Demand-side Management 2024-2025 Business Plan - Washington

November 1, 2023

PACIFIC POWER
A DIVISION OF PACIFICORP

Contents

Executive Summary

As required by the Washington Utilities and Transportation Commission's (Commission's) direction (Order 01 of Docket UE-210830), PacifiCorp d/b/a Pacific Power and Light Company (PacifiCorp or Company) must file with the Commission a Biennial Conservation Plan including program details and program tariffs, together with identification of its 2024-2033 achievable conservation potential, by November 1, 2023.

Order 01 also requires prior to filing the 2024-2025 Biennial Conservation Plan, PacifiCorp must provide the following information to the Advisory Group: draft ten-year conservation potential, revised four-year target, and two-year target by August 1, 2023; draft program details, including budgets, by September 1, 2023; and draft program tariffs by October 2, 2023. The Company shared the draft target at the July 27, 2023 DSM Advisory Group meeting. The Company shared draft program details, including budgets, at the August 31, 2023 DSM Advisory Group meeting. In addition, the Company provided details on planned 2024 Home Energy Savings and Wattsmart Business program changes on September 1, 2023 for DSM Advisory Group review and comment. At the August 31, 2023 DSM Advisory Group meeting, the Company noted there were no program tariff filings planned.

PacifiCorp's Business Plan for 2024-2025 reflects updated savings projections and budgets by program or initiative for 2024 and 2025. The updates reflect the Company's current projections based on the best available information at the time of filing (November 1, 2023). PacifiCorp will add, delete and/or modify programs, measures, initiatives, or specific projects described in this Business Plan going forward as appropriate and as circumstances warrant using the approved process for the type of change[1]. The Company notes there is complexity, uncertainty and potential opportunities with a multitude of federal and state funded programs related to energy efficiency. The Company will adaptively manage its portfolio and co-deployment strategies as needed in consultation with its advisory groups as the details of opportunities become more certain.

To achieve its biennial conservation target, increase Named Community customer participation and support regional efforts, the Company offers comprehensive programs for residential and non-residential customers and funds a portion of the Northwest Energy Efficiency Alliance (NEEA).

Program or initiative	Residential	Non-residential
Low Income Weatherization	√	
Home Energy Savings	√	
Home Energy Reports	√	
Wattsmart Business		√
NEEA	√	√

Program and portfolio cost effectiveness was assessed using the proxy decrement values tied to the preferred portfolio (W-10 SC CETA) generated by the 2023 IRP process with non-energy

[1] Adding or deleting programs requires a filing. Modification of an existing program is done by requesting DSM Advisory Group comment on the proposed changes, then posting a notice on the company website 45 days prior to the changes taking effect. This change process is described in the program details sections.

impacts (NEIs). While the Commission uses the Total Resource Cost (TRC) test, as modified by the Northwest Power and Conservation Council[2] as its primary criterion for cost-effectiveness, the Company assesses cost-effectiveness from five standard perspectives. The portfolio is expected to be cost-effective for 2024-2025, with a PacifiCorp Total Resource Cost (PTRC) benefit-to-cost ratio of 1.52 including NEEA and NEIs.

This Business Plan includes a section with the following information for each DSM program:

- Program, initiative and/or project descriptions
- Description of program changes
- Program evaluation update[3]
- Program details including specific measures, incentives, and eligibility requirements

2024-2025 Budget and Savings by Program

Table 1 below provides the 2024-2025 savings targets and the DSM Business Plan forecast savings. Tables 2 and 3 below provide the projected savings and expenditures by program, initiative, and sector to achieve the savings targets in Table 1. The "Total PacifiCorp Conservation" row, which excludes costs and savings associated with NEEA initiatives, is directly comparable to the Energy Independence Act (EIA) Penalty Threshold. As shown, the Company is projecting to acquire 80,991 MWh in savings over the biennial period, which exceeds the EIA Penalty Threshold of 74,839 MWh (at site, excluding line losses) and the decoupling commitment of 4,249 MWh (excluding line losses).

Table 1 – Savings Targets and DSM Business Plan Savings Forecast

Category	2024-2025		2024-2025 DSM Business Plan	Forecast % of Target
	Gross MWh Savings @site	Gross MWh Savings @gen	Gross MWh Savings @site	
i. Ten-year potential:	406,486	436,741		
ii. Two-year EIA target (includes NEEA):	84,971	91,318	91,123	107%
iii. Two-year EIA Penalty Threshold (excludes NEEA):	74,839	80,410	80,991	108%
iv. Two-year Decoupling Penalty Threshold (5% of EIA Target):	4,249	4,566		
v. Two-Year Utility Conservation Goal (EIA Target + Decoupling):	89,220	95,884	91,123	102%
NEEA	10,132	10,908		

[2] The Company refers to this test as the PacifiCorp Total Resource Cost test, or PTRC, to distinguish in from a TRC test without the 10 percent Northwest Power Act credit.
[3] Final evaluation reports are available on the Company's website at: https://www.pacificorp.com/environment/demand-side-management.html.

Table 2 –DSM Business Plan Savings and Expenditure Forecast

2024-2025 DSM Business Plan Savings and Expenditures Forecast		
	MWh @ site	$
Residential efficiency programs	17,750	$ 18,395,915
Non-residential efficiency program	63,013	$ 27,426,680
Northwest Energy Efficiency Alliance (NEEA)	10,132	$ 1,939,531
Distribution Efficiency	227	
Production Efficiency	1	
Portfolio expenses		$ 1,553,887
Total	91,123	$ 49,316,013
2024-2025 Total Portfolio Benefit Cost Ratios (including NEEA and Non-Energy Impacts)		
PacifiCorp Total Resource Cost Test (PTRC)		1.52
Utility Cost Test		1.42

Table 3. 2024 - 2025 Biennial Savings and Budget Projections by Program

	2024 PacifiCorp Washington Conservation Estimates			2025 PacifiCorp Washington Conservation Estimates			2024 + 2025	2024 + 2025	2024 + 2025
Program or Initiative	**Gross kWh/Yr Savings @site**	**Gross kWh/Yr Savings @gen**	**Estimated Expenditures**	**Gross kWh/Yr Savings @site**	**Gross kWh/Yr Savings @gen**	**Estimated Expenditures**	**Gross MWh Savings @site**	**Gross MWh Savings @gen**	**Estimated Expenditures**
Low Income Weatherization (114) [1]	179,524	193,304	$ 1,549,500	179,524	193,304	$ 1,589,060	359	387	$ 3,138,560
Home Energy Savings (118) [2]	4,411,367	4,749,983	$ 6,803,544	5,026,161	5,411,969	$ 7,785,282	9,438	10,162	$ 14,588,826
Home Energy Reports (N/A) [3]	4,212,000	4,535,313	$ 330,101	3,741,000	4,028,159	$ 338,427	7,953	8,563	$ 668,529
Total Residential Programs	**8,802,891**	**9,478,601**	**$ 8,683,145**	**8,946,685**	**9,633,433**	**$ 9,712,770**	**17,750**	**19,112**	**$ 18,395,915**
Wattsmart Business (140) - Commercial	23,629,370	25,425,674	$ 10,518,281	24,776,945	26,660,488	$ 11,109,429	48,406	52,086	$ 21,627,709
Wattsmart Business (140) - Industrial	6,761,000	7,221,762	$ 2,646,595	6,480,625	6,922,280	$ 2,592,714	13,242	14,144	$ 5,239,309
Wattsmart Business (140) - Irrigation	672,498	724,119	$ 275,785	692,498	745,654	$ 283,876	1,365	1,470	$ 559,661
Total Business Programs	**31,062,868**	**33,371,556**	**$ 13,440,661**	**31,950,068**	**34,328,422**	**$ 13,986,018**	**63,013**	**67,700**	**$ 27,426,680**
Northwest Energy Efficiency Alliance [4]	4,471,095	4,813,755	$ 950,118	5,660,650	6,094,334	$ 989,413	10,132	10,908	$ 1,939,531
Distribution Efficiency	-	-		227,000	243,993		227	244	
Production Efficiency	630	630		630	630		1	1	
Total Other Conservation Initiatives	**4,471,725**	**4,814,385**	**$ 950,118**	**5,888,280**	**6,338,957**	**$ 989,413**	**10,360**	**11,153**	**$ 1,939,531**
Be wattsmart, Begin at Home			$ 71,758			$ 73,552			$ 145,310
Customer outreach/communication			$ 250,000			$ 250,000			$ 500,000
Program Evaluations (& savings verification) [5]			$ 293,885			$ 167,584			$ 461,469
Potential study update/analysis [6]			$ 120,000			$ 25,000			$ 145,000
System Support [7]			$ 68,416			$ 68,416			$ 136,832
End use load research			$ 20,700			$ 43,200			$ 63,900
Regional Technical Forum (RTF) funding			$ 50,688			$ 50,688			$ 101,376
Total Portfolio-Level Expenses			**$ 875,447**			**$ 678,440**			**$ 1,553,887**
Total PacifiCorp Conservation [8]	**39,866,389**	**42,850,786**	**$ 22,999,254**	**41,124,383**	**44,206,478**	**$ 24,377,228**	**80,991**	**87,057**	**$ 47,376,482**
Total System Benefits Charge Conservation	**44,337,483**	**47,664,541**	**$ 23,949,372**	**46,785,032**	**50,300,811**	**$ 25,366,641**	**91,123**	**97,965**	**$ 49,316,013**
Total Conservation	**44,337,483**	**47,664,541**	**$ 23,949,372**	**46,785,032**	**50,300,811**	**$ 25,366,641**	**91,123**	**97,965**	**$ 49,316,013**

Notes for Table 3:

1. Low-income Weatherization forecasts for 2024 and 2025 savings and expenditures are based on recent data from the community action agencies. The forecast includes bundled savings with a per-home annual savings of 1,301 kilowatt-hour (kWh) from the 2016-2017 program evaluation plus savings for ductless heat pumps.

2. The forecast for Home Energy Savings includes the impacts of adjustments for updated cost and savings information for certain appliances, lighting, building shell and heating, ventilation and air-conditioning (HVAC) measures. Updated information becomes available as the Regional Technical Forum (RTF) updates deemed measures and changes to the Washington State Energy Code (WSEC) take effect. Updates are further explained in "Appendix 1 Conservation Forecast Adjustments" to the Company's Biennial Conservation Plan.

3. The Home Energy Reports behavioral program forecast is provided by the program implementer and is based on continuing to treat the groups from the 2020-2021 biennial period. New treatment and control groups were developed as part of the 2020-2021 plan and were expanded during the period. One new set of treatment and control groups was developed in September 2023 to refill participation lost due to attrition. This refill treatment group will begin receiving usage reports and energy savings recommendations in Q4 2023. The forecast, and associated cost-effectiveness analysis assumes a one-year measure life. First year savings as measured by program impact evaluations will be counted toward the EIA Penalty Threshold. Normal attrition from the program over time is reflected in the slight downward savings in year two compared to year one.

4. Includes both Pacific Power's direct funding of NEEA and the Company's internal management costs. NEEA 2024 and 2025 forecasted expenditures are based on Pacific Power's share (2.55%) of the estimated annual costs provided by NEEA staff. The 2024-2025 biennial electric savings forecast was provided by NEEA and includes savings above the Northwest Power and Conservation Council's 2021 power plan baseline and includes updates to measures performed by the RTF and excludes the estimate of savings from local programs including those operated by Pacific Power and the rest of the region's utilities/program administrators. See the Biennial Conservation Target section of the 2024-2025 Biennial Conservation Plan for Pacific Power treatment of NEEA savings consistent with the Statewide Advisory Group.

5. For detail on planned evaluations, see the program detail sections in this Business Plan.

6. Potential study update and analysis costs for 2024 and 2025, represent estimated study costs for the 2025 Conservation Potential Assessment. These costs are subject to change as new requirements and processes become effective. Per Pacific Power's Evaluation, Measurement & Verification (EM&V) framework, these costs are not included in program cost-effectiveness analysis.

7. System Support costs, including Measure Library and Demand-side Management Central (DSMC) costs, are the costs necessary for on-going maintenance and updates to the system. Per Pacific Power's EM&V framework, these costs are not included in program- or portfolio-level cost-effectiveness analysis.

8. Excludes costs and savings associated with NEEA initiatives. Savings in this row are directly comparable to the Company's EIA Penalty Threshold.

Direct Benefits to Customers

Estimates of direct benefits to customers delivered by the 2024 - 2025 expenditures including all portfolio costs are provided in Table 4. This additional metric to assess program impacts is consistent with conversations between Commission Staff and the Company that occurred during the preparation of prior conservation plan(s) and reports. Direct benefits are in addition to the benefits all customers receive through implementation of cost-effective energy efficiency resources: lower energy costs.

Table 4. Direct Benefits to Customers Including Portfolio Expenses

Program or Initiative	Estimated Expenditures	Direct Benefit to Customer ($)	Direct Benefit to Customer (%)
Low Income Weatherization (114)	$ 3,138,560	$ 2,694,400	86%
Home Energy Savings (118)	$ 14,588,826	$ 5,488,136	38%
Home Energy Reports (N/A)	$ 668,529		
Total Residential Programs	**$ 18,395,915**	**$ 8,182,536**	**44%**
Wattsmart Business (140) - Commercial	$ 21,627,709	$ 15,625,132	
Wattsmart Business (140) - Industrial	$ 5,239,309	$ 3,654,393	
Wattsmart Business (140) - Irrigation	$ 559,661	$ 281,148	
Total Business Programs	**$ 27,426,680**	**$ 19,560,673**	**71%**
Northwest Energy Efficiency Alliance	$ 1,939,531	$ 1,344,789	69%
Distribution Efficiency	$ -		
Production Efficiency	$ -		
Total Other Conservation Initiatives	**$ 1,939,531**		
Be wattsmart, Begin at Home	$ 145,310		
Customer outreach/communication	$ 500,000		
Program Evaluations (& savings verification)	$ 461,469		
Potential study update/analysis	$ 145,000		
Systems Support	$ 136,832		
End use load research	$ 63,900		
Regional Technical Forum (RTF) funding	$ 101,376		
Total Portfolio-Level Expenses	**$ 1,553,887**		
Total PacifiCorp Conservation	**$ 47,376,482**	**$ 27,743,209**	**59%**
Total System Benefits Charge Conservation	**$ 49,316,013**	**$ 29,087,998**	**59%**
Total Conservation	**$ 49,316,013**	**$ 29,087,998**	**59%**

Notes for Table 4

- Low Income Weatherization: Payments to community action agencies for measure installation are included as direct benefits to customers.
- Home Energy Savings: Customer and vendor incentives and costs for direct install measures (provided at no cost to the customer) are included as direct benefits to customers.

- Wattsmart Business: Customer and vendor incentives and expenditures for customer site-specific energy engineering ($1,406,960) are included as direct benefits to customers.
- NEEA: Company subtracted $18,404 in estimated internal management costs and then applied the 70 percent estimate provided by UTC Staff to NEEA funding to calculate the direct benefit to customers.

Pilots

Pursuant to Washington Administrative Code (WAC) 480-109-100 (1) (c), the Company must implement pilot projects when appropriate and as long as the overall portfolio remains cost effective. In considering which pilots to pursue, the Company focused on pilots that 1) make sense given its unique service territory (small towns and rural), 2) are resource efficient and build on prior work, 3) increase savings acquisition now or in the future, and/or 4) address an identified need or barrier. Pilots described here have been presented to the Company's DSM Advisory Group and Equity Advisory Group for review and comment. Using the existing programs described in detail below, the Company plans to pursue the following pilot initiatives in 2024-2025.

On-Bill Financing for residential customers including owned manufactured homes located on rented space and homes on tribal trust lands

- **Purpose**: Reduce the upfront cost barrier to participation in residential energy efficiency programs by offering on-bill financing, including for manufactured homes on rented space and homes on tribal trust lands. This offer further complements the third-party financing for residential and business customers currently being offered Craft3. Craft3 is able to offer this funding through a grant award from the Energy Revolving Loan Fund administered by the Washington State Department of Commerce.
- **Costs**: No additional start-up costs in 2024-2025 or per application costs for secured loans. For unsecured loans, Craft3 will receive $200 per funded loan application, and $300 per application underwriting fee (regardless of loan funding). Craft3 reports that unsecured lending in manufactured home parks tends to be higher touch, requiring additional due diligence on the part of the lender, and this is the reason for the application fees. Costs will be included as a residential program expense and recovered through the System Benefits Charge and are included in the expenditure forecast for Home Energy Savings. Pacific Power internal on-going loan administration costs will also be included as a program expense and recovered through the tariff rider. Pacific Power is not loaning its own funds and will not be receiving any interest income from loan payments.
- **Size**: The Company expects between 100-200 completed loans over the two-year period.
- **History:** Builds on work from pilot in prior biennial periods.
- **Implementation**: Build upon current experience utilizing Craft3, to operate as funder and loan administrator for on-bill financing for residential customers who participate in the Home Energy Savings program. Financing will be available for the net (after incentives) costs of equipment eligible for Home Energy Savings incentives (including critical repair costs).
- **Marketing**: Home must be in good condition and built after June 15, 1976 (the first HUD standard). The offer will be marketed primarily through installing contractors and the program administrator. Craft3 will work jointly to identify and train contractors. Marketing and screening will be in place to help ensure customers eligible for low-income services

are directed to the community action agencies instead of participating in the loan offer. Individual loan offers are subject to both customer and home park screening by Craft3.

Manufactured Homes Targeted Delivery

- **Purpose:** Increase installation of energy efficiency measures within new and existing manufactured homes.
- **Costs:** Costs are included in the existing program delivery and incentive budgets for the biennial period.
- **Size:** The Program Administrator expects 500-1,000 manufactured home projects over the two-year period.
- **History:** Builds on work from pilot in prior biennial periods.
- **Implementation:** Build awareness and utilization of available customer incentives for manufactured home measures, including new manufactured homes and existing manufactured home duct sealing, direct install lighting, heat pumps, evaporative coolers, central air, windows, and insulation.
- **Marketing:** Utilize geo-targeted analysis, marketing, outreach and lead sharing methods to optimally reach customers, including customers in underserved areas or non-participating areas.

Heat Pump Water Heaters Online Platform/Direct Delivery

- **Purpose:** Increase installation of energy efficient heat pump water heaters through additional delivery method and compare results against existing HPWH participation levels.
- **Costs:** Costs are included in the existing program delivery and incentive budgets for the biennial period.
- **Size:** The Program Administrator expects 100-120 projects over the two-year period.
- **History:** Heat Pump Water Heaters are an existing measure and NEEA initiative, but this technology has seen low participation rates in the program as well as regionally. Approach and results will be shared with NEEA's Products Coordinating Committee.
- **Implementation:** In Q4 2023, adding heat pump water heaters to a new online platform that offers direct shipment and fixed fee installation of heat pump water heaters.
- **Marketing:** Using multi-channel marketing, the measure will be promoted to customers via email, direct mail and bill inserts, which will drive participation to the online platform.

Geo-Targeted Energy Efficiency

- **Purpose:** Focus on increasing participation in specific area(s) where additional value such as preventing or deferring possible infrastructure investments has been identified
- **Costs:** Costs are included in the existing program delivery and incentive budgets for the biennial period.
- **Size:** to be determined.
- **History:** Builds on work from pilot in prior biennial periods. Two circuits (5Y164 and 5Y380) in the Yakima area were identified for geo-targeting for the 2022-2023 biennium. The work in 2022-2023 targeting 5Y380, while successful, did not occur fast enough to defer distribution investment, and this circuit is no longer a good candidate for targeting.

5Y164 is the same feeder identified for distribution efficiency investments[4] that are scheduled, so it most likely is too late to defer this investment.

- **Implementation:** For 5Y164, work with distribution planning to confirm if continuing the geo-targeting for this circuit makes sense or not. Two more circuits served from Grandview substation, 5Y302 and 5Y304, have been identified and are currently being reviewed for possible targeting in 2024-2025.
- **Marketing:** The targeting effort includes increasing the frequency of existing program outreach tactics including direct mail/email, trade ally engagement and personal selling.

Non-Residential Lighting Controls

- **Purpose:** Increase installation of lighting controls as part of business customer lighting retrofit projects.
- **Costs:** Included in existing program delivery budgets.
- **Size:** Up to 160 projects (approximately 80 per year).
- **History:** Continuation of pilot from the last biennial periods as part of an overall effort in the region to build momentum and market support for advanced lighting controls.
- **Implementation:** Leverage NEEA's Luminaire Level Lighting Control (LLLC) initiative including vendor training support. Customer incentives are structured so that lighting upgrades combined with advanced networked lighting controls provide the highest incentive for lighting projects. Continue and evolve vendor incentives for lighting controls.
- **Marketing:** NXT Level training and good/better/best communications, continuing and improving lighting controls training for vendors, and providing outreach coordinator feedback to approved Wattsmart Business Vendors on lighting control opportunities in their projects.

Clean Buildings Accelerator

- **Purpose:** Help building owners who must comply with the Clean Buildings law (House Bill 1257 – Tier 1, buildings greater than 50,000 square feet, Senate Bill 5722 – Tier 2, buildings 20,000 – 50,000 square feet) get a jump start while also identifying savings opportunities and achieving savings results (reported in the Wattsmart Business program).
- **Costs:** Costs are included in the Wattsmart Business program delivery and incentive budgets for the biennial period.
- **Size:** Up to 40 buildings (approximately 10-20 buildings per year in 2024 and 2025).
- **History:** Builds on work from pilot in prior biennial period
- **Implementation**: Continue to leverage Puget Sound Energy development work that lead to Clean Buildings Accelerator offer in Wattsmart Business for buildings located in Pacific Power's service area. Outreach for the offer will include customers in Highly Impacted Communities and other customers who may lack resources to get started with Clean Buildings. Services and incentives will be offered as part of the Wattsmart Business Strategic Energy Management offer. Services may include:
    - Coffee chats to provide general information and enroll customers
    - Sprints including monthly virtual workshops for 4 months
    - Virtual energy scans to identify energy savings opportunities
    - Cohort elevate workshops (quarterly for graduates)

[4] See Distribution Efficiency sections in 2024-2025 Biennial Conservation Plan

- Coaching calls
- Energy Star Portfolio Manager training

Clean Energy Implementation Plan – Utility Actions

The energy efficiency utility actions are intended to increase focus and delivery of program services to Named Communities, increase participation for customers located in Highly Impacted Communities[5] and improve participation for Vulnerable Populations. Utility Actions for 2022-2023 remain as stated in the Clean Energy Implementation Plan. The Company updated the utility actions for 2024-2025 to clarify the tie from the utility actions to the CBI metrics and/or Vulnerable Population participation and to make adaptive management improvements. The Company shared the updated 2024-2025 utility actions with the DSM Advisory Group and the Equity Advisory Group to seek input prior to finalizing. The estimated 2024-2025 CETA Incremental Costs associated with these utility actions are provided in the Clean Energy Implementation Plan Biennial Update.[6]

Communications:
Continue to support programs with an increased equity focus using effective communication strategies to reach Named Communities.

- Continue to increase culturally and linguistically responsive outreach and marketing to increase awareness of energy and conservation programs
- Continue to expand in-language services across written, spoken, and visual communications
    - As appropriate, include Spanish versions of collateral at community events that Pacific Power is sponsoring. Have interpreters and translated materials at public meetings.
    - Promote energy efficiency programs on appropriate Spanish-language media, directing customers to Spanish-language web pages. Where possible, use local, trusted messengers.

Residential:
Home Energy Savings:

Home Energy Savings program implementation and delivery will focus effort on increasing CBI metrics through enhanced incentives, new and continuing program offerings and support to increase participation in energy efficiency options for customers living in Highly Impacted Communities. In addition, Home Energy Savings will continue to provide services and support for customers in Vulnerable Populations.

Actions to serve Highly Impacted Communities

[5] The results will be reflected in the energy efficiency Customer Benefit Indicator Metrics.
[6] See Clean Energy Implementation Plan Biennial Update, Chapter 4, Incremental Cost, Non-modelled Incremental Cost.

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

Actions to serve Vulnerable Populations (renters, language)

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

Low Income Weatherization:

Actions to serve Vulnerable Populations (low income)

- Continue to allow reimbursement for repairs up to 30 percent of the annual reimbursement on energy efficient measures received (increased from 15% in 2022).
- Continue to allow installation of electric heat to replace permanently installed electric heat, space heaters or any fuel source except natural gas with adequate combustion air as determined by the Agency. This is designed to promote the installation of electric heat and

minimize use of wood heat, solid fuels, or natural draft equipment in specific applications where combustion safety (and indoor air quality) cannot be maintained.

Non-residential:

Wattsmart Business:

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

Participation Tracking and Reporting:

Continue to track program participation for the following and include in annual reports. Refine questions starting in 2024 related to language spoken and rent/lease to better align with data needed on these Vulnerable Populations for Clean Energy Implementation Plan progress reporting.

- Low Income Weatherization
  - Participants located in a Highly Impacted Community
  - Vulnerable Populations:
    - Language - Participants where the primary language spoken in the household is other than English
    - Renters - Participants who rent or lease rather than own (home is a rental)
    - Low income – all participants
  - Participants living in a manufactured home

- Home Energy Savings

- Participants located in a Highly Impacted Community
- Vulnerable Populations:
  - Language - Participants where the primary language spoken in the household is other than English
  - Renters - Participants who rent or lease rather than own (identify and track participation for rental properties)
- Participants living in a manufactured home

- Wattsmart Business (except midstream)
  - Participants located in a Highly Impacted Community
  - Participants where the primary language spoken at the project site is other than English
  - Participants who rent or lease rather than own
  - Participants who are smaller businesses (e.g., account associated with project receives electric service on Schedule 24)

Residential Program Details

Home Energy Savings (Schedule 118)

Years of Implementation
Pacific Power Electric Service Schedule No. 118 for the Home Energy Savings Program was submitted under Advice Letter No. 06-004 on August 11, 2006. The program was initially approved with an effective date of September 14, 2006.

Program Description
The program provides a broad framework to deliver incentives for more efficient products and services for Washington residential customers with a new or existing home, multifamily unit or manufactured home. A third-party administrator hired by the Company delivers the savings and incentives of the program. Operating in tandem, Schedule 118 and the program website (http://www.homeenergysavings.net/Washington/washington_home.html) inform customers and contractors of the offerings and qualifications for incentives.

Measures eligible for incentives include efficient clothes washers, heat pump water heaters, heating and cooling equipment, HVAC equipment, air purifiers, insulation, windows and more. In addition, the program includes a performance path option for new homes and separate measures for manufactured and multifamily homes.

Incentives are provided in three ways: post-purchase delivery to the customer for the majority of measures, through instant discounts at retailers or online limited time offerings, and direct installation of a measure, such as duct sealing where the program pays all of the measure and installation cost so there is no cost to the customer. Instant discounts result in lower retail prices for customers at the point of purchase as opposed to post-purchase incentives that customers must submit an application to receive.

Home Energy Savings communications and website inform and direct customers to other funding or tax credit sources available for specific measures that can be jointly leveraged with program rebates. Outreach staff provide information on these other sources of support to trade allies and customers that are considering efficiency.

Financing re-paid on the customer's Pacific Power bill ("on-bill financing") will continue to be administered by Craft3 in partnership with Pacific Power to provide customers with this type of financing option for efficiency upgrades. This offer is called Home Energy Loans[7] and is promoted on the Home Energy Savings website[8] and by participating Wattsmart vendors.

Complete details on incentives and services are on the program website https://wattsmartsavings.net/washington-residential/ and in the tables and copy of the program tariff below.

See the Clean Energy Implementation Plan Utility Actions section above for specific utility actions related to Home Energy Savings. These actions are intended to improve Named Community customer participation. The equity focus areas for Home Energy Savings are reaching residential customers located in Highly Impacted Communities, and reaching Vulnerable Populations including renters and households where the primary language spoken is other than English (primarily focused on Spanish speakers).

Pacific Power expects to begin enrolling customers in Q4 2023 in Optimal Time Rewards, a residential demand response program. This program controls heating/cooling load by connecting to smart thermostats, and controls water heaters (electric) through program-provided Wi-Fi-enabled devices. The program design focuses on large multifamily properties for water heater enrollment. Below are the Home Energy Savings program co-deployment plans for this residential Demand Response program in 2024-2025:

- For thermostats, information on steps to take (enroll your thermostat with the manufacturer) and available demand response incentives (for thermostats enrolled with manufacturer) will be provided, where practical, to customers who are considering a purchase eligible for energy efficiency incentives. Information on available energy efficiency incentives will be provided, where practical, to customers considering whether to enroll a thermostat in the demand response program. Implementers for both programs will coordinate on an ad hoc basis to exchange information on equipment lists, market conditions, trade allies, retailers, tactics, and promotions as applicable.

- For water heaters, information on multifamily energy efficiency offers will be provided, where practical, to building owners and property managers during the demand response sales process. Implementers for both programs will coordinate on an ad hoc basis to exchange information on market conditions, trade allies, retailers, tactics and promotions as applicable.

[7] Pacific Power Wash: Finance Home Energy Efficiency | Craft3

[8] Financing | Wattsmart Savings

Home Energy Savings Program Updates

Home Energy Savings was updated in September 2023 using the program change process (including Advisory Group review and comment) described below. The changes are effective on January 1, 2024. The information provided in this business plan reflects the program offers/qualification effective January 1, 2024.

Program Changes for 2024

Changes are part of the adaptive management strategy for the Home Energy Savings program for the 2024-2025 biennium and are designed to increase residential energy savings and help achieve the Energy Independence Act targets. Higher customer and trade ally incentives are intended to offset increased equipment costs and labor shortages that have developed in conjunction with COVID. Changes are also intended to increase the equitable distribution of benefits and inform utility actions specific to the Clean Energy Transformation ACT (CETA). Highlights of the changes effective January 1, 2024, are provided below:

- Add new measures:
  - Low-E storm windows for single family and multifamily homes
- Increase customer and trade ally incentives for:
  - HVAC including heat pumps and smart thermostats
  - Building shell/windows
  - Water heating measures
  - Air purifiers
  - Engine block heater controls
  - Smart thermostat direct-install increase for installation contractors
- Changes to incentive structures:
  - Electric line voltage connected thermostats incentive modification to discontinue direct-install and increase retail incentive for customers.
  - Differentiate direct install lighting in Lighting Incentives table to specify different incentives.
- Increased targeting for measure delivery
  - End retail lamp buydown for general service lamps in “dollar stores” and replace with community based LED bulb distribution to Highly Impacted Communities and Vulnerable Populations. This offering is an equity based approach that will not have associated energy savings but will serve as an entry point for engagement with named communities.
  - New market channel for heat pump water heaters using an online platform for customers to receive a direct shipment with the option to self-install or have a fixed fee installation by a trade ally.
  - Provide incentive structure for customers that want to self-install heat pumps and heat pump water heaters.

- Begin to leverage the direct-install contracting crews to promote other measures beyond direct-install and provide information to customers on additional program offers and services.
- Initiate a marketing campaign to promote additional measures to customers that previously participated in a direct-install program.

- Align with the latest unit energy savings (UES) from the RTF.

Future changes including measure additions, deletions, and changes in qualifying standards will be based on cost-effectiveness, evaluation findings, participation and evolving codes and standards. In addition, the program is reviewed during the first year of the biennial period year and any changes from updated RTF information as of October 1 are incorporated through the program change process to be effective on January 1 of the second year of the biennial period.

Evaluation Update

Last Evaluation Report:

Program Years	Evaluation Report Date	Completed by
2019-2020	September 2021	ADM Associates, Inc.

Future Evaluation Report(s):

Program Years	Evaluation Report Date	Completed by
2021-2022	Pending September 2023	ADM Associates, Inc.

Program Years	Evaluation Report Date	To be Completed by
2023-2024	Due in 2025	ADM Associates, Inc.

Program Details

General program details for this program are contained in the program tariff; additional program details are available on the program website. Any changes to the details included in the program tariff must be filed and approved by the Commission prior to becoming effective. In addition, there are program details managed outside of the program tariff. The program tariff and the text below from the Advice Letter (Docket UE-061297), filed August 11, 2006, describe the information that is managed outside of the tariff and the process for changes.

> The comprehensive nature of the program and changing equipment standards indicate a flexible and market-driven program delivery is required. The Company is proposing that Schedule 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 such as 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 Company web site.
>
> Changes in equipment eligibility or minimum efficiency levels would be driven by program and market data. The Company and program administrator will be assessing program performance on an on-going basis and proposing changes at least once per year. Changes may be proposed more frequently if there is compelling

market feedback that changes need to occur ahead of the annual changes. Similar to the filing process, the Company would present information on proposed changes to its Advisory Group and seek comments prior to making changes. Changes in equipment specifications or incentive levels would be clearly posted on the Web site and emailed to the appropriate Commission staff person with at least 45 days advance notice.

The incentive tables and program definitions are managed outside of the program tariff on the Company website: https://wattsmartsavings.net/washington-residential/faqs-wa/[9] via the process described above.

The current information for the program can be found on the Company's website at Choices for Homes (pacificpower.net) or www.bewattsmart.com.

Washington Home Energy Savings
Effective 1/1/2024

APPLICABLE:
To new and existing residential customers in all territory served by Pacific Power in the state of Washington billed on Schedules 16, 17, 18 and 19. Landlords who own rental properties served by Pacific Power in the state of Washington where the tenant is billed on listed Schedules 16, 17, 18 or 19 also qualify for this program.

Definitions

British Thermal Unit (Btu): It is approximately the amount of energy needed to heat 1 pound of water from 39° to 40° Fahrenheit.

Contractor: Any party that is licensed to install or service HVAC, plumbing, or weatherization equipment or products.

Cubic Feet per Minute (CFM): A measurement of the velocity at which air flows into or out of a space.

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

Direct Install: Installation of an Energy Efficiency Measure directly by the Program, or a Program-approved contractor or other 3rd party.

[9] Click on "Incentive Tables" in the Customer Support sidebar for the current incentive tables and program definitions.

Downstream: Payment of incentive made by the Company to a customer, owner, contractor or other approved third party for the purchase or installation of an Energy Efficiency Measure pursuant to an approved energy efficiency incentive application.

Energy Efficiency Incentive: Payments of money made by Company to Owner or Customer or other approved party for installation of an Energy Efficiency Measure pursuant to an approved Energy Efficiency Incentive Application.

Gallons Per Minute (GPM): Volumetric flow rate used in rating equipment which saves water

Heating Seasonal Performance Factor (HSPF): Is the efficiency of heat pumps measured by the ratio of Btu heat output over the heating season to watt-hours of electricity used. The higher the number, the greater the efficiency.

Heating, Ventilation and Air Conditioning (HVAC): Refers to technology of indoor environmental comfort.

Integrated Modified Energy Factor (IMEF): Measures energy consumption of the total laundry cycle (washing and drying). It indicates how many cubic feet of laundry can be washed and dried with one kWh of electricity; the higher the number, the greater the efficiency.

Light Emitting Diode (LED): A semiconductor light source.

Manufactured Homes (mobile homes): A type of prefabricated housing that is largely assembled in factories and transported to the site of use. Units are at least 320 square feet and installed with a permanent chassis to assure the initial and continued transportability of the home.

Market Partner: An approved third party (contractor, retailer, dealer, wholesaler or manufacturer) who installs Energy Efficiency Measures at the real property or sells Energy Efficiency Measures to a Customer or Contractor. Applies to parties in the downstream, midstream, upstream, or direct install delivery channels.

Northwest Energy Efficient Manufactured Home (NEEM): Organization based in the Northwest that certifies new manufactured homes are built to various energy efficient standards such as ENERGY STAR or eco-rated.

New Home: A newly constructed single-family residence or a complete remodel of an existing structure into a new living space.

Owner: The person who has both legal and beneficial title to the real property, and is the mortgager under a duly recorded mortgage of real property, the trustor under a duly recorded deed of trust.

Prescriptive incentives: Per unit incentives are listed in the program incentive tables for specific EEMs. Incentives are subject to change.

RTF: Regional Technical Forum

R-Value: Indicates insulation's resistance to heat flow. The higher the R-value, the greater the insulating effectiveness.

Seasonal Energy Efficiency Ratio (SEER): Is the efficiency of air conditioners measured by the cooling output in Btu during a typical cooling-season divided by the total electric energy input in watt-hours during the same period. The higher the unit's SEER rating the more energy efficient it is.

Utility Combined Energy Factor (UCEF): ENERGY STAR uses Combined Energy Factor to compare the energy efficiency of gas and electric clothes dryers in pounds per kilowatt hour. The higher the value, the more efficient the dryer is.

U-Factor: Measures the rate of heat transfer and indicates how well the window insulates. U-factor values generally range from 0.25 to 1.25 and are measured in Btu/h·ft²·°F. The lower the U-factor, the better the window insulates.

Upstream: Payment of incentive made by the Company directly to a manufacturer, retailer, or other pre-approved vendor to apply a pre-purchase discount for customers.

Incentives

Table 1 - Appliance Incentives

Measure	Qualifications	Customer Incentive	Market Partner Incentive
Clothes Washers	IMEF ≥ 2.76	$62	
Hybrid/Heat Pump Clothes Dryer	UCEF ≥ 3.20	$750	

Notes for appliance incentives table:

- Incentives for clothes washer apply to mid/upstream and/or downstream. Only one incentive will be provided per qualifying clothes washer.
- Incentives for clothes washers may be paid to the customer, retailer, and/or manufacturer and may be split between customer, retailer, and/or manufacturer. The sum of incentive payments per unit will not exceed the amounts listed in the table. The end use customer portion of the incentive will clearly be displayed on the website with applicable dates. The end use portion of the incentive may be changed.
- Homes must have either an electric water heating or an electric dryer heat for clothes washers to be eligible for incentives.
- Incentives for hybrid/heat pump clothes dryer apply to mid/upstream and/or downstream. Only one incentive will be provided per qualifying clothes dryer.

- Incentives for hybrid/heat pump clothes dryers may be paid to the customer, retailer, and/or manufacturer and may be split between customer, retailer, and/or manufacturer. The sum of incentive payments per unit will not exceed the amounts listed in the table. The end use customer portion of the incentive will clearly be displayed on the website with applicable dates. The end use portion of the incentive may be changed.

  See additional requirements on the program website.
- Acronyms:
  IMEF: Integrated Modified Energy Factor
  UCEF: Utility Combined Energy Factor

Table 2 - Lighting Incentives

Measure	Qualifications	Customer Incentive	Market Partner Incentive
LED Bulbs (General Purpose) – Direct Install	Qualified Product List	$0	Up to $6.00
LED Bulbs (Specialty) – Direct Install	Qualified Product List	$0	Up to $9.00
LED Fixtures – Direct Install	Qualified Product List	$0	Up to $23.00
LED Lamps – Direct Install	Qualified Product List	$0	Up to $12.00

Notes for lighting incentive table:

- Direct install measures are offered on an initiative basis and may not be available for the entire year. See the program website for availability information.
- LED bulbs and fixtures must be listed on the program's qualified product list on the program website in order to qualify for an incentive.
- Acronyms:

  LED: Light Emitting Diode

Table 3 – Single Family HVAC Incentives

Measure	Qualifications	Customer Incentive	Market Partner Incentive
Evaporative Coolers -2,000-3,499 CFM	2,000-3,499 CFM	$62	

Evaporative Coolers – 3,500+ CFM	Minimum 3,500 CFM (must be the primary cooling source)	$312	
Central Air Conditioner	≥15 SEER Central air conditioner must be installed and sized per program's requirements.	$93	$62
Duct Sealing and Insulation	$R_{initial} \leq 2$ and replace all existing insulation with at least R-8. Home's primary heat source must be either a heat pump or electric forced air furnace. Existing ducts must be unsealed. Duct sealing must be done per program's requirements.	$750	$250
Duct Sealing (not Direct Install)	Home's primary heat source must be either a ducted heat pump or electric forced air furnace. Insulation removed for purposes of sealing must be reinstalled or replaced after sealing is completed. Existing ducts must be unsealed. Duct sealing must be done per program's requirements.	$500	
Duct Sealing (Direct Install)	Test and Seal: Home's primary heat source must be either a ducted heat pump or electric forced air furnace. Insulation removed for purposes of sealing must be reinstalled or replaced after sealing is completed. Existing ducts must be unsealed. Duct sealing must be done per program's requirements.	$0	$500
	Test Only: Home's primary heat source must be either a ducted heat pump or electric forced air furnace.	$0	$80
Ductless Heat Pump	≥ 9.0 HSPF, single-head or multi-head unit. Home's previous primary heating source must either have been an electric forced air furnace or a zonal electric system.	$1,600	$400

	≥ 9.0 HSPF, single-head or multi-head unit. Home's previous primary heating source may be any non-electric and non-natural gas heating system (i.e., wood, propane, and heating oil).	$1,800	$400
Electronic Line Voltage Connected Thermostat	Retail: Must have 7-day programming scheduling and must be Wi-Fi enabled (or via bridge) with remote access. Home's primary heating source must be an electric zonal heating system.	$56	$0
	Direct Install: Must have 7-day programming scheduling and must be Wi-Fi enabled (or via bridge) with remote access. Homes primary heating source must be an electric zonal heating system.	$0	$100
Federal Standard Heat Pump Conversion	For replacement of existing electric resistance heating system with new federal standard efficiency heat pump. Heat Pump must include Best Practices Installation & Proper Sizing.	$2,000	$500
	For replacement of existing non-electric and non-natural gas heating system (i.e., wood, propane, and heating oil) with new high efficiency heat pump. Heat pump must include Best Practices Installation & Proper Sizing.	$2,250	$500
10.0+ HSPF Heat Pump Conversion	For replacement of existing electric resistance heating system with new high efficiency heat pump. Heat pump must include Best Practices Installation & Proper Sizing.	$2,750	$750
	For replacement of existing non-electric and non-natural gas heating system (i.e., wood, propane, and heating oil) with new high efficiency heat pump. Heat pump must include Best Practices Installation & Proper Sizing.	$3,000	$750
Heat Pump Upgrade	For upgrade of existing heat pump to new high efficiency heat pump. ≥ 10.0 HSPF must include Best Practices Installation & Proper Sizing.	$300	$125
Smart Thermostat		Retail: $100	$0

	Unit must be on Energy Star Qualified Products List. Measure is available in retail and direct install delivery.	$0	Direct Install: $150

Notes for HVAC incentive table:

- Incentives for all HVAC measures apply to downstream and/or mid/upstream. Only one incentive will be provided per unit.
- Incentives may be paid to the customer, dealer, manufacturer, and/or trade ally and may be split between customer, dealer, manufacturer, and/or trade ally. The sum of the incentive payments per unit will clearly be displayed on the website with applicable dates. The end use portion of the incentive may be changed.
- Maximum of 10 line voltage thermostats per household.
- Maximum one smart thermostat per household.
- Occupancy sensing feature must be enabled by customer for smart thermostats incentives.
- Homes must have a ducted electric heating system to be eligible for smart thermostat incentives. Customers may self-install smart thermostats. Contractor not required.
- Customers may self-install ductless heat pumps.
- Work must be completed per program requirements listed on the program website.
- See additional installation requirements on the program website.
- Acronyms:
  SEER: Seasonal Energy Efficiency Ratio
  HSPF: Heating Seasonal Performance Factor
  CFM: Cubic Feet per Minute

Table 4 – Single Family Weatherization Incentives

Measure	Qualifications	Customer Incentive	Market Partner Incentive
Insulation – Attic	$R_{initial} \leq 19$ $R_{final} \geq 49$	$0.07/sq-ft. for electrically cooled home $0.46/sq-ft. for electrically heated home	
Insulation – Floor (to R-19)	$R_{initial} = 0$ $R_{final} \geq 19$ Home's primary heat source must be electric.	$0.31/sq-ft	
Insulation – Floor (to R-30)	$R_{initial} = 0$ $R_{final} \geq 30$	$0.46/sq-ft	

	Home's primary heat source must be electric.	
Insulation - Wall	$R_{initial} = 0$ $R_{final} \geq 13$ or fill cavity Home's primary heat source must be electric.	$0.62/sq-ft
Windows	U-factor of 0.25 or lower. Home's primary heat source must be electric. Any pre-condition.	$1.00/sq-ft
	U-factor of 0.30 or lower. Home's primary heat source must be electric. Specified pre-condition.	Replacing single pane wood/metal: $5/sq-ft Replacing double pane metal: $3/sq-ft
	U-factor of 0.22 or lower. Home's primary heat source must be electric. Specified pre-condition.	Replacing single pane wood/metal: $10/sq-ft Replacing double pane metal: $6/sq-ft
Low-E Storm Window	Windows must use glazing materials with an emissivity less than or equal to 0.22 and a solar transmittance greater than 0.55 Home's primary heat source must be either a heat pump, electric forced air, zonal, or ductless heat pump system to qualify	$3.00/sq-ft

Notes for weatherization incentive table:

1. See additional installation requirements on the program website.
2. Weatherization incentives may be paid to the customer, dealer, manufacturer, and/or contractor and may be split between customer, dealer, manufacturer, and/or contractor. The sum of the incentive payments per unit will clearly be displayed on the website with applicable dates. The end use portion of the incentive may be changed.
3. Home's primary heat source must be either a heat pump, electric forced air, zonal, or ductless heat pump heating system to qualify for the electrically heated incentive.
4. Home's primary heat source must be a gas heating system to qualify for the electrically cooled incentive.

Definitions:

R-Value: Thermal resistance of a material

U-Factor: Inverse of R-value used to measure the amount of heat transmitting through a square foot of material

Table 5 – Single Family New Homes Incentives

Measure	Qualifications	Customer/ Builder Incentive	Market Partner Incentive
Performance Path	Incentives available for new electric heated or gas heated homes that exceed the prevailing code by a minimum of 10% as modeled using program required tools and software. The home's performance must be modeled and verified by an independent third-party Rater. Homes must have electric water heating to qualify.	$0.50/kWh annual energy savings	
Single Family Pay for Savings	Incentives available for new electric heated homes that exceed the prevailing code by any percentage. The home's energy savings must be modeled and verified by an independent third-party Rater. Homes must have electric water heating to qualify.	$250	
Standalone New Construction Heat Pump	Equipment must be incremental to energy code, and standalone incentive cannot be combined with a Performance Path or Pay for Savings incentive. Incentives and minimum efficiency requirement will be listed on the program website.	$250	

Notes for New Homes incentive table:

- See additional installation requirements on the program website.
- Incentives for performance path apply to downstream and mid/upstream. Only one incentive will be provided per home. Electrically heated and non-electrically heated incentives may not be combined.

- Incentives may be paid to the customer, builder, or rater and may be split between customer, builder, and/or rater. The sum of the incentive payments per unit will clearly be displayed on the website with applicable dates. The end use portion of the incentive may be changed.
- New homes may only apply for one incentive from the New Homes table.
- Acronyms:
  HSPF: Heating Seasonal Performance Factor
  SEER: Seasonal Energy Efficiency Ratio

Table 6 – Water Heating Incentives

Measure	Qualifications	Customer Incentive	Market Partner Incentive
Heat Pump Water Heater	NEEA Advanced Water Heating Specification Tier 3 and above replacing an existing electric tank type water heater.	Customer-Install: $900	Customer-Install: $0
		Contractor Install: $900	Contractor Install: $300

Notes for water heating table:

- Incentives for heat pump water heater measures apply to downstream, mid/upstream, and direct install. Direct install will be offered on an initiative basis and may not be available for the entire year. See the program website for availability information.
- Incentives for heat pump water heaters may be paid to the customer, retailer/dealer, or manufacturer and may be split between customer retailer/dealer, and/or manufacturer. The sum of incentive payments per unit will clearly be displayed on the website with applicable dates. The end use portion of the incentive may be changed.
- Incentives are available for single family and manufactured homes. Incentives are not available for multifamily homes.
- See additional installation requirements on the program website.
- Acronyms:
  NEEA: Northwest Energy Efficiency Alliance

Table 7 – Other Incentives

Measure	Qualifications	Customer Incentive	Market Partner Incentive
Air Purifier	Must meet Clean Air Delivery Rate (CADR) requirements as outlined on the program website	$40	
Engine Block Heater Control	May be engine or wall mounted. Must meet requirements outlined on the program website.	$150	

Table 8 - Manufactured Homes Incentives

Measure	Qualifications	Customer Incentive	Market Partner Incentive
Central Air Conditioner	≥15 SEER Central air conditioner must be installed and sized per program's requirements.	$93	$62
Duct Sealing (Not Direct Install)	Home's primary heat source must be either a ducted heat pump or electric forced air furnace. Existing ducts must be unsealed. Duct sealing must be done per program's requirements.	$500	
Duct Sealing (Direct Install)	Test and Seal: Home's primary heat source must be either a ducted heat pump or electric forced air furnace. Existing ducts must be unsealed. Duct sealing must be done per program's requirements.	$0	$500
	Test Only: Home's primary heat source must be either a ducted heat pump or electric forced air furnace	$0	$80
Electronic Line Voltage Connected Thermostat	Retail: Must have 7-day programming scheduling and must be Wi-Fi enabled (or via bridge) with remote access. Home's primary heating source must be an electric zonal heating system.	$56	$0
	Direct Install: Must have 7-day programming scheduling and must be Wi-Fi enabled (or via bridge) with remote access. Home's primary heating source must be an electric zonal heating system.	$0	$100

Evaporative Coolers 2,000-3,499 CFM	2,000-3,499 CFM	$125	
Evaporative Coolers – 3,500+ CFM	Minimum 3,500 CFM (must be the primary cooling source)	$375	
Federal Standard Heat Pump Conversion	For replacement of existing electric resistance heating system with new federal standard efficiency heat pump. Heat Pump must include Best Practices Installation & Proper Sizing.	$2,000	$500
	For replacement of existing non-electric and non-natural gas heating system (i.e., wood, propane, and heating oil) with new high efficiency heat pump. Heat pump must include Best Practices Installation & Proper Sizing.	$2,250	$500
10.0+ HSPF Heat Pump Conversion	For replacement of existing electric resistance heating system with new high efficiency heat pump. Heat pump must include Best Practices Installation & Proper Sizing.	$2,500	$500
	For replacement of existing non-electric and non-natural gas heating system (i.e., wood, propane, and heating oil) with new high efficiency heat pump. Heat pump must include Best Practices Installation & Proper Sizing.	$2,750	$500
Ductless Heat Pumps	≥ 9.0 HSPF single-head or multi-head unit Home's previous primary heating source must either have been an electric forced air furnace or a zonal electric system.	$1,600	$400
	≥ 9.0 HSPF, single-head or multi-head unit. Home's previous primary heating source may be any non-electric and	$1,800	$400

	non-natural gas heating system (i.e., wood, propane, and heating oil).		
Heat Pump Upgrade	For upgrade of existing heat pump to new high efficiency heat pump. ≥ 10.0 HSPF must include Best Practices Installation & Proper Sizing	$300	$125
Insulation – Attic (R0 to R-22)	$R_{initial} = 0$ $R_{final} \geq 22$ Homes' primary heating must be either a heat pump, electric forced air, zonal, or ductless heat pump system to qualify for the electrically heated incentive.	$0.77/sq-ft	
Insulation – Attic (R11 to R-30)	$R_{initial} \leq 11$ $R_{final} \geq 30$ Homes' primary heating must be either a heat pump, electric forced air, zonal, or ductless heat pump system to qualify for the electrically heated incentive.	$0.94/sq-ft	
Insulation – Floor	$R_{initial} = 0$ $R_{final} \geq 22$ Home's primary heat source must be either a heat pump, electric forced air, zonal, or ductless heat pump system to qualify for the electrically heated incentive.	$0.46/sq-ft	
New Homes, ENERGY STAR Homes	Home must be new and have received ENERGY STAR certification.	$2,250	$250
New Homes, NEEM+ Homes	Home must be new and have received NEEM Plus certification.	$2,750	$250
Heat Pump, New Manufactured Homes	Central heat pump installed in a house with permanently installed central electric resistance furnace. Ductless heat pump shall be inverter-driven with an HSPF of 8.5 or better, have a nominal	$1,000	$300

	heating capacity of 9,000 Btu/hr or higher, and be installed in the main living area of a home with permanently installed ducted electric resistance furnace or zonal electric heat. Homes must be less than one year old and not be certified as NEEM or ENERGY STAR.		
Smart Thermostat	Unit must be on ENERGY STAR Qualified Products List. Measure is available in retail and direct install delivery.	Retail: $100 $0	$0 Direct Install: $150
Windows	U-factor of 0.25 or lower. Home's primary heat source must be either a heat pump, electric forced air, zonal, or ductless heat pump system to qualify	$1.00/sq-ft	
	U-factor of 0.30 or lower. Home's primary heat source must be electric. Specified pre-condition.	Replacing single pane wood/metal: $5/sq-ft Replacing double pane metal: $3/sq-ft	
	U-factor of 0.22 or lower. Home's primary heat source must be electric. Specified pre-condition.	Replacing single pane wood/metal: $10/sq-ft Replacing double pane metal: $6/sq-ft	
Low-E Storm Window	Windows must use glazing materials with an emissivity less than or equal to 0.22 and a solar transmittance greater than 0.55 Home's primary heat source must be either a heat pump, electric forced air, zonal, or ductless heat pump system to qualify	$6/sq-ft	

Notes for manufactured homes table:

- Duct sealing (direct install) will be offered on an initiative basis and may not be available for the entire year. See the program website for availability information.
- Incentives for central air conditioner, not-direct install duct sealing, electronic line voltage, evaporative cooler, ductless heat pump, heat pump, and smart thermostat measures apply to downstream and mid/upstream. Only one incentive will be provided per unit.

- Customers may self-install ductless heat pumps.
- Incentives for central air conditioner, not-direct install duct sealing, electronic line voltage, evaporative cooler, ductless heat pump, heat pump, and smart thermostat may be paid to the customer, dealer, manufacturer, or trade ally and may be split between customer, dealer, manufacturer, and/or trade ally. The sum of the incentive payments per unit will clearly be displayed on the website with applicable dates. The end use portion of the incentive may be changed.
- Incentives for new manufactured homes may be paid to customer, dealer/retailer, or manufacturer and the available incentive per home and may be split between customer, dealer/retailer, and/or manufacturer. The sum of incentive payments per home will not exceed the amounts listed in the table. The end use customer portion of the incentive will be clearly displayed on the web site with applicable dates. The end use customer portion of the incentive may be changed.
- See additional installation requirements on the program website.
- Contractors providing the direct install duct sealing services will be reimbursed for actual job costs which may include surcharge for mileage, duct testing, and other job expenses, the total of which may not exceed the incentive. No additional costs will be billed to the customer.
- Acronyms and Definitions:

  NEEM: Northwest Energy Efficient Manufactured Homes
  IECC: International Energy Conservation Code
  HSPF: Heating Seasonal Performance Factor
  R-Value: Thermal resistance of a material
  U-Factor: Inverse of R-value used to measure the amount of heat transmitting through a square foot of material

Table 9 – Multifamily Homes Incentives

Measure	Qualifications	Customer Incentive	Market Partner Incentive
Evaporative Coolers -2,000-3,499 CFM	2,000-3,499 CFM	$62	
Evaporative Coolers – 3,500+ CFM	Minimum 3,500 CFM (must be the primary cooling source)	$312	
Ductless Heat Pump	≥ 9.0 HSPF, single-head or multi-head unit Home's previous primary heating source must either have been an electric forced air furnace or a zonal system.	$1,600	$400

	≥ 9.0 HSPF, single-head or multi-head unit Home's previous primary heating source may be any non-electric and non-natural gas heating system (i.e., wood, propane, and heating oil).	$1,800	$400
Electronic Line Voltage Connected Thermostat	Retail: Must have 7-day programming scheduling and must be Wi-Fi enabled (or via bridge) with remote access. Home's primary heating source must be an electric zonal heating system.	$56	$0
	Direct Install: Must have 7-day programming scheduling and must be Wi-Fi enabled (or via bridge) with remote access. Home's primary heating source must be an electric zonal heating system.	$0	$100
Insulation - Attic (R-19 to R-49)	$R_{initial} \leq 19$ $R_{final} \geq 49$ Homes' primary heating must be either a heat pump, electric forced air, zonal, or ductless heat pump system to qualify for the electrically heated incentive.	$0.46/sq-ft.	
Insulation – Attic (R-0 to R-49)	$R_{initial} = 0$ $R_{final} \geq 49$ Homes' primary heating must be either a heat pump, electric forced air, zonal, or ductless heat pump system to qualify for the electrically heated incentive.	$0.62/sq-ft	
Insulation – Floor (R-0 to R-19)	$R_{initial} = 0$ $R_{final} \geq 19$ Home's primary heat source must be either a heat pump, electric forced air, zonal, or ductless heat pump system to qualify for the electrically heated incentive.	$0.31/sq-ft.	

Insulation – Floor (R-19 to R-30)	$R_{initial} = 19$ $R_{final} \geq 30$ Home's primary heat source must be either a heat pump, electric forced air, zonal, or ductless heat pump system to qualify for the electrically heated incentive.	$0.20/sq-ft	
Insulation – Floor (R-0 to R-30)	$R_{initial} = 0$ $R_{final} \geq 30$ Home's primary heat source must be either a heat pump, electric forced air, zonal, or ductless heat pump system to qualify for the electrically heated incentive.	$0.46/sq-ft.	
Insulation - Wall	$R_{initial} = 0$ $R_{final} \geq 11$ or fill cavity Home's primary heat source must be either a heat pump, electric forced air, zonal, or ductless heat pump system to qualify for the electrically heated incentive.	$0.62/sq-ft.	
Smart Thermostat	Unit must be on Energy Star Qualified Products List. Measure is available in retail and direct install delivery.	Retail: $100 $0	$0 Direct Install: $150
Windows (U-factor 0.25 or lower)	U-factor of 0.25 or lower. Home's primary heat source must be either a heat pump, electric forced air, zonal, or ductless heat pump system to qualify.	$1.00/sq-ft.	
Windows (pre-condition baseline)	U-factor of 0.22 or lower. Home's primary heat source must be zonal, heat pump, electric forced air furnace, or ductless heat pump system to qualify. Existing window must be single glazed with wood frame, single glazed with metal frame, or double glazed with metal frame.	Up to $25/sq-ft	
Low-E Storm Window	Windows must use glazing materials with an emissivity less than or equal to 0.22 and a solar transmittance greater than 0.55.	$6/sq-ft	

	Home's primary heat source must be either a heat pump, electric forced air, zonal, or ductless heat pump system to qualify.	
Multifamily New Construction Performance	Multifamily buildings with electric space and/ or water heating that exceed the prevailing WA state energy code by a minimum of 5% as modeled using program required tools and software. The multifamily building's performance must be modeled and verified by an independent third-party Rater.	Exceeding code by 5% to 14.99%: $0.15/ kWh (first year) Exceeding code by 15% or more: $0.25/ kWh (first year)
Multifamily Pay for Savings	Incentives available for new electric heated homes that exceed the prevailing code by any percentage. The home's energy savings must be modeled and verified by an independent third-party Rater. Homes must have electric water heating to qualify.	$0.50/kWh annual energy savings

Notes for multifamily homes table:

- Incentives for electronic line voltage and ductless heat pump, heat pump measures apply to downstream and mid/upstream. Only one incentive will be provided per unit.
- Customers may self-install ductless heat pumps.
- Incentives for weatherization, electronic line voltage, and ductless heat pump may be paid to the customer, dealer, manufacturer, or trade ally and may be split between customer, dealer, manufacturer, and/or trade ally. The sum of the incentive payments per unit will clearly be displayed on the website with applicable dates. The end use portion of the incentive may be changed.
- Multifamily new construction incentives are available for multifamily buildings that are three stories or less and serve customers who purchase their electricity from Pacific Power on rate schedules 16, 17, 18 or 19. Mixed use buildings (buildings served by a residential rate schedule and an eligible commercial rate schedule) or multifamily buildings with four or more stories and serving customers on eligible commercial rate schedules may qualify for new construction measures through the Wattsmart Business program.
- Only one new construction incentive will be provided per multifamily building.
- Incentives for multifamily new construction may be paid to the customer, builder, or rater and may be split between customer, builder, and/or rater.
- Incentives for multifamily new construction are capped at 80 percent of project costs. All final costs are subject to Pacific Power review and approval prior to paying an efficiency incentive.

- Multifamily buildings with outside lighting and common areas billed under non-residential rate schedules may be eligible to receive other incentives, but may not receive additional equipment purchase and installation incentives within other Company offered programs.
- Qualifying equipment receiving incentives within this table may not receive equipment purchase and installation incentives within other tables in this Schedule.
- See additional installation requirements on the program website.
- Acronyms:
  HSPF: Heating Seasonal Performance Factor
  R-Value: Thermal resistance of a material
  U-Factor: Inverse of R-value used to measure the amount of heat transmitting through a square foot of material

Table 10 – Enhanced Incentives for Highly Impacted Communities

Measure	Qualifications	Customer Incentive	Market Partner Incentive
Ductless Heat Pump	≥ 9.0 HSPF, single-head or multi-head unit. Home's previous primary heating source must either have been an electric forced air furnace or a zonal electric system.	$1,800	$400
	≥ 9.0 HSPF, single-head or multi-head unit. Home's previous primary heating source may be any non-electric and non-natural gas heating system (i.e., wood, propane, and heating oil).	$2,000	$400
Federal Standard Heat Pump Conversion	For replacement of existing electric furnace with new federal standard efficiency heat pump. Heat pump must include Best Practices Installation & Proper Sizing	$2,250	$500
	For replacement of existing non-electric and non-natural gas heating system (i.e., wood, propane, and heating oil) with new high efficiency heat pump. Heat pump must include Best Practices Installation & Proper Sizing.	$2,500	$500
10.0+ HSPF Heat Pump Conversion	For replacement of existing electric furnace with new high efficiency heat pump. Heat pump must include Best Practices Installation & Proper Sizing.	Manufactured Home: $2,750 Single Family: $3,000	Manufactured Home: $500 Single Family: $750

	For replacement of existing non-electric and non-natural gas heating system (i.e., wood, propane, and heating oil) with new high efficiency heat pump. Heat pump must include Best Practices Installation & Proper Sizing.	Manufactured Home: $3,000 Single Family: $3,250	Manufactured Home: $500 Single Family: $750

Notes for Enhanced Incentives for Highly Impacted Communities table.

- Customers must meet named community criteria on Pacific Power's website.
- Incentives for all HVAC measures apply to downstream and/or mid/upstream. Only one incentive will be provided per unit.
- Incentives may be paid to the customer, dealer, manufacturer, and/or trade ally and may be split between customer, dealer, manufacturer, and/or trade ally. The sum of the incentive payments per unit will clearly be displayed on the website with applicable dates. The end use portion of the incentive may be changed.
- Customers may self-install ductless heat pumps.
- Work must be completed per program requirements listed on the program website.
- See additional installation requirements on the program website.
- Acronyms:
  HSPF: Heating Seasonal Performance Factor

Home Energy Reports

Years of Implementation

The Home Energy Report program was implemented by OPower in August 2012 and expanded twice, the last time in in September 2014. OPower delivered the program through December 2017. Bidgely was selected through an RFP process to begin delivery of Home Energy Reports in 2018. During 2018-2019, Bidgely delivered email and paper reports to the same treatment group utilized by OPower and savings were compared to the same control group. Beginning in 2020 Bidgely started delivering digital and paper Home Energy Reports to a larger new group of customers with an expansion in 2021. Home Energy Reports will conduct a 19,207-customer refill in October 2023 to address attrition associated with customers that move to different residences.

Program Description

The Home Energy Report program is designed to better inform residential customers about their energy usage by providing comparative energy usage data for similar homes located in the same geographical area. In addition, the report provides the customer with information on how to modify their energy usage. Equipped with this information, customers can modify behavior and/or make structural, equipment, lighting or appliance changes to reduce their overall electric energy consumption. Reports sent by Bidgely, include energy consumption by end use (also known as disaggregated energy consumption) in addition to whole home comparative information.

Evaluation Update

Last Evaluation Report:

Program Years	Evaluation Report Date	Completed by
2020-2021	April 2022	ADM Associates

Future Evaluation Report(s):

Program Years	Evaluation Report Date	To be Completed by
2022-2023	Estimated by April 15, 2024	ADM Associates, Inc.

Program Details

Beginning in 2020 Bidgely began delivering digital and paper Home Energy Reports to a larger treatment group with savings compared to a new control group. Both treatment and control groups were re-randomized as part of program design prior to report delivery. Another treatment and control group was added in early 2021 after consultation with the DSM Advisory Group in late 2020. In October 2023 the program will introduce 19,207 new customers to the program as a refill versus an expansion. Bidgely was awarded a contract extension in 2023 that will continue through December 2025. This will allow for program continuity through the 2024-2025 biennial period.

Of the 107,790 residential customers in Pacific Power's Washington service territory, in 2024, 39,362 are forecasted to receive digital (email) reports and 22,829 are forecasted to receive paper (mail) reports.

For this biennial period, the Company will use a one-year measure life for assessing cost effectiveness and savings reporting (consistent with the 2022-2023 biennium).

Savings will be tracked and reported annually based on reporting from the provider. Home Energy Report savings reported against the I-937 target will be based on an ex-post evaluation of the program performance.

Planned Program Changes

Any changes during this period will be to messages.

Low Income Residential Program Details

The Company offers a Low Income Weatherization program (Schedule 114) to its income-eligible residential customers.

Low Income Weatherization (Schedule 114)

Years of Implementation

The Low Income Weatherization program has been in effect since the mid-1980's and has successfully assisted in funding the weatherization of over 8,000 homes in Pacific Power's Washington territory.

Program Description

Pacific Power partners with four local non-profit agencies, Blue Mountain Action Council in Walla Walla, Northwest Community Action Center in Toppenish, Opportunities Industrialization Center of Washington in Yakima and Yakama Nation Housing Authority in Wapato to provide weatherization services to income qualifying households throughout its Washington service area. The leveraging of Pacific Power funding along with Washington MatchMaker Program funds allows the agencies to provide these energy efficiency services at no cost to participating customers. The Company provides rebates to partnering agencies for 50 percent of the cost of services while MatchMaker funds are available and cover 100 percent of costs when these state funds are depleted. Participants qualify whether they are homeowners or renters residing in single-family homes, manufactured homes or apartments.

See the Clean Energy Implementation Plan Utility Actions section above for specific utility actions related to Low Income Weatherization. These actions are intended to improve Named Community customer participation. The Low Income Weatherization program is focused on reaching the low income Vulnerable Population.

Planned Program Changes

The Low Income Weatherization program was revised through the submission of tariff revisions in December 2021 and June 2023. These proposed revisions were previewed by the Washington Demand-Side Management Advisory Group and Low Income Advisory Committee. The changes were approved by the Commission and became effective February 1, 2022 and July 14, 2023 respectively.

In alignment to CETA, PacifiCorp strives to present opportunities to reduce customers overall energy burden through energy efficiency home improvements by reducing funding constraints or cost barriers, environmental impact and increase allowance to address challenges associated with housing condition resulting in a weatherization project deferment.

The revisions to Schedule 114 included: 1) allow installation of energy efficient measures and replacement of heating system in dwellings with permanently installed electric heat, space heaters or any fuel source except natural gas with adequate combustion air as determined by the Agency. The change to the heating source requirement allow partner agencies to determine whether heating

system replacement is most cost effective, improve health and safety, and reduce environmental impact of oil or wood burning; 2) increase repair reimbursement from 15% to 30% of the annual reimbursement on eligible energy efficient measures to partner agency authorized to receive funds for the installation of weatherization materials in low-income dwellings, Company reimburses the partner agencies 50 percent of the installed cost of repairs necessary to make the installation of the energy efficient measures included in current effective tariff when MatchMaker Funds are available, and when matching funds are exhausted funding will be at 100 percent. Increasing utility repair reimbursement provides Agencies flexibility and additional funding to leverage in conjunction with state, federal and other funding sources to address health, safety and overcome dwelling integrity issues to complete weatherization efforts successfully. ; and 3) addition of smart thermostats. The smart thermostat measure does not replace the current programmable thermostat measure but an additional option that contractors can install and must be installed with an electric heating system – either an electric resistance furnace or an air-source heat pump - and must be Energy Star qualified.

Changes to Schedule 114 are filed with the Washington Utilities Transportation Commission.

Consistent with rules and staff direction, cost-effectiveness for the low-income weatherization program will not be assessed at a program or portfolio level. Reporting for the program will include number of residences weatherized, number of measures installed, energy savings and total expenditures.

Evaluation Update

Last Evaluation Report:

Program Years	Evaluation Report Date	Completed by
2018 - 2019	July 25, 2023	Opinion Dynamics

Future Evaluation Report(s):

Program Years	Evaluation Report Date	To be Completed by
2020 - 2021	2024	TBD

Program Details

Details for this program are contained in the program tariff. Any changes to the details included in the program tariff must be filed with the Commission prior to becoming effective.

Non-Residential Program Details

The Company offers Wattsmart Business (Non-Residential Energy Efficiency - Schedule 140) to customers receiving electric service on non-residential rate schedules in the State of Washington. The program provides a comprehensive set of financial and service incentives to assist eligible customers with improving the energy efficiency of their facilities.

Wattsmart Business (Schedule 140)

Years of Implementation

Wattsmart Business (Schedule 140) was created in 2014 by the consolidation of two existing programs: Energy FinAnswer and FinAnswer Express. The Energy FinAnswer program was originally implemented in the 1990s as an energy efficiency improvement financing program. The program was modified to an incentive-based program under Schedule 125 in October 2000. The Small Retrofit Incentive and Retrofit Incentive (Schedules 115 and 116) were created in November 2000 and were improved and renamed FinAnswer Express (Schedule 115) in May 2004. The consolidation of the programs to Wattsmart Business was approved with Docket UE-132083, effective January 1, 2014.

Program Description

Wattsmart Business was designed to support continuing acquisition of all cost-effective conservation from business customers and help reinforce the ongoing ethos of energy efficient new construction, facility upgrades, and ongoing operations. The program includes the following offers:

- **Listed Incentives and Lighting Instant Incentives -** Prescriptive incentives ("Listed Incentives") are offered to commercial, industrial and irrigation customers for typical lighting, HVAC, motor, building envelope, food service, appliances, irrigation, dairy/farm equipment, compressed air and other retrofits or new installations. Listed Incentives include an expedited energy analysis and incentives based on the equipment installed ($/horsepower, $/ton, etc.) or based on annual energy savings determined using a program simplified analysis tool. There is also a midstream point-of-purchase delivery channel for lighting. Incentives for this offer are referred to as Lighting Instant Incentives.

- **Small Business Offer -** The program includes incentive offers specifically for small business customers receiving electric service on Schedule 24[10]. The offer includes enhanced incentives for lighting and non-lighting measures. There are higher small business incentives available for small businesses located in a highly impacted community and/or very small businesses. Participating customers utilizing an approved contractor are eligible for an enhanced incentive offer up to 90% of the project cost (up to 100% for businesses located in a highly impacted community and/or very small businesses).

[10] There are maximum annual usage limits to help keep this offer targeted to small businesses. The eligibility requirements are posted on the website at https://www.pacificpower.net/savings-energy-choices/business/wattsmart-efficiency-incentives-washington/wa-small-medium-business/wa-small-business-lighting.html and Washington Small Business Non-Lighting (pacificpower.net)

- **Custom Incentives -** Custom incentives and energy analysis services are offered for commercial, industrial, and irrigation customer retrofits and new construction measures that meet minimum efficiency qualifications of the prescriptive incentives but do not have a prescriptive incentive available. The program includes a vendor neutral investment grade energy analysis and cash incentives paid per kWh of annual energy savings (up to 70 percent of project costs).[11] There is a cap to prevent incentives from bringing the payback for a project below one year. Custom analysis includes a post-installation verification and, if required, the program includes energy commissioning.

- **Energy Project Manager Co-Funding -** The program provides energy project manager (EPM) co-funding to increase end user management and engineering staffing devoted to electrical energy projects/activities increasing the number of commercial and industrial projects that can be completed. EPM co-funding is performance based and contingent on customer's commitment to an energy savings goal over a prescribed timeframe; typically, 12 months. Co-funding is proportionate to the energy savings goal at $0.025/kWh (subject to a minimum co-funding level and salary cap).

- **Energy Management -** Energy Management services and incentives are intended to help customers ensure ongoing efficiency improvements in the operation and management of facilities and industrial processes. Energy Management is a system of practices that creates reliable and persistent electric energy savings through improved operations, maintenance and management practices at customer sites. It is designed to complement program offerings for capital improvements and the Energy Project Manager co-funding offer. Savings are site specific, and monitoring of building systems and industrial process controls is used to identify and quantify energy savings.

- **Clean Buildings Accelerator** - A Clean Buildings Accelerator offer was added in 2022 to help building owners comply with the Clean Buildings Performance Standard and connect them with the energy management and capital upgrade incentives and energy analysis services in the program.

- **Financing -** A financing offer was added to the program in 2017. This financing is optional and is available for customers who need additional help to fund the portion of the project cost not covered by incentives. Financing can be in the form of a capital equipment lease, tax exempt municipal lease, Energy Services Agreement, etc. The financing is offered through a third party, National Energy Improvement Fund.

The Wattsmart Business program is marketed primarily via Pacific Power account managers, Wattsmart Business vendors, and program delivery outreach staff. Other leads come via advertising, Company newsletters, word-of-mouth, past participants returning for additional projects and a combination of other Company outreach efforts.

See the Clean Energy Implementation Plan Utility Actions section above for specific utility actions related to Wattsmart Business. These actions are intended to improve Named Community

[11] Note there are no incentive caps for new construction projects where energy code applies.

customer participation. The equity focus areas for Wattsmart Business are reaching business customers located in Highly Impacted Communities, small businesses, and businesses where the primary language spoken on site is other than English (primarily focused on Spanish speakers).

Pacific Power has launched two business customer demand response programs. Below are the Wattsmart Business program co-deployment plans for demand response programs in 2024-2025:

- Irrigation Load Control – the Company plans to continue providing information on Irrigation Load Control in its energy efficiency mailings to all irrigation customers, and energy efficiency and demand response program implementers will continue coordination on outreach to customers targeted for demand response.
- Commercial & Industrial Demand Response – the Company plans to continue including demand response program information on energy efficiency program marketing materials[12] and program implementers will continue coordination on outreach to customers targeted for demand response.

Wattsmart Business Program Changes

Wattsmart Business was updated in September 2023 using the program change process (including Advisory Group review and comment) described below. The changes are effective on January 1, 2024. The information provided in this business plan reflects the program offers/qualification effective January 1, 2024.

Program Changes for 2024

Changes are part of the adaptive management strategy for the Wattsmart Business program for the 2024-2025 biennium and the changes for January 1, 2024, are intended to

a) Address impacts of inflation by increasing incentives for select lighting and non-lighting measures,
b) Align the program's measure offerings and incentives with the target setting process, including using the latest unit energy savings (UES) and Standard Protocols from the Regional Technical Forum (RTF) as of June 1, 2023,
c) Align the program with the latest energy code and third-party specifications such as Consortium for Energy Efficiency (CEE) and Energy Star, and
d) Make other minor administrative changes.

Lingering impacts of the COVID-19 pandemic continue to affect customer participation. The cost of implementing projects is higher due to inflation and labor issues. Lighting projects are particularly sensitive to price increases because they are usually sold proactively to the customer as an elective project that needs to be justified based on a quick payback. Supply chain issues remain for some equipment, making it challenging for customers to get efficient equipment when they want/need it. There remains a shortage of skilled labor to complete project installations. Many of the program changes are adaptive management improvements in response to these continuing impacts of the pandemic.

To encourage participation in the overall Wattsmart Business incentives and to increase participation in select measures and for targeted customers, vendor incentives will continue to be

[12] Example - WA_wattsmartBusiness_Overview.pdf (pacificpower.net)

offered to Washington Wattsmart Business vendors in good standing for qualifying projects. These incentives will be first come, first served until funding is exhausted, with per vendor caps for specific measures, such as lighting, to provide motivation for vendors to complete multiple projects. Vendor incentives for 2024 will begin on January 1st and be for lighting, select non-lighting, and small business lighting/non-lighting projects.

Complete details on the changes were provided for DSM Advisory Group and Equity Advisory Group review prior to finalizing and posting on the Company website with 45 days' notice before the changes take effect on January 1, 2024.

Future changes will be based on changes in Washington State Energy Code, federal standards, third party specifications, cost-effectiveness, participation and updated market information.

Evaluation Update

Last Evaluation Report:

Program Years	Evaluation Report Date	Completed by
2020-2021	January 2023	The Cadmus Group

Future Evaluation Report(s):

Program Years	Evaluation Report Date	To be Completed by
2022-2023	In progress	ADM

Program Details

General program details for this program are contained in the program tariff (Schedule 140); additional program detail is available on the program website. Any changes to the details included in the program tariff must be filed and approved by the Commission prior to becoming effective. In addition, there are program details managed outside of the program tariff. The program tariff utilizes the modification procedure established with the approval of Advice No. 06-008[13] by the Washington Utilities and Transportation Commission. The program tariff and the text below from the Advice Letter 06-008 (Docket UE-061710), filed on November 8, 2006, describe the information that is managed outside of the tariff and the process for changes.

> Future changes in the … incentive tables and definitions would be driven by program and market data. The Company assesses program performance on an ongoing basis and would propose changes at least annually. Changes may be proposed more frequently if there is compelling market data. Similar to the filing process, the Company would present information on proposed changes to its Advisory Group and seek comments prior to making changes. Changes would be clearly posted on the program web site and e-mailed to the appropriate Commission staff person with at least 45 days advance notice.

[13] The description of the process for changes was also included in the Wattsmart Business program filing, Advice 13-08, filed November 12, 2013 and approved by the Commission.

The incentive tables, program definitions and custom incentives offered are managed outside of the program tariff on the Company website[14] via the process described above.

The current information for the program can be found on the Company's website at www.bewattsmart.com.

[14] https://www.pacificpower.net/content/dam/pcorp/documents/en/pacificpower/savings-energy-choices/wattsmart-business/washington/WA_wattsmartBusiness_Incentive_tables_information.pdf; WA_Lighting_Instant_Incentive_Offer_9-4-2022.pdf (pacificpower.net); ExhibitA-3_Changes_to_WA_NonLighting_Incentive_Offer_1-2023.pdf (pacificpower.net)

Washington Wattsmart Business
Effective 1/1/2024

APPLICABLE:
To service under the Company's General Service Schedules 24, 29, 33, 36, 40, 47T, 48T, 51, 53 and 54 in all territory served by Pacific Power in the State of Washington.

Definitions

Combined Heat and Power: Combined heat and power, also known as cogeneration, is the concurrent production of electricity for use on-site by the Non-residential Facility in place of electricity provided by Pacific Power and useful thermal energy (heating and/or cooling) from a single source of energy.

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

Energy Efficiency Incentive: Payments of money made by Pacific Power to Owner or Customer for installation of an Energy Efficiency Measure pursuant to an acknowledged Energy Efficiency Incentive Offer Letter or approved Energy Efficiency Incentive Application.

Energy Efficiency Incentive Offer Letter: An offer made by Pacific Power to the Owner or Customer providing for Pacific Power to furnish Energy Efficiency Incentives for an Energy Efficiency Project.

Incentive Application: An application submitted by Owner or Customer to Pacific Power for Energy Efficiency or Energy Management Incentives.

Energy Efficiency Measure (EEM): Qualifying measures are any measures which, when installed in an eligible facility, result in verifiable electric energy efficiency improvement compared to a baseline as determined by Pacific Power. The baseline will be determined with reference to existing equipment, applicable state or federal energy codes, industry standard practice and other relevant factors. Qualifying measures include Waste Heat to Power, regenerative technologies and Combined Heat and Power.

Energy Efficiency Measure (EEM) Cost:

- New Construction/Major Renovation: EEM Cost is the total installed cost of energy efficiency equipment or system minus the cost of the code compliance/common practice equipment or system.
- Retrofit: EEM Cost is the total installed cost of the energy efficiency equipment or modification.
- In the case of New Construction, Major Renovations, and Retrofits, EEM Costs shall mean the Owner or Customer's reasonable costs incurred (net of any discounts, rebates or incentives other than Energy Efficiency Incentives from Pacific Power, or other consideration that reduces the final actual EEM Cost incurred by the Owner or Customer) to purchase and install EEMs at the Owner's or Customer's facility. If the Owner or

Customer installs the EEM then the cost of installation shall be equal to the Owner's or Customer's actual labor costs for such installation.

Energy Efficiency Project: One or more EEM(s) at a Non-residential Facility[15] with similar one year payback limitations (see below) covered by one Energy Efficiency Incentive Offer Letter.

Energy Efficiency Project Cost: The sum of EEM Costs for one or more EEM(s) with similar one year payback limitations (see below) covered by one Energy Efficiency Incentive Offer Letter.

Energy Management Offer Letter: An offer made by Pacific Power and acknowledged by Owner or Customer and Pacific Power providing for Pacific Power to furnish Energy Management Incentives for an Energy Management Project.

Energy Management Incentive: Payments of money made by Pacific Power to Owner or Customer for implementation of an Energy Management Measure pursuant to an executed Energy Management Offer Letter.

Energy Management Measure (EMM): an operational improvement which, when implemented in an eligible facility, result in electric savings compared to current operations as determined by Pacific Power.

Energy Management Project: One or more EMM(s) at a Non-residential Facility covered by one Energy Management Offer Letter.

Energy Project Manager: an employee or direct contractor of the Customer who will manage electrical energy efficiency projects that deliver savings toward the Customer/Owner's energy savings goal.

Energy Project Manager Co-funding: funding towards the Energy Project Manager agreed upon full value salary that is solely attributable to electrical energy efficiency work.

Major Renovation: A change in facility use type or where the existing system will not meet Owner/Customer projected requirements within existing facility square footage.

Mixed Use: Buildings served by a residential schedule and a rate schedule listed in the applicability section above shall be eligible for services under this schedule provided the Energy Efficiency Project meets the definition of New Construction or Major Renovation.

New Construction: A newly constructed facility or newly constructed square footage added to an existing facility.

Non-residential Facility: A Customer site that is served by Pacific Power and meets the applicability requirements listed above.

[15] Measures at multiple Non-residential Facilities may be included in one Offer Letter for convenience; however, project incentive caps (if any) are applied per individual Non-residential Facility.

Owner: The person who has both legal and beneficial title to the real property, and is the mortgager under a duly recorded mortgage of real property, the trustor under a duly recorded deed of trust.

Retrofit: Changes, modifications or additions to systems or equipment in existing facility square footage.

Waste Heat to Power: Waste heat to power is the process of capturing heat discarded by a process (with no increase in fuel input for the process) and using that heat to generate electricity for use by the Non-residential Facility in place of electricity provided by Pacific Power.

Incentives – General Information

Incentives for measures listed in the incentive tables

Per unit incentives are listed in the program incentive tables for specific Energy Efficiency Measures (EEMs) and are subject to the incentive caps below. Incentives are subject to change and current incentives can be found at www.pacificpower.net.

Custom incentives

Energy Efficiency Measures not listed in the prescriptive incentive tables (typical upgrades) may be eligible for a Custom Energy Efficiency Incentive. Pacific Power will complete an analysis of the EEM Cost and electric energy savings and determine whether to offer a custom Energy Efficiency Incentive and the incentive amount.

Energy management incentives

Non-capital improvements to operations and maintenance within a qualifying facility may be eligible for an Energy Management Incentive. Pacific Power will partner to complete an analysis of the electric energy savings of potential energy management measures and determine whether to offer an Energy Management Incentive and the incentive amount.

Energy project manager co-funding

Pacific Power can fund an additional $0.025/per kWh of verified Wattsmart Business energy savings, up to 100 percent of the Energy Project Manager's salary. Salary is based on a letter from the Customer/Owner's human resources or accounting department stating the base annual salary and an appropriate overhead percentage, and subject to approval by Pacific Power.

Baseline adjustments

Pacific Power may adjust baseline electric energy consumption and costs to reflect any of the following: energy codes, standard practice, changes in capacity, changes in production or facility use and equipment at the end of its useful life. Such adjustments may be made for lighting energy efficiency measures installed in new construction projects where energy code does not apply.

INCENTIVES:[16,17]

Category		Incentive	Percent Project Cost Cap[18]	1-Year Simple Payback Cap for Projects[19]	Other Limitations
Prescriptive Incentives (Listed Incentives)[20]	Lighting - Retrofit	See incentive lists	70%	Yes	See incentive lists
	Lighting - New Construction/ Major Renovation (Facilities where energy code applies)		None	No	
	Lighting - New Construction/ Major Renovation (Facilities where energy code does not apply)		70%	Yes	
	Motors		None	No	
	HVAC[21]		None	No	
	Building Envelope		None	No	
	Food Service[22]		None	No	
	Appliances		None	No	
	Other		None	No	
	Irrigation Pump VFD		70%	Yes	
	Irrigation Water Distribution		None	No	

[16] The Customer or Owner may receive only one financial incentive from Pacific Power per measure. Financial incentives include energy efficiency incentive payments and energy management payments. Energy Project Manager Co-Funding is available in addition to the project incentives.

[17] Incentives for prescriptive measures are restricted to the amounts shown on the website.

[18] All EEM Costs are subject to Pacific Power review and approval prior to making an Energy Efficiency Incentive Offer. All final EEM Costs are subject to Pacific Power review and approval prior to paying an Energy Efficiency Incentive per the terms of the Energy Efficiency Incentive Offer or approved Application. Pacific Power review and approval of EEM Costs may require additional documentation from the Customer or Owner.

[19] The 1 year simple payback cap means incentives will not be available to reduce the simple payback of a project below one year. If required, individual measure incentives will be adjusted downward pro-rata so the project has a simple payback after incentives of one year.

[20] For Rate Schedule 51 Street Lighting Service, the street lighting owner (Pacific Power) is not eligible for incentives.

[21] Evaporative pre-cooler incentives are subject to the 70% project cost cap and the one-year payback cap.

[22] Demand controlled kitchen ventilation exhaust hood incentives are subject to the project cost cap and the one-year payback cap.

Category		Incentive	Percent Project Cost Cap[18]	1-Year Simple Payback Cap for Projects[19]	Other Limitations
	Farm and Dairy		70%	Yes	
	Compressed Air		70%	Yes	
	Wastewater and other Refrigeration		70%	Yes	
Enhanced Incentives for Small Businesses	Lighting –Retrofit	See incentive lists	90%	No	Available to all Schedule 24 customers meeting small business criteria on Pacific Power's website. Qualifying equipment must be installed by an approved small business contractor/vendor.
			100%	No	Available to all Schedule 24 customers meeting very small business or named community small business criteria on Pacific Power's website. Qualifying equipment must be installed by an approved small business contractor/vendor.
	Non-lighting - Retrofit	See incentive lists	No[23]	No	Available to all Schedule 24 customers meeting small business criteria on Pacific Power's website. Qualifying equipment must be installed by an approved contractor/vendor.
			No[24]	No	Available to all Schedule 24 customers meeting very small business or named community small business criteria on Pacific Power's website. Qualifying equipment must be installed by an approved contractor/vendor.
Mid-market incentives		Determined by Pacific Power with not-to-exceed amounts as shown in incentive table for this offer	No	No	Incentives available at the point of purchase through approved distributors/retailers or via a post-purchase customer application process.

[23] Small business non-lighting enhanced incentives are capped at 90% of Energy Efficiency Measure Costs

[24] Very small business and Named Community small business non-lighting enhanced incentives are capped at 100% of Energy Efficiency Measure Costs.

Category	Incentive	Percent Project Cost Cap[18]	1-Year Simple Payback Cap for Projects[19]	Other Limitations
Direct Install incentives	Determined by Pacific Power with not-to-exceed amounts as shown in incentive table for this offer	No	No	Specific limitations will be outlined on the program website.
HVAC Check-up incentives	See incentive lists	No	No	Qualifying measures must be installed or provided by an approved HVAC check-up contractor/vendor.
Custom Non-Lighting Incentives for qualifying measures not on the prescriptive list.[25, 26]	$0.28 per kWh annual savings	70%	Yes	N/A
Energy Management	$0.025 per kWh annual savings	No	No	N/A
Energy Project Manager Co-Funding	$0.025 per kWh annual savings	100% of salary and eligible overhead	No	Minimum savings goal posted on Pacific Power website.

[25] Project Cost and 1-Year Simple Payback Caps do not apply to New Construction and Major Renovation projects that are subject to state energy code.
[26] Refer to the Pacific Power website for Waste Heat to Power incentive eligibility requirements.

Energy Project Manager Co-funding Incentives

Payment No.	Payment Amount	Milestone
1 - Initial payment	1/3 of funding amount* (not to exceed $25,000)	1. You select an Energy Project Manager 2. We work together on Comprehensive Plan for electric energy savings 3. You sign the Energy Project Manager Offer Letter
2 - Final payment	$0.025 per kwh of energy savings achieved, to a maximum 100 percent of approved Energy Project Manager Salary and less the initial payment	1. At the end of performance period as defined in the Energy Project Manager Offer Letter

**Funding amount is based on the lesser of (a) $0.025 per kWh or (b) the total annual cost of the Energy Project Manager (salary plus overhead).*

Lighting System Retrofits Incentive Table

Category	Eligibility Requirements		Customer Incentive
Interior Lighting	Full Fixture Replacement	With upgrade to Advanced Controls	$0.46/kWh
		With upgrade to Basic Controls	$0.38/kWh
		Without controls upgrade	$0.35/kWh
	Fixture Retrofit Kits	With controls upgrade to Basic or Advanced Networked Lighting Controls	$0.35/kWh
		Without controls upgrade	$0.28/kWh
	Lamp Replacement	TLED Lamp	$0.10/kWh
		Other Lamp-only Replacements	See Mid-market incentive table
	Controls-only Retrofit	Controls-only upgrade to Advanced Networked Lighting Controls	$0.46/kWh
		Controls-only upgrade to Basic Controls	$0.35/kWh
Exterior Lighting	Full Fixture Replacement (except Street Lighting)	With upgrade to Advanced Dimming Controls	$0.22/kWh
		Without controls upgrade	$0.12/kWh
	Fixture Retrofit Kits (except Street Lighting)	With upgrade to Advanced Dimming Controls	$0.14/kWh
		Without controls upgrade	$0.11/kWh
	Lamp Replacement (except Street Lighting)	Lamp-only Replacements	See Mid-market incentive table
	Street Lighting	With upgrade to Advanced Dimming Controls	$0.12/kWh
		Without controls upgrade	$0.09/kWh
	Controls-only Retrofit	Controls-only upgrade to Advanced Dimming Controls	$0.14/kWh
Non-General Illuminance	LED Case Lighting – Refrigerated Case	LED replacing fluorescent lamp in existing refrigerated cases. LED must be listed on qualified equipment list.	$14/linear foot
	LED Case Lighting – Freezer Case		$14/linear foot
	Refrigerated Case Occupancy Sensor	Installed in existing refrigerated case with LED lighting	$1.50/linear foot
Controlled Environment Agriculture (CEA)	Full Fixture Replacement	With or without controls upgrade	$0.22/kWh
	Lamp Replacement	TLED Lamp With or without controls upgrade	$0.10/kWh
		Other Lamp-only Replacements With or without controls upgrade	See Mid-market incentive table
Custom Lighting	Custom	Not listed above	$0.13/kWh

Notes for retrofit lighting incentive table

1. To be eligible for the incentives listed, the new lighting system must use less energy than the existing lighting system replaced or the baseline lighting system as determined by Pacific Power. To be eligible for an incentive for a system with controls, the new controls must save energy relative to existing controls.
2. Incentives are capped at 70 percent of Energy Efficiency Project Costs and incentives will not be available to reduce the Energy Efficiency Project simple payback below one year. Energy Efficiency Project Costs are subject to Pacific Power approval.
3. Incentives listed as $/kWh are paid per kWh annual energy savings as determined by Pacific Power.
4. Eligible retrofit lighting equipment is defined in qualified equipment lists posted on the Washington energy efficiency program section of Pacific Power's website.
5. A complete list of lighting equipment not eligible for retrofit incentives is available on the Washington energy efficiency program section of Pacific Power's website.

New Construction/Major Renovation Lighting Incentive Table

Measure	Category	Eligibility Requirements	Customer Incentive
Interior Lighting	Troffer	Product must be listed on qualified equipment list. Products must be installed in facilities where energy code applies.	$14/Fixture
	Linear Ambient		$14/Fixture
	High Bay		$30/Fixture
	Other Fixtures (not listed above)		$0.74/Fixture Wattage
	Advanced Networked Lighting Controls		$1.20/W Controlled
	Custom Interior Lighting	Products must be installed in facilities where energy code does not apply.	$0.10/kWh annual energy savings
Controlled Environment Agriculture (CEA)	LED Fixture	Product must be listed on qualified equipment list.	$0.12 /kWh

Notes for New Construction/Major Renovation Lighting Incentive Table

1. Project Cost Caps of 70% and 1-Year Simple Payback Caps apply to New Construction and Major Renovation projects that are not subject to state energy code. The 1-Year simple payback cap means incentives will not be available to reduce the simple payback of a project below one year. If required, individual measure incentives will be adjusted downward pro-rata so the project has a simple payback after incentives of one year.
2. Lighting equipment installed to comply with the applicable version of the state energy code, but not exceeding that code, is not eligible for incentives. Lighting equipment that exceeds the applicable version of the state energy code is eligible for incentives.
3. Eligible lighting equipment is defined in qualified equipment lists posted on the Washington energy efficiency program section of Pacific Power's website.

Motor Incentives Table

Equipment Type	Size Category	Sub-Category	Minimum Efficiency Requirement	Customer Incentive
Variable-Frequency Drives (HVAC fans and pumps)	≤ 100 horsepower	HVAC fans and pumps	See Note 2	$81 /horsepower
Green Motor Rewinds	≥ 15 and ≤ 5,000 hp	--	Must meet GMPG Standards	$1/horsepower (See Note 3)
Electronically Commutated Motor (ECM) - Retrofit Only	≥ 1 and ≤ 10 hp	HVAC fans and pumps	Must meet NEMA Standards	$93/horsepower

Notes for other motor incentives table:

1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for the listed incentive.
2. Throttling or bypass devices, such as inlet vanes, bypass dampers, three-way valves, or throttling valves must be removed or permanently disabled to qualify for HVAC fan or pump VFD incentives. VFDs required by or used to comply with the applicable version of the energy code are not eligible for incentives. Savings will only be realized for installations where a variable load is present.
3. Green Motor Rewind motors that are installed or placed in inventory may qualify for an incentive. For Green Motor Rewinds, the participating electric motor service center is paid $2/horsepower for eligible Green Motor Rewinds. A minimum of $1/hp is paid by the service center to the Customer as a credit on the motor rewind invoice. The balance is retained by the service center.

GMPG = Green Motors Practices Group
HP = Horsepower
HVAC = Heating, Ventilating and Air Conditioning
NEMA = National Electrical Manufacturers Association
VFD = Variable Frequency Drive

New Construction/Major Renovation HVAC Equipment Incentive Table

Measure	Eligibility Requirements	Customer Incentive
HVAC Systems	Systems must be installed in office, retail, library, education, and multi-family occupancies where the applicable state energy code is Washington State Energy Code 2018 or 2021 and the Total System Performance Ratio (TSPR) requirement applies. The TSPR must exceed that of the standard reference design specified by the applicable version of the Washington State Energy Code.	$0.18/kWh

Notes for New Construction/Major Renovation HVAC Equipment incentive table

1. For HVAC systems serving occupancy types not subject to or exempt from TSPR requirement, see the HVAC Equipment Incentive Table or the Other HVAC Equipment and Controls Incentive Table below.
2. Incentives listed as $/kWh are paid per kWh annual energy savings as determined by Pacific Power.

HVAC = Heating, Ventilation and Air-Conditioning
TSPR = Total System Performance Ratio

HVAC Equipment Incentive Table

			Minimum Efficiency Requirement & Customer Incentive		
Equipment Type	**Size Category**	**Sub-Category**	**$31/ton**	**$62/ton**	**$93/ton**
Unitary Commercial Air Conditioners, Air-Cooled (See note 7)	< 65,000 Btu/hr (single phase)	Split system and single package	--	CEE Tier 2 or ENERGY STAR® Certified	CEE Advanced Tier
	All equipment sizes (three phase)	Split system and single package	--	--	CEE Advanced Tier
Unitary Commercial Air Conditioners, Water Cooled (See note 7)	All equipment sizes	Split system and single package	CEE Tier 1	--	--
Unitary Commercial Air Conditioners, Evaporatively Cooled (See note 7)	All equipment sizes	Split system and single package	--	CEE Tier 1	--
Packaged Terminal Air Conditioners (PTAC)	≤ 7,000 Btu/hr	Single package	14.3 EER	--	--
	> 7,000 Btu/hr and ≤ 15,000 Btu/hr	Single package	12.8 EER	--	--
	> 15,000 Btu/hr	Single package	11.4 EER	--	--
Packaged Terminal Heat Pumps (PTHP) (Heating & Cooling Mode)	≤ 7,000 Btu/hr	Single package	--	14.3 EER and 4.0 COP	--
	> 7,000 Btu/hr and ≤ 15,000 Btu/hr	Single package	--	12.8 EER and 3.8 COP	--
	> 15,000 Btu/hr	Single package	--	11.4 EER and 3.5 COP	--
Heat Pumps, Air-Cooled (Heating & Cooling Mode) (See note 3 and 7)	< 65,000 Btu/hr (single phase)	Split system and single package	--	ENERGY STAR® Certified	--
	< 65,000 Btu/hr (three phase)	Split system and single package		ENERGY STAR® Certified	--
	≥ 65,000 Btu/hr and < 240,000 Btu/hr (three phase)	Split system and single package			--
Heat Pumps, Water-Source (Heating & Cooling Mode)	< 135,000 Btu/hr	(See note 3)	--	CEE Tier 1	--
VRF Air-Cooled Heat Pumps (Heating & Cooling Mode) (See note 3 and 7)	<65,000 Btu/hr	Multisplit System or Multisplit System with Heat Recovery	--	--	ENERGY STAR® Certified
	≥65,000 Btu/hr and <135,000 Btu/hr		--	--	ENERGY STAR® Certified
	≥135,000 Btu/hr and <240,000 Btu/hr		--	--	ENERGY STAR® Certified
	>240,000 Btu/hr		--	--	ENERGY STAR® Certified

			Minimum Efficiency Requirement & Customer Incentive		
Equipment Type	**Size Category**	**Sub-Category**	**$31/ton**	**$62/ton**	**$93/ton**
VRF Water-Cooled Heat Pumps (Heating & Cooling Mode) (See note 3)	< 135,000 Btu/hr	Multisplit System or Multisplit System with Heat Recovery	--	--	CEE Tier 1
Heat Pumps, Ground-Source or Groundwater-Source (Heating & Cooling Mode)	All sizes	(See note 3)	--	ENERGY STAR® Certified	--
Ground Source or Groundwater-Source Heat Pump Loop	All sizes	Open Loop	$31/ton	--	--
		Closed Loop			

Equipment Type	**Size Category**	**Sub-Category**	**Minimum Efficiency Requirement & Customer Incentive**
			$800/ton
Heat Pumps, Air-Cooled, replacing electric resistance heating (Heating & Cooling Mode) (Retrofit only) (See note 3 and 7)	All sizes	Split system and single package	ENERGY STAR® Certified
	< 65,000 Btu/hr		ENERGY STAR® Certified

Notes for HVAC Equipment incentive tables

1. Equipment that meets or exceeds the efficiency requirements listed for the size category in the above table may qualify for the listed incentive. Equipment must meet all listed efficiency requirements to qualify for the listed incentives.
2. PTHPs can replace electric resistive heating, which must be removed.
3. Incentives for heat pumps are available per ton of cooling capacity ONLY. No incentives are paid per ton of heating capacity. Heat Pumps must meet both the cooling mode and heating mode efficiency requirements to qualify for per ton cooling efficiency incentives.
4. Equipment size categories are specified in terms of net cooling capacity at AHRI standard conditions as determined by AHRI Standard 210/240 for units <65,000 Btu/hr, AHRI Standard 340/360 for units ≥65,000 Btu/hr, AHRI Standard 1230 for VRF systems, and AHRI Standard 310/380 for PTAC and PTHP units.
5. Ground and Water Source Heat Pumps must meet or exceed listed efficiency requirements when rated in accordance with ISO-13256-1 to qualify for the listed incentive.
6. Efficiency requirements align with the Consortium for Energy Efficiency (CEE) Unitary Air-Conditioning and Heat Pump Specification or ENERGY STAR for equipment with heating sections other than electric resistance. Minimum efficiency requirements are listed on Pacific Power's website.
7. Equipment must meet CEE/ENERGY STAR part load efficiency requirements (SEER/SEER2 or IEER/IEER2). Equipment does not need to meet CEE/ENERGY STAR full load efficiency requirements (EER/EER2), as long as the part load efficiency requirement is also specified for the equipment by CEE/ENERGY STAR. If CEE/ENERGY STAR only lists full load efficiency requirements (EER/EER2), then equipment must meet this standard. Additionally, the equipment must meet or exceed state or federal full load efficiency standards, whichever is more stringent.
8. Incentives listed in the above table are not available for New Construction and Major Renovation project HVAC systems serving office, retail, library, educational, and multi-family occupancies that are subject to the HVAC total system performance ratio (TSPR) requirement in Washington State Energy Code 2018 or 2021. See New Construction/Major Renovation HVAC Equipment Incentive Table for incentive information.

AHRI = Air-Conditioning, Heating and Refrigeration Institute

CEE = Consortium for Energy Efficiency
COP = Coefficient of Performance
EER/EER2 = Energy Efficiency Ratio
HSPF/HSPF2 = Heating Seasonal Performance Factor
HVAC = Heating, Ventilation and Air-Conditioning
IEER/IEER2 = Integrated Energy Efficiency Ratio
PTAC = Packaged Terminal Air Conditioner
PTHP = Packaged Terminal Heat Pump
SEER/SEER2 = Seasonal Energy Efficiency Ratio
VRF = Variable Refrigerant Flow
TSPR = Total System Performance Ratio

Other HVAC Equipment and Controls Incentive Table

Equipment Type	Size Category	Sub-Category	Minimum Efficiency Requirement	Customer Incentive
Evaporative Cooling	All sizes	Direct or Indirect		$0.07/ CFM
Indirect-Direct Evaporative Cooling (IDEC)	All sizes	--	Applicable system components must exceed minimum efficiencies required by energy code	$0.18/kWh annual energy Savings (See Note 2)
Chillers	All except chillers intended for backup service only	Serving primarily occupant comfort cooling loads (no more than 20% of process cooling loads)	Must exceed minimum efficiencies required by energy code	$0.18/kWh annual energy Savings (See Note 3)
365/366 day Programmable or Occupancy-based Thermostat	All sizes in portable classrooms with mechanical cooling	Must be installed in portable classroom unoccupied during summer months	365/366 day thermostatic or occupancy based setback capability	$187/thermostat
Occupancy Based PTHP/PTAC control (Retrofit only)	All sizes with no prior occupancy based control	--	See Note 4	$62/controller
Evaporative Pre-cooler (Retrofit Only)		For single air-cooled packaged rooftop or matched split system condensers only.	Minimum performance efficiency of 75%. Must have enthalpy controls to control pre-cooler operation. Water supply must have chemical or mechanical water treatment.	$93/ton of attached cooling capacity (See Note 5)
Advanced Rooftop Unit Control (Existing RTU)	< 5 ton	Must be installed on existing unitary packaged rooftop units (no split-systems), with constant speed supply fans.	Controls must include: - Either a supply fan VFD or multi-speed supply fan motor with controller that meets ventilation and space conditioning needs - Digital, integrated economizer control	$500
	≥ 5 tons and ≤ 10 tons			$2,900
	> 10 tons and ≤ 15 tons			$3,900
	> 15 tons and ≤ 20 tons			$5,400
	> 20 tons			$6,000

Equipment Type	Size Category	Sub-Category	Minimum Efficiency Requirement	Customer Incentive
Advanced Rooftop Unit Control (Existing RTU, Demand-Controlled Ventilation only)	< 5 ton	Must be installed on existing unitary packaged rooftop units (no split-systems).	Controls must include: - Digital, integrated economizer controls that modulate based on occupancy - CO2 or occupancy-based sensor	$350
	≥ 5 tons and ≤ 10 tons			$625
	> 10 tons and ≤ 15 tons			$750
	> 15 tons and ≤ 20 tons			$875
	> 20 tons			$1,000
Advanced Rooftop Unit Control (New RTU)	< 5 ton	Must be installed on unitary packaged rooftop units (no split-systems), See Note 6	Controls must include: - Either a supply fan VFD or multi-speed supply fan motor with controller that meets ventilation and space conditioning needs - Digital, integrated economizer control	$200
	≥ 5 tons and ≤ 10 tons			$1,400
	> 10 tons and ≤ 15 tons			$2,000
	> 15 tons and ≤ 20 tons			$2,800
	> 20 tons			$3,200
Smart Thermostat	Residential (used in a business)		See Home Energy Savings program	

Notes for other HVAC equipment and controls incentive table

1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for the listed incentive.
2. Incentives are paid at $0.18/kWh annual energy savings. IDEC energy savings subject to approval by Pacific Power.
3. Incentives are paid at $0.18/kWh annual energy savings. Chiller energy savings subject to approval by Pacific Power.
4. Controller units must include an occupancy based control and include the capability to set back the zone temperature during extended unoccupied periods and set up the temperature once the zone is occupied.
5. Incentives for Evaporative Pre-coolers are capped at 70 percent of Energy Efficiency Project Costs and incentives will not be available to reduce the Energy Efficiency Project simple payback below one year. Energy Efficiency Project Costs are subject to Pacific Power approval.
6. Incentives are not available for new Advanced Rooftop Unit Control required by the applicable version of the state energy code.
7. Incentives listed in the above table are not available for New Construction and Major Renovation project HVAC systems serving office, retail, library, educational, and multi-family occupancies that are subject to the HVAC total system performance ratio (TSPR) requirement in Washington State Energy Code 2018 or 2021. See New Construction/Major Renovation HVAC Equipment Incentive Table for incentive information.
8. Incentives for Advanced Rooftop Unit Control are capped at 100 percent of Energy Efficiency Measure Costs, which are subject to Pacific Power approval.

CFM = Cubic Feet per Minute
DCV = Demand-Controlled Ventilation
IDEC = Indirect Direct Evaporative Cooling
HVAC = Heating, Ventilation and Air-Conditioning
PTHP = Packaged Terminal Heat Pump
PTAC = Packaged Terminal Air Conditioner
TSPR = Total System Performance Ratio

Building Envelope (Retrofit) Incentives

Equipment Type	Category	Minimum Efficiency Requirement	Customer Incentive
Cool Roof	--	Must meet the minimum SRI specified by the Green Globes Building Certification v1.0	$0.06/square foot
Roof/Attic Insulation	--	Minimum increment of R-10 insulation	$0.08/square foot
Wall Insulation	--	Minimum increment of R-10 insulation	$0.10/square foot
Windows (See Note 3, 4)	Site-Built	U-Factor ≤ 0.30 and SHGC ≤ 0.33 (Glazing Only Rating)	$0.42/square foot
	Assembly	U-Factor ≤ 0.30 and SHGC ≤ 0.33 (Entire Window Assembly Rating)	$0.42/square foot
Window Film	Existing Windows	See Note 5	$0.18/kWh annual energy savings (See Note 5)

Notes for retrofit building envelope incentive table

1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for the listed incentive.
2. Building must be conditioned with mechanical cooling to be eligible for envelope incentives.
3. Energy performance of window assemblies and glazing products must be rated in accordance with NFRC. Site-Built metal window systems must include a thermal break within the frame or other appropriate NFRC certification to qualify for incentives. Skylights are not eligible to receive incentives.
4. Window square footage is determined by the dimensions of the entire window assembly, not just the window glass.
5. Incentives for window film are calculated based on film specifications and window orientation at $0.18/kWh annual energy savings. Energy savings subject to approval by Pacific Power.

NFRC = National Fenestration Rating Council
SHGC = Solar Heat Gain Coefficient
SRI = Solar Reflectance Index

Building Envelope (New Construction/Major Renovation) Incentives

Equipment Type	Category	Minimum Efficiency Requirement	Customer Incentive
Windows (See Note 3, 4)	Site-Built	U-Factor ≤ 0.30 and SHGC ≤ 0.33 (Glazing Only Rating)	$0.42/square foot
	Assembly	U-Factor ≤ 0.30 and SHGC ≤ 0.33 (Entire Window Assembly Rating)	$0.42/square foot

Notes for building envelope (new construction/major renovation) incentives table

1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for the listed incentive.
2. Building must be conditioned with mechanical cooling to be eligible for envelope incentives.
3. Window square footage is determined by the dimensions of the entire window assembly, not just the window glass.
4. Energy performance of window assemblies and glazing products must be rated in accordance with NFRC. Site-Built metal window systems must include a thermal break within the frame or other appropriate NFRC certification to qualify for incentives. Skylights are not eligible to receive incentives.
5. Equipment installed to comply with the applicable version of the state energy code, but not exceeding that code, is not eligible for incentives.

NFRC = National Fenestration Rating Council
SHGC = Solar Heat Gain Coefficient

Food Service Equipment Incentives

Equipment Type	Equipment Category	Minimum Efficiency Requirement	Customer Incentive
Commercial Dishwasher (High Temperature models w/ electric boosters Only)	Undercounter	ENERGY STAR Certified	$125
	Stationary Rack, Single Tank, Door Type		$500
	Single Tank Conveyor		$1,250
	Multiple Tank Conveyor		$625
Electric Insulated Holding Cabinet	Double Size	ENERGY STAR Certified	$400
	Full Size		$857
	Half Size		$250
Electric Convection Oven	Full Size	ENERGY STAR Certified	$250
	Half Size		
Electric Griddle	Single-sided	ENERGY STAR Certified	$400
Electric Combination Oven	3 - 40 pans	ENERGY STAR Certified	$650
Anti-Sweat Heater Controls (Retrofit Only)	Low-Temp (Freezing) Cases	Technologies that reduce energy consumption of anti-sweat heaters based on sensing humidity.	$25 /linear foot (case length)
	Med-Temp (Refrigerated) Cases		$20 /linear foot (case length)
On-Demand Overwrapper	Process Loads	Overwrapper must use either a mechanical or optical control system	$200

Notes for food service equipment incentives table

1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for the listed incentive.

Appliances Incentive Table

Equipment Type	Equipment Category	Minimum Efficiency Requirement	Customer Incentive
High-Efficiency Clothes Washer	Residential (used in a business)	See Home Energy Savings program	
	Commercial Front-load (must have electric water heating and/or electric clothes dryer)	ENERGY STAR Certified	$300
Heat Pump Water Heater	Residential (used in a business)	NEEA Tier 3 or higher	$900
Heat Pump Clothes Dryer	Residential (used in a business)	See Home Energy Savings program	
Hybrid Heat Pump Clothes Dryer	Residential (used in a business)	See Home Energy Savings program	

Notes for appliances incentive table

1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for the listed incentive.
2. Equipment must meet the efficiency rating standard that is in effect on the date of purchase.
3. Refer to Pacific Power's Home Energy Savings program for efficiency requirements and incentives for listed residential appliances used in a business.
4. Additional incentive may be available to an approved Wattsmart Business Vendor contractor involved in the installation of an eligible heat pump water heater. Please see the Home Energy Savings program.

Incentives for Other Energy Efficiency Measures

Equipment Type	Replace	Minimum Efficiency Requirements	Customer Incentive
Engine Block Heater Control	No existing control	Controller must function thermostatically and be compatible with 110-volt, single-phase resistance immersion heaters. In addition, controller must be permanently installed at the participant site or on a vehicle. This incentive is only available for buses, delivery vehicles, and mass transit vehicles.	$120/qualifying unit

Notes for other energy efficiency measures incentives table

1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for the listed incentive.

Irrigation Incentives for Wheel Line, Hand Line, or Other Portable Water Distribution Systems (Retrofit Only)

Irrigation Measure	Replace	With	Limitations	Customer Incentive
New rotating, sprinkler replacing worn or leaking impact or rotating sprinkler	Leaking or malfunctioning impact rotating sprinkler	Rotating sprinkler	1. Fixed-in-place (solid set) systems not eligible. 2. Incentive limited to two sprinklers per irrigated acre.	$0.50 each
New impact Sprinkler replacing worn or leaking impact sprinkler	Leaking or malfunctioning impact sprinkler	New impact sprinkler	1 1. Fixed-in-place (solid set) systems not eligible. 2. Incentive limited to two sprinklers per irrigated acre.	$0.50 each
New nozzle replacing worn nozzle of same design flow or less on existing sprinkler	Worn nozzle	New nozzle (including flow control nozzles) of same design flow or less	1. Flow rate shall not be increased. 2. Fixed-in-place (solid set) systems not eligible. 3. Incentive limited to two nozzles per irrigated acre.	$1.50 each
New gasket replacing leaking gasket, including mainline valve or section gasket, seal, or riser cap (dome disc)	Leaking gasket	New gasket, including mainline valve or section gasket, seal, or riser cap (dome disc)	1. New gasket must replace leaking gasket. 2. Fixed-in-place (solid set) systems not eligible. 3. Incentive limited to two gaskets per irrigated acre.	$2 each
New drain replacing leaking drain	Leaking drain	New drain, including drains on pivots and linears	1. New drain must replace leaking drain. 2. Fixed-in-place (solid set) systems not eligible. 3. Incentive limited to two drains per irrigated acre.	$2 each
New or rebuilt wheel line leveler replacing leaking or malfunctioning leveler	Replace leaking or malfunctioning leveler	New or rebuilt leveler	1. Applies to leaking or malfunctioning levelers only. 2. For rebuilds, invoice must show number of rebuild kits purchased and installed.	$1 each

Irrigation Incentives for Pivot and Linear Water Distribution Systems (Retrofit Only)

Irrigation Measure	Replace	With	Limitations	Customer Incentive
Pivot and linear sprinkler package replacement, high pressure	Worn impact sprinkler	New impact sprinkler or rotator, including nozzle	Design flow shall not be increased	$7 each
Pivot and linear sprinkler package replacement, MESA	Worn low pressure sprinkler and regulator	New low pressure sprinkler, including nozzle, and regulator	Applicable to MESA-configured center pivots and linears. Design flow rate shall not be increased.	$4 each
Pivot and linear sprinkler package replacement, LESA/LEPA/MDI	Worn low pressure sprinkler and regulator	New low pressure sprinkler, including nozzle, and regulator	Applicable to LESA/LEPA/MDI-configured center pivots and linears. Design flow rate shall not be increased.	$2 each
Pivot and linear upgrade from high pressure to MESA	Conversion of center pivot or linear move from high pressure (impact) sprinklers on top.	Conversion of center pivot or linear move to MESA configuration	Incentive is per drop. Design flow rate shall not be increased.	$7 each

Pivot and linear upgrade from high pressure to LESA/LEPA/MDI	Conversion of center pivot or linear move from high pressure (impact) sprinklers on top.	Conversion of center pivot or linear move to LESA/LEPA/MDI configuration	Incentive is per drop. Design flow rate shall not be increased.	$7 each
Pivot and linear upgrade from MESA to LESA/LEPA/MDI	Conversion of center pivot or linear move from MESA configuration	Conversion of center pivot or linear move to LESA/LEPA/MDI configuration	Incentive is per drop. Design flow rate shall not be increased.	$5 each

Irrigation Incentives for Any Type of System (Retrofit or New Construction, Including Non-agricultural Irrigation Applications)

Irrigation Measure	Replace	With	Limitations	Customer Incentive
Irrigation pump VFD		Add variable frequency drive to existing or new irrigation pump	1. Pumps serving any type of irrigation water transport or distribution system are eligible – wheel lines, hand lines, pivots, linears, fixed-in-place (solid set). 2. Both retrofit and new construction projects are eligible. 3. Incentives are capped at 70 percent of Energy Efficiency Project Costs, and incentives will not be available to reduce the Energy Efficiency Project simple payback below one year. Energy savings and Energy Efficiency Project Costs are subject to Pacific Power approval.	$0.28/kWh annual savings

Notes for irrigation incentive tables
1. Equipment that meets or exceeds the requirements above may qualify for the listed incentive.
2. Except for the pump VFD measure, incentives listed here are available only for retrofit projects where new equipment replaces existing equipment (i.e., new construction is not eligible).
3 Except for the pump VFD measure, equipment installed in fixed-in-place (solid set) systems is not eligible. Incentive is limited to two units per irrigated acre.

LESA/LEPA/MDI = Low-Elevation Spray Application/ Low Energy Precision Application/ Mobile Drip Irrigation
MESA = mid-elevation spray application
VFD = Variable Frequency Drive

Farm and Dairy Incentives

Equipment Type	Equipment Category	Minimum Efficiency Requirements	Customer Incentive
Automatic Milker Takeoffs (Retrofit Only)	--	Equipment must be able to sense milk flow and remove milker when flow reaches a pre-set level. The vacuum pump serving the affected milking units must be equipped with a VFD. Incentive is available for adding automatic milker takeoffs to existing milking systems, not for takeoffs on a brand new system where there was none before. Replacement of existing automatic milker takeoffs is not eligible for this listed incentive, but may qualify for a Custom Energy Efficiency Incentive.	$294 each
High Efficiency Circulating Fans (See Note 2)	12-23" Diameter	Fan must achieve an efficiency level of 11 cfm/W	$31/fan
	24-35" Diameter	Fan must achieve an efficiency level of 18 cfm/W	$44/fan
	36-47" Diameter	Fan must achieve an efficiency level of 18 cfm/W	$62/fan
	≥48" Diameter	Fan must achieve an efficiency level of 25 cfm/W	$94/fan
Heat Recovery	--	Heat recovery unit must use heat rejected from milk cooling refrigeration system to heat water. Customer must use electricity for water heating.	$0.28/kWh annual energy savings
High-efficiency Ventilation Fans (See Note 2)	12-23" Diameter	Fan must achieve an efficiency level of 11 cfm/W	$56/fan
	24-35" Diameter	Fan must achieve an efficiency level of 13 cfm/W	$94/fan
	36-47" Diameter	Fan must achieve an efficiency level of 17 cfm/W	$156/fan
	≥48" Diameter	Fan must achieve an efficiency level of 19.5 cfm/W	$188/fan
Milk Pre-coolers (Retrofit Only)	--	The equipment must cool milk with well-water before it reaches the bulk cooling tank.	$0.28/kWh annual energy savings
Programmable Ventilation Controllers	--	Controller must control ventilation fans based on temperature or other applicable factors such as humidity, odor concentration, etc.	$25/fan controlled
Variable Frequency Drives for Dairy Vacuum Pumps (Retrofit Only)	--	VFD must vary motor speed based on target vacuum level. Incentive available for retrofit only (i.e., new construction and replacement of existing VFD not eligible.).	$206/hp
Potato or Onion Storage Fan VFD	--	Add variable frequency drive to existing or new fan in potato or onion storage	$219/hp

Notes for farm and dairy incentives table

1. Equipment that meets or exceeds the efficiency requirements above may qualify for the listed incentive.
2. Fan performance must be rated by an independent testing body in accordance with the appropriate ANSI/AMCA standards.
3. Incentives are capped at 70 percent of Energy Efficiency Project Costs and incentives will not be available to reduce the Energy Efficiency Project simple payback below one year. Energy savings and Energy Efficiency Project Costs are subject to Pacific Power approval.
4. Except where noted, all equipment listed in the table is eligible for incentives in both new construction and retrofit projects.

AMCA = Air Movement and Control Association International, Inc.
ANSI = American National Standards Institute
VFD = Variable Frequency Drive
cfm = cubic feet per minute
W = watt

Compressed Air Incentives

Equipment Category	Replace	With	Limitations	Customer Incentive
Receiver Capacity Addition	Limited or no receiver capacity (≤ 2 gallons per scfm of trim compressor capacity)	Total receiver capacity after addition must be > 2 gallons per scfm of trim compressor capacity	1. Compressor system size ≤ 75 horsepower, not counting backup compressor(s). 2. Trim compressor must use load/unload control, not inlet modulation or on/off control. 3. Systems with VFD compressor or using variable displacement compressor are not eligible.	$3.75/gallon above 2 gallons per scfm
Cycling Refrigerated Dryers	Non-cycling refrigerated dryer	Cycling refrigerated dryer	1. Rated dryer capacity must be ≤ 500 scfm 2. Dryer must operate exclusively in cycling mode and cannot be equipped with the ability to select between cycling and non-cycling mode. 3. Refrigeration compressor must cycle off during periods of reduced demand	$2.50/scfm
VFD Controlled Compressor (Retrofit Only)	Fixed speed compressor	≤ 75 hp VFD controlled oil-injected screw compressor operating in system with total compressor capacity ≤ 75 hp, not counting backup compressor capacity	1. Total compressor capacity in upgraded system is ≤ 75 hp, not counting backup compressor capacity. 2. Compressor must adjust speed as primary means of capacity control.	$0.28/kWh annual energy savings
Zero Loss Condensate Drains	Timer drain	Zero loss condensate drain (See Note 4)	Drain is designed to function without release of compressed air into the atmosphere. Any size system is eligible – there is no restriction on compressor size.	$125 each
Outside Air Intake	Compressor intake drawing air from compressor room	≤ 75 hp compressor where permanent ductwork between compressor air intake and outdoors	Ductwork must meet manufacturer's specifications, which may include: (a) ≤ 0.25" W.C. pressure loss at rated flow, and (b) allow use of compressor room air during extremely cold outside air conditions	$7.50/hp

Notes for compressed air incentive table

1. Equipment that meets or exceeds the efficiency requirements above may qualify for the listed incentive.
2. Except for the zero loss condensate drain measure, eligibility for incentives is limited to compressed air systems with total compressor capacity of 75 hp or less, not including backup compressor capacity that does not normally run.
3. Incentives are capped at 70 percent of Energy Efficiency Project Costs and incentives will not be available to reduce the Energy Efficiency Project simple payback below one year. Energy savings and Energy Efficiency Project Costs are subject to Pacific Power approval.
4. Zero Loss Condensate Drains purchased as an integral part of another measure are eligible for the incentive shown above.

hp = horsepower
PPM = parts per million
PSI = pounds per square inch
scfm = cubic feet of air per minute at standard conditions (14.5 psia, 68°F, and 0% relative humidity)
VFD = Variable Frequency Drive

Incentives for Wastewater and other Refrigeration Energy Efficiency Measures

Equipment Type	Replace	With	Customer Incentive
Adaptive refrigeration control	Conventional controls (defrost timeclock, space thermostat, evaporator fan control, if any, thermal expansion valve in some instances)	Adaptive refrigeration controller and, in some instances, electric expansion valve	$0.28/kWh annual energy savings
Fast acting door	Manually operated door, automatic door with long cycle time, strip curtain, or entryway with no door in refrigerated/conditioned space	Fast acting door	$0.28/kWh annual energy savings
Wastewater – low power mixer	Excess aeration capacity	Extended range circulator	$0.28/kWh annual energy savings

Notes for wastewater and other refrigeration energy efficiency measures incentives table

1. Equipment that meets or exceeds the efficiency requirements above may qualify for the listed incentive.
2. Incentives are capped at 70 percent of Energy Efficiency Project Costs and incentives will not be available to reduce the Energy Efficiency Project simple payback below one year. Energy savings and Energy Efficiency Project Costs are subject to Pacific Power approval.

Enhanced Incentives for Small Businesses – Lighting (Retrofit only)

Customer Eligibility Requirements	Equipment Eligibility Requirement		Customer Incentive
Small business	LED General Illuminance Lighting Retrofits (not listed below)		$0.50/kWh
	LED General Illuminance Lamp Replacement		$0.30/kWh
	Lighting Controls (interior only)	PIR, Dual Tech, Integral Sensor, or Basic Controls	$0.38/kWh
		Advanced Networked Lighting Controls	$0.46/kWh
	LED Exterior Full Fixture Replacement (except Street Lighting)	With upgrade to Advanced Dimming Controls	$0.22/kWh
		Without controls upgrade	$0.12/kWh
	LED Exterior Fixture Retrofit Kits (except Street Lighting)	With upgrade to Advanced Dimming Controls	$0.14/kWh
		Without controls upgrade	$0.11/kWh
	LED Exterior Replacement Lamps (except Street Lighting)	With or without controls upgrade	$0.07/kWh

Notes for enhanced incentives for small businesses – lighting table:

1. Incentives for equipment listed in this table are only available for small business customers meeting customer eligibility requirements posted on Pacific Power's website.
2. To be eligible for the incentives listed, the new lighting system must use less energy than the existing lighting system replaced or the baseline lighting system as determined by Pacific Power.
3. Incentives are paid per kWh annual energy savings as determined by Pacific Power. Incentives are capped at 90 percent of Energy Efficiency Project Costs. Energy Efficiency Project Costs and energy savings are subject to Pacific Power approval.
4. Eligible lighting equipment is defined in qualified equipment lists posted on the Washington energy efficiency program section of Pacific Power's website.

5. Lighting control incentives ($/kWh) are paid per kWh annual energy savings from the installation of lighting controls as determined by Pacific Power.
6. For non-general illuminance lighting, please see the Lighting System Retrofits Incentive Table.

LED –Light Emitting Diode
PIR – Passive infrared

Enhanced Incentives for Select Very Small Businesses and Named Community Small Businesses – Lighting (Retrofit only)

Customer Eligibility Requirements	Equipment Eligibility Requirement		Customer Incentive
Small businesses that meet specific eligibility requirements Named community small business	LED General Illuminance Lighting Retrofits		$0.55/kWh
	LED General Illuminance Lamp Replacement		$0.38/kWh
	LED Exterior Lighting Retrofits		$0.30/kWh
	Lighting Controls (interior only)	PIR, Dual Tech, Integral Sensor, or Basic Lighting Controls	$0.38/kWh
		Advanced Networked Lighting Controls	$0.46/kWh

Notes for enhanced incentives for very small businesses and named community small businesses – lighting table:

1. Incentives for equipment listed in this table are only available for select very small business customers and named community small business customers meeting customer eligibility requirements posted on Pacific Power's website.
2. To be eligible for the incentives listed, the new lighting system must use less energy than the existing lighting system replaced or the baseline lighting system as determined by Pacific Power.
3. Incentives are paid per kWh annual energy savings as determined by Pacific Power. Incentives are capped at 100 percent of Energy Efficiency Project Costs. Energy Efficiency Project Costs and energy savings are subject to Pacific Power approval.
4. Eligible lighting equipment is defined in qualified equipment lists posted on the Washington energy efficiency program section of Pacific Power's website.
5. Lighting control incentives ($/kWh) are paid per kWh annual energy savings from the installation of lighting controls as determined by Pacific Power.
6. For non-general illuminance lighting, please see the Lighting System Retrofits Incentive Table.

LED –Light Emitting Diode
PIR – Passive infrared

Enhanced Incentives for Small Businesses, Select Very Small Businesses, and Named Community Small Businesses – Non-lighting (Retrofit only)

Category	Measure	Eligibility Requirements	Maximum Incentive
Vehicle	Engine Block Heater Control	Controller must function thermostatically and be compatible with 110-volt, single-phase resistance immersion heaters. In addition, controller must be permanently installed at the participant site or on a vehicle. This incentive is only available to buses, delivery vehicles, and mass transit vehicles with no existing engine block heater controls.	Up to $200 per qualifying unit
HVAC	Ductless Heat Pump	Ductless heat pump must be 3 ton or less The zone where the DHP is installed must have pre-existing zonal electric resistance heat, may or may not have pre-existing cooling, and must not have or be served by a non-electric heating source. Applicable space types are offices, grocery and non-grocery retail, lodging common areas, and lodging guest rooms. Commercial kitchen, computer server room, or other space where heating is not required are not eligible.	Up to $2,500 per ton
	Thermostat	Qualified thermostat must have these capabilities: - Multiple temperature set-back schedules - Fan-mode scheduling (continuous-on versus auto mode) - Limited-duration over-rides (reverts to programming after 24 hours) - Remote (web-based) monitoring and programming - Automatic restoration after power outage - Support multiple cooling stages Thermostat must be web-connected (LAN or WAN), and remote programming must be operational.	Up to $300 per qualifying unit
Refrigeration	Anti-sweat Heater Controls (Retrofit Only)	Technologies that reduce energy consumption of anti-sweat heaters based on sensing humidity.	Up to $80 per linear ft
	Evaporator Fan Motor for Walk-in Cooler or Freezer	Installation of an electronically commutated motor (ECM) to replace a functioning shaded pole (SP) motor on an existing walk-in cooler or freezer evaporator fan motor.	Up to $200 per motor
	Evaporator Fan Motor for Display Case Cooler or Freezer	Installation of an electronically commutated motor (ECM) or permanent magnet synchronous motor (PMSM) to replace a functioning shaded pole (SP) or permanent split capacitor (PSC) on a display case cooler or freezer evaporator fan motor.	Up to $200 per motor
Water Heating	Heat Pump Water Heater (HPWH)	Residential heat pump water heater used in a business Must be NEEA Tier 3 or higher	Up to $1,500 per unit

Notes for enhanced incentives for very small businesses and named community small businesses – non-lighting table:

1. Incentives for equipment listed in this table are only available for small business customers, select very small business customers, named community small business customers meeting customer eligibility requirements posted on Pacific Power's website.
2. Incentives are capped at 90 percent of qualifying Energy Efficiency Measure Costs for customers meeting small business criteria. Energy Efficiency Measure Costs are subject to Pacific Power approval.
3. Incentives are capped at 100 percent of qualifying Energy Efficiency Measure Costs for customers meeting very small business or named communities business criteria. Energy Efficiency Measure Costs are subject to Pacific Power approval.

Mid-Market Incentives

Measure	Category	Eligibility Requirements	Maximum Incentive
LED	PLC Pin-based Lamp <10 W	LED must be listed on qualified equipment list	Up to $10/Lamp
	PLC Pin-based Lamp ≥ 10 W	LED must be listed on qualified equipment list	Up to $15/Lamp
	PLL Pin-based Lamp	LED must be listed on qualified equipment list	Up to $15/Lamp
	T8 TLED Lamp	LED must be listed on qualified equipment list	Up to $10/Lamp
	T5 TLED Lamp	LED must be listed on qualified equipment list	Up to $15/Lamp
	HID Replacement Lamp <40 W	LED must be listed on qualified equipment list	Up to $50/Lamp
	HID Replacement Lamp ≥40 and < 70 W	LED must be listed on qualified equipment list	Up to $70/Lamp
	HID Replacement Lamp ≥70 and < 140 W	LED must be listed on qualified equipment list	Up to $90/Lamp
	HID Replacement Lamp ≥140W	LED must be listed on qualified equipment list	Up to $110/Lamp

Notes for mid-market incentives:

1. Incentives are capped at 70 percent of qualifying equipment costs. Qualifying equipment costs are subject to Pacific Power approval.
2. Qualified equipment lists referenced in the above table are posted on the Washington energy efficiency program section of Pacific Power's website.
3. Incentives for measures in this table are available through Pacific Power-approved retailers/distributors or a customer application process.
4. Actual incentives will be posted on Pacific Power's website and subject to change with 45 days' notice. Change notices will be prominently displayed on program website and communicated to participating retailers/distributors and Trade Allies.

HID = High Intensity Discharge (e.g., high pressure sodium, metal halide)
PLC = Pin Lamp Compact Fluorescent
PLL = Pin Lamp Long Compact Fluorescent
TLED = Tubular Light Emitting Diode
W = Watt

Direct Install Incentives

Measure	Category	Eligibility Requirements	Maximum Incentive
LED	TLED Lamp	LED must be listed on qualified equipment list	Up to $10/Lamp

Notes for Direct Install Incentives

1. Incentives will be set at the full cost of the installed equipment, without exceeding the "up to" amount.

TLED = Tubular Light Emitting Diode

HVAC Check-up Incentives

Measure	Customer Incentive
Maintenance Agreement	$75/RTU
Thermostats	$350/Thermostat
Economizer	$150/RTU
Refrigerant	$35/Ton RTU Capacity

Notes for HVAC Check-up incentives:

Incentives are capped at 70 percent of qualifying Energy Efficiency Measure Costs. Qualifying Energy Efficiency Measure Costs are subject to Pacific Power approval.

RTU – Rooftop Unit

Other Programs & Initiatives

This section of the business plan includes information on the Company's Energy Education in Schools program, a general "education only" program; NEEA, an external group partly funded through Company dollars; and the Wattsmart communications and outreach campaign.

Energy Education in Schools

Years of Implementation

This "education only" program replaced the previous "education and savings" program which ran from April 2003 through June 2012. The program, "Be Wattsmart, Begin at Home", was implemented with school presentations beginning in February 2013 (See "Year One Timeline" below under "Program Details"). Program costs are reflected in Tables 1, 2 and 3 of this plan.

Program Description

The Company has contracted with the National Energy Foundation (NEF) to implement the Be Wattsmart, Begin at Home program in schools during the 2015-16, 2016-17, 2017-18, 2018-19, 2019-20, 2021-22, and 2022-23 school years.

Program costs fall under Paragraph (7) (c) in Order 01 of Docket UE-210830, Conservation Efforts without Approved EM&V Protocol, where the Company can spend up to ten (10) percent of its conservation budget on programs whose savings impact has not yet been measured provided the overall portfolio of programs still pass the Total Resource Cost as described in Paragraph (8) (a) of the same Order 01.

NEF is a non-profit corporation with more than 45 years providing energy education and awareness. The mission of NEF is to "cultivate and promote an energy literate society".

Program Changes

The Company's contract with National Energy Foundation (NEF) concluded with the Fall 2022 school assembly presentations and delivered final reports in early 2023. To continue the education program for the 2023-2024 school year, the Company issued a competitive RFP in 2022, which NEF won and will keep the education program's fundamentals. The budget provided in Table 3 is based on the current contract.

Evaluation Information

As this is an "education only" initiative, no third-party impact evaluation is anticipated beyond verification that the program is being delivered as reported. See "household audits cards" in "Program Details" section below.

Program Details

The centerpiece of the program is a series of 40-to-60-minute 4th grade appropriate presentations to educate students on core electricity components and efficient use, including the importance of energy efficiency and how students can become more energy efficient. The targeted grade level is 4th grade based on curriculum correlations with the Washington Office of Superintendent of Public Instruction Learning Standards. Typically, the school visit includes a custom designed presentation

and hands-on group activities. Teachers receive a packet of instructional materials in advance of the school presentations to assist with energy literacy education. If teachers can't complete the program with an in-person presentation, NEF provides an option for the program to be completed with a pre-recorded presentation.

The school presentations are designed to get students "thinking" about energy and energy efficiency. In addition, an integrated follow-up to the school presentations will be provided through a home audit and household audit activity that is intended to provide students and their parents with an opportunity to "act" on the information they have learned. Students are provided informational booklets and a household audit activity to fill out regarding the energy use and energy efficiency topics they were taught. Students return the household audit report to their teachers, who in turn submit them to NEF. NEF provides teachers with an incentive for collecting the household audit cards. Each teacher returning at least 80 percent of their students' completed household audit cards receive a $50 mini-grant. Those returning 50-79 percent of the household audit cards receive a $25 mini-grant. The data is summarized and reported to determine energy efficiency behavioral data and other program participation information.

Program Metrics per Year

Total number of schools:	approximately 47
Total number of students:	approximately 3,650
Percent of eligible schools reached:	approximately 80 percent
Total teachers	approximately 150
Target return rate - Home Energy Worksheets	approximately 60 percent

Anticipated Outcomes

- Teachers, students, and families become more energy literate, particularly in the understanding of energy efficiency.
- Teachers, students, and families learn to become responsible energy stewards for the future of their community and state.
- Teachers, students, and families make a commitment to use energy more wisely at home, at school, at work, and in the community.
- Teachers, students and families will have a greater awareness of what it means to be Wattsmart, and the resources available to them.
- A culture of energy efficiency will be developed among teachers, students, and families.
- Families will become more aware and motivated to take advantage of energy efficiency programs provided by the Company.
- Data will be gathered, analyzed, summarized, and reported regarding student sharing of energy efficiency messages with their family, home energy use, energy efficiency practices, and how the program is achieving its anticipated outcomes.

Northwest Energy Efficiency Alliance

Years of Implementation
NEEA has been serving the Northwest region of Oregon, Washington, Idaho, and Montana since 1997.

Program Description
NEEA is a non-profit corporation supported by, and working in collaboration with, the Bonneville Power Administration, Energy Trust of Oregon and more than 100 Northwest utilities including Pacific Power.

Program Details
NEEA works in collaboration with its funders and other strategic market partners to accelerate the innovation and adoption of energy-efficient products, services, and practices.

Costs includes both Pacific Power's direct funding of NEEA and the Company's internal management costs. NEEA 2024 and 2025 forecasted expenditures are based on Pacific Power's share (2.55% in 2024; 2.559% in 2025) of the estimated annual costs provided by NEEA staff. The 2024-2025 biennial electric savings forecast was provided by NEEA and includes savings above the Council's 2021 power plan baseline and excludes the estimate from savings from local programs including those operated by Pacific Power and the rest of the region's utilities/program administrators. Savings from NEEA's trackable measures category are not included in this forecast.

NEEA's savings counting methodology (including provisions to prevent double counting) can be found in the Q2 2019 Cost Effectiveness Advisory Committee (CEAC) Packet. The savings calculation is found in Appendix A. Advisory Committee information (including CEAC) can be found on NEEA's web site at:
https://neea.org/get-involved/advisory-committee-resources?committeeTypes=cost-effectiveness-type

See Appendix 3 to the Biennial Conservation Plan for more detail on NEEA's forecast and savings calculation methodology and Pacific Power's regional savings share. See the Biennial 2024-2025 Conservation Target section of the Biennial Conservation Plan for Pacific Power treatment of NEEA savings consistent with Statewide Advisory Group report filed in docket UE-171092.

In summary NEEA's plan to accomplish this goal includes:

- Building and leveraging relationships to influence the market.
- Designing and executing strategic market interventions to expand the availability and demand for energy efficient products, services and practices.
- Identifying, developing and advancing emerging opportunities to fill the pipeline for energy efficiency.
- Delivering education and training to expand market capacity to deliver and maintain energy-efficient products, services and practices.
- Facilitating regional coordination, collaboration and knowledge sharing to align interests and accelerate energy efficiency efforts.

- Demonstrating and promoting the value of energy efficiency to increase demand.
- Developing market intelligence and resources to help NEEA partners achieve their goals.
- Advancing the adoption and implementation of increasingly efficient energy codes and standards to lock in long-term savings.

NEEA's initiatives are outlined in the 2020-2024 Business and Strategic Plans and annual reports. Work on the next plan is underway. More information on NEEA's initiatives and business and strategic plans can be found at the following on the NEEA website:

- Market Transformation Programs
  https://neea.org/our-work/programs

- Strategic and business plans for 2020-2024
  https://neea.org/resources/neea-2020-2024-strategic-and-business-plans

- Draft Strategic and Business Plans for 2025-2029
  Northwest Energy Efficiency Alliance (NEEA) | Draft 2025-2029 NEEA…

Customer Outreach and Communications

Years of Implementation

In 2011, the Company implemented Wattsmart, the demand-side management communication and outreach campaign. The Wattsmart program was put into action to meet the program design principal conditions of Order 02 in Docket UE-100170 specific to energy efficiency program outreach.

Program Description

The conditions for outreach for programs required Pacific Power to establish a strategy for informing participants about program opportunities. The Wattsmart communications campaign was designed to create awareness of the importance of being energy efficient and to help increase participation in the Company's demand-side management programs. The programs are funded through the system benefit charge adjustment (Schedule 191) collected on customer bills.

PacifiCorp is working to address cultural barriers and embrace cultural differences by obtaining a deeper understanding of the communities within its service area. PacifiCorp's EAG has advised that the Company needs to further its understanding of different communities so that we can refine and enhance our mechanisms for outreach and communication, which is why we are exploring new advertising channels to better reach Spanish-speaking customers more directly in their communities. For example, PacifiCorp launched a pilot program to increase awareness and participation in Pacific Power's Wattsmart energy efficiency programs. For this initiative, the Company is working closely with a multicultural marketing agency to develop an earned media plan that will connect, resonate and strengthen media and customer relationships to reach the Hispanic community using culturally relevant messaging and content. Through contacts with community organizations, we are continually learning and working toward accommodating cultural differences along with continuing to nurture relationships with local chambers of commerce to better reach communities.

Program Details

Provided in the table below is a summary of the media channels that were used to deliver the Wattsmart campaign in 2023.

Communication Channel	Value
TV/OTT (over-the-top)	Ads targeting both residential and business customers were featured throughout the year.
Radio	Radio for Wattsmart residential and business campaigns ran for several months during the year in English and Spanish.. For the residential audience, two Spanish-only flights ran in Q2, totaling 200 spots. Business ads ran from April through September in English and Spanish. Stations for the residential campaign included KZTA-FM and KZTB-FM. The Business station was News Talk. KIT-AM.

Cable	Cable advertisements for the Wattsmart residential campaign ran from April through August. The content of the ad was energy efficiency incentives and summer cooling messages.
Social media ads and content	Other interactive campaign elements such as online media and social media work with traditional media to enhance the campaign by driving traffic to the program websites. Ads run on Facebook and Instagram. Energy efficiency content is typically shared through our channels a few times per month.
Other Online	Digital advertising helps increase awareness of energy efficiency and programs. . Some examples include banner ads on regional news websites, and entertainment platforms, using behavioral and/or demographic ad targeting, and pay-per-click ad placements.
Multicultural Outreach and Earned Media	Radio and television interviews with local networks, publication of print and email articles, and partnerships with local community influencers to help disseminate messages.
Public Relations	Pitched and earned coverage on case studies, including the Cowiche Growers Wattsmart Business case study
Business Energy Reports	Business Energy Report monthly emails began in September 2022. Customers receive ongoing monthly emails containing personalized energy usage insights, energy-saving tips and links to Wattsmart programs. The emails have an average open rate of 43% and a click-thru rate of 3%.

The 2023 Communications and Outreach plan was reviewed with the Demand-side Management Advisory Group in December 2022. The 2023 plan evolved from 2022 to include a multicultural outreach effort, along with some cable TV, digital, social, radio and OTT (over-the-top) advertising..

The Company's 2022 research showed that among respondents 80%t (residential) and 69% (non-residential) think Pacific Power is doing a good job of offering solutions to help customers use energy more efficiently. Similarly, 81% (residential) and 69% (non-residential) report the Company is doing a good job of providing information on how to control electricity costs.

Among residential customers, 49% recall seeing, hearing or reading about the "Wattsmart" energy efficiency program. Among non-residential customers, 40% report the Company is doing a very good job of providing information about products and services that are of value to the organization/business. Ninety-four percent of business customers feel it is very important or somewhat important to offer customers programs to help them conserve energy.

More than 60% of residential and 41% of non-residential respondents report taking action to reduce their energy use in the past year. Of those taking action, the most common actions are installing energy-efficient lighting, turning off lights more frequently, and reducing heating thermostat settings.

The primary reason customers are acting is to save money.

The objectives of the communications and outreach campaign in the 2022-2023 biennium are to continue to increase awareness of the availability and benefits of energy efficiency programs, cash incentives and resources to boost participation and achieve energy conservation targets in Washington. The campaign will also integrate messaging that reflects where customers are at in the current economic climate as a result of COVID-19.

In 2024-25, the Company will revisit the residential and business creative, and develop a fully-integrated campaign to capture the attention of customers and empower them to participate in energy efficiency to meet their goals. We intend to continue to utilize media channels that reach our business and residential customers and will look at new methods of targeting different demographic groups. The Company plans to create new business focused case studies and advertising to amplify customers who are benefitting from the Wattsmart Business program and encourage other businesses to pursue energy efficiency upgrades to boost their bottom lines, enhance their workplaces and realize other benefits.

Proposed adjustments for the 2024/2025 biennium:

Communication Tactic	2024/2025
Television/OTT (over-the-top): A selection of ads may be rotated for 30-second and 15-second spots. This could also include cable TV.	Continue to develop and refine messaging based on customer research, program goals and the current economic climate.
Radio: Some radio stations on which campaign spots will air include KZTB-FM (Regional Mexican), KIT-AM (news talk) KZTA-FM (Regional Mexican), KDNA-FM (Regional Mexican)	Continue to refine messaging based on customer research, program goals and the current economic climate. Adjust Spanish paid messaging to reflect culturally relevant messaging.
Web: English pages: PacificPower.net/Wattsmart and/or ((	Continue to simplify the web pages and get the customers to the information they are looking for easily. Add more content and further refine existing Spanish-language

BeWattsmart.com) PacificPower.net/wasave Spanish pages: PacificPower.net/Invierno PacificPower.net/Verano PacificPower.net/Negocios	energy efficiency pages and assets (such as downloadable brochures).
Facebook/Instagram/LinkedIn	Information and tips posted a few times per month. Promoted video, static posts and mobile ads will be added where appropriate. Promote business case studies, to get additional awareness and engagement.
Digital	Include video and static banner ads on local sites, blogs, behavioral ad targeting, and pay-per-click ad placements and digital search for business customers.
Public Relations Capitalize on existing assets and tools to deploy news media outreach and consumer engagement efforts that are aligned with marketing (corporate) objectives.	Pitches will be focused on promoting business case studies and seasonal messaging.
Multicultural Outreach and Earned Media	Continue radio and television interviews with local networks, publication of print and email articles, and partnerships with local community influencers to help disseminate messages.
Case studies	Continue to develop and promote case studies using above channels
Business Energy Reports	Continue to email Business Energy Reports to offer usage insights, links to programs and case studies as well as personalized no-cost, low-cost energy-saving tips.

Given the dynamic nature of communications, the Company will review the proposed plan with the demand-side management advisory group in the fourth quarter of 2023 and seek their comments as well as the Equity Advisory Group's comments to shape the final 2024 plan.

Cost Effectiveness

2024-2025 Portfolio

The cost effectiveness of individual programs proposed for the 2024-2025 biennium period and the portfolio views described below were assessed based on forecasted expenditures and energy savings.

Cost effectiveness is provided at the following levels:

- Individual program[27] or initiative[28] level
- Residential energy efficiency portfolio (Company programs)
- Non-residential energy efficiency portfolio (Company programs) [29]
- Total Company portfolio with portfolio costs added
- Total Company portfolio with portfolio costs and non-energy impacts added
- Total Company portfolio with portfolio costs and NEEA added
- Total Company portfolio with portfolio costs, NEEA and non-energy impacts added

Forecasted energy savings utilized in this analysis are gross savings and the impact of line losses is indicated with an "at site" or "at generation" designation. Line losses for retail customer programs are based on the Company's 2018 line loss study.

Consistent with the rules[30] and staff direction, cost-effectiveness for the low-income weatherization program will not be assessed at a program or portfolio level. Reporting for the program will include number of residences weatherized, number of measures installed, energy savings and total expenditures.

All cost effectiveness calculations utilize a Net-to-gross ratio of 1.0 consistent with the Council's methodology and 8(a) of Order 01 in Docket UE-210830. The energy savings attributed to each program are shaped according to specific end-use savings (the hourly calculation of when energy is used for the various end-use measures from which the savings are derived). Program costs and the value of the energy savings are then compared on a present value basis with the 2023 IRP preferred portfolio (W-10 SC CETA) proxy decrement values described below.

The Company derived energy efficiency avoided costs (known as decrement values) from the preferred portfolio in the 2023 IRP filed on May 31, 2023. The passage of Senate Bill 5116 enabling CETA requires the use the social cost of carbon and expanded use of non-energy impacts (NEI's). The Company broadly incorporated NEI's from a literature review study conducted by DNV for PacifiCorp measures and applied and valued in consultation with the Company's DSM advisory group. These ($/MWH) NEIs were used to generate energy efficiency selections to begin the target setting process. Two types of NEIs are included in the program and portfolio cost effectiveness calculation. Measure level NEIs from the DNV study and those from the Regional Technical Forum which are also included in the measure forecast. The cost effectiveness memos

[27] Home Energy Savings, Home Energy Reports
[28] NEEA
[29] Wattsmart Business
[30] WAC 480-109-100 10(C)

provide tabular display by program of the values. This approach is similar to prior biennial periods. The NEI values will also be utilized to provide information on the distribution of non-energy impacts in the CEIP and in assessing cost effectiveness for the 2024 and 2025 results.

The decrement process starts with premise that the highest cost Washington energy efficiency bundle selected in each year in the preferred portfolio establishes the value of the energy efficiency. It is assumed that the cost and value of the highest cost bundle are equal. This is a reasonable premise as the absence of selections from the next higher cost bundle indicates that higher cost bundles are not economic. The next step is to spread the value across the year such that the hourly values and the load profile of the highest cost bundle are equal to the bundle cost. This accounts for the variations in energy and capacity values over the course of a year. The energy price component is built up from the Company's marginal costs, and includes energy, avoided ancillary service costs, and the value of stochastic risk reduction. The energy value reflects the locational marginal price in Washington and reflects either the marginal market purchase or marginal resource costs, including the social cost of carbon for any incremental emissions from the Company's resources. The capacity price component is built up from the Company's avoided generation, transmission, and distribution costs. Capacity value is based on the net cost of a non-emitting peaking resource and is allocated to high-cost hours in each year, because high-cost hours indicate that available resources are limited and shortfalls could occur. The benefits also include a 10 percent credit consistent with the Northwest Power and Conservation Council's modeling and the Northwest Power Act.

The result of this process is 8,760 hourly decrement values that correspond to the value of the highest cost Washington energy efficiency bundle, recognizing both energy and capacity impacts of energy efficiency savings. These hourly decrement values can be applied to any energy efficiency load profile to determine cost-effectiveness of specific programs or measures.

Costs utilized in the portfolio analysis are those with no direct energy savings attributed to them and include Energy Education in Schools, Customer outreach/communications and Program Evaluations (and savings verification).

The Measure Library (formerly called the Technical Reference Library), system support software and maintenance, and potential study update costs required by I-937 are considered initiative compliance costs rather than program costs and will not be included in the determination of the demand-side management program cost effectiveness. These costs will be included in portfolio cost effectiveness calculations.

The five California Standard Practice Manual cost effectiveness tests as modified in the Northwest were utilized in the cost benefit analysis. Additional information on cost effectiveness in WAC and the test utilized by the council is provided below.

As specified in WAC 480-109-100 "A utility's conservation portfolio must pass a cost effectiveness test consistent with that used in the Northwest Conservation and Electric Power Plan. A utility must evaluate conservation using the cost effectiveness test consistent with those used by the council and as required by the commission except as provided by WAC 480-109-100 (10)."

The Northwest Power and Conservation Council's 2021 Power Plan provides information on cost effectiveness on their website[31]. Avoided cost values and measure costs were developed and applied in a manner consistent with how the Council performed cost-effectiveness calculations, with the exception of the NEIs from the DNV study which the Council does not utilize in its modeling.

[31] https://www.nwcouncil.org/2021powerplan_cost-effective-methodology#_msocom_1

Appendix 1 – Portfolio and Program Cost-Effectiveness

Appendix 2 - Program Tariffs

Appendix 3 – Evaluation Measurement & Verification Framework

Evaluation, Measurement & Verification Framework For Washington

Updated October 1, 2021
(with updates to Measure Installation Verifications effective 1/1/2024)

SOURCE DOCUMENTS

Information used in the development of this document came from PacifiCorp practices and experience, and knowledge gained from numerous guides, protocols, papers and reports. References that were used in the development of this framework are:

- Uniform Methods Project: Determining Energy Efficiency Savings for Specific Measures and Uniform Methods Project for Determining Energy Efficiency Program Savings.
- National Action Plan for Energy Efficiency (2007). Model Energy Efficiency Program Impact Evaluation Guide. Prepared by Steven R. Schiller, Schiller Consulting, Inc. www.epa.gov/eeactionplan
- SEE Action (2012) Energy Efficiency Program Impact Evaluation Guide December 2012
- California Evaluation Framework (January 24, 2006) Consortium for Energy Efficiency (2008): "Metering the Unmetered Resource: Evaluation Methods for Achieving Diverse Energy-Efficiency Policy Objectives"
- Efficiency Valuation Organization (2010): "International Performance Measurement and Verification Protocol"
- American Evaluation Association: Guiding Principles for Evaluators
- SEE Action (2012): "EM&V of Residential Behavior-Based Energy Efficiency Programs: Issues and Recommendations" by Lawrence Berkeley National Laboratory
- Roadmap for the Assessment of Energy Efficiency Measures. Regional Technical Forum. December 8, 2015
- Avista Utilities (April 2017): "Evaluation, Measurement and Verification (EM&V) Framework"
- Puget Sound Utilities (March 29, 2011): "Evaluation, Measurement and Verification (EM&V) Framework"
- PacifiCorp's Washington Demand-side Management Advisory Group
- Ethan Goldman, 2018. Your Guidebook to Adoption of M&V 2.0. Prepared by VEIC for the Missouri Department of Economics, Division of Energy under a U.S. Department of Energy, State Energy Program grant-funded project.
- Franconi, Ellen, Matt Gee, Miriam Goldberg, Jessica Granderson, Tim Guiterman, Michael Li, and Brian A. Smith. The Status and Promise of Advanced M&V: An Overview of "M&V 2.0" Methods, Tools, and Applications. Rocky Mountain Institute, 2017 and Lawrence Berkeley National Laboratory, 2017. LBNL report number #LBNL-1007125.

Several of the Source Documents include Glossary's which have informed this updated framework. These Glossary's, including the California Evaluation Framework and the Model Energy Efficiency Program Impact Evaluation Guide, are extensive, subject to updates and not replicated in this version of the framework. PacifiCorp would like to extend special acknowledgments to Avista Utilities, Puget Sound Energy, and PacifiCorp's Washington Demand-side Management Advisory Group for their assistance in the documentation of this framework.

LIST OF ABBREVIATIONS AND ACRONYMS

Advisory Group	PacifiCorp's Demand-side Management Advisory Group
CEE	Consortium for Energy Efficiency
DSMC	DSM Central
DEER	California Database for Energy Efficiency Resources
ECM	Energy conservation measure
EM&V	Evaluation, Measurement & Verification
EUL	Effective Useful Life (measure life)
IPMVP	International Performance Measurement and Verification Protocol
IRP	Integrated Resource Plan
kWh	Kilowatt-hour
M&V	Measurement and Verification
M&V 2.0	Measurement & Verification 2.0
NEEA	Northwest Energy Efficiency Alliance
Portfolio	Energy Efficiency Programs and Market Transformation Efforts
PCT	Participant Cost Test
PacifiCorp Total Resource Cost (recognizes Northwest Region 10 percent Conservation Adder)	
RFP	Request for Proposal
RIM	Ratepayer Impact Measure
Regional Technical Forum of the Northwest Power and Conservation Council	
TRC	Total Resource Cost
UCT	Utility Cost Test
WUTC	Washington Utilities and Transportation Commission
TRL	Technical Reference Library

PREFACE

Purpose and Scope

The purpose of this document is to describe the framework by which PacifiCorp ("the Company") conducts the evaluation, measurement and verification (EM&V) of its energy efficiency programs, incorporating industry best practices with regards to principles of operation, methodologies, evaluation methods, definitions of terms, and protocols. The framework serves as a guide for PacifiCorp and external evaluators in the EM&V of savings acquired through Company energy efficiency programs.

This EM&V Framework document was originally prepared in response to Order 02 in Docket UE-100170 before the Washington Utilities and Transportation Commission ("WUTC"), and updated in response to additional requirements noted in WUTC Docket UE-132047 Order 01 and Docket UE-131723 General Order R-578. The intent of the Framework is to provide clarity, transparency, and a common understanding of methods and assumptions to consider in determining energy and demand savings of energy efficiency program activities. The document provides an overarching and transparent approach to EM&V processes including principles, objectives, metrics, methods, and reporting. The Framework is a "living document" that will undergo modifications as appropriate.

Background

PacifiCorp works with its customers to reduce the need for investment in supply-side resources and infrastructure by reducing energy and peak consumption through cost-effective energy efficiency programs and market transformation efforts.

The Company currently offers a comprehensive portfolio of customer-focused energy efficiency incentives, services, and a robust communication plan. In addition, the Company receives energy savings and market transformation benefits through its affiliation with the Northwest Energy Efficiency Alliance (NEEA). In the acquisition of cost-effective energy efficiency savings, the Company aspires to best practices in planning, program design, program implementation, customer outreach, and measurement, verification and evaluations.

The Company provides monetary incentives directly to customers and technical assistance to commercial, industrial and agricultural customers in the form of engineering analyses. Customers use the incentives to offset the cost of energy efficient equipment and weatherization. Company programs also provide incentives to retailers or distributors to reduce the cost of energy efficiency equipment sold to customers. Trade allies who install qualifying equipment may also be eligible to receive incentives. The Home Energy Report program provides comparative energy usage data for similar homes within a geographic area. The Low Income Weatherization program provides weatherization services at no cost to income qualified customers. Measures and programs must have an objective analysis to describe whether the investment in electrical energy savings is expected to be cost-effective and how the savings will be achieved.

PacifiCorp maintains and utilizes an external group (the "Advisory Group") to advise the Company on, among other items, the development and modification of a written framework to evaluate, measure, and verify energy savings, and to provide guidance to PacifiCorp regarding EM&V methodology and measure assumptions used in the assessment of program cost effectiveness. The

Advisory Group meets a minimum of four times per year and provides non-binding external oversight of PacifiCorp's EM&V activities.

OVERVIEW OF EM&V FRAMEWORK

This document describes PacifiCorp's approach to evaluating its energy efficiency measures, programs, and portfolio. Evaluations are planned, conducted and reported in a transparent manner recognizing that sound evaluation of energy efficiency programs requires transparency and independence as outlined and documented in this EM&V Framework. Evaluations are conducted using best-practice approaches and techniques including those outlined in the Source Documents section of this Framework.

New technological advances in data collection are pushing traditional EM&V into a relatively new paradigm, collectively referred to as M&V 2.0.[3233] While M&V 2.0 is not intended to replace traditional EM&V activities, it may serve as a useful tool to and provide quicker programmatic feedback to PacifiCorp. Much of the opportunity is available with granular data from advanced meter infrastructure (AMI), but the literature is clear that the techniques also work in non-AMI environments such as PacifiCorp's Washington territory. PacifiCorp's efforts to date have been focused on assessing whether M&V 2.0 tools provide accurate identification of major end use(s) utilizing only monthly billing data.

PacifiCorp has implemented a database ("Technical Reference Library") that is used to catalog measures, the methods and assumptions and data sources used for those assumptions. The database is updated as necessary to reflect updates to program offerings and measure-level assumptions. The Company has also implemented a tracking system ("DSM Central") that tracks project- and/or program-specific information at a more granular and process-centric level. This functionality helps automate the application of business rules associated with each program and system control of claimed savings using an interface with the Technical Reference Library. The cost of developing and maintaining these systems for the benefit of all programs is considered a portfolio-level expense, and depending on the magnitude of the costs in any given year, may be allocated across two years (50/50 allocation) for calculation of cost-effectiveness of the portfolio.

EM&V tasks are segregated within PacifiCorp's organization to ensure they are performed and managed by personnel who have a neutral interest in the benefits associated with anticipated savings. While the Company's standard operating procedure for performing EM&V activities is to use external independent evaluators selected through a competitive bid, the Company reserves the right, as appropriate, provided in Docket UE-132047 Order 01 to conduct internal evaluations. Evaluations are planned, conducted and reported in a transparent manner, affording opportunities for review and comment by the Advisory Group.

- Priorities for evaluation activities, including budgets and schedules, will be provided to the Commission annually as part of the Company's Annual Conservation Plan or Biennial

[32]EFX16 Session: The Evolution of Evaluation: Revolution or Resolution? EM&V 2.0 New Approaches vs. Traditional Methods. Presentation is available at: https://conduitnw.org/Pages/File.aspx?rid=3436

[33] Your Guidebook to Adoption of M&V 2.0. Definition from page 5. M&V 2.0 refers to the increasing granularity of available energy consumption data, and the enabling of automated M&V methods that continuously analyze the data and provide early, accurate and valuable insights to various stakeholders about energy savings estimates.

Conservation Plan, depending on the year. These plans will include a summary of each scheduled evaluation activity, whether the activity will be performed by an external evaluator or internal by PacifiCorp, including summary of work to be completed and budgets.

- Other documents including project scopes, requests for proposals, detailed evaluation plans, and draft and final reports will be prepared for each major EM&V activity and elements can be shared with the Advisory Group upon request.

Reports from EM&V activities including evaluation of energy and demand savings and cost-effectiveness will be available to the Advisory Group, WUTC and other interested stakeholders, consistent with the reporting schedules summarized in Table 3.

EVALUATION PRINCIPLES, OBJECTIVES AND METRICS

EM&V is a catch-all term used in energy efficiency literature to represent the determination of program and project impacts. Evaluation includes "the performance of studies and activities aimed at determining the effects of a program."[34] By definition, Measurement and Verification refers to "Data collection, monitoring, and analysis associated with the calculation of gross energy and demand savings from individual sites or projects. M&V can be a subset of program impact evaluation." [35]

Evaluations should be based on credible and transparent methods and efforts to be successful in capturing the savings that energy efficiency programs offer. Energy efficiency evaluations will develop retrospective estimates of energy savings attributable to a program. Evaluations should also go beyond simply documenting savings to actually improving programs and providing a basis for future savings estimates. While energy efficiency evaluations will be retrospective in nature, the information obtained will be used to inform future conservation potential assessments, conservation plans, forecasts and targets.

Evaluations fall into two major categories, Formative and Outcomes. Formative evaluations are used to develop or improve program designs, and include evaluation types of market characterization studies, potential assessments and process evaluations. Outcomes evaluations help in determining program results, and include evaluation types of impact evaluation and cost-effectiveness analysis.[36] Table 1 provides a summary of the evaluation categories and types of energy efficiency program evaluations.

[34] National Action Plan for Energy Efficiency (2007). Model Energy Efficiency Program Impact Evaluation Guide. Prepared by Steven R. Schiller, Schiller Consulting, Inc. www.epa.gov/eeactionplan

[35] Ibid.

[36] Consortium for Energy Efficiency (2008): "Metering the Unmetered Resource: Evaluation Methods for Achieving Diverse Energy-Efficiency Policy Objectives"

Table 1: Categories and Types of Energy Efficiency Program Evaluation

Evaluation Category	Phase at which Implemented	Evaluation Type	Assessment Level
Formative	Planning and design phase	Market characterization study	Market and/or Program
		Potential Studies	Market and/or Program
	Implementation phase	Process evaluation	Program
Outcomes	Implementation and/or post implementation (ex-post)	Impact evaluation	Program
		Cost effectiveness analysis	Program or Portfolio

- **Process Evaluations** assess program delivery, from design to implementation, in order to identify bottlenecks, efficiencies, what worked, what did not work, constraints, and potential improvements. Timeliness in identifying opportunities for improvement is essential to making corrections along the way.

- **Impact Evaluations** determine the impacts (e.g., energy and demand savings) and co-benefits (e.g., job creation, water savings) that directly result from a program. Impact evaluations also support cost effectiveness analyses aimed at identifying relative program costs and benefits.

- **Cost-Effectiveness Analysis** is the exercise to determine the cost-effectiveness of programs and measures from various viewpoints including Total Resource Cost as modified by the Northwest Power and Conservation Council, Total Resource Cost, Utility Cost, Ratepayer Impact Measure and Participant Cost tests.

- **Market Characterization and Potential Studies** are described in PLANNING AND DESIGN STUDIES section.

This framework, and the industry as a whole, focuses on impact evaluations and the measurement and verification of demand and energy savings associated with specific programs. The results of impact evaluations will inform prospective cost-effectiveness analysis with regards to future program planning.

Guiding Principles and Ethics – Outcomes Evaluations

Evaluation principles for energy efficiency programs are defined by completeness and transparency; relevance and balance in risk management, uncertainty, and cost; and consistency.[37] Consistently applying these principles results in high quality information on which business decisions can be made.

1. *Completeness and transparency*. Results and calculations are coherently and completely compiled. Calculations are well documented in a transparent manner.

[37]National Action Plan for Energy Efficiency (2007). Model Energy Efficiency Program Impact Evaluation Guide. Prepared by Steven R. Schiller, Schiller Consulting, Inc. www.epa.gov/eeactionplan

2. *Relevance and balance in risk management, uncertainty, and costs*. The data, methods, and assumptions are appropriate for the evaluated program. The level of effort expended in the evaluation process is balanced with respect to the value of the savings, the uncertainty of their magnitude, and the risk of overestimated or underestimated savings levels.
3. *Consistency*. Evaluators working with the same data and using the same methods and assumptions will reach the same conclusion.

As outlined in the Evaluation Cycle section below, PacifiCorp will perform EM&V activities on a rotation schedule such that, over the EM&V cycle, all major programs are covered.
When using external evaluators, vendor credibility is essential for providing credible findings and results for the program and for providing recommendations impacting program and investment decisions. See Impact Evaluation Methods and Key Assumptions below for more information.

Evaluation Planning

PacifiCorp plans and scopes its evaluation activities in order to provide the greatest value from its evaluation resources and to ensure transparency in methods and results. The criteria will assist the Company in 1) measuring the effects of the program as a reliable energy resource, 2) evaluating the cost-effectiveness of the program for purpose of program design, 3) identifying recommendations to improve the program, and 4) meeting the requirements of completing timely evaluations. The Company intends to consider the following criteria to assist in prioritizing evaluation activities:

- Size of the program – larger programs, in terms of budget and/or savings, are prioritized above smaller programs.
- Uncertainty regarding the results (e.g., maturity of program, magnitude of changes in the program market, related evaluation results available, etc.) – higher level of uncertainty would increase prioritization, all else equal.
- Combining evaluations of the same programs in other states to leverage economies of scale and reduce the cost to Washington customers.[38]
- Impact on regulatory processes or regulatory oversight: information necessary for regulatory oversight will receive a higher EM&V priority than information that is not necessary for that purpose, all else being equal.
- Cost of evaluation. Alternative approaches should be considered when the value of incrementally better data is less than the cost of that data.
- Timeliness in providing important information for regulatory reporting, program planning, program improvements and other needs.

The following guiding principles will be taken into consideration when planning evaluations:

- Leveraging secondary research as appropriate with modifications as deemed necessary and useful.
- Expert review of program operation and design.
- Key assumptions will be verified in evaluations.
- Over time, evaluations are used to refine input assumptions used in savings estimation and resource analysis in order to improve program delivery.

[38] In addition to Washington, PacifiCorp delivers and evaluates energy efficiency programs in California, Idaho, Utah, and Wyoming.

Verification

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. Verification of the potential to achieve savings involves regular inspection and commissioning of equipment. However, such verification of the potential to generate savings is considered a program cost and should not be confused with M&V.

PacifiCorp 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. See Appendix 1 for Measure of Installation Verifications.

In addition, an independent third-party evaluator will be contracted through a competitive bid process to verify calculations of total portfolio MWh savings as well as review EM&V activities for best practices which is memorialized in WAC 480-109-120(4)(b)(v) as a component of utility biennial conservation reports due June 1 of each even-numbered year.

Budget

The budget includes reasonable EM&V activity costs associated with, but not limited to, market studies, process and impact evaluations, cost effectiveness analyses, and costs associated with EM&V adherence and modifications of framework conducted by both internal PacifiCorp staff and external evaluators.

In WUTC Docket UE-171092, Order 01, spending requirements were set for EM&V activities to ensure adequate attention and resources are expended to verify conservation program results. Consistent with the requirements of Order 01, PacifiCorp must spend a reasonable amount of its conservation budget on EM&V, including a reasonable proportion on independent, third-party EM&V. These costs will be treated as portfolio costs and will not be assigned to programs for purpose of determining the cost effectiveness.

Table 2 outlines the different activities including EM&V, tracking/reporting planning and how the cost of each will be captured in program- and portfolio-level reporting.

Table 2: Treatment of Costs for EM&V Activities

Activity	Cost type	Portfolio-or Program-Specific Cost	Included in EM&V Budget
Program Impact Evaluations	Third Party	Portfolio	Yes
	Internal	Portfolio	Yes
Program Process Evaluations	Third Party	Portfolio	Yes
	Internal	Portfolio	Yes
Annual Performance Reporting, including cost effectiveness	Internal and third party	Portfolio	Yes
Cost Effectiveness Analysis	Internal and third party	Program	No
Potential Studies	Third party and internal	Portfolio	No
Market Characterization Studies	Third party and internal	Program	No
Field/site inspection as part of ongoing program quality control process	Third party	Program	No
	Internal	Program	No
Compliance with tariff and contract	Internal	Program	No
Development and Maintenance of tracking systems	Third party and licensing	Portfolio	No
	Internal	Portfolio	No

A summary report on Washington System Benefits Charge expenditures incurred by the Company in complying with Docket UE-171092 Order 01 will be incorporated into the Annual Report on Conservation Acquisition. The Annual Report will also include a description of the EM&V studies completed and/or underway during the reporting period with reporting of the type of evaluations, whether they were conducted by internal staff or external evaluators, and the program or programs studied. In addition, a URL link will be provided on completed evaluations with the submission of the annual report.

Evaluation Cycle

PacifiCorp will perform evaluations on a rotation schedule of selected programs such that, over the EM&V cycle, all major programs are covered. Evaluations are scheduled to be performed on all major programs every two years, however, new or changing programs or external influences that may impact the proposed schedule of EM&V activities.

When using external evaluators, the evaluation will be competitively bid through a Request for Proposals ("RFP") process. The rotation schedule will, when appropriate, combine programs from other states in the RFP process, allowing the Company to take advantage of potential cost reductions due to economies of scale. The DSM Business Plan contains information on evaluation specific to reach program.

Captured Data

Critical data to be evaluated are as follows:

- Annual energy acquisition gross savings

- Cost and benefit data for cost-effectiveness analysis including total project cost, measure cost, measure life, avoided costs, quantifiable non-energy impacts, etc.
- Program quality assurance and compliance to regulatory requirements
- Information on benefits accruing to highly impacted populations or underserved communities as defined in the CETA rules.
- Other information necessary for program and portfolio management
    - Market characterization attributes for measures and programs that may include, but are not limited to, product price and availability, market saturation, customer participation and satisfaction, incremental costs, and effects of codes, standards and prices
    - Other information that may include lost opportunities, demographics, budget targets and other useful information for system planning

EVALUATION PLANNING CYCLE

The hierarchy of documents outlining the planning steps for each evaluation cycle is made up of the following:

1. EM&V Framework – This document is considered a "living document" that will be updated as needed and will remain in place until superseded by regulatory modifications or changed through Advisory Group process.
2. Biennial Business Plan and Annual Conservation Plan – These documents include program-level detail that shows planned expenses and resulting projected energy savings. Program detail will include program descriptions, program measure data, measure incentives and customer and measure eligibility requirements. The plan will also include information on planned EM&V, including summaries of scheduled evaluation activities, whether the activity will be performed by an external evaluator or internally by PacifiCorp staff (see section on Roles and Responsibilities) and information regarding the evaluation activities.
3. Evaluation Plan – New energy efficiency programs will include an evaluation plan at program launch. The evaluation plan will address issues related to evaluation metrics, baselines, level of effort, estimated budget, tracking and reporting expectations.

Table 3 below illustrates the EM&V planning cycles and documents.

Table 3: Hierarchy of EM&V Planning Cycles / Documents

	EM&V Framework	EM&V Activities	Other Specific EM&V Activities
Document(s)	EM&V Framework	Included in Annual Conservation Plan or the Biennial Business Plan	• Technical Reference Library (TRL) • Statement of Work for significant EM&V projects • Evaluation Plan for new programs • Key issues requiring oversight • Final reports
Contents	The overarching structure and process for EM&V	EM&V major activities proposed for a given cycle: • High level description of major activity • Estimated budgets • Schedule	Details regarding specific EM&V activities including impact and process evaluations, market characterization studies, potential assessments. The TRL contains measures, savings assumptions and data sources used for estimating energy savings.
Schedule	The Framework remains in place as a "living document" that can be updated as needed	Reviewed no less frequently than every two years as part of biennial process and updated as needed	As needed
Reviewers	Advisory Group	Advisory Group	Share with the Advisory Group upon request.

IMPACT EVALUATION METHODS AND KEY ASSUMPTIONS

Evaluation Standards

The key objective of impact evaluations is to produce the most accurate and unbiased estimate of energy and demand savings. PacifiCorp's evaluation methods are founded on industry best practice, based on applicable industry reference documents and guidelines including, but not limited to: NAPEE Guide, IPMVP, California Evaluation Framework and SEE Action (LBNL). The Company observes the following principles in its oversight of impact evaluations:

1. Evaluators will be impartial in their work and will not have compensation, performance appraisal or goals tied to evaluation results.
2. Evaluators are expected to follow the Guiding Principles for Evaluators as documented by the American Evaluation Association, which are:
    - Systematic inquiry
    - Competence
    - Integrity/Honesty
    - Respect for people
    - Responsibilities for general and public welfare
3. Transparent methods to estimate savings and impacts will be reviewed in various forums to increase quality and reliability.
4. Majority of evaluation dollars and efforts are spent in areas of greatest importance or uncertainty.

The Company may expend resources up to ten (10) percent of its conservation budget on programs whose savings impact has not yet been measured, as long as the overall portfolio of conservation passes the modified TRC test. These programs may include certain information-only, education, marketing, outreach, pilot projects and similar efforts to effect behavioral changes under provision 7 of Docket UE-171092 Order 01. These efforts will not be subject to evaluation.

Projected Energy Savings Estimates (Ex-Ante) versus After Impact Evaluations (Ex-Post)

Impact evaluations focus on estimating the amount of energy and demand savings a program delivered. The initial design and review of prospective programs will be based upon ex-ante savings; savings that are expected to be delivered by the program. Estimates of actual savings are ex-post savings; program savings analyzed over a specific period of time.

The results of the impact evaluations or ex-post savings, will be used to inform the Company's 10-year conservation plan, two-year biennial targets and future program design. This information will not be used to retrospectively report the Company's performance to target within a current biennial period except as agreed upon with the Advisory Group and/or Commission.

Approaches for Determining Gross Savings

Gross impact savings are determined using one of the following approaches:

1. One or more measurement and verification (M&V) methods from IPMVP, are used to determine the savings from a representative sample of projects. These savings are then applied to the entire population of projects in the program. The four IPMVP options are:[39]

[39] Efficiency Valuation Organization (2010): "International Performance Measurement and Verification Protocol"

a. Option A: Key Parameter Measurement – field measurement of the key performance parameter(s) which define the energy use of the ECM's affected system(s) and/or the success of the project.
b. Option B: All Parameter Measurement – field measurement of the energy use of the ECM affected system.
c. Option C: Whole facility – measuring energy use at the whole facility or sub-facility level.
d. Option D: Calibrated Simulation – simulation of the energy use of the whole facility, or of a sub-facility.

2. Deemed savings based on generally accepted impact evaluation data and/or other reliable and relevant source data that has verified savings levels. Examples of documented sources include but are not limited to the RTF or historical evaluations specific to a demographic area (e.g., DEER, CEE, impact evaluations).
3. Statistical analyses of large volumes of metered energy usage data typically collected from billing analyses.

If field inspections on specific measures are a necessity, they will be performed by third parties. In some cases, measures will be inspected to confirm that they were not only installed, but also installed per specification and that they are properly operating, and on large-scale custom measures/projects, baseline inspections may be conducted.

Home Energy Reports

Evaluations of Home Energy Reports will reflect identified evaluation challenges and accepted methods such as those outlined in the Uniform Methods Project: Chapter 17: Residential Behavior Protocol[40]

Baseline

Energy savings are determined by comparing energy use and demand after a program is implemented (the reporting period) with what would have occurred had the program not been implemented (the baseline). The baseline and reporting period energy use and demand are compared using a common set of conditions such as weather, operating hours, building occupancy, and demographics. These conditions are then adjusted so that only program effects are considered when determining savings.[41]

1. In Washington, evaluators will use or determine baselines utilizing baselines defined in the RTF Guidelines, Current Practice and Pre-Conditions[42]

> A CURRENT PRACTICE BASELINE IS USED IF THE MEASURE AFFECTS SYSTEMS, EQUIPMENT OR PRACTICES THAT ARE AT THE END OF THEIR USEFUL LIFE OR FOR MEASURES DELIVERING NEW SYSTEMS, EQUIPMENT OR PRACTICES, E.G., ENERGY STAR ® SPECIFICATIONS FOR NEW HOMES. FOR THESE MEASURES, THE BASELINE IS DEFINED BY THE TYPICAL CHOICES OF ELIGIBLE END USERS IN PURCHASING NEW EQUIPMENT AND SERVICES AT THE TIME OF RTF APPROVAL. THE RTF ESTIMATES THIS BASELINE BASED ON RECENT CHOICES OF ELIGIBLE END USERS IN PURCHASING

[40] www.energy.gov/eere/about-us/ump-home
[41] National Action Plan for Energy Efficiency (2007) Model Energy Efficiency Program Impact Evaluation Guide. Prepared by Steven R. Schiller, Schiller Consulting, Inc. www.epa.gov/eeactionplan
[42] Regional Technical Forum, Roadmap for the Assessment of Energy Efficiency Measures p. 10-11 (December 8, 2015)

NEW EQUIPMENT AND SERVICES. THESE CHOICES MAY BE INFERRED FROM DATA ON SHIPMENTS, PURCHASES (EQUIPMENT OR SERVICES) OR SELECTED DESIGN / CONSTRUCTION FEATURES.
A PRE-CONDITIONS BASELINE IS USED WHEN THE MEASURE -AFFECTED SYSTEM, EQUIPMENT OR PRACTICE STILL HAS REMAINING USEFUL LIFE (RUL). THE BASELINE IS DEFINED BY THE TYPICAL CONDITIONS OF THE AFFECTED SYSTEM, EQUIPMENT OR PRACTICE AT THE TIME OF RTF APPROVAL. THE RTF ESTIMATES THIS BASELINE BASED ON DATA FROM RECENT ADOPTERS, OR IF THERE HAS BEEN NO SIGNIFICANT ADOPTION, IT USES DATA FROM THE TYPICAL CONDITIONS FOUND AMONG ELIGIBLE END USERS

Persistence or Measure Life

Persistence is how long the energy savings are expected to last once an energy efficiency measure or activity has taken place. In certain instances, impact evaluation may consider whether the savings from the project change over time. These changes are primarily due to retention and performance degradation, changes to energy codes or equipment efficiency standards or the impact of market progression.

In most cases, persistence of savings will be determined using historical and documented persistence data, such as manufacturer's studies or values provided in relevant databases such as the Regional Technical Form (RTF) and others. However, if deemed necessary, PacifiCorp may also utilize the following basic approaches for assessing persistence:

- Laboratory and field testing of the performance of energy efficient and baseline equipment
- Field inspections, over multiple years
- Other non-site methods such as telephone surveys and interviews, analysis of consumption data, or use of other data (e.g., data from a facility's energy management system)

Uncertainty – Expectations for Savings Determination

Program evaluations will seek to reliably and accurately determine energy and demand savings by deploying the most appropriate EM&V approaches. While additional investment in the estimation process can reduce uncertainty, the tradeoffs between evaluation costs and reductions in uncertainty need to be considered. Evaluation results will be reported as expected values including some level of variability or uncertainty defined and explained.

Uncertainty of savings level estimates is a result of two types of errors, systematic and random.

1. Systematic errors are those that are subject to decisions and procedures developed by the evaluator and are not subject to chance. These include:
    a. Measurement errors, arising from meter inaccuracy or errors in recording an evaluator's observation.
    b. Non-coverage errors, which occur when the evaluator's choice of a sampling frame excludes part of the population.
    c. Non-response errors, which occur when some refuse to participate in the data collection effort.
    d. Modeling errors, due to the evaluator's selection of models and adjustments to the data to take into account differences between the baseline and the test period.
2. Random errors (also known as sampling errors), those occurring by chance, arise due to sampling rather than taking a census of the population. In other words, even if the

systematic errors are all negligible, the fact that only a portion of the population is measured will lead to some amount of error.[43]

Evaluators are expected to control for systematic error through best practices and control random error by striving to follow industry standards which is designed to achieve a 90 percent confidence level and ±10 percent precision. If this sampling requirement can be shown to be unrealistic, an 80/20 confidence level [44]will be required in those instances. Deviations from these specifications may be permitted provided the circumstances warrant it and it is not expected to materially impact the validity of the evaluation results. The evaluation report will discuss aspects of uncertainty and the decision process that determined sample size and confidence/precision level achieved.

Net Savings

Net savings attempts to separate out the influence of a particular energy efficiency program from all other influences that determine participant and non-participant behavior and decisions of whether, when, and to what degree to adopt efficiency actions offered by a program. Two primary factors that will differentiate gross and net savings are free-ridership and spillover.

Free riders are customers who would have installed the efficient measure or changed a behavior without program intervention (e.g., incentives). Free riders can be full or partial. Spillover occurs when reductions in energy consumption are caused by the presence of the energy efficiency program, but even though the customer does not receive an incentive for the energy saving measure or practice through the program. Spillover falls into two categories:

- Participant spillover is defined as additional energy efficiency actions that program participants take outside the program as a result of having participated.
- Non-Participant spillover is defined as savings from efficiency projects implemented by those who did not directly participate in a program, but that occurred due to that influence of the program.

PacifiCorp will use the Net-to-Gross ratio of 1.0, consistent with the Council's methodology, for each program or portfolio for the purpose of cost effectiveness analysis per Order 01 (8) (a) in Docket UE-190908. The Company may assess program free-ridership since high percentage of savings that would have occurred in the program's absence is not desirable for managing costs of a program. Spillover may be a valid adjustment to evaluated savings and in consideration of program economics if there is a verifiable causal link to the program and doing so does not result in the double counting of savings or impact another program's economics.

Cost Effectiveness

PacifiCorp's cost effectiveness evaluations compare program benefits and costs, showing the relationship between the value of a program's outcomes and the costs incurred to achieve those benefits. The findings help in judging whether to retain, revise, or eliminate program elements and provide feedback on whether efficiency is a wise investment as compared to energy generation and/or procurement options.

As required by WAC 480-109-100(8): "[a] utility's conservation portfolio must pass a cost-effectiveness test consistent with that used in the Northwest Conservation and Electric Power

[43] Ibid.

[44] Confidence refers to the probability the estimated outcome will fall within some level of precision.

Plan." As clarified in Order 01 (8) in Docket UE-171092, the primary test for the WUTC is the TRC test, as modified by the Northwest Power and Conservation Council, including quantifiable non-energy benefits, a risk adder, and a 10 percent conservation benefit adder.

As allowed by WAC 480-109-100(10) (a) a utility may fully fund low-income conservation measures that are determined by the implementing agency to be cost-effective consistent with the Weatherization Manual maintained by the department.

As allowed by WAC 480-109-100(10) (b) A utility may exclude low-income conservation from portfolio-level cost-effectiveness calculations.

In addition to the modified TRC test, PacifiCorp's programs and portfolios will be analyzed using cost-effectiveness tests described in the National Action Plan for Energy Efficiency "Understanding Cost- Effectiveness of Energy Efficiency Programs"[45]. These tests are described as follows:

1. Utility Cost Test (UCT): From the Company's perspective, benefits are avoided energy costs, capacity costs and line losses. Costs include any program administration, implementation or incentive costs associated with funding the program.
2. Ratepayer Impact (RIM): All ratepayers (participants and non-participants) may experience an increase in rates to recover lost revenue. Benefits are the avoided energy costs capacity costs and line losses. Costs include all program costs and lost revenue due to reduced energy bills.
3. Participant Cost Test (PCT): From this perspective, program benefits include bill reductions and program incentives. Costs include any customer contribution to the measure cost before program incentives.

MEASURE DATA

PacifiCorp has implemented a technical reference library (TRL) that is a repository for all measures, assumptions, and data sources. The TRL is a web accessible database and is integrated with the Company's project tracking system (DSM Central) to verify the appropriateness of reported savings and incentives issued to customers. This information will be updated as needed. The Advisory Group reviews and may provide comments on program changes that may drive some of the TRL updates.

The TRL includes, but is not limited to, the following measure data:

- Description of ex ante savings estimates, considering the following categorization:
    - RTF Deemed – prescriptive savings whose values have been evaluated and deemed by the Regional Technical Forum, or
    - PacifiCorp Deemed – prescriptive savings based on:
        - Project specific engineering analysis
        - Program specific impact evaluation results
        - RTF values adjusted for the Company's service territory
        - Other verifiable sources
    - PacifiCorp Calculation – project-specific savings based on hours of operation, etc.

[45] https://www.epa.gov/sites/production/files/2015-08/documents/cost-effectiveness.pdf

If PacifiCorp uses prescriptive savings amounts other than those established by the RTF, such estimates will be based on impact evaluation data and/or other reliable and relevant source data that has verified savings levels, and will be presented to the Advisory Group for comment.

- Reference source of assumption for information used in cost effectiveness analysis (e.g., measure costs)
- Measure life

PROCESS EVALUATIONS

Process evaluations of PacifiCorp's programs involves systematic assessments of programs and internal operations. The purpose of the process evaluation is to document program operations at the time of the evaluation, and identify and recommend improvements to increase program efficiency or effectiveness in acquiring energy resources. The primary mechanisms used for process evaluations are data collection via surveys and interviews to gather information and feedback from administrators, designers, participants, implementation staff and key policy makers. Other elements of a process evaluation can include workflow and productivity measures, reviews, assessments and testing of records, databases, program-related materials and tools.

ROLES AND RESPONSIBLITITES FOR CONDUCTING AND MANAGING EM&V ACTIVITIES

EM&V tasks will be segregated within PacifiCorp's organization to ensure evaluation tasks are performed and managed by personnel who are neutral to the anticipated savings results. While the Company's standard operating procedure for performing EM&V activities is using external evaluators selected through a competed bid, the Company may conduct some evaluations internally if the approach can be shown to meet the principals outlined in the Evaluation Standards section of this Framework. External work is defined as work performed by entities outside of PacifiCorp. Evaluations performed by the Company's staff will be performed by personnel who have no part of their performance assessment or goals tied to energy efficiency acquisition targets and results.

Roles of PacifiCorp Staff and External Evaluators

Work within PacifiCorp EM&V will generally fall into four categories:

- Planning Staff (pre implementation design)
  - Establish estimated EM&V budget (joint with P&C)
  - Establish EM&V plans and processes (joint with P&C)
- Process and Compliance (P&C) Staff (post implementation assessment)
  - Preparation and management of post-implementation impact evaluations to determine ex-post evaluated savings, prepare cost-effectiveness analysis, and determine realization rates
  - Process tracking and performance data management
  - Maintenance of TRL data measure assumptions and sources
  - Design and administration of RFP for external evaluation firms for EM&V activities
  - Administration and management of external firm(s) performing EM&V
  - Preparation of performance reports
  - Establish pre-implementation estimated EM&V budget (joint with P&D)
  - Establish pre-implementation EM&V plans and processes (joint with P&D)

- Program Delivery Staff (implementation of programs)
    - Administration of program to ensure goals and targets are achieved
    - Program quality assurance and compliance to regulatory requirements
    - Oversee data collection for program
    - Implement evaluation recommendations related to program implementation
    - Provide recommendations to P&D on program improvements including but not limited to market adoption, advancing codes, new technologies, and market changes
- Evaluators (external and/or PacifiCorp staff)
    - Perform process and impact evaluations to determine ex-post evaluated savings, prepare cost effectiveness analysis, determine realization rates, and improve program adoption and processes
    - Conduct verification activities
    - Conduct market characterization studies
- Advisory Group
    - Review and provide advice as defined in WUTC Docket UE-152072, Order 01 on:
        - EM&V Framework
        - EM&V Activities
        - Third-party review of portfolio savings report

Managing Selection of External Evaluators

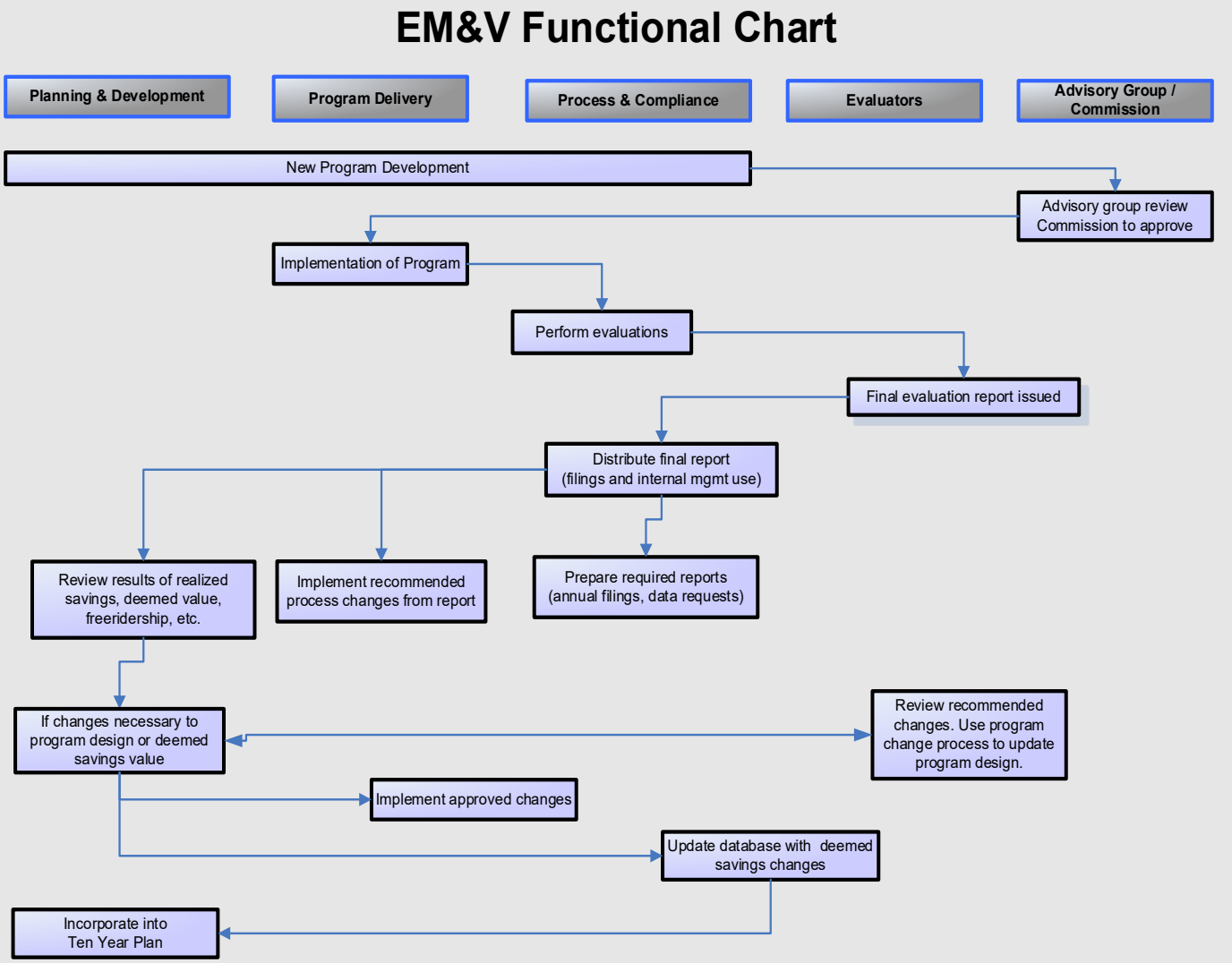
External evaluators will be selected using a competitive bid process consistent with PacifiCorp's Procurement procedures. Qualified firms who have demonstrated competency and experience in performing such EM&V activities will be given the opportunity to bid on a proposed RFP where the Statement of Work outlines the EM&V activity being requested.

External evaluator reports will be available to the Advisory Group upon completion and referenced in the Annual Report on Conservation Acquisition.

External Oversight and Review

External review ensures that the EM&V process is thorough, transparent and conducted according to proper standards. As required by WAC 480-109-110(1)(b), (c) and (d) the Advisory Group will be relied upon to advise PacifiCorp concerning the EM&V plans and framework outlined in this document.

Inserted below is a functional chart showing the EM&V activities and how they flow through the different responsible parties.


EM&V Functional Chart
Planning & Development
Program Delivery
Process & Compliance
Evaluators
Advisory Group / Commission
New Program Development
Advisory group review Commission to approve
Implementation of Program
Perform evaluations
Final evaluation report issued
Distribute final report (filings and internal mgmt use)
Review results of realized savings, deemed value, freeridership, etc.
Implement recommended process changes from report
Prepare required reports (annual filings, data requests)
If changes necessary to program design or deemed savings value
Review recommended changes. Use program change process to update program design.
Implement approved changes
Update database with deemed savings changes
Incorporate into Ten Year Plan

DATA MANAGEMENT

PacifiCorp's data management systems used to maintain, track and report for the management of energy efficiency programs is a combination of proprietary and licensed software applications. There are three active data sources, outside of the program administrators' databases, used to maintain customer-related data associated to energy efficiency programs for PacifiCorp. All of the databases within the Company are managed with restricted access capabilities. These systems are as follows:

1. CSS – PacifiCorp's major customer database containing all data related to the delivery and billing of customers.
2. SAP – Used to track detail payment information, program costs, contract terms and approval, and general accounting functionality.
3. DSM Central (DSMC) – Web enabled application that is used to track information for project, program and customer specific information for residential, commercial or industrial projects. The application is integrated with the TRL to verify the appropriateness of reported savings and incentives issued to customers.
4. Third-party program administrator's database – Program administration outsourced to contractors will utilize their own database that will capture the details of program specifics identified by the Company and needed by the program administrator including application processing, measure specifics, associated cost, and other relevant information required to manage the program.
5. Technical Reference Library – Repository for all measures, their assumptions and data sources.

REPORTING CYCLES AND SCHEDULE

The program implementation cycle operates on a calendar year basis, from January 1 through December 31 of each year. Table 4 below lists the preliminary schedule of the activities associated with EM&V reporting.

Table 4: Reporting Schedule

Report	Description	Distribution Date *	Distribution List
Annual Conservation Plan	Forward looking. Proposed revisions including program-level expected savings, expenditures, adjustments, major changes. Filed first year of biennial period.	November 15th (every even numbered year)	WUTC, Advisory Group
Annual Conservation Report**	Backward looking. Program-level savings, expenditures, adjustment, changes, EM&V activities, cost effectiveness analyses and budget variance report	Draft report due May 1st	WUTC, Advisory Group
	. Backward looking. Program-level savings, expenditures, adjustment, changes, EM&V activities, cost effectiveness analyses and budget variance report.	Final report due June 1st	
Cost Recovery Tariff Changes	Revisions to Cost Recovery Tariff with requested effective date of August 1st	June 1st	WUTC, Advisory Group
	If no adjustment is required, request for exception will be filed.	May 1st	
Biennial Conservation Plan	Forward looking. A Biennial Conservation Plan including revised program details and program tariffs, together with identification of the 10 year achievable conservation potential and 2-year biennial target.	November 1st (every odd year)	WUTC, Advisory Group
Biennial Conservation Report**	Backward looking. A two-year report on the prior two calendar year Biennial Conservation Plan achievements, including savings and cost effectiveness, third-party evaluation of portfolio-level savings, actions taken to adaptively manage, etc.	June 1st (each even numbered year)	WUTC Advisory Group

* Dates as listed in Chapter 480-109 WAC, effective April 12, 2015. Drafts, except as noted for the cost recovery tariff are to be provided to the DSM Advisory Group, the minimum of 30 days ahead of the filing date.

** Reports can be filed as one report in even numbered year, provided all information is included.

APPLICATION OF EM&V RESULTS

Performance results will be reported on the basis of gross savings, without taking into consideration adjustments for free-ridership. Program results will be filed annually on June 1st, using the estimates for measure and/or program savings utilized in the development of the conservation plan forecast and biannual targets and will not reflect the results of evaluation conducted during the biennium, unless otherwise agreed to with the Commission or Advisory Group.

EM&V efforts that result in changes to savings estimates made prior to program implementation, saving calculations (for custom measures), and/or algorithms used to calculate savings for custom measures will in most cases be applied prospectively, taking effect in subsequent evaluation or update cycle as appropriate. Such changes will be documented in the measure data information maintained by the Company.

APPENDICES

Appendix 1 – Measure Installation Verifications summary

Appendix 1
Measure Installation Verifications

Home Energy Savings (effective 1/1/2024)

Site or virtual inspections by Program Administrator staff for the following retrofit and/or new homes measures. Inspections are performed on >=5 percent of single family homes, >=5 percent of manufactured homes, >=5 percent of multifamily retrofit projects, 100 percent of multifamily new construction projects, and 20 percent of new homes projects. Single family homes inspection rates will be applied to the total aggregate of downstream mechanical and weatherization measures.

- Duct sealing
- Duct sealing and insulation
- Heat pump (conversions) 100% pre-approval required
- Heat pump water heaters
- Insulation
- Windows

No site or virtual inspections are conducted for the following measures. However, all post-purchase incented measures undergo a quality assurance review prior to the issuance of the customer/dealer incentive and recording of savings (e.g., proof of purchase receipt review) and eligible equipment review. Additionally, customer account and customer address are checked to ensure the program administrator does not double pay for the same measure or double count measure savings.

- Central air conditioners
- Clothes washers
- Evaporative cooler
- Hybrid/heat pump clothes dryers
- Line voltage connected thermostats
- New manufactured homes
- Smart thermostats
- Air purifiers

If offered, customer eligibility for mail by request kits is verified using the customer's account number and last name and cross-verifying with the current PacifiCorp customer database.

Low Income Weatherization

All projects

- All measures are qualified through US Department of Energy approved audit tool or priority list.
- 100 percent inspection by agency inspector of all homes treated, reconciling work completed and quality (corrective action includes measure verification) prior to invoicing Company.
- State inspector follows with random inspections.

The Company hires an independent inspector to inspect between 5-10 percent of homes treated (post treatment and payment).

Wattsmart Business (effective 1/1/2024)

Lighting projects
Inspection requirements vary depending on the amount of the incentive and the type of project.

- Incentive above high threshold
    - Retrofits - 100 percent pre- and post-installation site or virtual inspections of all projects with incentives over a specified dollar amount. Project cost documentation reviewed for all projects.
    - New construction - 100 percent post-installation site or virtual inspections of all projects with incentives over a specified dollar amount.
- Incentive between low and high thresholds
    - Retrofits - 100 percent pre-installation site or virtual inspections of all projects (except lighting controls only projects) with incentives between the low and high threshold amounts. Note inspections may be waived on a case-by-case basis for projects completed by Premium Vendors and below a threshold that is between the low and high threshold. A combined percent of post-installation site or virtual inspections by program administrator of projects with incentives between the low and high threshold amounts. Project cost documentation reviewed for all projects.
    - New construction – A combined percent of post-installation site or virtual inspections of projects with incentives between the low and high threshold amounts.
- Incentive below low threshold
    - A combined percent of post-installation site or virtual inspections by program administrator of projects with incentives under a specified dollar amount.

Lighting – small business
On-site or virtual post-incentive inspections will be performed by third party program administrator on a minimum of x percent of approved projects for each approved Small Business

Vendor based on project count per calendar year. All projects with incentives over $y will receive an on-site or virtual pre-inspection. On-site, virtual, or phone surveys will be conducted with participating customers to ensure documentation accuracy, installation and product quality, and customer satisfaction.

Lighting – midmarket/instant incentives
Third party program administrator will conduct regular spot checks on a sampling of approved projects after incentive processing. Inspections will include phone, virtual, and on-site inspections.

- All projects with customer incentives over $y will receive an on-site or virtual inspection.
- A minimum of x percent sampling of all remaining projects will be selected for phone inspections. An additional x percent sampling will be selected for on-site or virtual inspections.

For typical upgrades, small business, and instant incentive offers, required inspections are performed by the program administrator.

Non-lighting projects
Non-lighting projects (typical upgrades/listed measures where savings is deemed)

- 100 percent of applications with an incentive that exceeds a specified dollar amount will be inspected (via site or virtual inspection) (typically by program administrator).
- A minimum of a specified percent of remaining non-lighting applications will be inspected, either in person or via telephone interview, (typically by program administrator).

Non-lighting projects (typical upgrades/listed measures where savings is determined using a simplified analysis tool)

- 100 percent of applications with project savings that exceeds a specified threshold will be inspected (via site or virtual inspection) (typically by program administrator).
- A minimum of a specified percent of remaining non-lighting applications will be inspected, either in person or via telephone interview, (typically by program administrator).

Non-lighting – small business
On-site or virtual post-installation inspections will be performed by third party program administrator on a minimum of x percent of approved projects prior to incentive processing. All projects with incentives over $y will receive an on-site or virtual post-installation inspection prior to incentive processing. On-site, virtual, or phone surveys will be conducted with participating customers to ensure documentation accuracy, installation and product quality, and customer satisfaction.

Custom projects

- 100 percent pre/post-installation inspections, invoice reconciled to inspection results. On-site or virtual pre/post inspections are required for projects with savings over a specified threshold. For projects with savings below the threshold, inspection information may be collected by phone or email.
- No pre-inspection for new construction.

- Inspections are conducted by the program administrator.

All Programs

As part of the third-party program evaluations (two-year cycle) process, the Company has implemented semi-annual customer surveys to collect evaluation-relevant data more frequently to help compensate for customer difficulty remembering details about past projects and other detractors such as customers moving and data not being readily available at evaluation time). This will serve as a further check verifying customer participation and measures installed.

Additional record reviews and site inspections (including metering/data logging) is conducted as part of the process and impact evaluations, a final verification of measure installations.

The company also hires a third party to provide a summary report that will be submitted as an appendix to PacifiCorp's Biennial Conservation Report (BCR), which will be filed by June 1 of even numbered years. This review is not meant to duplicate already-completed impact evaluations of the individual energy efficiency programs, but rather to assess field verification practices and tracking, and the reporting processes helping validate the accuracy of the savings being reported. It also provides an assessment of PacifiCorp's evaluation, measurement, and verification (EM&V) procedures and third-party evaluation methodologies, and whether they meet reasonable industry best practice standards.

This review relies on multiple approaches. The review team examines selected overarching documents, databases, and calculations underpinning the PacifiCorp biennial portfolio claims. In addition, the review team is selecting random samples of project-level documentation for each program, and subjecting these samples to scrutiny and analysis, including field verification. Examining the portfolio claims at both summary and detail levels helps identify problems and potential improvements that can strengthen PacifiCorp's future claims.