

2021 Annual Conservation Plan - Washington

November 13, 2020



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Executive Summary

On November 1, 2019, as required by the Washington Utilities and Transportation Commission’s (Commission’s) direction PacifiCorp d/b/a Pacific Power and Light Company (PacifiCorp or Company) filed its Biennial Conservation Plan including, as an Appendix, the 2020-2021 Demand-side Management Business Plan which contained information on budgets and programs that the Company will use to achieve its target.

To achieve its EIA Penalty Threshold target, the Company offers comprehensive programs for residential and non-residential customers.

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

2020-2021 Savings and expenditure changes compared to original plan		
	MWh	\$
Residential	(16,946)	(2,001,416)
Non--residential	(3,633)	378,713
NEEA	583	
Portfolio		100,000
2020-2021 total portfolio benefit cost ratios (including Non-Energy Impacts) ¹		
PacifiCorp Total Resource Cost Test (PTRC)	1.59	
Utility Cost Test	2.14	

By November 15, 2020,² as required by WA 480-109-120 (2) and Items 4 and 5 of the Conditions List for Order 01 of Docket UE-190908, the Company must file with the Commission an annual conservation plan containing any changes to program details and an annual budget. The Company has updated the Nov 2019 Demand-side Management Business Plan to create the 2021 Annual Conservation Plan. This methodology is consistent with the last biennial period.

The 2021 Annual Conservation Plan reflects updated savings projections and budgets by program or initiative for 2020 and 2021 and utilizes the best information available in October 2020. Consistent with the development of the Biennial Conservation Plan, the 2021 Annual Conservation Plan incorporates the impacts of changes to the unit energy savings (UES) made by the Regional Technical Forum (RTF) through October 1, 2020. This “floating UES” approach is consistent with the last biennial period.

¹ Appendix 1 - AEG memo Oct 9, 2020 – Table 7 – does not includes impacts of NEEA

² November 15 is a Sunday. In this case, the report is due on Friday November 13, 2020

The updates in the 2021 Annual Conservation Plan reflect the following changes:

- Provides a revised estimate of savings and costs for 2020-2021 utilizing actuals available as of September 2020
- Incorporates a revised NEEA savings forecast
- Be Wattsmart, Begin at Home, Customer Outreach and Communications and the funding for end use load research remain the same as the original plan. Forecasted expenses for non-energy impact research and NEEA funding for CTA 2045 test protocols were added.
- Revises program details for Home Energy Savings changes effective January 1, 2021
- Revises program details for the Wattsmart Business changes effective January 1, 2021
- Provides updated information for Pilots and Staff Areas of Interest
- Updates the Company's customer communications and outreach plans
- Provides cost-effectiveness analysis for the updated 2020-2021 portfolio
- Incorporates revised line losses from the 2018 PacifiCorp Electric Operations Loss Study.

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

- Program, initiative and/or project descriptions
- Description of planned program changes
- Program evaluation update³
- Program details including specific measures, incentives, and eligibility requirements

2020-2021 Budget and Savings by Program

Table 1 below provides the projected savings and expenditures by program, initiative, and sector to achieve the 95,108⁴ megawatt-hour (MWh) (including line losses) EIA Penalty Threshold for 2020 and 2021 described in the Company's 2020-2021 Biennial Conservation Plan, dated November 1, 2019. The "Total Pacific Power Conservation" row, which excludes costs and savings associated with Northwest Energy Efficiency Alliance (NEEA) initiatives, is directly comparable to the EIA Penalty Threshold noted above. **As shown, the Company is currently projecting to acquire 79,753 MWh in savings over the biennial period, approximately sixteen percent below the WUTC approved EIA Penalty Threshold.**

³ Final evaluation reports are available on the Company's website at: <http://www.pacificorp.com/es/dsm/washington.html>.

⁴ Site value is 86,979 MWh per Order 01 – Docket No. UE-190908.

Table 1. 2020 - 2021 Biennial Target Savings and Budget Projections by Program

Program or Initiative	2020 PacifiCorp Washington Conservation Estimates			2021 PacifiCorp Washington Conservation Estimates			2020 + 2021
	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	77,226	83,154	\$ 325,438	145,860	157,056	\$ 865,000	240
Home Energy Savings (118) ²	4,509,374	4,855,513	\$ 2,598,916	5,215,527	5,615,871	\$ 4,285,623	10,471
Home Energy Reports (N/A) ³	3,297,000	3,550,078	\$ 287,500	1,155,000	1,243,658	\$ 266,500	4,794
Total Residential Programs	7,883,600	8,488,745	\$ 3,211,854	6,516,387	7,016,585	\$ 5,417,123	15,505
Wattsmart Business (140) - Commercial	20,196,366	21,731,694	\$ 4,662,847	22,369,687	24,070,230	\$ 5,486,422	45,802
Wattsmart Business (140) - Industrial	7,186,054	7,675,784	\$ 1,502,550	7,511,503	8,023,412	\$ 1,599,600	15,699
Wattsmart Business (140) - Irrigation	1,247,785	1,343,565	\$ 353,552	1,302,604	1,402,592	\$ 393,658	2,746
Total Business Programs	28,630,205	30,751,043	\$ 6,518,948	31,183,794	33,496,235	\$ 7,479,679	64,247
Northwest Energy Efficiency Alliance ⁴	3,829,207	4,120,791	831,388	3,023,217	3,253,636	842,389	7,374
Total Other Conservation Initiatives	3,829,207	4,120,791	\$ 831,388	3,023,217	3,253,636	\$ 842,389	7,374
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	-	-	\$ 95,368	-
System Support ⁷	-	-	\$ 157,735	-	-	\$ 148,543	-
End use load research, RTF & CTA 2045 ⁸			\$ 109,500			\$ 85,500	
Total Portfolio-Level Expenses	-	-	1,251,397	-	-	903,596	-
Total PacifiCorp Conservation ⁹	36,513,805	39,239,787	\$ 10,982,199	37,700,181	40,512,819	\$ 13,800,398	79,753
Total System Benefit Charge Conservation	40,343,012	43,360,579	11,813,587	40,723,398	43,766,455	\$ 14,642,787	87,127
Total Conservation	40,343,012	43,360,579	\$ 11,813,587	40,723,398	43,766,455	\$ 14,642,787	87,127

Notes for Table 1:

1. Low income forecasts for 2020 and 2021 are based on revised forecasts from the community action agencies. The forecast are lower and account for COVID-19 impacts. The per-home savings of 1,122 kilowatt-hour (kWh) are from the 2013-2015 program evaluation.

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 available from Regional Technical Forum (RTF) updates through October 1, 2020.
3. Forecasted savings for the Home Energy Reports program are provided by Bidgely and reflect the lower open rates and savings achievements from the paper report treatment group which appears coincident with onset of COVID-19. Lifetime savings used for economic analysis are based on a two-year measure life consistent with prior biennial period. First year and second year incremental savings as measured by program impact evaluations will be counted toward the EIA Penalty Threshold.
4. Includes both Pacific Power's direct funding of NEEA and the Company's internal management costs. NEEA 2020 and 2021 forecasted expenditures are based on Pacific Power's share (2.55 percent) of the estimated annual costs provided in NEEA's 2020-2024 Business Plan. The 2020-2021 biennial electric savings forecast was revised by NEEA on October 6, 2020 and includes savings above the Council's 7th power plan baseline 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. The revised forecasts includes the impacts of RTF revisions to unit energy savings Savings from NEEA's trackable measures category are not included in this forecast.
5. For detail on planned evaluations, see the program detail sections in this Annual Conservation Plan.
6. Potential study update and analysis costs for 2020 and 2021 represent residual study costs necessary to prepare for the 2022-2031 10-year conservation forecast and 2022-2023 biennial conservation target. These costs are subject to change as new requirements become effective. Includes \$80,000 placeholder for non-energy impact (NEI) analysis.
7. Technical Reference Library (TRL) costs are the costs necessary for on-going maintenance and updates to the system.
8. End use load research performed by NEEA, RTF funding and \$20,000 CTA 2045 test protocol development funding to NEEA.
9. Excludes costs and savings associated with NEEA initiatives. Savings in this row are directly comparable to the Company's EIA Penalty Threshold.

Changes to the 2020-2021 Biennial Savings and Budget projections

The 2021 Annual Conservation Plan is unique. The biennial forecast and targets were informed by incorporating the social cost of carbon in the selection of energy efficiency resources. Including the social cost of carbon resulted in the highest target for the Company since EIA began. Shortly after the target was approved, the impact of the COVID-19 pandemic materially affected all aspects of daily life, including the ability for Pacific Power customers to plan for and complete energy efficiency projects necessary to achieve these targets. Yakima County in particular has been extremely hard hit by COVID-19. The county has the highest number of total confirmed cases in Washington on a per capita basis and 3.7 times the statewide average for total number of confirmed cases on a per capita basis⁵. Yakima County just entered phase 2 of the Safe Start Washington phased approach to opening businesses on October 13, 2020.

The table below provides information by program.

⁵ <https://www.yakimacounty.us/2410/COVID-19-Data-Dashboard>,
<https://coronavirus.wa.gov/what-you-need-know/covid-19-risk-assessment-dashboard#additional>

	Business Plan Nov. 1, 2019	2021 Annual Conservation Plan November 15, 2020	Variance	Business Plan Nov. 1, 2019	2021 Annual Conservation Plan November 15, 2020	Variance
	2020-2021			2020-2021		
Program or Initiative	Gross MWh Savings @ gen			Estimated Expenditures		
Low Income Weatherization (114)	320	240	(80)	\$ 1,585,000	\$ 1,190,438	\$ (394,562)
Home Energy Savings (118)	23,073	10,471	(12,602)	\$ 8,491,393	\$ 6,884,539	\$ (1,606,854)
Home Energy Reports (N/A)	9,059	4,794	(4,265)	\$ 554,000	\$ 554,000	\$ -
Total Residential Programs	32,452	15,505	(16,946)	\$ 10,630,393	\$ 8,628,978	\$ (2,001,416)
Wattsmart Business (140) - Commercial	49,261	45,802	(3,459)	\$ 9,763,349	\$ 10,149,269	\$ 385,920
Wattsmart Business (140) - Industrial	17,800	15,699	(2,101)	\$ 3,654,730	\$ 3,102,149	\$ (552,581)
Wattsmart Business (140) - Irrigation	820	2,746	1,927	\$ 201,835	\$ 747,209	\$ 545,374
Total Business Programs	67,880	64,247	(3,633)	\$ 13,619,914	\$ 13,998,627	\$ 378,713
Northwest Energy Efficiency Alliance	6,791	7,374	583	\$ 1,673,777	\$ 1,673,777	\$ -
Total Other Conservation Initiatives	6,791	7,374	583	\$ 1,673,777	\$ 1,673,777	\$ -
Be wattsmart, Begin at Home				\$ 129,046	\$ 129,046	\$ -
Customer outreach/communication				\$ 500,000	\$ 500,000	\$ -
Program Evaluations (& savings verification)				\$ 809,186	\$ 809,186	\$ -
Potential study update/analysis				\$ 135,483	\$ 215,483	\$ 80,000
Technical Reference Library				\$ 306,278	\$ 306,278	\$ -
End use load research				\$ 175,000	\$ 195,000	\$ 20,000
Total Portfolio-Level Expenses				\$ 2,054,993	\$ 2,154,993	\$ 100,000
Total PacifiCorp Conservation	100,332	79,753	(20,579)	\$ 26,305,300	\$ 24,782,597	\$ (1,522,702)
Total System Benefit Charge Conservation	107,123	87,127	(19,996)	\$ 27,979,077	\$ 26,456,374	\$ (1,522,702)
Total Conservation	107,123	87,127	(19,996)	\$ 27,979,077	\$ 26,456,374	\$ (1,522,702)

Key Changes in the Savings Forecast

- Low Income Weatherization: Savings are materially lower as COVID-19 protocols have restricted agency and contractor access to eligible customer's homes.
- Home Energy Savings: Savings are materially lower, reflecting the impacts of COVID-19. Lower savings have been partially mitigated by the 25% increase in incentives that took effect on August 1, 2020.
- Home Energy Reports: Savings are materially lower than the original estimates primarily as the result of lower open rates and fewer energy reductions taken by the group of customers receiving paper reports. Bidgely is observing lower savings impacts for paper customers since the start of COVID-19 in other utility programs they deliver.
- Wattsmart Business: Savings are lower, reflecting the impacts of COVID-19. Lower savings have been partially mitigated by the 25% increase in incentives that took effect on August 1, 2020 and the project cost incentive cap changes coming January 1, 2021.
- NEEA: revised savings from NEEA utilizes the same methodology and baselines used to establish the original forecast and incorporates the impacts of lower unit energy savings from the RTF which is offset by the higher impacts from codes and standards.
- Line losses from the 2018 PacifiCorp Electric Operations Loss Study are lower for all customer classes. Lower line losses do not affect site savings but do reduce the savings impacts at the generator.

Key Changes in the Expenditure Forecast

- Low Income Weatherization: costs were revised downward to align with revised agency expectations for completed work in the COVID-19 dominated current environment.
- Home Energy Savings: Costs are lower to align with reduced savings. Costs do not decline by the same percentage as savings which reflects increased incentive expenditures from the August 1, 2020 changes and the need to pursue more expensive measures to compensate for the sunset of the energy savings kits on January 1, 2021.
- Wattsmart Business: Expenditures are slightly higher as a result of the August 1, 2020 incentive changes and increased challenges in identifying and developing projects due to COVID-19 impacts on customer businesses.
- Expenses for non-energy impacts research and CTA 2045 test protocol development were added to portfolio expenses as noted in Table 1. There were no forecasted changes to the underlying portfolio expenses for this plan.

Direct Benefits to Customers

Estimates of direct benefits to customers delivered by the 2020-2021 expenditures including all portfolio costs are provided in **Error! Reference source not found.**

Program or Initiative	Estimated Expenditures	Direct Benefit to Customer (\$)	Direct Benefit to Customer
Low Income Weatherization (114)	\$ 1,190,438	\$ 977,808	82%
Home Energy Savings (118)	\$ 6,884,539	\$ 3,317,467	48%
Home Energy Reports (N/A)	\$ 554,000		
Total Residential Programs	\$ 8,628,978		
Wattsmart Business (140) - Commercial	\$ 10,149,269		
Wattsmart Business (140) - Industrial	\$ 3,102,149		
Wattsmart Business (140) - Irrigation	\$ 747,209		
Total Business Programs	\$ 13,998,627	\$ 8,699,975	62%
Northwest Energy Efficiency Alliance	\$ 1,673,777	\$ 1,133,144	68%
Total Other Conservation Initiatives	\$ 1,673,777		
Be wattsmart, Begin at Home	\$ 129,046		
Customer outreach/communication	\$ 500,000		
Program Evaluations (& savings verification)	\$ 809,186		
Potential study update/analysis	\$ 215,483		
Systems Support	\$ 306,278		
End Use Load research, RTF & CTA 2045	\$ 195,000		
Total Portfolio-Level Expenses	\$ 2,154,993		
Total PacifiCorp Conservation	\$ 24,782,597		
Total System Benefit Charge Conservation	\$ 26,456,374		
Totals	\$ 26,456,374	\$ 14,128,394	53%

Notes for Table

- Low Income Weatherization: Payments to community action agencies for measure installation are included as direct benefits to customers.
- Home Energy Savings: Incentives, upstream, mid-stream and mail-by-request buy downs are included as direct benefits to customers.
- Wattsmart Business: Incentives and expenditures for customer site-specific energy engineering (\$1,164,051) are included as direct benefits to customers.
- NEEA: This value is the same as the 2020-2021 DSM Business Plan and is arrived at by subtracting \$50,555 in internal management costs and applying the 70 percent estimate provided by Staff to NEEA funding to calculate the direct benefit to customers.

Proposed Process to Adjust Biennial Target

This section outlines steps the Company would take to request an adjustment (if necessary) to the approved EIA Penalty Threshold approved by the WUTC on December 17, 2019 in UE-190908. The public health and financial impacts from COVID-19 have directly impacted the ability of our customers to plan for and complete energy efficiency projects. The Company is encouraged that project activity and energy savings have not ceased entirely as the result of COVID-19 and appreciates the timely review by the DSM Advisory Group of increased incentives effective August 1 and scheduled for January 1, 2021. These program changes have been instrumental in keeping customers and trade allies engaged with energy efficiency, however, they may not be sufficient to achieve the target subject to penalty by December 31, 2021. The Company has provided updated forecasts to the DSM Advisory Group in May and September in addition to the one included in this 2021 Annual Conservation Plan. All indicate a shortfall compared to the EIA Penalty Threshold. WAC language⁶ applicable to target achievement is binary (target is met or not met) and if forecasted shortfalls remain through mid-2021, the Company will take the following steps and ask WUTC consider a Company request for a revised target.

- Continue adaptive management of programs including review of incentive levels, measure mix and delivery channels.
- Provide updated forecasts in the same form as Table 2 in this report to the DSM Advisory Group no less frequently than once/calendar quarter.
- Provide a pre-petition forecast to the DSM Advisory Group in June or July 2021 and include the impacts of excess conservation of 5,054 MWh⁷ from the prior biennial periods.
- Consult with DSM Advisory Group on process and timelines for any necessary filing(s).

The proposed process is intended to balance the time ahead of the petition to adaptively manage the programs with sufficient time for stakeholders and the Commission to consider and act upon the Company's request prior to the end of the year.

Pilots

Pursuant to 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 its unique service territory (small towns and rural), delivery infrastructure and other partners. Pilots described here have been presented to the Company's DSM Advisory Group for review and comment. Within the programs described in detail below, the Company plans to pursue the following pilot initiatives in 2020-2021.

On-Bill Financing option for residential customers residing in manufactured homes

- **Purpose:** Reduce upfront cost barrier to participation in residential energy efficiency programs by offering on-bill financing. This offer is focused on customers who reside in manufactured homes located on rented land (i.e, manufactured home parks) and further

⁶ WAC 480-109-120 (5) (b)

⁷ UE-171092 August 7, 2020 staff memo, p. 3

complements the third party financing in residential and business customers offered in 2018-2019 biennial period.

- **Costs:** Up to \$20,000 in start-up costs. \$200 per funded loan application. \$300 per application underwriting fee (regardless of loan funding). Costs will be included as a residential program expenses and recovered through the tariff rider. 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.
- **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 HUD standard). The offer will be marketed primarily through installing contractors and the program administrator. Craft3 will work jointly to identify and train contractors. Marketing and screening will be in place to help insure 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.
- **2020 Update:** Craft3 continues to provide financing to Pacific Power customers that own their homes and underlying property. The contract for these services is being extended through the end of 2024. Pacific Power procurement guidelines combined with the estimated costs for Craft3 to provide a loan product for manufactured homes on rented land requires a competitive solicitation which will be released within the next 90 days.

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.
- **Implementation:** Program Administrator will use an RFP process to create a closed network of contractors who specialize in manufactured home measures. Build awareness and utilization of available customer incentives for manufactured home measures, including duct sealing, heat pumps, water heaters, 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. Trade Allies will be trained on available financing options from nonprofit lender Craft3, who offers loans with affordable rates and convenient repayment directly on the Pacific Power utility bill.

2020 Update: On January 27, 2020, an RFP for the manufactured home contractor network was sent out. Out of the ten responses, eight contractors were selected, representing all areas of Pacific Power's Washington territory and a variety of specialties, including

HVAC, windows and new manufactured homes. Before the initial batch of postcards could be sent to customers, the COVID-19 pandemic began and this effort was suspended. When Walla Walla County has officially moved into phase three of its reopening plan, a pilot of three HVAC contractors will be launched.

CTA-2045 enabled heat pumps (water and space heating)

- **Purpose:** Increase deployment of CTA-2045 enabled heat pumps (water and space heating) ahead of the code/standards start date provided in HB 1444 (2019) which are applicable to water heating equipment. CTA-2045 technology allows utilities to manage energy loads of heat pump water heaters and space heaters. This new approach to demand response greatly reduces the cost of controlling water heaters and 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 pump water heaters within Pacific Power's service area. Equipment eligibility aligns with Northwest Energy Efficiency Alliance's (NEEA's) Qualified Products List (QPL). In 2020-2021, the pilot will also focus on increasing sales of CTA-2045 equipped units ahead of the standards start date by providing an additional incentive of \$50 for each heat pump water heating and \$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:** Twenty to 45 units.
- **Implementation:** Home Energy Savings program team will leverage program administrator's existing relationships and Memorandum of Understandings (MOUs) with retailers in Pacific Power's service area. Program staff will build new relationships with heat pump water heater and 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 retailer and manufacturers with existing MOUs. Promote the additional incentive for CTA-2045 ready models through direct outreach email and phone communications. Create cobranded materials with retailers and manufacturers to increase visibility.
- **2020 Update:** In May 2020, NEEA released an updated Advanced Heating Water Specification requires CTA-2045 or equivalent demand response capability for heat pump water heaters designated as Tier 3 or higher. To qualify for an incentive, Pacific Power customers must purchase a heat pump water heater from the NEEA qualified product list that is Tier 3 and above, so all water heating equipment eligible for incentives will have CTA-2045 or equivalent demand response capability. Incentives remain available for space heating equipment with CTA 2045 demand response capability. Plans to engage with trade allies to facilitate the installation of this equipment were suspended in response to COVID-19 and, right now are comparatively low on priority list for contractor engagement. Additional engagement will be prioritized in the context of COVID-19 impacts and county re-opening plans.

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 upon work in targeted areas identified during 2017-2019 which, while successful, did not eliminate or defer the traditional construction solution. In 2020, in alignment with the conditions list, the Company will determine if there are specific areas to target and, if so, begin that targeting. Based on prior experience, the focus will be on areas with longer construction/investment lead times.
- **Costs:** Costs are included in the existing program delivery and incentive budgets for the biennial period.
- **Size:** to be determined.
- **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.
- **2020 Update:** Pacific Power's distribution area planning team is actively monitoring a project in the five year horizon that would require a 1-2 MW per year of increasing energy efficiency mitigation to defer, but need to perform additional detailed analysis before being able to determine if a targeted energy efficiency can provide a reliable alternate solution. At this point, the program delivery teams is focusing on trying to achieve the overall target within the COVID-19 environment and there aren't plans for targeting energy efficiency toward this area until the results of the detailed analysis are available.

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.
- **Implementation:** Leverage the Northwest Energy Efficiency Alliance'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 (see Vendor Incentive pilot below).
- **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.
- **2020 Update:**
 - Outreach - Outreach staff continue to promote the installation of lighting controls as part of interactions with trade allies and customers on individual projects.
 - Contractor incentive - Continued offering the \$30/fixture Contractor Incentive for Advanced Networked Lighting Controls, including Luminaire Level Lighting Control.
 - Wattsmart Business Vendor training - At the annual vendor training held in early March 2020 in Yakima and Walla Walla, advanced lighting controls were

addressed in the Lighting Audits and Economics course and the Non-Energy Benefits course. Program staff also promoted the contractor incentive for advanced controls.

- Online educational materials – NEEA/BetterBricks materials on Luminaire Level Lighting Controls are posted on the trade ally/vendor facing portal as well as on the customer facing website for Wattsmart Business⁸. The materials include [Task Tuning Video](#), [Luminaire Level Lighting Controls Video](#) and a [Luminaire Level Lighting Controls Infographic and FAQ](#).
- Promotion of regional training opportunities – Program staff regularly promotes webinars including the Lighting Design Lab series that started in June 2020.

Business Vendor Incentives

- **Purpose:** Increase energy savings of certain Wattsmart Business measure categories, hard-to-reach customer segments and geo-targeted locations by providing limited time incentives to specifically qualified vendors/contractors in addition to customer incentives. Vendor incentives can help address market barriers in Washington such as cost of learning a new technology, and competition for limited resources for promoting efficiency upgrades due to labor shortages.
- **Costs:** Costs are included in the program delivery and incentive budgets for the biennial period and include up to \$150,000 for vendor incentives in 2020 and up to \$250,000 for 2021.
- **Size:** Dependent on which measure categories are incentivized.
 - **Examples:**
 - Advanced Networked Lighting Controls: 5-10 projects
 - Advanced Rooftop Unit Controls (ARC): 20-30 rooftop units
 - Ductless Heat Pumps (e.g. replacing electric resistance heating): 5-10 units
- **Implementation:** Vendor incentives for Wattsmart Business will be “turned on” for a limited period of time to encourage specific measure, sector, or location participation. For lighting, the incentives will be offered to Premium Vendors to encourage project completion. For HVAC, the incentives will initially focus on increasing participation of the existing and expanded ARC measures. The strategies and outcomes of the 2020 vendor incentives will be evaluated before 2021 and adjusted as needed.
- **Marketing:** Utilize E-blasts to highlight vendor incentive offerings for the vendor network. Outreach Coordinators will work with vendors one-on-one to support the pilot.
- **2020 Update:**
 - Advanced Networked Lighting Controls vendor incentive – continued this promotion from 2019. Installing contractors are eligible for an incentive of \$30/fixture for qualifying advanced networked lighting controls including Luminaire Level Lighting Controls (LLLC). Two projects in the 2020 pipeline had Advanced Networked Lighting Controls, but they were in the lodging sector and both customers canceled their projects due to COVID-19 impacts.
 - Advanced Rooftop Unit Controls (ARC) vendor incentive – continued this promotion from 2019. Two \$100 gifts cards are available in 2020 for completed

⁸ <https://www.pacificpower.net/savings-energy-choices/business/wattsmart-efficiency-incentives-washington/wa-incentive-lists/wa-lighting.html>

qualifying ARC projects. The program had leads at a couple hotels, but the projects are not moving forward at this time due to COVID-19 impacts.

- Lighting Instant Incentive vendor incentive - In August, a promotion was launched for Lighting Instant Incentives to increase project volume and provide a tool for encouraging sales staff in light of the pandemic. Vendors were eligible to receive a \$10 Amazon gift card for each qualifying application submitted between August 1 and September 30, 2020. Applications required at least 10 items to be eligible for this promotion and only vendors in good standing with the Wattsmart Business Vendor Network could participate. Vendors could receive up to \$100 in gift cards. The vendor incentive was promoted to Wattsmart Business Vendors in multiple emails; there were 3 qualifying applications received.

Staff Areas of Interest

In developing its 2020-2021 Biennial Conservation Plan and Business Plan, Staff informed Pacific Power of several areas of particular interest, aside from the requirements of WAC 480-109 and Order 01 of Docket UE-171092. This section discusses each of these areas of interest and how the Company has and will address each during the 2020-2021 biennium.

1. **NEEA treatment:** Staff anticipates each utility will request a penalty threshold excluding NEEA savings and supports the compromise agreed to in the SWAG. One way in which we plan to support our recommendation is to clearly understand each utility’s plan as it relates to NEEA for the upcoming biennium. The NEEA activities each utility plans to participate in should be described in a table or short narrative. Optional activities that a utility chooses not to participate in should be identified and an explanation of why the company has chosen not to participate should be provided. In addition, since NEEA business planning has recently finished and the budget of all funders was reduced as a result of other major funder constraints, staff expects to see each utility’s plan to pursue any cost-effective market transformation not included in NEEA’s final budget. If the absence of a regional entity conducting this activity makes it not cost-effective or feasible to accomplish, please explain why.

2020 Update: Pacific Power has signed a contract to fund their share (2.55%) for NEEA’s 2020-2024 business cycle, all NEEA “Core” electric activities included in its 2020-2024 Strategic & Business Plans⁹, as summarized in the Executive Summary (pages 24-25), and detailed in the Operations and Budget section and Appendices.

Special projects” are outlined in NEEA’s Business Plan (page 32) and are in addition to the “Core” electric activities that Pacific Power is funding in support of NEEA’s 2020-2024 business plan.

- C&I SEM
- Industrial Technical Training
- Multi-Family Building Stock Assessment

⁹ <https://neea.org/img/documents/NEEA-2020-2024-Strategic-and-Business-Plans.pdf>

Pacific Power is currently funding a share of C&I SEM and the Multi-Family Building Stock Assessment and in October 2020 agreed to fund a portion (\$20,000) of NEEA's work to accelerate the development of CTA-2045 testing protocols for demand response capability.

As outlined in the 2020-2021 DSM Business Plan, the Industrial Technical Training Special Project did not have enough regional interest to warrant continued exploration by NEEA staff. As is explained on page 93 of NEEA's Business Plan, the additional opportunities in Demand Management have yet to be developed; Pacific Power will monitor these opportunities as their scope and costs are developed, and determine its participation level based on value to the region and to Pacific Power customers.

2. **Implementing SB 5116:** In addition to other legislation, the Clean Energy Transformation Act (CETA) is now the law. While we are still awaiting rules and some targets seem far out in the future, each utility should be making best faith efforts to comply. For the upcoming BCPs, we encourage utilities to include the cumulative impacts to the extent possible, using analysis performed by the University of Washington, Department of Environmental and Occupational Health Sciences (SB 5116, Section 24), and address the new public interest definition where appropriate. While staff would love to see comprehensive program designs for HTR markets that include highly impacted and vulnerable communities, the bulk of what we expect to see at this point is a plan to evaluate what needs to happen to prepare for 2022.

2020 update: The Company is an active participant in the multiple rule making processes that will further define CETA implementation including "vulnerable populations" and "highly impacted communities".

Applied Energy Group (AEG) has completed the analysis to segment low income from standard income in compliance with the conditions list in UE-190908 and the staff guidance provided last year. Low Income cutoff defined at 200% of the federal poverty level and AEG adjusted baseline saturations from segmented residential survey data. Summary data shared at August 28, 2020 Conservation Potential Assessment (CPA) meeting and with the DSM Advisory Group on September 21, 2020.

CETA and the WUTC conditions list expands the current consideration of non-energy impacts (NEIs) to include "the costs and risks of long-term and short-term public health benefits, environmental benefits, energy security, and other applicable non-energy impacts" The Company has identified the following high level scope for additional analysis to meet the conditions and prepare for the 2022 target setting process:

- Identify NEIs (and supporting documentation) used today
- Develop quality standards/rationale for new NEI's
- Identify new NEIs that are appropriate to include
- Compile list of all NEIs with supporting documentation and rationale

As discussed at the September 21, 2020 DSM Advisory Group meeting, the Company is actively exploring the use of large consulting firm with demonstrated expertise in NEIs and large body of existing work that could be tailored to the service territory. Use of the consultant will need to comply with Company procurement guidelines and the work is estimated to cost up to \$80,000. A placeholder for this expense was added to the potential study cost line item for 2021. Conservation is the sole focus of the NEI research.

Completing the analysis and incorporating in the 2022 planning represents a challenge since the conservation supply curves are scheduled for delivery to the IRP team in October. Recognizing that NEIs are a decrement (or a negative cost) to conservation costs, the Company and AEG (the CPA consultant) have identified a plan to incorporate these in the 2022 target setting process.

New NEIs (beyond current) would be applied post processing/IRP selection to selected measures for cost effectiveness. New NEIs would also be applied to measures “on the margin” (close to being selected) to determine if they should be included in the target as the result of lower costs. Applying NEIs in post processing manner would be consistent with other target adjustments incorporated into this biennial plan and described in Appendix 1 Conservation Forecast Adjustments.

The Company is staying engaged with other IOU’s to ensure as much consistency as possible while taking care to not impede any other individual utility’s analysis efforts. More information on the final NEI plan including contractor selection will be provided to the DSM Advisory Group by the end of 2020.

3. **Distribution efficiency:** Staff expects to see improved transparency in the distribution efficiency plan. This is especially true for utilities rolling out AMI capabilities. Pilots that test methods for achieving additional conservation with improved metering must be pursued.

2020 update: As outlined in the 2020-2021 DSM Business Plan, the Company does not currently have AMI capability in Washington. The Company’s transition to the CYME software and plan to perform in depth analysis of four distribution circuits in 2020 is outlined in the Biennial Conservation Plan and was reviewed with stakeholders at the August 2019 DSM AG meeting. The analysis of the four circuits has been completed and will be shared with the DSM Advisory Group before the end of 2020.

4. **Coordination between utilities:** During the 2020-21 biennium, staff is interested in exploring ways in which coordination between utilities could improve outcomes for customers, the utilities, and the region. Identifying possible areas for coordination in the BCP could help spur collaboration. This opportunity is especially evident in service areas which have different utilities providing electric and natural gas service but exists amongst neighboring utilities as well.

Response provided in the 2020-2021 DSM Business Plan: Collaboration and coordination with other utilities makes sense for our customers and other market actors

such as trade allies and helps in the implementation of new legislation. Pacific Power plans to continue and evolve utility and regional coordination in 2020-2021. Examples of coordination to be continued include the following:

- Reciprocal participation in other IOU DSM Advisory Groups in Washington.
- Serving as a voting member of the Regional Technical Forum.
- Serving on Northwest Energy Efficiency Alliance's board, RPAC and advisory groups
- Participating in commercial lighting program managers meetings.
- Participating in ad-hoc residential lighting program manager meetings to coordinate market actions in response to HB 1444 and federal standard changes.
- Joining Bonneville Power Administration strategic energy management engagements such as the culinary water cohort.
- Co-sponsoring training with other regional entities such as Northwest Energy Efficiency Alliance, Lighting Design Lab, Bonneville Power Administration and utilities located close to Pacific Power. Example: advanced networked lighting controls training for trade allies.
- Inviting Cascade Natural Gas to present and exhibit at annual trade ally events in Yakima and Walla Walla so trade allies have the information they need to promote both electric and gas efficiency.
- Ad-hoc sharing of performance experience and referrals for delivery contractors.
- Serving on the advisory group for Lane Community College's online energy management certificate program available in the region.

2020 Update: Coordination activities outlined above are on-going, though in-person events and trainings in collaboration with other utilities are suspended in response to COVID-19 safety protocols. In addition, the IOUs are sharing information on analytical approaches and consultants for common projects such as the NEI research described above.

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 <https://wattsmartsavings.net/washington-residential/> 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 including new construction.

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 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 and in the incentive tables below.

Program Updates for 2020

The Home Energy Savings program was updated in the second and fourth quarter of 2020 using the program change process (including Advisory Group review and comment) described below. The first set of changes were effective on August 1, 2020 were designed to mitigate COVID-19 impacts and overcome participation shortfalls by temporarily increasing partner and customer incentives by 25% percent through 2021. The latest changes are effective on January 1, 2021. The information provided in this business plan reflects the program offers/qualification on January 1, 2021. Changes were made to unit energy savings (UES) value consistent the “floating UES” approach implemented in this biennium. UES changes were made to lighting, light fixtures, new manufactured homes and heat pump water heaters to align with changes made by the Regional Technical Forum through October 1, 2020. Measures with deemed savings recently deactivated by the RTF, including heat pump commissioning, eco-rated manufactured homes, and low-flow

showerheads, were removed from the program. The RTF deactivating showerheads resulted in the removal of the energy savings kits since showerheads delivered most of the savings and a substantial portion of the water savings NEIs. New available measures in the RTF were added to the program, including NEEM+ new manufactured homes, heat pump conversions in new manufactured homes, and an incentive for multifamily new construction.

Planned Program Changes

Future changes including measure additions, deletions, and changes in qualifying standards will be based on continued adaptive management tactics to mitigate COVID-19 driven participation shortfalls, cost-effectiveness, new technologies/RTF measures and evolving codes and standards.

Evaluation Update

Last Evaluation Report:

Program Years
2017-2018

Evaluation Report Date
December 16, 2019

Completed by
ADM

Future Evaluation Report(s):

Program Years
2019-2020

Evaluation Report Date
By year-end 2021

To be Completed by
ADM

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 following is provided for reference: 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

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 1 - Appliance Incentives

Measure	Qualifications	Customer Incentive	Market Partner Incentive
Clothes Washers	IMEF \geq 2.76	\$62	
Hybrid/Heat Pump Clothes Dryer	UCEF \geq 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 2 - Lighting Incentives

Measure	Qualifications	Customer Incentive	Market Partner Incentive
LED Bulbs (General Purpose)	Qualified Product List	\$0	Up to \$3.00
LED Bulbs (Specialty)	Qualified Product List	\$0	Up to \$3.00
LED Fixtures	Qualified Product List	\$0	Up to \$23.00

Notes for lighting incentive table:

- Incentives for LED bulbs and fixtures apply to mid/upstream, post-purchase through distributors, and/or direct install.
- 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 a participating retailers only.
- Reduced price LED or fixture offer may end early if entire allocation is sold.
- Acronyms:
LED: Light Emitting Diode

Table 3 – Single Family HVAC Incentives

Measure	Qualifications	Customer Incentive	Market Partner Incentive
Evaporative Coolers -2,000-3,499 CFM	2,000-3,499 CFM		\$62
Evaporative Coolers – 3,500+ CFM	Minimum 3,500 CFM (must be the primary cooling source)		\$312
Central Air Conditioner	≥15 SEER Central air conditioner must be installed and sized per program’s requirements.		\$156

Duct Sealing and Insulation	<p>$R_{\text{initial}} \leq 2$ and replace all existing insulation with at least R-8.</p> <p>Home's primary heat source must be either a heat pump or electric forced air furnace.</p> <p>Existing ducts must be unsealed.</p>	\$1,000
Duct Sealing	<p>Home's primary heat source must be either a ducted heat pump or electric forced air furnace.</p> <p>Insulation removed for purposes of sealing must be reinstalled or replaced after sealing is completed.</p> <p>Existing ducts must be unsealed. Duct sealing must be done per program's requirements.</p>	\$375
Ductless Heat Pump	<p>≥ 9.0 HSPF, single-head or multi-head unit.</p> <p>Home's previous primary heating source must either have been an electric forced air furnace or a zonal electric system.</p>	\$1,625
Electronic Line Voltage Thermostat	<p>Must meet Bonneville Power Administration (BPA) specifications.</p> <p>Home's primary heating source must be an electric zonal heating system.</p>	\$56
Federal Standard Heat Pump Conversion	<p>For replacement of existing electric furnace with new federal standard efficiency heat pump. Heat Pump must include best practices installation & proper sizing.</p>	\$1,625
9.0+ HSPF Heat Pump Conversion	<p>For replacement of existing electric furnace with new high efficiency heat pump.</p> <p>≥ 9.0 HSPF must include Best Practices Installation & Proper Sizing.</p>	\$2,500
Heat Pump Upgrade	<p>For upgrade of existing heat pump to new high efficiency heat pump.</p> <p>≥ 9.0 HSPF must include Best Practices Installation & Proper Sizing.</p>	\$375
Heat Pump (CTA-2045)	<p>For heat pump equipment with demand response capability compliant with CTA-2045 standard.</p>	\$100 per heat pump
Smart Thermostat	<p>Unit must be on Energy Star Qualified Products List.</p>	\$62

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 applies to 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 house hold.
- Maximum one smart thermostat per house hold.
- Occupancy sensing feature must be enabled 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 4 – Single Family Weatherization Incentives

Measure	Qualifications	Customer Incentive	Market Partner Incentive
Insulation – Attic	$R_{\text{initial}} \leq 19$ $R_{\text{final}} \geq 49$	\$0.06/sf. for electrically cooled home \$0.37/sf. for electrically heated home	\$0/sf.
Insulation – Floor (to R-19)	$R_{\text{initial}} = 0$ $R_{\text{final}} \geq 19$ Home’s primary heat source must be electric.	\$0.25/sf.	\$0/sf.
Insulation – Floor (to R-30)	$R_{\text{initial}} = 0$ $R_{\text{final}} \geq 30$	\$0.37/sf.	\$0/sf.

	Home's primary heat source must be electric.		
Insulation - Wall	$R_{\text{initial}} = 0$ $R_{\text{final}} \geq 13$ or fill cavity Home's primary heat source must be electric.	\$0.50/sf.	\$0/sf.
Windows	U-factor of 0.25 or lower. Home's primary heat source must be electric.	\$0.81/sf	\$0/sf.

Notes for weatherization incentive table:

- See additional installation requirements on program website.
- 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 5 – Single Family New Homes Incentives

Measure	Qualifications	Customer/ Builder Incentive	Market Partner Incentive
Performance Path	Incentives available for new electric heated or gas heated homes that exceed the prevailing code by a minimum of 10% as modeled using program required tools and software. The home's performance must be modeled and verified by an independent third party Rater. Homes must have electric water heating to qualify.	Electric space heating, electric water heating exceeding code by 10% to 19.99%: \$1,875 Electric 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 6 – Single Family Water Heating Incentives

Measure	Qualifications	Customer Incentive	Market Partner Incentive
Heat Pump Water Heater	<p>Advanced Water Heating Specification Tier 3 and above replacing an existing electric tank type water heater.</p> <p>Heat pump water heater must be between 0 to 55 gallons.</p>	Tier 3 or higher: \$750	

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 7 – Single Family Power Strip Incentives

Measure	Qualifications	Customer Incentive	Market Partner Incentive
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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
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Notes for power strip table:

- Advanced power strips are only available through direct install. 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 8 - 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.	\$375	
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.	\$375	
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
Electronic Line Voltage Thermostat	Must meet Bonneville Power Administration (BPA) specifications. Home's primary heating source must be an electric zonal heating system.	\$56	

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.	\$1,625

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.	\$2,500	
Ductless Heat Pumps	≥ 9.0 HSPF	\$1,625	
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	
Insulation – Attic (R0 to R-22)	$R_{initial} = 0$ $R_{final} \geq 22$ Homes' primary heating must be either a heat pump, electric forced air, zonal, or ductless heat pump system to qualify for the electrically heated incentive.	\$0.62/sf	\$0/sf.

Insulation – Attic (R11 to R-30)	$R_{\text{initial}} \leq 11$ $R_{\text{final}} \geq 30$ Homes' primary heating must be either a heat pump, electric forced air, zonal, or ductless heat pump system to qualify for the electrically heated incentive.	\$0.75/sf	\$0/sf.
Insulation – Floor	$R_{\text{initial}} = 0$ $R_{\text{final}} \geq 22$ 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.	\$0.37/sf	\$0/sf
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	\$62	

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	\$0.81/sf.	
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Notes for manufactured homes table:

- Advanced power strips are only available through direct install. 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 applies 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 9 – 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 Home's previous primary heating source must either have been an electric forced air furnace or a zonal system.	\$1,625	
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	$R_{\text{initial}} \leq 19$ $R_{\text{final}} \geq 49$ 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.	\$0.37/sf.	\$0/sf.
Insulation – Floor (to R-19)	$R_{\text{initial}} = 0$ $R_{\text{final}} \geq 19$ 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.	\$0.25/sf.	\$0/sf

Insulation – Floor (to R-30)	$R_{\text{initial}} = 0$ $R_{\text{final}} \geq 30$ 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.	\$0.37/sf.	\$0/sf.
Insulation - Wall	$R_{\text{initial}} = 0$ $R_{\text{final}} \geq 11$ 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.	\$0.50/sf.	\$0/sf.
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.	\$0.81/sf.	\$0/sf.
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. The multifamily building’s performance must be modeled and verified by an independent third party Rater.	Exceeding code by 5% to 14.99%: \$0.15/ kWh Exceeding code by 15% or more: \$0.25/ kWh	

Notes for multifamily homes table:

- Advanced power strips are only available through direct install. 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 applies to ductless heat pump, 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 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 a 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 is 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
2018 – 2019

Evaluation Report Date
May 2020

Completed by
Cadmus

Future Evaluation Report(s):

Program Years
2020 – 2021

Evaluation Report Date
By May 2021

To be Completed by
TBD

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. At the beginning of 2020, approximately 46,000 customers received reports; ~25,000 received them digitally and ~21,000 received them in a paper format. As of August 2020, through normal and expected attrition, customers receiving reports has declined to about 43,000 (~23,000 digital and ~20,000 paper).

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

Savings achievement is lower than expected, principally in the paper treatment group and is seemingly related to the onset of COVID-19. As discussed at the September 21, 2020 DSM Advisory Group, the Company is proposing to implement Bidgely's recommendation to add ~5,000 email and ~8,300 paper customers with their own control group to measure savings.

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 approximately 7,800 homes in Pacific Power's Washington territory.

Program Description

Pacific Power partners with four local non-profit agencies, Blue Mountain Action Council in Walla Walla, Northwest Community Action Center in Toppenish, Opportunities Industrialization Center of Washington in Yakima, and Yakama Nation Housing Authority in Wapato. They provide weatherization services to income qualifying households throughout our Washington service area. The leveraging of Pacific Power funding along with Washington MatchMaker Program funds allows all four 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. In calendar year 2019 a total of 87 homes were completed with 37 (43 percent) single family homes, 34 (39 percent) manufactured homes and 16 (18 percent) apartments.

Planned Program Changes

The Low Income Weatherization program was last revised through the submission of tariff revisions in Q1 2017. No program changes are planned at this time.

Senate Bill (SB) 5116 Clean Energy Transformation Act passed the Washington Legislature and was signed into law in May 2019. Under Section 12, Utility Low Income Programs and Assistance, utilities must make funding available for low-income households by July 31, 2021. Pacific Power will be tracking bill proceedings to determine whether low income weatherization program will be impacted.

Evaluation Update

The next program evaluation will be completed by the end of 2021.

Last Evaluation Report:

Program Years
2016 – 2017

Evaluation Report Date
September 30, 2020

Completed by
ADM

Future Evaluation Report(s):

Program Years
2018 - 2019

Evaluation Report Date
By year end 2021

To be Completed by
TBD

Program Details

Details for this program are contained in the program tariff. Any changes to the details included in the program tariff must be filed and approved by 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

The Wattsmart Business program (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

The Wattsmart Business program 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/listed incentives are offered to commercial, industrial and agricultural customers for typical lighting, HVAC, motor, building envelope, food service, appliances, irrigation, dairy/farm equipment, compressed air and other retrofits or new installations. Listed incentive measures 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. Participating customers utilizing an approved contractor are eligible for an enhanced incentive offer targeted at up to 90 percent of the project cost. There is also a midstream point-of-purchase delivery channel for lighting. Prescriptive incentives for this offer are referred to as Instant Incentives.

Custom incentives and analysis are offered for commercial, industrial, and agricultural 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 \$0.18 per kWh of annual energy savings (up to 80 percent of project costs).¹⁰ 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 provides energy project manager (EPM) co-funding to increase end user management and engineering manpower devoted to electrical energy projects/activities increasing the number of commercial and industrial projects that can be completed. EPM co-funding is performance based

¹⁰ Note there are no incentive caps for new construction projects where energy code applies.

and contingent on customer's commitment to an energy savings goal over a prescribed timeframe; typically 12 months. Co-funding proportionate to the energy savings goal at \$0.025/kWh (subject to a minimum co-funding level and salary cap). If the customer meets these verified energy savings goals on schedule, co-funding continues. If however, milestones are missed, co-funding would be suspended and/or ultimately ended and repayment of unearned co-funding would be required.

Energy Management was added to the Wattsmart Business program in January 2014. Energy Management incentives help the Company partner with customers to 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. In 2019, National Energy Improvement Fund (NEIF) issued 40 quotes and no projects closed with NEIF financing. In 2020, there haven't been any quotes issued that we're aware of.

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.

The Wattsmart Business program was updated twice in 2020 using the program change process (including Advisory Group review and comment) described below. The changes are effective on January 1, 2021. The information provided in this business plan reflects the program offers/qualification on January 1, 2021.

Program Updates for 2020

Wattsmart Business was updated in the second and fourth quarters of 2020 using the program change process (including Advisory Group review and comment) described below. The first set of changes were effective on August 1, 2020 and were designed to help mitigate COVID-19 impacts and overcome participation shortfalls by temporarily increasing most customer incentives by 25% percent. The latest changes are effective on January 1, 2021 and are intended to further adaptively manage the program in response to the pandemic by continuing the temporary incentive increases put in place effective 8/1/2020 and temporarily increasing the project cost incentive caps¹¹ where project level incentive caps apply. The changes also align the program with the upcoming state

¹¹ The incentive cap for listed and custom non-lighting is increased from 70 to 80 percent of project costs; the incentive cap for small business lighting is increased from 80 to 90 percent of project costs.

energy code change in February 2021 to Washington State Energy Code-2018 Edition (WSEC-2018). The information provided in this business plan reflects the program offers/qualification on January 1, 2021.

Planned Program Changes

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

Evaluation Update

Last Evaluation Report:

Program Years	Evaluation Report Date	Completed by
2016-2017	December 24, 2018	The Cadmus Group

Future Evaluation Report(s):

Program Years	Evaluation Report Date	To be Completed by
2018-2019	By year-end 2020	The Cadmus Group

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 utilizes the modification procedure established with the approval of Advice No. 06-008¹² by the Washington Utilities and Transportation Commission. The program tariff and the text below from the Advice Letter 06-008 (Docket UE-061710), filed on November 8, 2006, describe the information that is managed outside of the tariff and the process for changes.

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

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

¹² 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.

Washington Wattsmart Business

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 Facility¹³ with similar one year payback limitations (see below) covered by one Energy Efficiency Incentive Offer Letter.

¹³ 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.

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 under Washington Schedule 140 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 of Washington Schedule 140, the program tariff, on file with the Washington Utilities & Transportation Commission.

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

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

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

Incentives – General Information

Incentives for measures listed in the incentive tables

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

Custom incentives

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

Energy management incentives

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

Energy project manager co-funding

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

Baseline adjustments

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

INCENTIVES:^{14, 15}

Category		Incentive	Percent Project Cost Cap ¹⁶	1-Year Simple Payback Cap for Projects ¹⁷	Other Limitations
Prescriptive Incentives (Typical Upgrades) ¹⁸	Lighting - Retrofit	See incentive lists	80%	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)		80%	Yes	
	Motors		None	No	
	HVAC ¹⁹		None	No	
	Building Envelope		None	No	
	Food Service ²⁰		None	No	
	Appliances		None	No	
	Office		None	No	
	Irrigation Pump VFD		80%	Yes	

¹⁴ 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.

¹⁵ Incentives for prescriptive measures are restricted to the amounts shown on the website.

¹⁶ 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.

¹⁷ 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.

¹⁸ For Rate Schedule 51, 52 and 57 Street Lighting Service, the street lighting owner (Pacific Power) is not eligible for incentives.

¹⁹ Evaporative pre-cooler incentives are subject to the project cost cap and the one-year payback cap.

²⁰ 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 ¹⁶	1-Year Simple Payback Cap for Projects ¹⁷	Other Limitations
	Irrigation Water Distribution		None	No	
	Farm and Dairy		80%	Yes	
	Compressed Air		80%	Yes	
	Wastewater and other Refrigeration		80%	Yes	
Enhanced Incentives for Small Businesses	Lighting - Retrofit	Determined by Pacific Power with not-to-exceed amounts as shown in incentive table for this offer	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.
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.
Custom Non-Lighting Incentives for qualifying measures not on the prescriptive list. ^{21 22}		\$0.18 per annual kWh savings	80%	Yes	N/A
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

²¹ 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.

²² 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)	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 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		Incentive
Interior Lighting	Full Fixture Replacement	With upgrade to Advanced Controls	\$0.20/kWh
		With upgrade to Basic Controls	\$0.17/kWh
		Without controls upgrade	\$0.15/kWh
	Fixture Retrofit Kits	With controls upgrade to Basic or Advanced Networked Lighting Controls	\$0.15/kWh
		Without controls upgrade	\$0.12/kWh
	Lamp Replacement	Lamp-only Replacements	See Mid-market incentive table
	Controls-only Retrofit	Controls-only upgrade to Advanced Networked Lighting Controls	\$0.20/kWh
Controls-only upgrade to Basic Controls		\$0.15/kWh	
Exterior Lighting	Full Fixture Replacement (except Street Lighting)	With upgrade to Advanced Dimming Controls	\$0.10/kWh
		Without controls upgrade	\$0.06/kWh
	Fixture Retrofit Kits (except Street Lighting)	With upgrade to Advanced Dimming Controls	\$0.07/kWh
		Without controls upgrade	\$0.05/kWh
	Lamp Replacement (except Street Lighting)	Lamp-only Replacements	See Mid-market incentive table
	Street Lighting	With upgrade to Advanced Dimming Controls	\$0.07/kWh
		Without controls upgrade	\$0.05/kWh
Controls-only Retrofit	Controls-only upgrade to Advanced Dimming Controls	\$0.07/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
Custom Lighting	Custom	Not listed above	\$0.06/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 80 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	Incentive
Interior Lighting	Troffer	Product must be listed on qualified equipment list.	\$12/Fixture
	Linear Ambient		\$12/Fixture
	High Bay	Products must be installed in buildings where energy code applies.	\$25/Fixture
	Other (not listed above)		\$0.62/Fixture Wattage
	Advanced Networked Lighting Controls		\$1/W Controlled
Exterior Lighting	Advanced Lighting Controls	Product does not need to be listed on qualified equipment list.	\$0.40/W Controlled
Custom Lighting	Custom	Products must be installed in buildings where energy code does not apply.	\$0.10/kWh annual energy savings

Notes for New Construction/Major Renovation Lighting Incentive Table

1. Project Cost Caps of 80% 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. Interior lighting fixtures must meet DesignLights Consortium Premium category requirements and must be found on the Qualified Products List.

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	Incentive
HVAC Systems	<p>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.</p> <p>The TSPR must exceed that of the standard reference design specified by Washington State Energy Code 2018.</p>	\$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

Equipment Type	Size Category	Sub-Category	Minimum Efficiency Requirement & Customer Incentive		
			\$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	--

Equipment Type	Size Category	Sub-Category	Minimum Efficiency Requirement & Customer Incentive		
			\$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 Qualified	--
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

- Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for the listed incentive.
- Incentives are paid at \$0.18/kWh annual energy savings. IDEC energy savings subject to approval by Pacific Power.
- Incentives are paid at \$0.18/kWh annual energy savings. Chiller energy savings subject to approval by Pacific Power.
- 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.
- Incentives for Evaporative Pre-coolers are capped at 80 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.
- Incentives are not available for new Advanced Rooftop Unit Control required by the applicable version of the state energy code.
- 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 Qualified	\$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 Qualified	\$125
	Stationary Rack, Single Tank, Door Type		\$500
	Single Tank Conveyor		\$1,250
	Multiple Tank Conveyor		\$625
Electric Insulated Holding Cabinet	Full Size	ENERGY STAR Qualified	\$857
	3/4 Size		\$375
	1/2 Size		\$250
Electric Steam Cooker	All sizes	ENERGY STAR Qualified	\$375
Electric Convection Oven	Full Size	ENERGY STAR Qualified	\$250
Electric Griddle	--	ENERGY STAR Tier 2 Qualified	\$187
Electric Combination Oven	5-15 pans	ENERGY STAR Qualified	\$1,250
	16-20 pans	ENERGY STAR Qualified	\$343
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 80 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 (must have electric water heating and/or electric clothes dryer)	ENERGY STAR® Qualified	\$125
Heat Pump Water Heater	Residential (used in a business)	NEEA Tier 3 or higher	\$500
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.	\$0.50 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
Cut and press or weld repair of leaking wheel line, hand line, or portable main line	Leak in wheel line, hand line, or portable main line	Cut and pipe press or weld repair	Invoice must show number of leaks repaired	\$8/repair
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
Low pressure sprinkler (e.g. rotating, wobbling, multi-trajectory spray) replacing impact sprinkler	Impact sprinkler	New low pressure sprinkler (on-board nozzle is considered part of sprinkler, not a separate item with additional incentive)	New sprinkler is of same design flow or less	\$4 each
Low pressure sprinkler (e.g. rotating, wobbling, multi-trajectory spray) replacing worn low pressure sprinkler	Worn low pressure sprinkler (e.g. rotating, wobbling, multi-trajectory spray)	New low pressure sprinkler (on-board nozzle is considered part of sprinkler, not a separate item with additional incentive)	1. New sprinkler is of same design flow or less.	\$2 each

Pressure regulator	Worn pressure regulator. May also add regulator where there had been none before.	New pressure regulator of same design pressure or less.	1. New regulator must be of same design pressure or less	\$2 each
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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 80 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.	\$0.18/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.

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.	\$0.18/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.	\$0.18/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 80 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 = **V**ariable **F**requency **D**rive

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	<ol style="list-style-type: none"> Compressor system size ≤ 75 horsepower, not counting backup compressor(s). Trim compressor must use load/unload control, not inlet modulation or on/off control. 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	<ol style="list-style-type: none"> Rated dryer capacity must be ≤ 500 scfm Dryer must operate exclusively in cycling mode and cannot be equipped with the ability to select between cycling and non-cycling mode. 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	<ol style="list-style-type: none"> Total compressor capacity in upgraded system is ≤ 75 hp, not counting backup compressor capacity. Compressor must adjust speed as primary means of capacity control 	\$0.18/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

- Equipment that meets or exceeds the efficiency requirements above may qualify for the listed incentive.
- 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.
- Incentives are capped at 80 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.
- 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	\$0.18/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	\$0.18/kWh annual energy savings
Wastewater – low power mixer	Excess aeration capacity	Extended range circulator	\$0.18/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 80 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)²³

Measure	Category	Eligibility Requirements	Customer Incentive
LED**	2x4 Troffer Retrofit to TLED (Lo-W) 2-lamp	TLED lamps with electronic ballast replacement or LED driver (external or integral). Lamp wattage reduction ≥ 10 Watts.	\$65/Fixture
	2x4 Troffer Retrofit to TLED (Hi-W) 2-lamp		\$80/Fixture
	2x4 Troffer Retrofit to TLED (Lo-W) 3-Lamp		\$83/Fixture
	2x4 Troffer Retrofit to TLED (Hi-W) 3-Lamp		\$87/Fixture
	2x4 Troffer Retrofit to TLED (Lo-W) 4-lamp		\$90/Fixture
	2x4 Troffer Retrofit to TLED (Hi-W) 4-lamp		\$95/Fixture
	2x2 Troffer Retrofit to TLED		\$95/Fixture
	2x4 Troffer Volumetric Kit (Lo-W)	LED volumetric kit, 2x4 or 2x2 troffer retrofit	\$150/Fixture
	2x4 Troffer Volumetric Kit (Hi-W)		\$170/Fixture
	2x2 Troffer Volumetric Kit		\$120/Fixture
	2x4 Troffer Flat Panel Kit (Lo-W)	LED flat panel fixture/kit, 2x4 or 2x2 troffer retrofit or replacement	\$120/Fixture
	2x4 Troffer Flat Panel Kit (Hi-W)		\$150/Fixture

**All LED equipment must be listed on qualified equipment list available on the Pacific Power website.

¹²Incentives for measures in this table are available only to Small Business customers as defined in the INCENTIVES table.

	2x2 Troffer Flat Panel Kit (Hi-W)		\$80/Fixture
	2x4 LED Wrap Fixture Replacement (Lo-W)	Surface mount LED wraparound fixture	\$100/Fixture
	2x4 LED Wrap Fixture Replacement (Hi-W)		\$120/Fixture
	Industrial Strip Kit w/ TLED (Lo-W) 2-lamp	(1) 8' T12 to (2) 4' TLED lamps and electronic ballast or LED driver replacement and retrofit kit.	\$105/Fixture
	Industrial Strip Kit w/ TLED (Hi-W) 2-lamp		\$115/Fixture
	Industrial Strip Kit w/ TLED (Lo-W) 4-lamp		\$130/Fixture
	Industrial Strip Kit w/ TLED (Hi-W) 4-lamp		\$130/Fixture
	Industrial Strip Kit w/ 8' TLED 2-lamp	8' Tubular LED lamps and electronic ballast replacement or driver and retrofit kit	\$130/Fixture
	LED High Bay/Low Bay Fixture (Lo-W)	Must replace T8/T5HO fluorescent, incandescent, or HID high bay	\$150/Fixture
	LED High Bay/Low Bay Fixture (Hi-W)		\$200/Fixture
	LED High Bay/Low Bay Fluorescent to TLED ≤ 4-Lamp	Type A, B, or C TLEDs replacing T8/T5HO fluorescent lamps and ballast with TLED lamps and electronic ballast or LED driver. Cannot reuse existing ballast.	\$97/Fixture
	LED High Bay/Low Bay Fluorescent to TLED > 4-Lamp		\$112/Fixture
	LED Wall Pack Fixture (Lo-W)		\$100/Fixture
	LED Wall Pack Fixture (Hi-W)		\$175/Fixture
Lighting Control	Occupancy Sensor Retrofit	PIR, Dual Tech, or Integral Sensor	\$0.37/Watt controlled

Notes for enhanced incentives for small businesses – Lighting 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.
2. Incentives are capped at 90 percent of Energy Efficiency Project Costs. Energy Efficiency Project Costs and energy savings are subject to Pacific Power approval.
3. Qualified equipment lists are posted on the Washington energy efficiency program section of Pacific Power's website.
4. Low and high wattage ranges are posted on the Washington energy efficiency program section of Pacific Power's website.
5. Watt controlled refers to the total wattage of lighting fixtures down circuit from the control.

Lo-W – Low wattage

Hi-W – High wattage

HO – High Output

TLED – Tubular Light Emitting Diode

PIR – Passive infrared

Mid-Market Incentives²⁴

Measure	Category	Eligibility Requirements	Maximum Incentive ²⁵
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 – Type A, A/B Dual Mode	LED must be listed on qualified equipment list	Up to \$10/Lamp
	T8 TLED Lamp – Type B	LED must be listed on qualified equipment list	Up to \$15/Lamp
	T8 TLED Lamp – Type C	LED must be listed on qualified equipment list	Up to \$25/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 < 80 W	LED must be listed on qualified equipment list	Up to \$70/Lamp
	HID Replacement Lamp ≥80 and < 150 W	LED must be listed on qualified equipment list	Up to \$90/Lamp
	HID Replacement Lamp ≥150W	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:

- Incentives are capped at 70 percent of qualifying equipment costs. Qualifying equipment costs are subject to Pacific Power approval.

Qualified equipment lists referenced in the above table are posted on the Washington energy efficiency program section of Pacific Power’s website.

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

²⁴ Incentives for measures in this table are available through Pacific Power-approved retailers/distributors or a customer application process.

²⁵ 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.

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

- Incentives will be set at the full cost of the installed equipment, without exceeding the “up to” amount.

TLED = Tubular Light Emitting Diode

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 ten (10) percent of its conservation budget on programs whose savings impact has not yet been measured provided the overall portfolio of programs still pass the Total Resource Cost as described in Paragraph (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 National Energy Foundation (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 2020 and 2021 forecasted expenditures are based on Pacific Power's share (2.55 percent) of the estimated annual costs provided in NEEA's 2020-2024 Business Plan. The 2020-2021 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.

Appendix 6 of NEEA's 2020-2024 Business and Strategic Plans explains how NEEA's savings are calculated (and not double-counted with utility program savings). See pp 132-135. Appendix 6 can be found at <https://neea.org/about-neea/neea-business-strategic-plans>.

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 Conservation Potential and Conservation Target section of the 2020-2021 Biennial Conservation Plan for Pacific Power's treatment of NEEA savings consistent with recommendations in the Report on 2018 Washington State Investor-owned Utility Energy Efficiency Joint Advisory Group Activities and Outcomes filed July 29, 2019 in 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 their annual reports and 2020-2024 Business and Strategic Plans. More information on NEEA’s initiatives and plans on the NEEA website:

- Initiatives:
 - <https://neea.org/our-work/programs>
- 2020-2024 Business and Strategic Plans:
 - <https://neea.org/about-neea/neea-business-strategic-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 principle 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 2020.

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 1.2 million impressions.
Radio	Radio spots targeting residential and business customers were featured throughout the year. Radio spots ran in January, February, March, April, June, July, August, September, 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 3.2 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 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 2020 Communications and Outreach plan was reviewed with the Demand-side Management Advisory Group in December 2019. The 2020 plan contained the same components of the 2019 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 2021-22 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 2021-22, 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 2021/2022 biennium:

Communication Tactic	2021/2022
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	Develop new residential and business creative and continue to refine

Waitsburg Times, Walla Walla Union Bulletin, Sunnyside Daily News, and Yakima Herald-Republic.	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	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 2020 and seek their comments to shape the final 2021 plan.

Cost Effectiveness

2020-2021 Portfolio

The cost effectiveness of individual programs proposed for the 2020-2021 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 program²⁶ or initiative²⁷ level
- Residential energy efficiency portfolio (Company programs)
- Non-residential energy efficiency portfolio (Company programs)²⁸
- 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 are based on sectors (residential, commercial, industrial, and irrigation). The line losses include the impacts of both transmission and distribution level service. The sector value is based on a weighted average calculation performed by PacifiCorp’s regulation department. The weighted average calculation utilizes values from the 2018 PacifiCorp Electric Operations Loss Study. This study updates and replaces the Company’s 2012 line loss study. The 2018 study line losses are lower than the 2012 study line losses.

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 P-18 proxy decrement values described below.

As described at the August 2019 DSM AG meeting, normally at this stage the Company would have energy efficiency avoided costs (known as decrement values) that tie to underlying energy efficiency portfolio from a preferred portfolio in a filed IRP. The delay of the 2019 IRP and the passage of Senate Bill 5116 necessitated the use of the P-18 proxy portfolio utilizing the social

²⁶ Home Energy Savings, Home Energy Reports

²⁷ NEEA

²⁸ Wattsmart Business

cost of carbon to generate energy efficiency selections to begin the target setting process. The use of the proxy portfolio also necessitated an alternate approach to valuation that a) aligned with P-18 selections, b) didn't require a preferred portfolio and c) didn't divert resources from the 2019 IRP process.

The proxy decrement process starts with premise that the highest cost Washington energy efficiency bundle selected in each year in the P-18 proxy 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 market prices, social cost of carbon GHG costs, and the value of risk (stochastic, plus 10% premium). Any remaining value (up to the highest bundle's cost) that is not reflected within the energy price component is assigned as a capacity value, and would account for avoided generation, transmission, and distribution costs. Capacity is allocated to the summer and winter hours with Loss of Load Probability (LOLP) events from the study prepared at the beginning of PacifiCorp's 2019 IRP process. Because Washington load is winter peaking while PacifiCorp's system is summer peaking, fifty percent of the capacity value was allocated to summer hours and fifty percent was allocated to winter hours as a proxy.

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. By matching the hourly savings with the hourly avoided costs, both energy and capacity impacts of energy efficiency savings are recognized.

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 Seventh Power Plan provides information on cost effectiveness on page G-11 of Appendix G. "The Council uses the total resource net levelized cost (TRC net levelized cost) for its analysis of the cost of the conservation measures, which is similar to the Societal Cost Test outlined in the National Action Plan for Energy Efficiency and the California Standard Practice Manual."

The National Action Plan for Energy Efficiency provides information on cost effectiveness and specifics of each test in Understanding the Cost Effectiveness of Energy Efficiency Programs available at the following link:

<https://www.epa.gov/sites/production/files/2015-08/documents/cost-effectiveness.pdf>

The benefits and costs for each test are outlined in Tables 3-1 and 3-2 of the "Understanding" document.

The PacifiCorp Total Resource Cost (PTRC) test results in the AEG Applied Energy Group analysis include the 10 percent Conservation Adder and quantifiable non-energy benefits and is analogous to the Societal Cost Test (SCT) referenced by the Council. The results for the other four standard tests are also provided in the analysis.

Additional information for the cost-effectiveness assessment of each program, initiative and the portfolios are available in Appendix 1 to this document.

Appendix 1 – Program and Portfolio Level Cost-Effectiveness

Appendix 2 - Program Tariffs

Appendix 3 – Evaluation Measurement & Verification Framework