Demand-side Management 2022-2023 Business Plan - Washington

November 1, 2021

PACIFIC POWER
A DIVISION OF PACIFICORP

Contents

Executive Summary

As required by the Washington Utilities and Transportation Commission's (Commission's) direction (Amended Order 01 of Docket UE-190908), Pacific Power and Light Company (Pacific Power or the Company) must file with the Commission a Biennial Conservation Plan including program details and program tariffs, together with identification of its 2022-2031 achievable conservation potential, by November 1, 2021.

Amended Order 01 also requires providing draft budgets and program details by September 15, 2021. The September 15, 2021, draft of the 2022-2023 Demand-Side Management (DSM) Business Plan was how the budgets and program details were provided.

Pacific Power's Business Plan for 2022-2023 reflects updated savings projections and budgets by program or initiative for 2022 and 2023. The updates reflect the Company's current projections based on the best available information at the time of filing (November 1, 2021). Pacific Power 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].

To achieve its biennial conservation target (BCT) 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 (P02-MM-CETA) generated by the 2021 Integrated Resource Plan (IRP) process with non-energy 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 2022-2023, with a PacifiCorp Total Resource Cost (PTRC) benefit-to-cost ratio of 1.95 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 planned program changes

[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 section.

[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.

- Program evaluation update[3]
- Program details including specific measures, incentives, and eligibility requirements

2022-2023 Budget and Savings by Program

Table 2 below provides the projected savings and expenditures by program, initiative, and sector to achieve the 93,901 megawatt-hour (MWh) (including line losses) Energy Independence Act (EIA) Penalty Threshold target for 2022 and 2023, shown in Table 1. Target development will be further described in the Company's 2022-2023 Biennial Conservation Plan, dated November 1, 2021. The "Total Pacific Power Conservation" row, which excludes costs and savings associated with NEEA initiatives, is directly comparable to the EIA Penalty Threshold noted above. As shown, the Company is projecting to acquire 101,578 MWh in savings over the biennial period, which exceeds the EIA Penalty Threshold and the decoupling commitment of 5,060 MWh (including line losses).

Table 1: Targets

Category	**MWh at Gen**	**MWh at site**
Pro-Rata Share of 10-year conservation potential	101,191	94,210
EIA Target	**101,191**	**94,210**
Decoupling threshold	5,060	4,711
Total Utility Conservation Goal	**106,250**	**98,921**
Excluded Programs (NEEA)	**(7,290)**	**(6,774)**
Utility Specific Conservation Goal	**98,960**	**92,147**
EIA Penalty Threshold (EIA Target minus NEEA savings)	**93,901**	**87,436**

[3] Final evaluation reports are available on the Company's website at: https://www.pacificorp.com/environment/demand-side-management.html.

Table 2: 2022 - 2023 Biennial Savings and Budget Projections by Program

	2022 PacifiCorp Washington Conservation Estimates			2023 PacifiCorp Washington Conservation Estimates			2022 + 2023
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 @gen**
Low Income Weatherization (114) [1]	169,130	182,112	$ 937,500	169,130	182,112	$ 1,043,750	364
Home Energy Savings (118) [2]	9,610,833	10,348,560	$ 9,274,502	10,202,760	10,985,924	$ 9,687,465	21,334
Home Energy Reports (N/A) [3]	4,099,518	4,414,197	$ 372,430	(169,081)	(182,060)	$ 383,545	4,232
Total Residential Programs	**13,879,480**	**14,944,869**	**$ 10,584,432**	**10,202,809**	**10,985,976**	**$ 11,114,759**	**25,931**
wattSmart Business (140) - Commercial	21,044,900	22,644,733	$ 6,469,109	21,612,900	23,255,913	$ 6,593,203	45,901
wattSmart Business (140) - Industrial	13,046,890	13,936,036	$ 3,359,433	12,896,890	13,775,813	$ 3,372,053	27,712
wattSmart Business (140) - Irrigation	868,229	934,874	$ 272,733	868,229	934,874	$ 274,861	1,870
Total Business Programs	**34,960,019**	**37,515,643**	**$ 10,101,275**	**35,378,019**	**37,966,600**	**$ 10,240,117**	**75,482**
Northwest Energy Efficiency Alliance [4]	3,078,115	3,313,583	862,100	3,695,655	3,977,193	862,100	7,291
Distribution Efficiency		82,000			83,000		165
Total Other Conservation Initiatives	**3,078,115**	**3,395,583**	**$ 862,100**	**3,695,655**	**4,060,193**	**$ 862,100**	**7,456**
Be wattsmart, Begin at Home	-	-	$ 64,523	-	-	$ 64,523	-
Customer outreach/communication	-	-	$ 250,000	-	-	$ 250,000	-
Program Evaluations (& savings verification) [5]	-	-	$ 549,524	-	-	$ 259,662	-
Potential study update/analysis [6]	-	-	$ 120,115	-	-	$ 15,368	-
System Support [7]	-	-	$ 166,735	-	-	$ 157,543	-
End use load research & RTF funding			$ 109,500			$ 65,500	
Total Portfolio-Level Expenses	-	-	**1,260,397**	-	-	**812,596**	-
Total PacifiCorp Conservation [8]	**48,839,500**	**52,542,513**	**$ 21,946,103**	**45,580,828**	**49,035,577**	**$ 22,167,473**	**101,578**
Total System Benefit Charge Conservation	**51,917,615**	**55,856,096**	**22,808,203**	**49,276,483**	**53,012,769**	**$ 23,029,573**	**108,869**
Total Conservation	**51,917,615**	**55,856,096**	**$ 22,808,203**	**49,276,483**	**53,012,769**	**$ 23,029,573**	**108,869**

Notes for Table 2:

1. Low-income forecasts for 2022 and 2023 are based on forecasts from the community action agencies. The per-home savings of 1,301 kilowatt-hours (kWhs) are from the 2016-2017 program evaluation. Cost have been increased by 25percent to account for potential changes to Schedule 114 to accommodate additional repairs and the installation of electric heat in cases where space heater use is the baseline.

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 behavioral program forecast is provided by the program implementer and is based on continuing the treat the groups from the 2020-2021 biennial period. New treatment groups were developed as part of the 2020-2021 plan and were expanded during the period. Since both groups are still ramping up and delivering savings, new groups were not created for the start of this period. The decision to continue to treat the same groups was supported by an analysis from Cadmus and discussed with the DSM Advisory Group. The forecast, and associated cost-effectiveness analysis assumes a two-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 and is reflected as the difference between year two minus year one.

4. Includes both Pacific Power's direct funding of NEEA and the Company's internal management costs. NEEA 2022 and 2023 forecasted expenditures are based on Pacific Power's share (2.55 percent) of the estimated annual costs provided by NEEA staff after accounting for actual 2020 and forecasted 2021 expenditures The 2022-2023 biennial electric savings forecast was provided by NEEA and includes savings above the Northwest Power and Conservation Council's 7th 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. Savings from NEEA's trackable measures category are not included in this forecast. See the Biennial Conservation Target section of the 2022-2023 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 2022 and 2023 represent estimated study costs for the 2023 Conservation Potential Assessment. These costs are subject to change as new requirements 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 Technical Reference Library (TRL) 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 2022 - 2023 expenditures including all portfolio costs are provided in Table 3. 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 3: Direct Benefits to Customers Including Portfolio Expenses

Program or Initiative	Estimated Expenditures	Direct Benefit to Customer ($)	Direct Benefit to Customer
Low Income Weatherization (114)	$ 1,981,250	$ 1,652,500	83%
Home Energy Savings (118)	$ 18,961,967	$ 12,861,967	68%
Home Energy Reports (N/A)	$ 755,974		
Total Residential Programs	$ 21,699,191		
wattsmart Business (140) - Commercial	$ 13,062,312		
wattsmart Business (140) - Industrial	$ 6,731,486		
wattsmart Business (140) - Agricultural	$ 547,594		
Total Business Programs	$ 20,341,392	$ 13,753,529	68%
Northwest Energy Efficiency Alliance	$ 1,724,200	$ 1,168,440	68%
Total Other Conservation Initiatives	$ 1,724,200		
Be wattsmart, Begin at Home	$ 129,046		
Customer outreach/communication	$ 500,000		
Program Evaluations (& savings verification)	$ 809,186		
Potential study update/analysis	$ 135,483		
Systems Support	$ 324,278		
End Use Load research & RTF Funding	$ 175,000		
Total Portfolio-Level Expenses	$ 2,072,993		
Total PacifiCorp Conservation	**$ 44,113,576**		
Total System Benefit Charge Conservation	**$ 45,837,776**		
Totals	**$ 45,837,776**	**$ 29,436,436**	**64%**

Notes for Table 3

- Low Income Weatherization: Payments to community action agencies for measure installation are included as direct benefits to customers.
- Home Energy Savings: Customer incentives, upstream, mid-stream and mail-by-request buy downs are included as direct benefits to customers.
- Wattsmart Business: Customer and vendor incentives and expenditures for customer site-specific energy engineering ($1,146,436) are included as direct benefits to customers.
- NEEA: Company subtracted $55,000 in internal management costs and then applied the 70 percent estimate provided by Commission 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 for review and comment. Using the existing programs described in detail below, the Company plans to pursue the pilot initiatives described below in 2022-2023.

On-Bill Financing for owned manufactured homes located on rented space and homes on tribal trust lands in addition to current offer for owned homes

- **Purpose**: Reduce upfront cost barrier to participation in residential energy efficiency programs by offering on-bill financing. This offer further complements the third-party financing in residential and business customers currently being offered Craft3. This additional offer is contingent on Craft3 being awarded a grant from the Energy Revolving Loan Fund administered by the Washington State Department of Commerce. Craft3 has submitted a proposal and a response is expected by the end of September 2021.
- **Costs**: No additional start-up costs or per application costs. 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 60-100 completed loans over the two-year period.
- **History:** Builds on work from pilot in prior biennial period.
- **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.
- **Marketing**: Home must be in good condition and built after June 15, 1976 (the first United States Department of Housing and Urban Development 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 period.

- **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.

CTA-2045 enabled heat pumps for space heating

- **Purpose:** Increase deployment of CTA-2045 enabled heat pumps. This new approach to demand response greatly reduces the cost of controlling space heaters, while at the same time allowing daily control and improving the customer experience. The prior pilot would be continued to increase stocking, sales and incentive applications for heat pumps. In 2022-2023, the pilot will also focus on increasing sales of CTA-2045 equipped units by providing an additional incentive of $100 for each heat pump space heating unit purchased with CTA-2045 capability.
- **Costs:** Costs are included in the program delivery and incentive budgets for the biennial period.
- **Size:** 10 to 20 units.
- **History:** Builds on work from pilot in prior biennial period
- **Implementation:** Home Energy Savings program team will build new relationships with heat pump space heating manufacturers and distributors to increase availability of models and push sales of CTA 2045 equipped units.
- **Marketing:** Continue sales training and enhanced outreach to manufacturers with existing relationships. Promote the additional incentive for CTA-2045 ready models through direct outreach email and phone communications. Create cobranded materials with manufacturers to increase visibility.

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. This builds up work in targeted areas identified in prior periods which, while successful, did not eliminate or defer the traditional construction solution. Two circuits (5Y164 and 5Y380) in the Yakima area with summer constraints (approximately 2 megawatts for each circuit) and multi-year construction lead time have been identified and in 2022 program implementers will begin targeting efficiency installations on these circuits.
- **Costs:** Costs are included in the existing program delivery and incentive budgets for the biennial period.
- **Size:** to be determined.
- **History:** Concept of pilot is a continuation of prior work, but any target areas defined for this biennial period would be new.
- **Implementation:** Determine if there are areas appropriate to target. Identify the scope, timing and characteristics of the need for these areas. Obtain customer lists for these areas.
- **Marketing:** Increase frequency of existing program incentives and 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 15 projects.
- **History:** Continuation of pilot from the last biennial period 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 commercial building owners who must comply with the Clean Buildings law (House Bill 1257) 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 commercial buildings over 50,000 square feet (approximately 10-20 buildings per year in 2022 and 2023).
- **History:** New pilot
- **Implementation**: Leverage Puget Sound Energy development work to offer similar services for commercial 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 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)
    - Coaching calls
    - Energy Star Portfolio Manager training

Clean Energy Implementation Plan – Utility Actions

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

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

Residential:

Home Energy Savings:

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

Low Income Weatherization:

- Increase funds available for repairs from 15 percent to 30 percent.
- Permit installation of electric heat to replace permanently installed electric heat, space heaters or any fuel source except natural gas with adequate combustion air as determined

by the Agency. The changes are designed to promote the installation of electric heat and minimize use of wood heat, solid fuels or natural draft equipment in specific applications where combustion safety (and indoor air quality) cannot be maintained.
- Changes to Schedule 114 are required to implement these changes. Amended tariff sheets will be filed with the Commission to enable these changes.

Non-residential:

Wattsmart Business - Named community small businesses:
Increase outreach and participation for small businesses and named community small businesses identified by census tract and rate schedule.

- Create a new offer within the current small business enhanced incentive offer targeting the smallest businesses using less than 30,000 kWhs per year and Named Community small businesses on Schedule 24.
    - Offer a higher incentive and increase the incentive cap for this new offer from 90 percent to 100 percent of project costs to reduce the customer out-of-pocket cost barrier.
- Target a portion of company initiated proactive outreach to small businesses located in Highly Impacted Communities. Continue to tie proactive outreach to approved small business vendor capacity to respond to customer inquiries.
- Offer approved small business lighting vendors a higher vendor incentive for completed lighting retrofit projects with small businesses located in Highly Impacted Communities.

Participation Tracking and Reporting:

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

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

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

- Wattsmart Business (except midstream)
    - Participants located in a Highly Impacted Community

- Participants whose primary language spoken is other than English (question asked of the contact person completing the incentive application)
- Participants who rent or lease rather than own
- Participants who are smaller businesses (e.g., account associated with project receives electric service on Schedule 24)

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, multi-family 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, light emitting diode (LED) lighting, lighting fixtures, heating and cooling equipment, HVAC equipment, insulation, and windows. 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 a retailer and/or manufacturer buy-down for LEDs and fixtures, 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. Buy-downs 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.

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.

Program Updates

The Home Energy Savings program was updated effective January 4, 2021 using the program change process (including Advisory Group review and comment) described below. The information provided in this business plan reflects the program offers/qualifications as of January 1, 2022.

Planned Program Changes

Changes are part of the adaptive management strategy for the Home Energy Savings program for the 2022-2023 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 over the last two years. Changes are also intended increase the equitable distribution of benefits and inform utility actions specific to the Clean Energy Transformation ACT (CETA).

- Applicable rate schedules are added to the content managed on the web in concert with the proposed removal of listed from Schedule 118.
- Add new measures:
    - Direct install duct sealing measure for single family homes
    - Load or occupancy sensing advanced power strips (retail)
    - Multifamily attic insulation: R-0 to R-49
    - Multifamily floor insulation: R-19 to R-30
    - Multifamily windows (pre-condition baseline): U-22 or lower
- Increase customer and trade ally incentives for;
    - HVAC
    - Building Shell,
    - Water Heating measures.
- Expand baselines for electric heat installations in in targeted communities
    - Single family, manufactured homes and multi-family homes in targeted communities with non- electric fuel heating sources (wood, propane, oil, etc.) will be eligible for installation of ductless heat pumps. Natural gas system will continue to not be eligible. This measure will be offered at the same incentive rate as the ductless heat pumps measure installed in single family homes. RTF values for ductless heat pumps installed in place of zonal electric heat will be utilized since the RTF does not have value for a non-electric baseline.
- Changes to incentive structures:
    - Permit weatherization incentives to be split between the customer and market partner.
    - Differentiate direct install lighting in Lighting Incentives table to specify different incentives.
- Increased targeting for measure delivery
    - Maintain retail lighting lamp buy down for general service lamps in “dollar stores” in Highly Impacted Communities.
    - Remove other retail lighting buy down offers due to high cost, low savings, and/or discontinuation in the RTF.
- Align with the latest unit energy savings (UES) from the RTF.

On bill financing:

- Craft3 who administers the on-bill financing offer has revised their credit review process so that credit scores below 590 are not automatically excluded. Under the revised credit review, these lower scores will be individually reviewed. If there is an identifiable non-recurring set of factors leading to the lower score, Craft3 may elect to approve the applicant. The revised credit review does not automatically approve lower scores but is intended to screen in applicants with mitigating circumstances.

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	Due November 2021	ADM Associates, Inc.

Future Evaluation Report(s):

Program Years	Evaluation Report Date	To be Completed by
2021-2022	Due November 2023	RFP in progress

Program Details

General program details for this program are contained in the program tariff; 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 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, program definitions and custom incentives offered are managed outside of the program tariff on the Company website via the process described above.

The following program information is contained either on the Company's website referenced above or in the program tariffs at the end of this business plan.

Washington Home Energy Savings

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

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.

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 4: 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 program website.
- Acronyms:
  IMEF: Integrated Modified Energy Factor
  UCEF: Utility Combined Energy Factor

Table 5: Lighting Incentives

Measure	Qualifications	Customer Incentive	Market Partner Incentive
LED Bulbs (General Purpose) – Not Direct Install	Qualified Product List	$0	Up to $3.00
LED Bulbs (Specialty) – Not Direct Install	Qualified Product List	$0	Up to $3.00
LED Fixtures – Not Direct Install	Qualified Product List	$0	Up to $23.00
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:

- Incentives for LED bulbs and fixtures (not direct install) apply to mid/upstream, and/or post purchase through distributors.
- Mail-by-request and direct install are offered on an initiative basis and may not be available for the entire year. See program website for availability information
- LED bulb and fixture must be listed on the program's qualified product list on the program website in order to qualify for an incentive. Qualifying product may be purchased at a participating retailers only for the not direct install incentives.
- Reduced price LED or fixture offer may end early if entire allocation is sold.
- Acronyms:
  LED: Light Emitting Diode

Table 6: 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 with Best Practice Installation and Sizing	≥15 SEER Central air conditioner must be installed and sized per program's requirements.	$156	
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.	$1,000	
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.	Up to $500	
Duct Sealing (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.	$0	Up to $500
Ductless Heat Pump	≥ 9.0 HSPF, single-head or multi-head unit.	$1,800	

	All customers: Home's previous primary heating source must either have been an electric forced air furnace or a zonal electric system. Customers meeting named community criteria on Pacific Power's website: Home's previous primary heating system may use any fuel except natural gas.	
Electronic Line Voltage Thermostat	Must meet Bonneville Power Administration (BPA) specifications. Home's primary heating source must be an electric zonal heating system.	$56
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
9.0+ HSPF Heat Pump Conversion	For replacement of existing electric furnace with new high efficiency heat pump. ≥ 9.0 HSPF must include Best Practices Installation & Proper Sizing.	$3,500
Heat Pump Upgrade	For upgrade of existing heat pump to new high efficiency heat pump. ≥ 9.0 HSPF must include Best Practices Installation & Proper Sizing.	$375
Heat Pump (CTA-2045)	For heat pump equipment with demand response capability compliant with CTA-2045 standard.	$100 per heat pump (in addition to available equipment efficiency incentives)
Smart Thermostat	Unit must be on Energy Star Qualified Products List.	$100

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 for CTA-2045 compliant heat pump is an additional incentive that apply to heat pump commissioning, heat pump conversion, and heat pump upgrade measure offerings. Equipment must meet all program qualifications to be eligible.
- 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 the customer for smart thermostats incentives.
- Homes must have a ducted electric heating system to be eligible of smart thermostat incentives. Customers may self-install smart thermostats. Contractor not required.
- Work must be completed per program requirements listed on the program website.
- See additional installation requirements on program website.
- Acronyms:
  SEER: Seasonal Energy Efficiency Ratio
  HSPF: Heating Seasonal Performance Factor
  CFM: Cubic Feet per Minute

Table 7: 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)	$R_{initial} = 0$ $R_{final} \geq 30$ Home's primary heat source must be electric.	$0.46/sq-ft	
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.	$1.00/sq-ft	

Notes for weatherization incentive table:

- See additional installation requirements on program website.
- 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.
- 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.
- Home's primary heat source must be a gas heating system to qualify for the electrically cooled incentive.
- Acronyms:

  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 8: 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.	Electric space heating, electric water heating exceeding code by 10% to 19.99%: $1,875 Electrical space heating with electric water heating exceeding code by 20% or more: $3,125 Compressor based electric cooling. Electric water heating. Space heated by gas or other fuel exceeding code by 10% or more. $625	

Notes for New Homes incentive table:

- See additional installation requirements on 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.

Table 9: Single Family Water Heating Incentives

Measure	Qualifications	Customer Incentive	Market Partner Incentive
Heat Pump Water Heater	Advanced Water Heating Specification Tier 3 and above replacing an existing electric tank type water heater.	Tier 3 or higher: $900	

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 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.
- See additional installation requirements on program website.
- Acronyms:
  GPM: Gallons per minute

Table 10: Single Family Power Strip Incentives

Measure	Qualifications	Customer Incentive	Market Partner Incentive
Advanced Power Strip	Load or occupancy sensing. Shuts off power to selected peripheral devices during sleep mode or when no motion is detected for a set period of time.	$0	Up to $40

Notes for power strip table:

- Advanced power strips are available through direct install or through retail. Direct install equipment will be offered on an initiative basis and may not be available for the entire year. See program website for availability information.

Table 11: Manufactured Homes Incentives

Measure	Qualifications	Customer Incentive	Market Partner Incentive
Advanced Power Strip	Load or occupancy sensing. Shuts off power to selected peripheral devices during sleep mode or when no motion is detected for a set period of time.	$0	Up to $40
Central Air Conditioner	≥15 SEER Central air conditioner must be installed and sized per program's requirements.	$156	
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.	Up to $500	
Duct Sealing (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.	$0	Up to $500
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 furnace with new federal standard efficiency heat pump. Heat Pump must include Best Practices Installation & Proper Sizing.	$2,250	
9.0+ HSPF Heat Pump Conversion	For replacement of existing electric furnace with new high efficiency heat pump.	Up to $2,500	

	≥ 9.0 HSPF must include Best Practices Installation & Proper Sizing	
Ductless Heat Pump	≥ 9.0 HSPF single-head or multi-head unit All customers: Home's previous primary heating source must either have been an electric forced air furnace or a zonal electric system. Customers meeting named community criteria on Pacific Power's website: Home's previous primary heating system may use any fuel except natural gas.	$1,800
Heat Pump Upgrade	≥ 9.0 HSPF/14 SEER	$375
Heat Pump (CTA-2045)	For heat pump equipment with demand response capability compliant with CTA-2045 standard.	$100 per heat pump
Electronic Line Voltage Thermostat	Must meet Bonneville Power Administration (BPA) specifications. Home's primary heating source must be an electric zonal heating system.	$56
Insulation – Attic (R0 to R-22)	Rinitial = 0 Rfinal ≥ 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)	Rinitial ≤ 11 Rfinal ≥ 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.	$2,500
New Homes, NEEM+ Homes	Home must be new and have received NEEM Plus certification.	$3,000
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 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.	$1,300

Smart Thermostat	Unit must be on ENERGY STAR Qualified Products List	$100
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

Notes for manufactured homes table:

- Advanced power strips are available through direct install or retail. Direct install equipment will be offered on an initiative basis and may not be available for the entire year. See program website for availability information.
- Incentives for CTA-2045 compliant heat pump is an additional incentive that apply to ductless heat pump, heat pump commissioning, heat pump conversion, and heat pump upgrade measure offerings. Equipment must meet all program qualifications to be eligible. Manufactured homes are eligible for only one duct sealing incentive. The direct install offer may not be combined with the non-direct install offer.
- Duct sealing direct install will be offered on an initiative basis and may not be available for the entire year. See 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.
- 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 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:
  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 12: Multifamily Homes Incentives

Measure	Qualifications	Customer Incentive	Market Partner Incentive
Advanced Power Strip	Load or occupancy sensing. Shuts off power to selected peripheral devices during sleep mode or when no motion is detected for a set period of time.	$0	Up to $40
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 All customers: Home's previous primary heating source must either have been an electric forced air furnace or a zonal system. Customers meeting named community criteria on Pacific Power's website: Home's previous primary heating system may use any fuel except natural gas.	$1,800	
Heat Pump (CTA-2045)	For heat pump equipment with demand response capability compliant with CTA-2045 standard.	$100 per heat pump	
Electronic Line Voltage Thermostat	Must meet Bonneville Power Administration (BPA) specifications.	$56	

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)	Rinitial = 0 Rfinal ≥ 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)	Rinitial = 19 Rfinal ≥ 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

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
Multifamily New Construction	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.	Exceeding code by 5% to 14.99%: $0.15/ kWh (first year) Exceeding code by 15% or more: $0.25/ kWh (first year)

Notes for multifamily homes table:

- Advanced power strips are available through direct install or retail. Direct install equipment will be offered on an initiative basis and may not be available for the entire year. See program website for availability information.
- Incentives for CTA-2045 compliant heat pump is an additional incentive that apply to ductless heat pump, heat pump commissioning, heat pump conversion, and heat pump upgrade measure offerings. Equipment must meet all program qualifications to be eligible.
- 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.
- 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.
- Incentives for multifamily new construction are for buildings where at least 80% of the space serves customers who purchase their electricity from Pacific Power on rate schedules 16, 17 or 18.
- 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 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

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 request for procurement (RFP) process to begin delivery of Home Energy Reports in 2018. During the prior biennial period, 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.

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
2018-2019	May 2020	Cadmus

Future Evaluation Report(s):

Program Years	Evaluation Report Date	To be Completed by
2020-2021	Estimated by April 15, 2022	RFP in progress

Program Details

Beginning in 2020 Bidgely is 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.

As part of the biennial planning process two approaches were considered for 2022-2023; re-randomize all customers and create new groups (treatment and control) or continue to treat the existing groups and compare with the existing control groups. Cadmus, a third-party evaluation firm with extensive home energy report experience recommended maintaining the same treatment and control groups since savings were continuing to ramp up. The Cadmus recommendation was shared with DSM AG as part of the biennial planning process.

At the beginning of 2022, approximately 11,400 customers are forecasted to receive digital (email) reports and 40,600 customers are forecasted to receive paper reports. There are approximately 105,000 residential customers in Pacific Power's Washington territory.

For this biennial period, the Company will continue to utilize a two-year measure life for assessing cost effectiveness. The two-year life aligns more closely with assumptions utilized by other Washington investor-owned utilities responsible for complying with I-937.

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 first year savings and any incremental savings in year two and both will be based on an ex-post evaluation of the program performance.

Planned Program Changes

The Home Energy Reports program for 2022-2023 will continue treating the same customers selected in the re-randomized approach used at the start of 2020-2021. 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 7,720 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 and Opportunities Industrialization Center of Washington in Yakima 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 covers 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.

Planned Program Changes

The Low Income Weatherization program was last revised through the submission of tariff revisions in 2017. These proposed revisions were determined by the Low Income Weatherization Advisory Group and included the elimination of an annual funding cap. The changes were approved by the Commission and became effective on May 1, 2017.

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.

PacifiCorp is evaluating revisions to Schedule 114: 1) proposing an increase to repair reimbursement to partner agency authorized to receive funds for the installation of weatherization materials in low-income dwellings and 2) 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. Company reimburses the partner agencies 50percent 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 100percent. The total reimbursement on repairs available is limited to 15percent of the annual reimbursement on energy efficient measures received. 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. Additionally, the change to the heating source requirement, if approved, would 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.

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
2016-2017	November 2020	ADM Associates, Inc.

Future Evaluation Report(s):

Program Years	Evaluation Report Date	To be Completed by
2018 - 2019	November 2022	ADM Associates, Inc.

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 non-residential customers in the State of Washington. The program provides a comprehensive set of financial and service incentives to assist the Company's non-residential customers in 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.

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. The program includes an incentive offer specifically for small business customers receiving electric service on Schedule 24.[4] Participating customers utilizing an approved contractor are eligible for an enhanced incentive offer up to 90-100 percent of the project cost. There is also a midstream point-of-purchase delivery channel for lighting. Incentives for this offer are referred to as Instant Incentives.

Custom incentives and analysis 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 equal to $0.24 per kWh of annual energy savings (up to 70 percent of project costs).[5] 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. The program

[4] 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.

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

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 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.

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 (formerly called HBC Energy Capital).

The program is marketed primarily via Pacific Power account managers, Wattsmart Business vendors, Wattsmart Business consultants, and project 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.

Wattsmart Business was updated in the fourth quarter of 2021 using the program change process (including Advisory Group review and comment) described below. The changes are effective on January 1, 2022. The information provided in this business plan reflects the program offers/qualification on January 1, 2022.

Planned Program Changes

In alignment with CETA, the small business offer will be revised for 2022 to increase participation from named community small businesses as well as the smallest of small businesses by adding a separate offer for them with incentives up to 100 percent of project costs. The plan for 2022 includes the following:

- Target a portion of company initiated proactive outreach to small businesses located in Highly Impacted Communities. Continue to tie proactive outreach to approved small business vendor capacity to respond to customer inquiries.
- Offer approved small business lighting vendors a higher vendor incentive for completed lighting retrofit projects with small businesses located in Highly Impacted Communities.

Given the coronavirus COVID-19 pandemic, program participants of all sizes continue to face a multitude of challenges implementing energy efficiency projects. Availability of capital is a particular challenge facing many and business customers generally need to see shorter paybacks on their investments in efficiency upgrades than prior to the pandemic. To address this, the program is being adaptively managed and additional temporary incentive increases will be put in place for 2022. With these incentive increases bringing the paybacks for more projects to between one and two years, the project cost cap that was temporarily increased in 2021 will be reset to the prior level (70 percent) for all but the small business lighting offer.

Vendor incentives will be offered in 2022 for lighting and HVAC to encourage vendors to propose and complete projects for Pacific Power customers.

To expand HVAC participation, a new HVAC check-up offer will be added for 2022 to encourage customers to maintain existing rooftop units (RTUs) to optimize equipment efficiency and install energy saving measures on existing HVAC equipment.

Complete details on the changes will be provided for DSM Advisory Group review prior to finalizing and posting on the company website with 45 days' notice before the changes take effect on January 1, 2022.

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
2018-2019	July 8, 2021	The Cadmus Group

Future Evaluation Report(s):

Program Years	Evaluation Report Date	To be Completed by
2020-2021	In progress	The Cadmus Group

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[6] 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.

[6] 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.

> 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.

The incentive tables, program definitions and custom incentives offered are managed outside of the program tariff on the Company website[7] via the process described above.

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

[7] https://www.pacificpower.net/content/dam/pcorp/documents/en/pacificpower/savings-energy-choices/wattsmart-business/washington/WA_wattsmartBusiness_Incentive_tables_information.pdf

Washington Wattsmart Business

APPLICABLE:
To service under the Company's General Service Schedules 24, 33, 36, 40, 47T, 48T, 51, 52, 53, 54 and 57 in all territory served by Pacific Power in the State of Washington.

Definitions

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 and regenerative technologies.

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[8] 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.

[8] 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 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:[9,10]

Category		Incentive	Percent Project Cost Cap[11]	1-Year Simple Payback Cap for Projects[12]	Other Limitations
Prescriptive Incentives (Listed Incentives)[13]	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[14]		None	No	
	Building Envelope		None	No	
	Food Service[15]		None	No	
	Appliances		None	No	
	Office		None	No	
	Irrigation Pump VFD		70%	Yes	

[9] 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.

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

[11] 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.

[12] 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.

[13] For Rate Schedule 51, 52 and 57 Street Lighting Service, the street lighting owner (Pacific Power) is not eligible for incentives.

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

[15] 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[11]	1-Year Simple Payback Cap for Projects[12]	Other Limitations
	Irrigation Water Distribution		None	No	
	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 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 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.
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		$0.24 per annual kWh savings	70%	Yes	N/A

Category	Incentive	Percent Project Cost Cap[11]	1-Year Simple Payback Cap for Projects[12]	Other Limitations
measures not on the prescriptive list.[16, 17]				
Energy Management	$0.025 per kWh annual savings	N/A	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.

[16] 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.
[17] 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	$0.32/kWh
		With upgrade to Basic Controls	$0.27/kWh
		Without controls upgrade	$0.24/kWh
	Fixture Retrofit Kits	With controls upgrade to Basic or Advanced Networked Lighting Controls	$0.24/kWh
		Without controls upgrade	$0.19/kWh
	Lamp Replacement	Lamp-only Replacements	See Mid-market incentive table
	Controls-only Retrofit	Controls-only upgrade to Advanced Networked Lighting Controls	$0.32/kWh
		Controls-only upgrade to Basic Controls	$0.24/kWh
Exterior Lighting	Full Fixture Replacement (except Street Lighting)	With upgrade to Advanced Dimming Controls	$0.16/kWh
		Without controls upgrade	$0.09/kWh
	Fixture Retrofit Kits (except Street Lighting)	With upgrade to Advanced Dimming Controls	$0.11/kWh
		Without controls upgrade	$0.08/kWh
	Lamp Replacement (except Street Lighting)	Lamp-only Replacements	See Mid-market incentive table
	Street Lighting	With upgrade to Advanced Dimming Controls	$0.11/kWh
		Without controls upgrade	$0.08/kWh
	Controls-only Retrofit	Controls-only upgrade to Advanced Dimming Controls	$0.11/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.	$12/linear foot
	LED Case Lighting – Freezer Case		$12/linear foot
	Refrigerated Case Occupancy Sensor	Installed in existing refrigerated case with LED lighting	$1.25/linear foot
Controlled Environment Agriculture (CEA)	Full Fixture Replacement	With or without controls upgrade	$0.17/kWh
	Lamp Replacement	Lamp-only Replacements With or without controls upgrade	See Mid-market incentive table
Custom Lighting	Custom	Not listed above	$0.09/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.	$12/Fixture
	Linear Ambient		$12/Fixture
	High Bay		$25/Fixture
	Other Fixtures (not listed above)		$0.62/Fixture Wattage
	Advanced Networked Lighting Controls		$1/W Controlled
	Custom Interior Lighting	Products must be installed in facilities where energy code does not apply.	$0.08/kWh annual energy savings
Controlled Environment Agriculture (CEA)	LED Fixture	Product must be listed on qualified equipment list. Products must be installed in facilities where energy code does not apply.	$0.10 /kWh

Notes for New Construction/Major Renovation Lighting Incentive Table

1. Project Cost Caps of 7 percent 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, and education occupancies where the applicable state energy code is Washington State Energy Code 2018 and the Total System Performance Ratio (TSPR) requirement applies. The TSPR must exceed that of the standard reference design specified by Washington State Energy Code 2018.	$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	CEE Advanced Tier
	All equipment sizes (three phase)	Split system and single package	--	CEE Tier 2	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)	≤ 8,000 Btu/hr	Single package	12.2 EER	--	--
	> 8,000 Btu/hr and < 10,500 Btu/hr	Single package	11.9 EER	--	--
	≥ 10,500 Btu/hr and ≤ 13,500 Btu/hr	Single package	10.7 EER	--	--
	> 13,500 Btu/hr	Single package	9.9 EER	--	--
Packaged Terminal Heat Pumps (PTHP) (Heating & Cooling Mode)	≤ 8,000 Btu/hr	Single package	--	12.2 EER and 3.4 COP	--
	> 8,000 Btu/hr and < 10,500 Btu/hr	Single package	--	11.5 EER and 3.3 COP	--
	≥ 10,500 Btu/hr and ≤ 13,500 Btu/hr	Single package	--	10.7 EER and 3.1 COP	--
	> 13,500 Btu/hr	Single package	--	9.8 EER and 3.0 COP	--
Heat Pumps, Air-Cooled (Cooling Mode) (See note 7)	< 65,000 Btu/hr (single phase)	Split system and single package	--	CEE Tier 2	--
	< 65,000 Btu/hr (three phase)	Split system and single package	CEE Tier 1	CEE Tier 2	--
	≥ 65,000 Btu/hr (three phase)	Split system and single package			--
Heat Pumps, Air-Cooled (Heating Mode)	< 65, 000 Btu/hr (single phase)	Split system and single package (See note 3)	--	CEE Tier 2	--
	< 65,000 Btu/hr (three phase)	Split system and single package (See note 3)	CEE Tier 1	CEE Tier 2	--
	≥ 65,000 Btu/hr (three phase)	(See note 3)			
Heat Pumps, Water-Source (Cooling Mode)	< 135,000 Btu/hr	(See note 3)	--	CEE Tier 1	--
Heat Pumps, Water-Source (Heating Mode)	< 135,000 Btu/hr	(See note 3)	--	CEE Tier 1	--

			Minimum Efficiency Requirement & Customer Incentive		
Equipment Type	**Size Category**	**Sub-Category**	**$31/ton**	**$62/ton**	**$93/ton**
VRF Air-Cooled Heat Pumps (Cooling Mode)	<65,000 Btu/hr	Multisplit System or Multisplit System with Heat Recovery	--	--	15 SEER and 12.5 EER
	≥65,000 Btu/hr and <135,000 Btu/hr		--	--	11.5 EER and 16 IEER
	≥135,000 Btu/hr and <240,000 Btu/hr		--	--	10.9 EER and 15.4 IEER
	>240,000 Btu/hr		--	--	9.6 EER and 14.3 IEER
VRF Air-Cooled Heat Pumps (Heating Mode) (See note 3)	<65,000 Btu/hr	--	--	--	8.5 HSPF
	≥65,000 Btu/hr and <135,000 Btu/hr	47°Fdb/43° wb outdoor air	--	--	3.4 COP
		17°Fdb/15° wb outdoor air	--	--	2.4 COP
	>135,000 Btu/hr	47°Fdb/43° wb outdoor air	--	--	3.2 COP
		17°Fdb/15° wb outdoor air	--	--	2.5 COP
VRF Water-Cooled Heat Pumps (Cooling Mode)	< 135,000 Btu/hr	Multisplit System or Multisplit System with Heat Recovery	--	--	CEE Tier 1
VRF Water-Cooled Heat Pumps (Heating 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	
			$250/ton	**$312/ton**
Heat Pumps, Air-Cooled, replacing electric resistance heating (Cooling Mode) (Retrofit only) (See note 3 and 7)	All sizes	Split system and single package	CEE Tier 1	--
	< 65,000 Btu/hr		CEE Tier 1	CEE Tier 2
Heat Pumps, Air Cooled, replacing electric resistance heating (Heating Mode) (Retrofit only) (See note 3 and 7)	All sizes	Split system and single package	CEE Tier 1	--
	< 65,000 Btu/hr		CEE Tier 1	CEE Tier 2
Equipment Type	**Size Category**	**Sub-Category**	**Minimum Efficiency Requirement**	**Customer Incentive**
Heat Pump (CTA-2045) (See note 8)	All sizes	Split system and single package	For heat pump equipment with demand response capability, compliant with CTA-2045	$100/heat pump

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 for equipment with heating sections other than electric resistance. CEE minimum efficiency requirements are listed on Pacific Power's website.
7. Equipment must meet CEE part load efficiency requirements (SEER or IEER). Equipment does not need to meet CEE full load efficiency requirements (EER), as long as the part load efficiency requirement is also specified for the equipment in CEE. If CEE only lists full load efficiency requirements (EER), 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. Incentive for CTA-2045 compliant heat pump is an additional incentive that applies to heat pumps listed in the above table. Unitary air conditioners, PTACs, PTHPs, and heat pump loops do not qualify for this incentive. Equipment must meet all program qualifications to be eligible.
9. Incentives listed in the above table are not available for New Construction and Major Renovation project HVAC systems serving office, retail, library, and educational occupancies that are subject to the HVAC total system performance ratio (TSPR) requirement in Washington State Energy Code 2018. 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
CTA = Consumer Technology Association
EER = Energy Efficiency Ratio
HSPF = Heating Seasonal Performance Factor

HVAC = Heating, Ventilation and Air-Conditioning
IEER = Integrated Energy Efficiency Ratio
PTAC = Packaged Terminal Air Conditioner
PTHP = Packaged Terminal Heat Pump
SEER = 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 tons and ≤ 10 tons	Must be installed on existing unitary packaged rooftop units (no split-systems), ≥ 5 tons nominal cooling capacity 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	$2,500
	> 10 tons and ≤ 15 tons			$3,500
	> 15 tons and ≤ 20 tons			$5,000
	> 20 tons			$5,625
Advanced Rooftop Unit Control (Existing RTU, Demand-Controlled Ventilation only)	≥ 5 tons and ≤ 10 tons	Must be installed on existing unitary packaged rooftop units (no split-systems), ≥ 5 tons nominal cooling capacity.	Controls must include: - Digital, integrated economizer controls that modulate based on occupancy - CO2 or occupancy-based sensor	$625
	> 10 tons and ≤ 15 tons			$750
	> 15 tons and ≤ 20 tons			$875
	> 20 tons			$1,000

Equipment Type	Size Category	Sub-Category	Minimum Efficiency Requirement	Customer Incentive
Advanced Rooftop Unit Control (New RTU)	≥ 5 tons and ≤ 10 tons	Must be installed on unitary packaged rooftop units (no split-systems), ≥ 5 tons nominal cooling capacity. 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	$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, and educational occupancies that are subject to the HVAC total system performance ratio (TSPR) requirement in Washington State Energy Code 2018. See New Construction/Major Renovation HVAC Equipment Incentive Table for incentive information.

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	--	ENERGY STAR Certified	$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

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.

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
Electric Griddle	--	ENERGY STAR Tier 2 Certified	$187
Electric Combination Oven	3 - 40 pans	ENERGY STAR Certified	$650
Demand Controlled Kitchen Ventilation Exhaust Hood	Must be installed on commercial kitchen exhaust system.	Variable speed motors must be controlled to vary fan speed depending upon kitchen demand, as indicated by connected sensors.	$0.18 /kWh annual energy savings (See note 2)
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)

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.
2. Incentives are paid at $0.18/kWh annual energy savings. Demand controlled kitchen ventilation exhaust hood energy savings subject to approval by Pacific Power.
3. Demand controlled kitchen ventilation exhaust hoods required by or used to comply with the applicable version of the energy code are not eligible for incentives.
4. Incentives for Demand Controlled Kitchen Ventilation Exhaust Hoods 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.

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 Office Energy Efficiency Measures

Equipment Type	Replace	Minimum Efficiency Requirements	Customer Incentive
Smart Plug Strip	--	1. Incentive applies to any plug strip on Qualified Product List that eliminates idle or stand-by power consumption of connected plug-load appliance through the use of an electric load sensor. 2. Applies only to electric plug-load applications (e.g., computer monitors)	$5/qualifying unit

Notes for office 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. Qualified Product List is available on the energy efficiency section of the Pacific Power website.

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. New nozzle shall be included in new sprinkler. 2. Fixed-in-place (solid set) systems not eligible. 3. 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.	$0.24/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
Agricultural Engine Block Heater Timers	--	Timer must be a UL-listed device and rated for a minimum of 15 amps continuous duty.	$12 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.	$0.24/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.	$0.24/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	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	$0.24/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	$0.24/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	$0.24/kWh annual energy savings
Wastewater – low power mixer	Excess aeration capacity	Extended range circulator	$0.24/kWh annual energy savings

Notes for other 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 Lighting Retrofits (not listed below)		$0.35/kWh
	LED Exterior Full Fixture Replacement (except Street Lighting)	With upgrade to Advanced Dimming Controls	$0.18/kWh
		Without controls upgrade	$0.10/kWh
	LED Exterior Fixture Retrofit Kits (except Street Lighting)	With upgrade to Advanced Dimming Controls	$0.12/kWh
		Without controls upgrade	$0.09/kWh
	Lighting Controls (interior only)	PIR, Dual Tech, Integral Sensor, Basic or Advanced Networked Lighting Controls	$0.32/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.

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 Lighting Retrofits		$0.50/kWh,
	Lighting Controls (interior only)	PIR, Dual Tech, Integral Sensor, Basic or Advanced Networked Lighting Controls	$0.32/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.

LED –Light Emitting Diode
PIR – Passive infrared

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
	Wall Pack Fixture	LED must be listed on qualified equipment list	Up to $30/Fixture

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
Smart Plug Strip	--	1. Incentive applies to any plug strip that eliminates idle or stand-by power consumption of connected plug-load appliance through the use of an occupancy sensor, electric load sensor, or timer. 2. Applies only to electric plug-load applications with at least 1 device controlled by power strip.	Up to $30/qualifying unit
LED	T8 TLED Lamp – Type A, A/B Dual Mode	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 equipment costs. Qualifying equipment 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 Production Efficiency, energy efficiency improvements at Company owned non-hydro generation facilities serving the Company's Washington territory.

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 report.

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, 2019-2020, 2021-2022, and 2022-2023 school years.

Program costs fall under Paragraph (7) (d) in Order 01 of Docket UE-132047, Conservation Efforts without Approved EM&V Protocol, where the Company can spend up to 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 (10) (a) of the same Order 01.

NEF is a non-profit corporation with more than 40 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 NEF concludes with the Fall 2022 school assembly presentations and the delivery of final reports in early 2023. In order to continue the education program for the 2023/2024 school year, the Company will issue a competitive RFP in 2022. There are no plans at this time to change the fundamentals of the education program. The budget provided in Table 1 is based on the current contract. Changes in costs based on the successor contract will be included in the next business plan update.

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 5th 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 levels

are 4th and 5th 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 the energy literacy education. This year, in response to the COVID-19 pandemic, NEF has prepared online presentations that teachers can share in their classroom or with students at home.

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. For the 2020/2021 school year, students also have the option to fill out the report online. 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 3,600
Percent of eligible schools reached:	approximately 80 percent
Total teachers	approximately 145
Target return rate - Home Energy Checklists	approximately 53 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 2022 and 2023 forecasted expenditures are based on Pacific Power's share (2.55 percent) of the estimated annual costs provided by NEEA staff. The 2022 -2023 biennial electric savings forecast was provided by NEEA and includes savings above the Council's 7th 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 2022-2023 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. 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

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.

Program Details

Provided in the table below is a summary of the media channels that were used to deliver the Wattsmart campaign in 2021.

Communication Channel	Value to Communication Portfolio
Television/OTT (over-the-top)	Advertisements targeting both residential and business customers were featured throughout the year. TV and OTT spots ran in February, April and August in 2020. TV stations on which campaign spots aired include: KAPP (ABC), KCYU (FOX), KIMA (CBS), and KNDO (NBC). TV/OTT delivers 1 million impressions.
Radio	Radio spots targeting residential and business customers were featured throughout the year. Radio spots ran in January, February, April, June, July, August, October, and November in 2020. Radio stations on which campaign spots aired include: KATS-FM (Adult Oriented Rock), KHHK-FM (CHR), KMNA-FM (Mexican Regional) KFLD-AM (News/Talk), KXDD (Country), KFFM (Top 40) Tri Cities Stations:, KEYW-FM (Hot AC), KXRX (Rock), KIOK (Country), KEGX (Rock), KORD-FM (Country), KUJ-FM (CHR), and KZTB-FM (Mexican Regional). Radio advertising delivers 8.6 million impressions.
Newspaper	Newspaper placements included: Dayton Chronicle, La Voz Hispanic News, The Waitsburg Times, Pomeroy East Washingtonian, Walla Walla Union-Bulletin, Sunnyside Daily News, Yakima Business Times and Yakima Herald-Republic.
Website: Pacificpower.net/wattsmart BeWattsmart.com	Pacific Power's Wattsmart website, pacificpower.net/wattsmart, and promotional URL BeWattsmart.com link directly to the energy efficiency landing page and fulfill the campaign's call-to-action to engage customers in the Company's energy efficiency programs. These sites further support all other forms of communications by serving as a source for detailed information regarding the company's programs and other energy efficiency opportunities.
Twitter/Instagram	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. Energy efficiency tweets are scheduled on a weekly basis.
Facebook	Facebook is used to build awareness for early adopters regarding energy efficiency tips and provides a forum to share information. Information and tips are posted weekly. We also use promoted posts and mobile posts to help expand the reach. In addition, paid Facebook ads encourage clicks to drive traffic to the website.
Other Online	Digital advertising supports the broadcast and print media in increasing awareness to a segment of customers who are likely to be receptive to energy-saving messaging. Some of these uses include banner ads on regional and news sites and entertainment platforms, behavioral ad targeting, demographic targeting, geographic targeting and pay-per-click ad placements.

The 2021 Communications and Outreach plan was reviewed with the Demand-side Management Advisory Group in December 2020. The 2021 plan contained the same components of the 2020 plan with an increased digital, social and radio presence, the continuation of newspaper advertising to target business and residential customers, a decrease in TV advertising, and the new addition of OTT (over-the-top) advertising.

The Company's 2019 research showed that among respondents 77 percent (residential) and 71 percent (non-residential) think Pacific Power is doing a good job of offering solutions to help customers use energy more efficiently. Similarly 78 percent (residential) and 71 percent (non-residential) report the Company is doing a good job of providing information on how to control electricity costs.

Among residential customers, 64 percent are familiar with "being Wattsmart". Of those familiar, 73 percent attribute the phrase to Pacific Power. Among non-residential customers, 67 percent report the company is doing a good job of giving customers information to help them save money by using less energy.

More than 70 percent of residential and 54 percent 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 taking action is to save money 81 percent (residential) and 73 percent (non-residential) the secondary reason customer take action is to help the environment.

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 in order 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 2022-23, 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 will create new business focused advertising to amplify customers who are benefitting from the Wattsmart Business program and encourage other businesses to pursue energy efficiency upgrades in order to boost their bottom lines, enhance their workplaces and realize other benefits.

Proposed adjustments for the 2022/2023 biennium:

Communication Tactic	2022/2023
Television/OTT (over-the-top): A selection of ads will be rotated, both 30-second and 15-second spots. TV stations on which the campaign spots will air include: KAPP (ABC), KIMA (CBS), KNDO (NBC), and KCYU (FOX)	Develop new residential and business creative and continue to refine messaging based on customer research and the current economic climate.
Radio: Radio stations on which campaign spots will air include KATS-FM (Adult Oriented Rock), KMNA-FM (Mexican Regional), KXDD (Country), KFFM (Top 40) Tri Cities Stations:, KEYW-FM (Hot AC), KXRX (Rock), KIOK (Country), KEGX (Rock), and KZTB-FM (Mexican Regional)	Develop new residential and business creative and continue to refine messaging based on customer research and the current economic climate.

Newspaper Dayton Chronicle, The East Washingtonian, La Voz Hispanic News, The Waitsburg Times, Walla Walla Union Bulletin, Sunnyside Daily News, Yakima Business Times, Yakama Nation Review, and Yakima Herald-Republic.	Develop new residential and business creative and continue to refine messaging based on customer research and the current economic climate.
Web: pacificpower.net/wattsmart, and promotional URL BeWattsmart.com link directly to the energy efficiency landing page.	Continue to simplify the web pages and get the customers to the information they are looking for more easily. Update web pages to offer new ways for customers to engage online.
Twitter	Tweets posted on a weekly basis.
Facebook/Instagram/LinkedIn	Information and tips posted weekly. Promoted video and static posts and mobile ads will be added where appropriate. Promote business case studies, to get additional leverage from these tools.
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.
PR: 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.

Given the dynamic nature of communications, the company will review the proposed plan with the demand-side advisory group in the fourth quarter of 2021 and seek their comments to shape the final 2022 plan.

Cost Effectiveness

2022-2023 Portfolio

The cost effectiveness of individual programs proposed for the 2022-2023 biennium period and the portfolio views described below was assessed based on forecasted expenditures and energy savings.

Cost effectiveness is provided at the following levels:

- Individual program[18] or initiative[19] level
- Residential energy efficiency portfolio (Company programs)
- Non-residential energy efficiency portfolio (Company programs) [20]
- Total Company portfolio with portfolio costs added
- Total Company portfolio with portfolio costs and non-energy benefits added
- Total Company portfolio with portfolio costs and NEEA added
- Total Company portfolio with portfolio costs, NEEA and non-energy benefits 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 new 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.

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-190908. 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 2021 IRP preferred portfolio (P02-MM-CETA) proxy decrement values described below.

The Company derived energy efficiency avoided costs (known as decrement values) from the preferred portfolio in the 2021 IRP filed on September 1, 2021. The passage of Senate Bill 5116 enabling CETA requires the use the social cost of carbon and expanded use of NEI's. The proxy NEI adder[21] ($/MWh) was 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 (from the RTF of the "wood smoke" study) are included based on the

[18] Home Energy Savings, Home Energy Reports
[19] NEEA
[20] Wattsmart Business
[21] The proxy NEI adder was developed using the United States Environmental Protection Agency's (US EPA) monetized public health benefits of investments for energy efficiency and renewable energy. Available online https://www.epa.gov/statelocalenergy/public-health-benefits-kwh-energy-efficiency-and-renewable-energy-united-states.

measure forecast. The cost effectiveness memos provide tabular display by program of the values. This approach is similar to prior biennial periods. New for this biennial period is the inclusion of the US EPA proxy value. The proxy value is applied to all energy savings from the programs and the benefits are reflected in benefit cost ratios. Applying this value is consistent with the use of the proxy in the IRP modeling that was used to establish the energy efficiency forecast and target. The additional NEI values quantified by DNV (included as an Appendix in the Biennial Conservation Plan) were not included since they were a) less certain and b) the program and portfolio(s) are cost effective. The DNV values will be utilized to provide information on the distribution of non-energy benefits in the draft CEIP and in assessing cost effectiveness for the 2022 and 2023 results when it will be used in place of the US EPA proxy value.

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 10percent 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 Technical Reference Library 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[22]. 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 NEI adder which the Council does not utilize in its modeling.

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