC Benefits (\$)	TRC Costs (\$)	TRC Test	P-TRC Benefits (\$)	P-TRC Costs (\$)	P-TRC Test	Participant PV Benefits (\$)	Participant PV Costs (\$)	PCT Test	Ratepayer PV Benefits (\$)	Ratepayer PV Costs (\$)	RIM Test
Wattsmart Business	Cascade Energy - Trade ally/project facilitation	Farm and Dairy	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00
Wattsmart Business	Cascade Energy - Trade ally/project facilitation	Industrial - Energy Management	\$12,687	\$24,279	0.52	\$12,687	\$23,870	0.53	\$13,956	\$23,870	0.58	\$27,871	\$1,800	15.48	\$12,687	\$50,841	0.25
Wattsmart Business	Cascade Energy - Trade ally/project facilitation	Refrigeration	\$15,418	\$15,025	1.03	\$15,418	\$16,125	0.96	\$16,959	\$16,125	1.05	\$42,844	\$11,200	3.83	\$15,418	\$53,369	0.29
Wattsmart Business	Cascade MA	Energy management	\$13,665	\$11,353	1.20	\$13,665	\$11,488	1.19	\$15,031	\$11,488	1.31	\$17,028	\$1,100	15.48	\$13,665	\$27,581	0.50
Wattsmart Business	Cascade MA	Site specific commercial	\$23,965	\$24,829	0.97	\$23,965	\$25,429	0.94	\$26,362	\$25,429	1.04	\$66,798	\$19,200	3.48	\$23,965	\$82,627	0.29
Wattsmart Business	ECG Small Business Lighting	Lighting	\$94,647	\$76,613	1.24	\$94,647	\$62,113	1.52	\$104,112	\$62,113	1.68	\$199,295	\$30,000	6.64	\$94,647	\$235,908	0.40
Wattsmart Business	ECG Trade Ally Lighting	Lighting	\$263,613	\$155,349	1.70	\$263,613	\$175,309	1.50	\$289,974	\$175,309	1.65	\$480,687	\$83,880	5.73	\$263,613	\$581,887	0.45
Wattsmart Business	ECG Trade Ally Non-Lighting	Appliances	\$346	\$628	0.55	\$346	\$700	0.49	\$381	\$700	0.54	\$1,749	\$782	2.24	\$346	\$2,207	0.16
Wattsmart Business	ECG Trade Ally Non-Lighting	Food Service	\$3,043	\$2,312	1.32	\$3,043	\$2,777	1.10	\$3,347	\$2,777	1.21	\$6,907	\$1,608	4.30	\$3,043	\$8,719	0.35
Wattsmart Business	ECG Trade Ally Non-Lighting	HVAC	\$59,280	\$36,275	1.63	\$59,280	\$37,489	1.58	\$65,208	\$37,489	1.74	\$120,752	\$15,562	7.76	\$59,280	\$148,897	0.40
Wattsmart Business	ECG Trade Ally Non-Lighting	Motors	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00
Wattsmart Business	ECG Trade Ally Non-Lighting	Refrigeration	\$7,458	\$11,945	0.62	\$7,458	\$11,948	0.62	\$8,204	\$11,948	0.69	\$15,919	\$5,089	3.13	\$7,458	\$24,815	0.30
Wattsmart Business	ECG Trade Ally Non-Lighting	Water Heating	\$117,868	\$91,190	1.29	\$117,868	\$92,956	1.27	\$129,655	\$92,956	1.39	\$279,644	\$12,110	23.09	\$117,868	\$365,334	0.32
Wattsmart Business	Cascade Energy - Trade ally/project facilitation	Compressed air	\$8,596	\$14,725	0.58	\$8,596	\$15,325	0.56	\$9,456	\$15,325	0.62	\$19,725	\$9,600	2.05	\$8,596	\$30,250	0.28
Wattsmart Business	Cascade MA	Energy management	\$11,616	\$17,029	0.68	\$11,616	\$16,654	0.70	\$12,777	\$16,654	0.77	\$20,626	\$1,650	12.50	\$11,616	\$36,455	0.32
Wattsmart Business	Cascade MA	Site specific industrial	\$83,258	\$99,316	0.84	\$83,258	\$105,316	0.79	\$91,584	\$105,316	0.87	\$190,348	\$84,000	2.27	\$83,258	\$253,664	0.33
Wattsmart Business	Cascade Energy - Trade ally/project facilitation	Irrigation - Energy Management	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00
Wattsmart Business	Cascade Energy - Trade ally/project facilitation	Irrigation - irrigation systems	\$152,667	\$127,516	1.20	\$152,667	\$252,736	0.60	\$167,934	\$252,736	0.66	\$263,467	\$261,779	1.01	\$152,667	\$346,932	0.44
Wattsmart Business	Cascade Energy - Trade ally/project facilitation	Irrigation - water distribution equipment	\$12,743	\$9,318	1.37	\$12,743	\$14,300	0.89	\$14,017	\$14,300	0.98	\$17,695	\$9,855	1.80	\$12,743	\$24,992	0.51
Wattsmart Business	Cascade MA	Site specific irrigation	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00	\$0	\$0	0.00

## ATTACHMENT 4

BBAL spreadsheet including 2025 and 2026 program data as well as  
Electronic Technical Reference Manual (eTRM) Net-to-Gross Values by  
Measure

**Attachment 4 – Database of Energy Efficiency Resources (DEER) Net-to-Gross Values** – BBAL spreadsheet including 2025 and 2026 program data as well as Electronic Technical Reference Manual (eTRM) Net-to-Gross Values by Measure

**Includes NTG Values used in cost-effectiveness analysis**

- **Home Energy Savings NTG Values** – Please refer to HES 2025 – RI and HES 2026 – RI tabs, columns T and U, for NTG values used in cost-effectiveness analysis (measure level, for measures with projected participation).
- **Wattsmart Business NTG Values** – Please refer to WSB CE Inputs tab, columns W and X, for NTG values used in cost-effectiveness analysis (measure or measure group level for measures with projected participation).

**Includes tabs with program data in same format as provided in the 2025-2026 BBAL**

- 1 Bill Payer Impacts-IOU Only
- 4 Program Budget
- 7 PA PY Budget Savings
- 9 Portfolio Summary

**Includes tabs with tables provided in the BBAL document**

- Overall Portfolio Metric
- Compare to Goals and Overall \$
- 2025-2026 kWh and \$
- 2025-2026 Cost Effectiveness
- 2024 YTD Expenditures

**Includes supporting data**



## ATTACHMENT 5

### Description of PacifiCorp Cost-Effectiveness Modeling Tool

## **Attachment 5 – Description of PacifiCorp Cost-Effectiveness Modeling Tool**

### **Overview:**

PacifiCorp utilizes third parties to develop and maintain cost effectiveness modeling tools to assess the economic benefits of energy efficiency programs. The model used in California is developed and maintained by Applied Energy Group (AEG).

The model is Excel-based and compares benefits and costs for all tests, , quantifying avoided cost benefits on an hourly basis over the measure life using 8760 load shapes consistent with PacifiCorp’s the 2023 Integrated Resource Plan (IRP). Calculations are performed at the measure level and aggregated up to the measure category, delivery channel, sector, program, and portfolio levels.

The modeling tool calculates cost effectiveness from the following perspectives which align with the California Standard Practice Manual and California Public Utilities Commission guidance:

- Total Resource Cost (TRC)
- Program Administrator Cost (PAC)
- Ratepayer Impact (RIM)
- Participant Cost Test (PCT).

The tool also calculates a variant of the TRC, referred to in PacifiCorp reporting as the PacifiCorp TRC (P-TRC). This test is the TRC with an additional 10% added benefit for the non-quantified benefits that may be associated with energy efficiency.<sup>3</sup>

### **Avoided Costs:**

The avoided costs specific to energy efficiency imported into the model are generated by the 2022 1b Avoided Cost Calculator (ACC) Excel file available on the CPUC website, with inputs adjusted to appropriately align with values from PacifiCorp’s most recent IRP. Inputs that have been modified to reflect PacifiCorp’s system are inflation rate, discount rate, electricity prices, distribution capacity cost, and transmission capacity cost. Values from the 2022 1b ACC, which were not adjusted specific to PacifiCorp’s system, and relied on default values included generation capacity and greenhouse gas emissions assumptions.

### **Line losses:**

The model applies line losses as a percentage to the customer site-specific measure energy savings based on applicable sector (residential, commercial, industrial, and irrigation). The line losses include the impacts of both transmission and distribution level service. Sector-level values are based on a weighted average calculation performed by PacifiCorp’s regulation department utilizing values from the 2018 PacifiCorp Electric Operations Loss Study. To avoid double counting, line losses were zeroed out in the Avoided Cost Calculator.

### **Load shapes:**

The model utilizes 8760 hourly load shapes specific to the sector, market segment, and end uses in which the measures are installed and correspond to those used in the most recent IRP. The hourly

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<sup>3</sup> Consistent with practices used by the Northwest Power and Conservation Council for evaluating energy efficiency cost-effectiveness.

load shapes are multiplied by the hourly avoided cost values in order to calculate end-use specific annualized avoided costs for use in the model. The library of load shapes available for modeling is a combination of publicly available information (Northwest Power and Conservation Council) and selected building simulation modeling.

**Discount rate:**

Benefits and costs are discounted by the model back to the present year (or year of interest if different than current year) using a single established nominal discount rate for all perspectives (societal, utility, participant). This discount rate is also used for levelizing calculations. The discount rate in the model is nominal and is the same as the discount rate used in PacifiCorp's most recent IRP (2023). When a new IRP is filed, the model will be updated to include the current discount rate.

**Retail rates:**

The model utilizes average retail energy rates by customer sector within a state to calculate the PCT and RIM results. Average retail rates are calculated by PacifiCorp's regulation department and provided to AEG.

**Inflation rate:**

The model uses a single real inflation rate to escalate forecasts or values beyond the period for which they are available if it is necessary for modeling. The inflation rate is the same rate as used in PacifiCorp's most recent IRP (2023).

**Sales forecasts (MWh):**

Sales forecasts for a 20-year period are an input to the model and used to calculate lifecycle revenue impacts for the RIM test. The sales forecasts by state are periodically updated by PacifiCorp and provided to AEG for use in this model. The sales forecast used in this iteration of avoided costs was developed in 2022.

**Net-to-gross ratio (NTGR):**

NTGRs are provided by PacifiCorp as an input to the model, and consistent with CPUC direction are sourced from the eTRM. Consistent with the Standard Practice Manual, NTGRs are applied to the customer costs in the TRC test and to the energy savings benefits in both the TRC and PAC tests.

**Realization rates:**

Realization rates are provided by PacifiCorp as an input to this model and are used to adjust the energy savings used for all calculations. This adjustment is in addition to the application of NTGRs. The source of realization rates is typically program impact evaluations performed for PacifiCorp by a third party. Realization rates may be available by measure group or for specific measures.

**Measure/effective useful life:**

Measure lives are provided by PacifiCorp as an input to the model and are used to calculate the stream of energy savings benefits delivered over time. The source for measure life is the eTRM where eTRM values were available.

In limited cases, the program adopts a dual baseline methodology that includes two measure baselines: one defined by pre-conditions for the remaining useful life of the existing system and the second defined by industry standard practice. For these cases the program will calculate energy savings for both baseline periods. However, the first baseline period energy savings is reported and used in cost-effectiveness analysis, and the measure life is adjusted such that the lifetime savings is correct.

**Energy to capacity conversion factor:**

The model utilizes an energy to capacity conversion factor to estimate the estimated kW impact of the energy efficiency programs during PacifiCorp’s system peak period. The system peak is not state specific. The energy-to-capacity conversion factor is developed from energy efficiency selections in the IRP (2023).

**Costs:**

Energy efficiency measure, program and portfolio costs are an input to the model and provided by PacifiCorp. Measure costs align with the baseline assumptions used to quantify savings; i.e., retrofit, new construction, etc. For example, for deemed measures defined by statewide workpapers, PacifiCorp provided the measure costs from the statewide workpaper for use in the model. Measure-level cost effectiveness does not include the impacts of program costs. Program costs are provided at the program level and are included as an additional cost included in B/C ratio results at that level. Measure category-level results have program costs allocated to them as a percent of total savings within the program. Portfolio costs for systems and shared services are added to summation of program benefits and are reflected in the portfolio level results only. The model utilizes California-specific cost categories<sup>4</sup> for non-incentive costs.

**Total System Benefits (TSB):**

TSB is an expression, in dollars, of the lifecycle energy, ancillary services, generation capacity, transmission and distribution capacity, and GHG benefits of energy efficiency activities, on an annual basis.

PacifiCorp provided Lighting Interactive Effect Factors for kWh savings from the Indoor Commercial Lighting Interactive Effects CPUC Support Table from the eTRM for use in the model’s Total System Benefits calculation. As efficient lighting can result in a higher heating load, the model subtracts the value of that load from the measure energy efficiency benefits when calculating TSB.

**Outputs/results:**

The model generates results by measure, by program (multiple measures) and by portfolio (multiple programs). Results are available in an electronic format in the model. The model also has templates that generate results from multiple perspectives into a tabular format.

Model results (and units) include:

- Costs (\$)

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<sup>4</sup> Decision 18-11-033 included an order to provide a breakdown of year-to-date expenses, including at minimum the following categories: incentive payments, program evaluation, and administrative expenses.

- Benefits (\$)
- Net benefits (\$)
- Benefit/cost ratio (\$/\$)
- Levelized cost (\$/kWh)
- Levelized cost (\$/kW)
- Life cycle revenue impacts (\$/kWh)
- Discounted participant payback (years)
- First year gross and net savings (kWh) at site and at generation
- Lifetime gross savings (kWh) at site
- Discounted Lifetime net savings (kWh) at site
- Total System Benefits (\$)

## ATTACHMENT 6

Applied Energy Group Review of PacifiCorp California Energy  
Efficiency Cost-Effectiveness Model

**Attachment 6 – Applied Energy Group Review for PacifiCorp California 2025-2026  
BBAL Energy Efficiency Cost-Effectiveness Modeling**



## MEMOMORANDUM

To: Jay Olson, PacifiCorp  
From: Eli Morris, Andy Hudson, Julian Graybill Brubaker, AEG  
Date: July 19, 2024  
Re: PacifiCorp California Energy Efficiency Cost-Effectiveness Model Review

In granting PacifiCorp's 2020 application to continue operating its California energy efficiency programs through 2026, the California Public Utilities Commission (CPUC) found that "...it is appropriate to permit PacifiCorp to use its cost-effectiveness model through 2026..."<sup>5</sup> and provided specific direction for how to improve alignment with the Investor-Owned Utilities (IOUs) by the end of 2026.

In its Biennial Budget Advice Letter (BBAL) for 2023-2024 Energy Efficiency Programs,<sup>6</sup> PacifiCorp described its current cost-effectiveness modeling tool, including updates and review performed by Guidehouse (formerly Navigant) to align with previous CPUC guidance. In preparation for its 2023-2024 BBAL filing, PacifiCorp engaged Applied Energy Group (AEG) to review recent relevant CPUC guidance regarding energy efficiency cost-effectiveness methodology and tools and to recommend updates to ensure continued alignment with CPUC cost-effectiveness practices; A memo summarizing AEG's findings and recommendations was included as Attachment 6 to PacifiCorp's 2023-2024 BBAL.

In support of its 2025-2026 BBAL, PacifiCorp asked AEG to perform an updated review to ensure continued alignment with CPUC cost-effectiveness guidance. AEG's findings and recommendations from this updated review are provided below.

### Findings

**1. In December 2021, the CPUC approved PacifiCorp's application to continue operating its California energy efficiency programs through 2026.**

The CPUC's decision (D. 21-12-34) provided guidance in several areas relevant to this review and to PacifiCorp's future cost-effectiveness analysis:

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<sup>5</sup> Decision 21-12-034 Approving 2020 Application of PacifiCorp to Continue its Energy Efficiency Program and Surcharges Through 2026, page 22.

<sup>6</sup> PacifiCorp Advice Letter No. 697-E, October 7, 2022.



- the CPUC found that “...it is appropriate to permit PacifiCorp to use its cost-effectiveness model through 2026...”<sup>7</sup>
- PacifiCorp must ensure that its avoided costs are in the statewide California Energy Data and Reporting System (CEDARS) cost effectiveness tool by the end of 2024, and updated therein by the end of 2026.<sup>8</sup>
- PacifiCorp will begin to report using the Total System Benefit metric adopted in Decision 21-05-031. The TSB replaces the energy and peak demand savings goals, although portfolio outcomes are still reported in terms of energy and peak demand savings, as well as the TSB.<sup>9</sup>
- Cost-effectiveness ratios, for both the TRC and PAC, shall be included for the entire portfolio, but these overall portfolio TRC and PAC ratios will not be a basis for rejection of the budget advice letters.<sup>10</sup>
- Cost-effectiveness ratios shall also be calculated on only the resource acquisition portion of the portfolio, and must exceed 1.0 on a forecast basis.<sup>11</sup>
- Portfolio shall be divided into resource acquisition, market support and equity segments.<sup>12</sup>
- PacifiCorp must, by the time of Tier 2 budget advice letters in September 2024, adjust its cost effectiveness methodology for incremental measured costs to utilize the Electronic Technical Reference Manual and statewide workpapers so that it is aligned with the state’s large investor-owned utilities as required by Decisions (D.) 21-05-031 and D. 21-09-037.<sup>13</sup>
- PacifiCorp must, by September 2025 when it files its application for program years 2027-2030, align with the state’s large investor-owned utilities as required by Decisions (D.) 21-05-031 and D.21-09-037, including using the Cost Effectiveness Tool and Four-Year Portfolio filings template.<sup>14</sup>

**2. AEG’s CE Model review memo for the 2023-2024 BBAL (attachment 6) recommended PacifiCorp use the CPUC’s 2021 avoided costs calculator (ACC). However, various challenges were encountered, and PacifiCorp consulted with CPUC Energy Division staff. Ultimately, in order to maintain consistency with D.21-05-031, which directed the large IOUs to use the 2020 Avoided Cost Calculator in their 2022 filings, it was determined that the best solution was to align with the large IOUs and use the 2020 ACC, updated with utility-specific values as appropriate.**

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<sup>7</sup> Decision 21-12-034 Approving 2020 Application of PacifiCorp to Continue its Energy Efficiency Program and Surcharges Through 2026, page 22.

<sup>8</sup> *Id.* at Ordering Paragraph 1

<sup>9</sup> *Id.* at Ordering Paragraph 2

<sup>10</sup> Decision 21-12-034 Approving 2020 Application of PacifiCorp to Continue its Energy Efficiency Program and Surcharges Through 2026, page 24.

<sup>11</sup> Decision 21-12-034 Approving 2020 Application of PacifiCorp to Continue its Energy Efficiency Program and Surcharges Through 2026, page 24.

<sup>12</sup> Decision 21-12-034 Approving 2020 Application of PacifiCorp to Continue its Energy Efficiency Program and Surcharges Through 2026, page 24.

<sup>13</sup> *Id.* at Ordering Paragraph 5

<sup>14</sup> *Id.* at Ordering Paragraph 6

PacifiCorp used the 2020 Avoided Cost Calculator to generate avoided costs for its 2023-2024 BBAL. To develop utility-specific avoided costs, PacifiCorp made the following changes to Avoided Cost Calculator defaults:

- **Updated numerous factors to customize values to PacifiCorp's system:** PacifiCorp adjusted the following inputs to reflect the latest information on the value of energy efficiency to its system: inflation, discount rate, electricity prices, distribution capacity costs, and avoided transmission capacity costs. Values from the 2020 ACC that were not adjusted specific to PacifiCorp's system, and instead relied on default values, included generation capacity and greenhouse gas emission assumptions.<sup>15</sup>
  - **Zeroed out line losses:** In the 2023-2024 BBAL, AEG noted the risk of double counting line losses between the Avoided Cost Calculator and Guidehouse's cost-effectiveness tool. To address this issue, PacifiCorp opted to zero out line losses in the Avoided Cost Calculator and incorporated them in the Guidehouse model. The line losses include the impacts of both transmission and distribution level service. The sector-level value is based on a weighted average calculation performed by PacifiCorp's regulation department from the 2018 PacifiCorp Electric Operations Loss Study.
  - **Zeroed out methane leakage:** Because methane leakage rates are designed to reflect only upstream leakage from in-state generation and programs that reduce on-site consumption of natural gas, neither of which currently apply to PacifiCorp's energy efficiency programs.
- 3. In May 2022, the CPUC issued Decision 22-05-002<sup>16</sup>, which adopted changes to the next version of the Avoided Cost Calculator, which would be published as the 2022 Avoided Cost Calculator. The changes implemented for the 2022 major update cycle are listed below. The 2022 Avoided Costs are generally higher than 2021 in total values with a few major changes:<sup>17</sup>**
- The 2022 ACC adopts another new avoided cost – the avoided gas infrastructure cost (AGIC), which measures the value that new, all-electric construction provides in avoiding natural gas infrastructure.
  - Higher near-term capacity avoided costs, largely as the result of the low forecast of AS revenue from the SERVM model and the change from Net Cost of New Entry (Net CONE) approach to Real Economic Carrying Charge (RECC) approach. Net CONE only considers 1st year costs and revenues of a storage asset, but RECC considers the lifetime deferral value of the asset.

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<sup>15</sup> AEG verified that values were updated within the Avoided Cost Calculator but did not review the underlying methodology to develop those values, as this was outside the scope of this review.

<sup>16</sup> Decision 22-05-002 - <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M474/K624/474624547.PDF>

<sup>17</sup> 2022 Distributed Energy Resources Avoided Cost Calculator Documentation, p. 3-4. Available at: <https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/demand-side-management/acc-models-latest-version/2022-acc-documentation-v1b-updated.pdf>

- Higher midday energy prices forecasted from SERVM around 2030 and declining GHG rebalancing values during the middle of the day due to low GHG shadow price.
- Higher near-term distribution avoided costs for PG&E and SDG&E due to increases in calculated counterfactual overload kW for both utilities.
- Higher transmission avoided costs for PG&E due to the November 2021 CPUC ruling replacing PG&E’s calculated value with the value recommended by the Solar Energy Industries Association.
- Higher transmission avoided costs for SDG&E based on reduced demand forecasts and increased systemwide transmission project costs as determined by the utility.
- Lower GHG value from IRP RESOLVE modeling because the “No New DER” scenario removes both load reducing and load increasing DERs, and the 2020 CEC IEPR load forecasts include more electrification load.

**4. On June 26, 2024, the CPUC released its proposed decision to adopt a new 2024 Avoided Cost Calculator.**

AEG reviewed activity in Rulemaking 22-11-013 and found that the CPUC issued a proposed decision to adopt updates to the Avoided Cost Calculator, beginning with the 2024 Avoided Cost Calculator.<sup>18</sup> The proposed decision would set aside remaining issues related to the 2024 Avoided Cost Calculator for the scope of the successor to the proceeding, in August 2024 or later. At the time of AEG’s review, the 2024 Avoided Cost Calculator is not available on the CPUC website.<sup>19</sup> Because the 2024 Avoided Cost Calculator was not available and a final decision adopting it had not yet been issued, on June 25, 2024, PacifiCorp informed Energy Division staff that it planned to use the 2022 Avoided Cost Calculator version 1b to perform cost-effectiveness analysis supporting its 2025-2026 BBAL.

**5. On July 15, 2024, as part of Rulemaking 22-11-013, Decision 24-07-015<sup>20</sup> was issued adopting the Societal Cost Test as an additional information-only cost effectiveness Distributed Energy Resource test.**

- The following values were adopted as inputs in the Societal Cost Test (SCT):
  - (a) Social Discount Rate of three-percent.
  - (b) A Statewide Air Quality Adder of \$14 per megawatt-hour.
  - (c) Two Values for the Social Cost of Carbon (SCC):
    - i. Base SCC = per metric ton values (in nominal 2020 dollars) in the range of approximately \$53 in 2020 and approximately \$81 in 2045;

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<sup>18</sup> Proposed Decision in Rulemaking 22-11-013 approving updates to the Avoided Cost Calculator.

<sup>19</sup> <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/demand-side-management/energy-efficiency/der-cost-effectiveness>

<sup>20</sup> Decision 24-07-015, July 11, 2024.

<https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M535/K822/535822173.PDF>



- 4. Consistent with Decision 24-07-015, PacifiCorp should begin including Societal Cost Test results in all Commission activities requiring cost-effectiveness analysis of DER proceedings by April 1, 2025. These filing should include Societal Cost Test results under Base Social Cost of Carbon and High Social Cost of Carbon scenarios.**

This is not required for the current 2025-2026 BBAL filing.

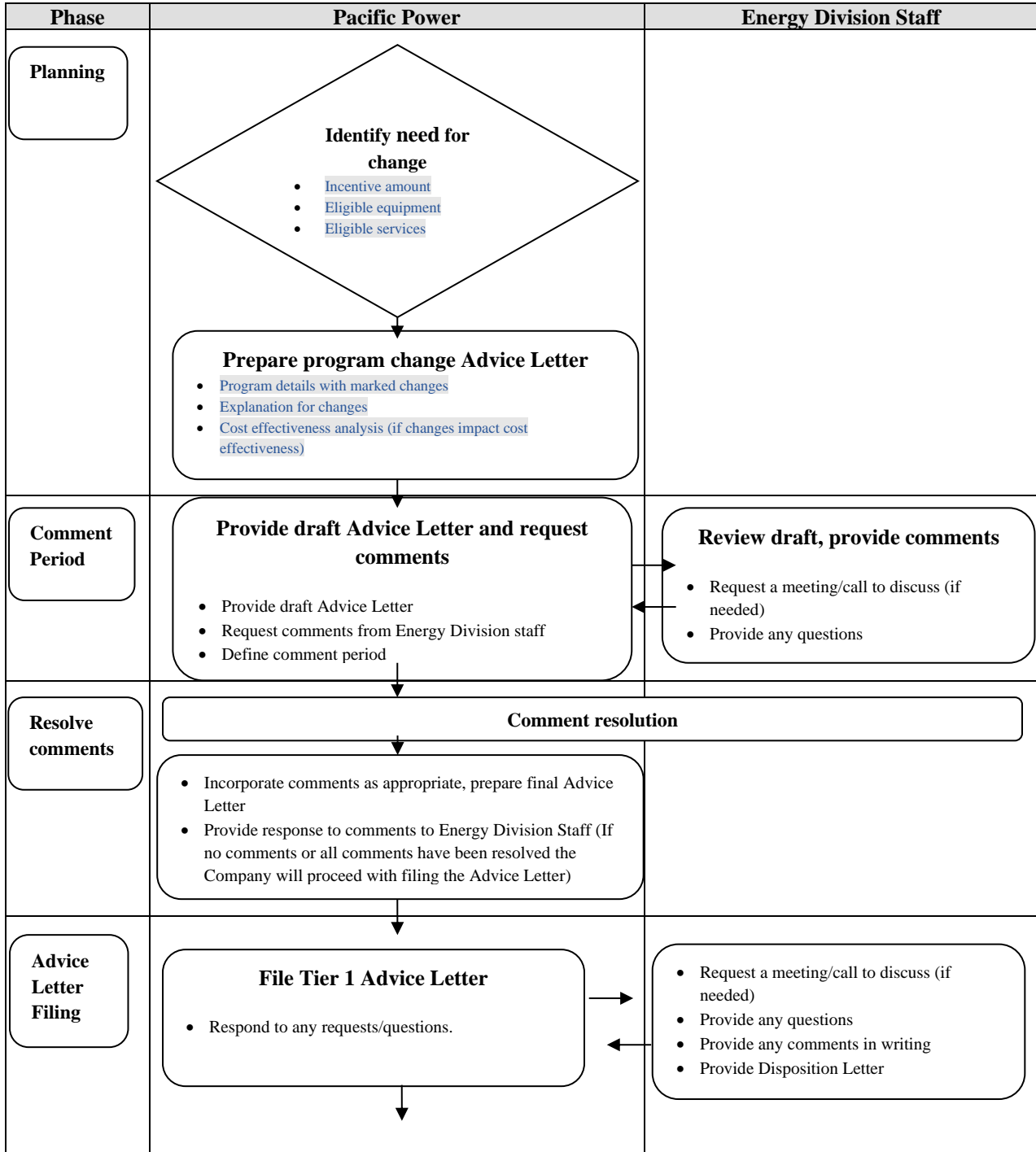
- 5. Continue to monitor CPUC proceedings related to cost-effectiveness methodology, including updates to the avoided cost calculator.**

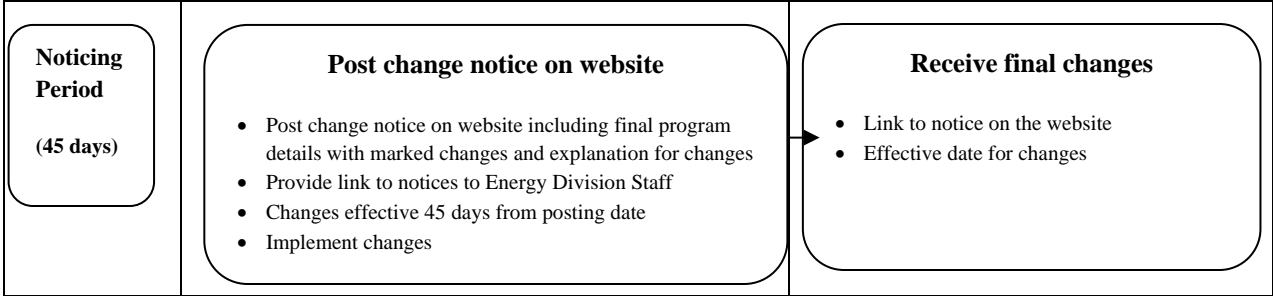
ATTACHMENT 7  
PacifiCorp's Program Change Process

## Attachment 7 – PacifiCorp Program Change Process

This process applies to specific program details managed outside of the program tariff such as:

- Incentive tables
- Program definitions
- General incentive information







**CERTIFICATE OF SERVICE**  
**GO-96B Distribution List**

I hereby certify that, pursuant to the Commission's Rules of Practice and Procedure, I have on this 9<sup>th</sup> of October, 2024, at Portland, OR, provided via email, a true and correct copy of PacifiCorp's Advice Letter 747-E to the following:

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Energy Cost of Service & Natural Gas  
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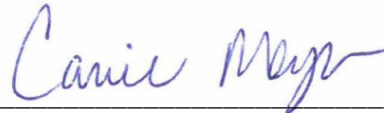
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Carrie Meyer  
Adviser, Regulatory Operations

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

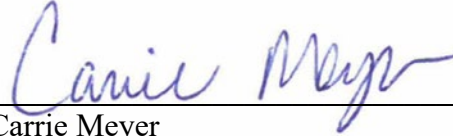
Application of PACIFICORP (U 901 E), an  
Oregon Company, to Continue its Energy  
Efficiency Programs and the Surcharge to Fund  
Public Purpose Programs

Application No. 20-12-018  
(Filed December 31, 2020)

**CERTIFICATE OF SERVICE**

I hereby certify that I have this day caused a copy of the foregoing in A.20-12-018,  
**PacifiCorp's (U 901 E) Advice Letter No. 747-E** on all known parties to the attached  
service list by transmitting an e-mail message with the document attached to each person  
named in the official service list.

Executed on October 9, 2024, at Portland, Oregon.



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Carrie Meyer  
Adviser, Regulatory Operations



California  
Public Utilities  
Commission



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## CALIFORNIA PUBLIC UTILITIES COMMISSION

### Service Lists

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