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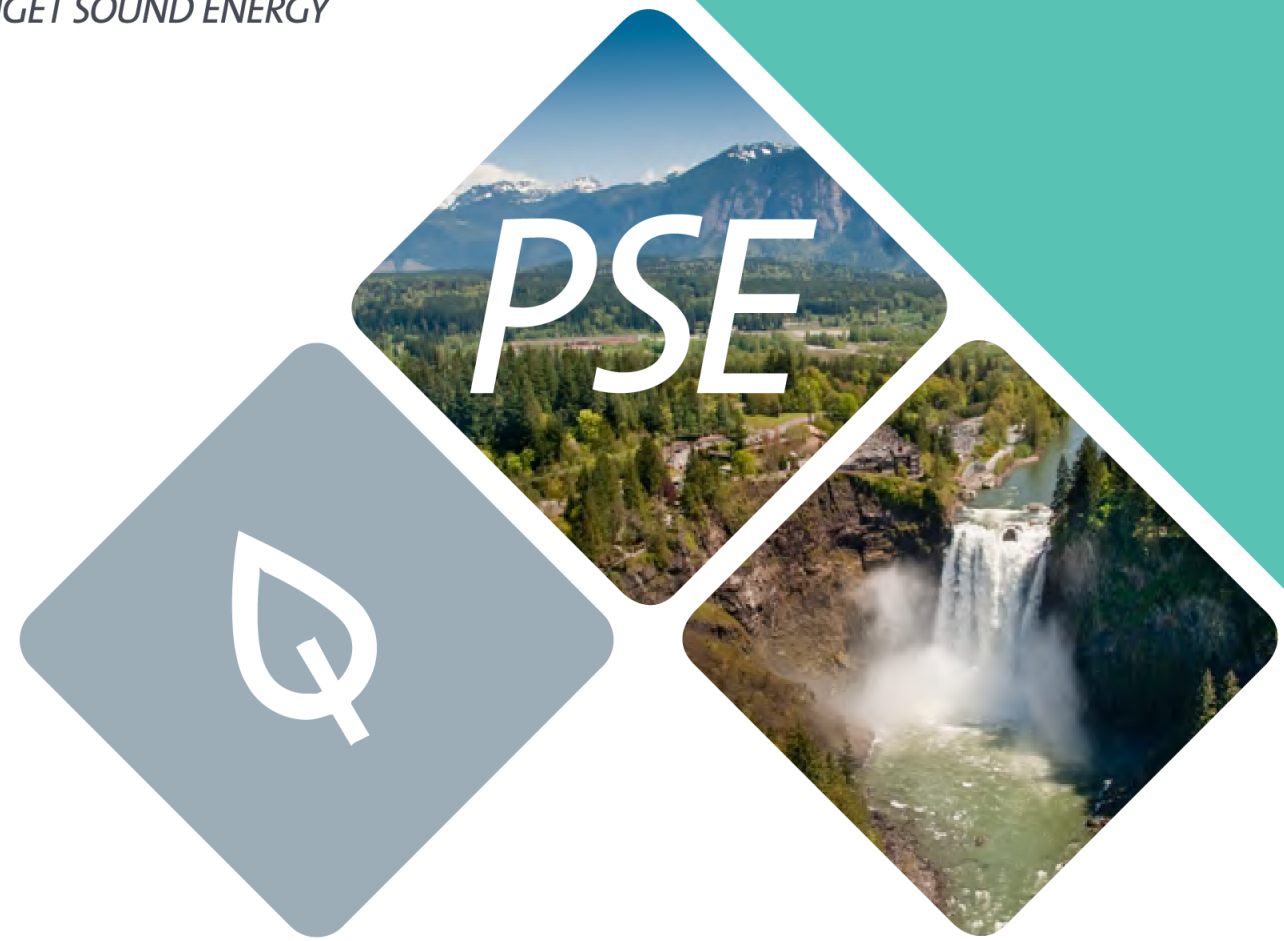

Exhibit 3

2023 Program Details

ENERGY EFFICIENCY

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I. Introduction

Exhibit 3: Program Details provides discussion about PSE's Energy Efficiency department conservation programs, functions and activities, including those that do not have an associated Conservation Schedule. Exhibit 3 accompanies PSE's Annual and Biennial Conservation Plans, and is updated at throughout the year. Exhibit 3 is consistent with applicable sections of WAC 480-109, the conditions outlined in Attachment A of Order 01 in Docket UE-190905, and sections A through J and L of the 2010 Electric Settlement Agreement in Docket UE-100177. These include, but are not limited to:

- WAC 480-109-110(1)(a) Discussion of programs and measures,
- WAC 480-109-110(1)(i)(1) Discussion of efficiency marketing efforts,
- WAC 480-109-110(1)(i)(2) Discussion of Incentives,
- Condition (5) Program Details filings.

Exhibit 3 also includes natural gas program discussions, consistent with the requirements outlined in Exhibit F of the 2002 General Rate Case Settlement, Docket UG-011571.

A. Associated Documents

As a part of its 2022-2023 Biennial Conservation Plan (BCP) filing, PSE includes several documents associated with Exhibit 3. It is noteworthy that Exhibit 3 may be updated and filed, consistent with condition (5) when there are major program updates. Additional documents, updated for 2022, included with the BCP are:

Savings and budgets (both electric and natural gas) order number details	Exhibit 1
Cost Effectiveness Calculation Tables	Exhibit 2
Northwest Energy Efficiency Alliance (NEEA) Plan	Exhibit 5

B. Program Revisions

PSE makes adjustments to its conservation offerings, delivery methods, marketing, incentives, and other elements of its programs on a periodic basis. This ensures that PSE anticipates and adapts to customer demand, market trends, and is positioned to achieve aggressive conservation savings targets. Consistent with WAC 480-109-110(3), the Conservation Resource Advisory Group ("CRAG") was presented with draft copies of Exhibit 3: Program Details on October 1, 2021, prior to the filing of the final draft with the Washington Utilities and Transportation Commission ("UTC" or "Commission") on November 1, 2021.

Following this filing, any subsequent filings will be provided to the CRAG in their "mark-up" version prior to UTC filings.

C. Document Contents

Following each program's title is the corresponding Conservation Schedule number. A number preceded by an "E" indicates that this is an electric Schedule. Similarly, a number preceded by a "G" indicates that this is a natural gas Schedule. All conservation programs have the same Conservation Schedule number for both natural gas and electric service.

The organization of program detail discussions aligns with that of Exhibit 1: Savings and Budgets. This facilitates easy reference from a program's budget to its description, marketing plan, incentive offerings, etc.

All program details in this Exhibit are updated to reflect the most accurate representation of their planned 2022-23 offerings and services. Most Program Details[1] discuss:

- Purpose,
- Description,
- Eligibility,
- Delivery Method (online rebate application, custom grant, instant rebate, etc.),
- Implementation Model (in-house, via third party management, or other),
- Customer Experience,
- Target Market,
- Customer Incentives, and
- Marketing and Outreach Plan

[1] Residential Energy Management and Business Energy Management sectors only. Portfolio Support and Research & Compliance functions and Other Electric Programs may exclude *Target Market*, *Customer Incentives* or *Marketing and Outreach Plan* sections.

II. General Guidelines for Measures, Incentives and Eligibility

1. Definitions and terms used throughout this document are governed by the Company's Electric Tariff G and Natural Gas Tariff. Where there is a conflict, the Tariff definition shall prevail.

2. Specific terms and conditions are found on the applicable incentive forms, grant documents, rebate application forms and similar documents available from the Company. Some measures noted in this document apply only to a particular customer type or structure type. Some structure types do not have individual measure/incentives available; rather, an incentive may be applied to the entire qualifying structure. **Please thoroughly read the incentive terms and conditions before investing in an energy efficiency measure.**

3. Some incentive payments noted in this document may be divided in a manner consistent with the Company's program objectives. In some cases, this division may be between the qualifying party or parties receiving the measure. For example, an installing contractor may receive a portion of an indicated incentive amount, with the end-use customer receiving the balance of the indicated amount. Qualifying parties may include, but are not limited to, manufacturers, retailers, distributors, owners of structures, tenants, customers, general contractors, verifiers, approved Washington State Agencies or similar entities.

4. The term **Maximum Amount**, noted in some programs, represents the total amount of funding available per indicated measure, household, dwelling unit, eligible party or parties or structure. Incentive amounts may vary, depending on market conditions, funding availability, energy efficiency level of the installed product(s) or measure, eligibility of the party installing the measure or other similar conditions.

5. At the Company's discretion, and based on changing market conditions, cost-effectiveness and program objectives, incentive amounts may vary from the indicated Maximum Incentive Amount from time to time. The Company may implement limited-time offers, special performance incentives for field forces (sometimes referred to as SPIFFs), temporary promotions, purchasing of products directly for resale, or other adjustments to incentives. These adjustments will continue to be based on regionally-accepted energy savings estimates and efficiency measure costs. These adjustments may be noted on the PSE.com website, press releases, advertisements, or other media. It is always a good idea to consult an energy advisor at 1 800-562-1482 if you have questions.

6. The Company's energy advisors are available to answer specific energy-efficiency questions, Monday through Friday, 8am to 5pm. Many rebate forms and additional program information are also available via the Company's website: pse.com/rebates.

7. Many of the indicated measures require the services of or installation by a professional contactor. Before engaging a contractor, it is important to understand the terms and conditions of the measures for which you may apply and ensure that the contractor meets the Company's qualifying standards.

Generally, contractor qualifications include, but are not limited to:

a. Licensed, bonded and insured in the State of Washington.
b. Willing to comply with training and inspection by the Company.

8. Some of the indicated measures have very specific requirements that must be satisfied in order to qualify for the indicated incentive. These include, but are not limited to: structural measures (insulation, windows, etc.), HVAC applications (heat pumps, air handlers, etc.), plumbing fixtures (water heaters, boilers, etc.) and so on. Qualifications listed in this document as a part of the measure description are of a general nature only, and are intended to provide an overview for the customer. Additional information is available on PSE.com, via an energy advisor (1-800-562-1482) and is provided in the incentive application form.

   Prior to committing to a potentially large investment, (a heat pump, water heater, windows, insulation, etc.) it is recommended that customers visit PSE.com or call an energy advisor to obtain the complete list of qualifications for the measure being considered.

9. Customers, eligible parties, owners or tenants with applicable owner permission assume all liabilities associated with contracting, work performance, ensuring applicable permits are obtained and paying independent contractors. The Company may provide contractor referral services for measures.

10. General terms and requirements for incentive qualification include, but are not limited to:

    a. Original purchase receipt or invoice, indicating the date of purchase,
    b. Address (the physical location) of where the measure is being installed,
    c. Name of person(s) business or entity name claiming the incentive,
    d. The structure must be receiving (or will be receiving in the case of new construction) electric service or bundled natural gas service from the Company. Certain service types may be ineligible for conservation rebates, grants, or remuneration. Please consult with the specific terms and conditions of the measure about which you are interested, consult pse.com, call an energy advisor (1-800-562-1482), or review the incentive application form.

11. PSE regularly offers some measures on a pilot basis. In these cases, the measure is color-coded separately from standard offerings in the applicable program's measure tables. PSE pursues pilot measures in order to test market acceptance and confirm savings potential. PSE may offer or withdraw this measures at its discretion.

12. There are infrequent circumstances where PSE infrastructure priorities necessitate measure offerings that are different than those listed in the following program discussions.

These targeted offerings are intended to defer necessary infrastructure costs in select localities, where detailed avoided costs can be specifically identified. Customers in these PSE-identified localities may be eligible for increased incentives on standard measures (listed in the following applicable program discussions). Furthermore, measures may be available in these specific localities that—without the application of locally-specific avoided costs—would have been otherwise cost-ineffective. PSE created its Targeted DSM program to address these needs, and provides details of the program in the Regional Programs chapter.

III. Residential Energy Management

A. Low Income Weatherization

Schedules E/G 201

1. Purpose

The Low Income Weatherization program assists low income residential customers to improve the energy efficiency of single family residences, multifamily structures and manufactured/mobile homes.

During the 2022-2023 biennium, the goal of the Low Income Weatherization Program will be to continue to lessen the energy-cost burden of lower income customers by improving the energy efficiency of their residences and educating these consumers on routine ways to reduce their energy use and costs.

Program efforts will build on the existing model and extend the partnerships with assistance agencies as well as leverage other PSE programs for income eligible customers. In 2022-23, the program will distribute dollars collected from the Microsoft Special Project dollars to expand access to cost-effective energy efficiency services and renewable energy technologies for PSE's low income electric customers, and will continue implementing the terms of the 2022 Settlement Stipulation and Agreement, Docket UE-220066/UG-2200067.

2. Description

Key stakeholders are low income natural gas and electric customers; county and municipal low income weatherization agencies in the PSE service area, Washington State Department of Commerce ("Department of Commerce" or "Commerce"), and participating weatherization contractors and suppliers. Additional program requirements can be found in the current U.S. Department of Energy – Washington State Low-Income Weatherization Assistance Manual (Weatherization Manual).

In the previous biennium, the income threshold for projects receiving PSE funding was 60 percent of State Median Income (SMI) or 200 percent Federal Poverty Level (FPL), whichever is higher. On January 1, 2022 this income threshold was changed to 80 percent Area Median Income (AMI) or 200 percent FPL, whichever is higher. The new income threshold is in compliance with WAC 480-109-060(22) which states that low-income means household income not exceeding the higher of 80 percent of AMI or 200 percent of FPL, adjusted for household size.

Residential Low Income Weatherization provides funding of many cost-effective home weatherization measures for low income customers receiving natural gas and/or electric heat from PSE. Some measures which do not meet standard cost-effectiveness tests may also be approved and some measures funded may include conservation measures that are cost effective consistent with the *Weatherization Manual*.

In addition, this program provides funding for health and safety measures and energy-related repairs. A health and safety measure or energy-related repair is a measure that is necessary (1) to install a weatherization measure properly, (2) to protect the health and/or safety of the occupants, (3) to address an existing problem that weatherization could aggravate or (4) to protect the integrity of the installed measure. Examples include but are not limited to:

- Repair roof leaks,
- Electrical inspection and repairs,
- Mold/mildew remediation,
- Rodent, insect and pest extermination,
- Bath and kitchen ventilation upgrades, and
- Furnace or water heater repairs or replacement.

Sources of Low Income Weatherization funding include, but are not limited to, Electric Rider, Gas Tracker, Company funds, Macquarie Transfer Settlement dollars, Special Contract Settlement dollars, BPA credits or other federal or state government programs.

For those funds that must meet a cost effectiveness standard, up to 30 percent may be applied to energy-related repairs or to pay the balance of an energy efficiency measure that is necessary to effect the installation of cost-effective measures. The final percentage allocated will be determined according to the overall program cost-effectiveness.

a. *2019 Macquarie Transfer*

The Settlement Stipulation and Agreement (Macquarie Transfer) is a Multiparty Settlement Stipulation and Agreement, Docket UE-180680, which authorizes the sale of indirect interests in PSE, and includes commitments that will benefit low income customers in PSE's service area.

In the 2022-23 biennium, PSE will continue implementing the terms of the settlement including a:

- Schedule 201 annual base funding level of no less than $6.11 million for low income weatherization programs through December 31, 2023;
- Continued annual contributions of $400,000 from shareholder funds for the Low Income Weatherization Program;
- Continued annual contribution of $500,000 to the Low Income Weatherization Program for so long as decoupling adopted in Dockets UC-121697 and UG-121705 continues;
- One-time contribution of Shareholder funds in the amount of $2 million to the Low Income Weatherization Program and an additional one-time contribution from shareholder funds in the amount of $1.5 million to the Low-Income Weatherization

program, or towards renewable energy projects that directly benefit low-income population and to the extent possible vulnerable population and highly impacted communities, all of which will be disbursed by December 31, 2026. Needs assessment related to energy affordability, which was finalized October 2020 and a Phase 2 needs assessment which was finalized December 2021.

- Maintenance of a project cost allowance of 30 percent for Administrative/Indirect Rate associated with the delivery of the Low Income Weatherization Program.

b. *Special Contract Funding*

Per stipulations outlined in the special contract between Microsoft and PSE and approved by the Commission, special contract funding is established as a part of the Settlement Agreement in Docket UE-161123.

These fund expenditures can include, but are not limited to emerging technology, distributed generation, or repairs necessary to install energy-efficiency measures. PSE will continue collaborating with internal and external stakeholders during the 2022-23 biennium to disburse settlement funds in a way that engages stakeholders in high needs communities to provide maximum benefit with minimized financial burden.

In 2022, PSE in collaboration with the Housing Finance Commision have finalized an agreement with the Lummi Nation, to serve low-income customers within the Lummi Nation through a renewable solar energy project that would generate a funding stream to directly service eligible low-income households served by PSE.

c. *2022 GRC Settlement Stipulation and Agreement*

a. PSE agrees to make a good faith effort to increase weatherization measure incentive amounts in 2022. PSE agrees to work with its Conservation Resources Advisory Group ("CRAG") to survey actual installed measure costs and adjust rebate amounts per survey findings, if warranted, and fully fund all low-income conservation measures shown to be cost-effective with a Total Resource Cost test result of at least 0.667 based on survey results.

b. PSE agrees to extend its current commitment to maintain an annual base funding level for weatherization through the end of PSE's next GRC as follows:

PSE agrees to continue to fund low-income weatherization programs that the low-income agencies inform PSE they can feasibly achieve with an annual base funding level of no less than the amount in PSE's current Biennial Conservation Plan Low-Income Weatherization Programs through the next General Rate Case.

c. Nothing in this Settlement is intended to modify any of PSE's existing obligations to make shareholder contributions for weatherization funding.

3. Eligibility

Eligible low income customers, including owners and tenants of single family, multifamily, and manufactured homes, are defined as those that meet federal poverty guidelines issued by The Washington State Department of Commerce and receive natural gas and/or electricity from PSE. Low Income agencies are contracted with PSE to perform customer income eligibility, manage the installation, and track and report project data to PSE.

During the Biennium, the Program will strive to enhance the customer experience by providing customers options for assistance and addressing barriers to access. To that end, the Program will continue to work closely with the PSE Energy Assistance Program on outreach and communication strategies, using aligned collateral, and sharing program information, while collaborating on PSE action items related to the findings of the Macquarie Transfer Settlement needs assessment and in meeting CETA mandates.

4. Manufactured Home Strategies

PSE will continue to make low income customers in the manufactured home sector a priority audience, using the findings of the Cadmus Manufactured Homes study, the Macquarie Transfer Needs Assessment, and the Department of Health cumulative impact assessment (see CETA implementation below) to inform program design and customer engagement. In response to the results of the Cadmus study, some priority manufactured home customer groups for the 2022-23 biennium include:

- Spanish Speaking Customers
- Out-of-Park Customers

PSE will leverage a variety of tactics including social media, community-based social marketing, Home Energy Reports, email, awareness building and partnerships through the Energy Efficient Communities team, and transcreated collateral to increase customer participation in Weatherization and Bill Payment Assistance programs and other relevant PSE offerings.

5. Clean Energy Transformation Act and Energy Burden

On January 1, 2022, the Schedule 201 tariff was updated to change the LIW program's income thresholds to whichever is the higher between 200 percent FPL or 80 percent AMI in compliance with WAC 480-109-060(22).

Additionally in 2022-2023, the PSE LIW program continues working to improve access for all PSE customers, embracing principles of diversity, equity and inclusion. PSE staff will engage with customer groups such as the Equity Advisory Group (EAG) and leverage energy burden data analysis performed by the PSE Customer Insights team and the results of the Macquarie Transfer Needs Assessment and subsequent PSE Low Income Needs Assessment (LINA) studies.

As highly impacted communities and vulnerable populations (as defined by CETA) are identified, these communities will be folded into LIW customer engagement strategies. This will inform program strategies to reduce or remove systematic and participation barriers and to target future outreach and marketing campaigns in communities with high energy burden.

These efforts are intended to demonstrate progress as mandated under Section 12 of CETA. During the 2022-23 biennium, PSE staff will coordinate with the Department of Commerce and Department of Health to meet CETA legislative requirements with a particular emphases on Section 12 (utility data collection) and Section 14.

6. Delivery Method

The Low Income Weatherization program provides funding to designated low income agencies. These agencies manage the direct installation of energy efficiency measures into low income customer homes using contractors engaged by the agencies.

7. Implementation Management

The Low Income Weatherization program manages all agency conservation measure installations via in-house, PSE program staff.

a. *Opportunities for Program Awareness (Data Driven Strategies)*

Through the use of segmentation tools, PSE continues to strive to provide more customized outreach to populations in need. In particular, PSE will explore ways to scale the program for all housing sector types to high needs census blocks as identified in the 2020 and 2021 Low Income Needs Assessment (LINA) study and ongoing energy burden analysis. PSE will do this through direct marketing campaigns and coordinated efforts with Community Action Agencies and trusted Community Based Organizations to identify enhanced methods of program delivery.

8. Customer Incentives

Measures apply to existing single-family, multifamily and manufactured home structures. Funding for measures and customer eligibility are outlined in PSE's conservation Tariffs. Funding is disbursed to local agencies. Payments are based on incentives for measures installed. Local agencies are permitted fixed percentages for administrative costs under the existing tariff.

Under the Matchmaker Agreement with Department of Commerce, PSE's low income Tariff-based funding may be combined to support a "whole house" approach for structures.

Applicable Low Income measure category headings include, but are not limited to:

- Building envelope Improvements,
- Heating system upgrades,
- Water heating upgrades,

- Lighting upgrades,
- Appliance replacement, and
- Common area upgrades.

Measure incentive eligibility criteria are based on, but not limited to, established, industry standard cost-effectiveness tests including those employed in the *Weatherization Manual*, structure type and its location within the PSE service territory, fuel type (natural gas or electric), product type and product quantity. The majority of measure funding falls into three categories: paid per square or linear foot (attic insulation, for instance), per measure (for example, an LED bulb), per structure (for example, one furnace, or water heater per home).

Multifamily Retrofit

Prescriptive incentives will be applied to measures installed within units of multi-family residences. In addition to this, calculated commercial measures or measures that are cost-effective consistent with the *Weatherization Manual* are made available for common area and residential unit measures. All calculated incentives will be evaluated using currently accepted PSE commercial engineering calculations or methods consistent with the Weatherization Manual.

a. *Electric Funding*

Per Structure Basis

Measures	Maximum Payment Amount		
	Single Family	Multifamily	Manufactured Home
Electronic Thermostats (Replacement of bi-metal thermostats with electronic thermostats. Line voltage thermostats only.)	$95.00	$95.00	
Duct Sealing with other measures (unconditioned spaces)	$808	-	$681
Water Heater Pipe Insulation (3 feet, or more, with minimum thermal value of R-3)	$26.40	$26.40	$26.40
Heat Pump Water Heater Tier 3	$1,425.00	$1,425.00	$1,425
Ductless Heat Pump (AHRI certified, inverter technology, minimum 1.0 ton)	$5,653.00	$5,120.00	$5,449.00
Energy Star® Whole House Fan	$935.00	$935.00	$964.00

Heat Pump	$8,261.00	-	$7,449.00

LIW Electric Per Square Foot Basis

Measures	Description	Maximum Payment Amount
Air Sealing Multifamily Structures	Dense Pack Walls and Rim Joists	$2.90 per sq. ft.
	Attic and/or Crawl Space	$1.25 per sq. ft.
	Door Kits	$100.00
	Recessed Can Covers	$40.00
	Energy Star® Whole House Fans	$935.00
	Bathroom Fan Timers	$50.00

LIW Electric Per Square Foot Basis electric measures, continued

Measures	R-Existing	R-New	Maximum Payment Amount		
			Single Family	Multifamily	Mobile Home
Air Sealing (Per CFM50 Reduction)	-	-	$1.74	-	$1.52
Ceiling Insulation	0	19	-	$2.21	-
	0	22	-	-	$2.05
	0	30			$2.32
	0	38	$2.53	$2.53	-
	11	38	$2.10	$2.10	-
	19	38	$1.70	$1.70	-
	0	49	$2.82	$2.82	-
	11	49	$2.40	-	-
	19	49	-	$2.10	-
Duct Insulation	0	11	$8.53	$8.53	-
Floor Insulation	0	19	$2.46	$2.46	-
	0	22	-	-	$3.13
	0	30	$2.82	$2.82	$3.56
	11	22	-	-	$2.43
	11	30	-	$2.46	-
Wall Insulation	0	11	$2.90	$2.97	$2.97
Windows	Single pane	U-value 0.30	$30.86	$31.62	$25.34
	Double pane	U-value 0.30	$30.86	$31.62	$25.34

LIW Electric Per Measure Basis

Measures	Maximum Payment Amount		
	Single Family	Multifamily	Mobile Home
Faucet Aerator, 1.5 GPM	$11.35	$11.35	$11.35
Smart Thermostat	$400.00	$400.00	$400.00

b. *Offerings Unique to Structure Type*

Single Family, Multifamily, Mobile Home

Savings to Investment Ratio (SIR) Measure Upgrades, calculated incentive *

* Conservation measures that are cost effective consistent with the *Weatherization Manual*

c. *Natural Gas Funding*

Per Structure Basis Savings

Measure	Maximum Payment Amount		
	Single Family	Multifamily	Mobile Home
Duct Sealing (unconditioned spaces)	$808.00	-	$681.00
Water Heater Pipe Insulation (3 feet with minimum thermal value of R-3)	$26.40	$26.40	$26.40
Energy Star® qualified Gas Furnace or equivalent	$5.661.00	$5,661.00	-
Integrated Space & Water Heating	$6,472.00	$6,472.00	-
Structure Sealing (Per CFM_{50} Reduction)	$1.74	-	$1.52
Energy Star® qualified Water Storage Tank	$841.67	$841.67	$841.67
Energy Star® qualified Tankless Water Heater	$1,484.00		$1,484.00

LIW Natural Gas Per Square Foot Basis

Measures	R-Existing	R-New	Maximum Payment Amount		
			Single Family	Multifamily	Mobile Home
Ceiling Insulation	0	30	-	-	$2.32
	0	38	$2.53	$2.53	-
	11	38	$2.10		-
	0	49	$2.82	$2.82	
	11	49	$2.40		
Duct Insulation	0	11	$8.53	$8.53	-
Floor Insulation	0	22	-	-	$3.13
	0	30	$2.82	$2.82	$3.56
Wall Insulation	0	11	$2.90	$2.90	$2.97
Windows	Single Pane	U-Value 0.30	$30.86		

LIW Natural Gas Per Measure Basis

Measure	Maximum Payment Amount		
	Single Family	Multifamily	Mobile Home
Faucet Aerator, 1.5 GPM	$11.35	$11.35	$11.35
Smart Thermostat	$400.00	$400.00	$400.00

d. *Health and Safety Measures and Energy Related Repairs Funding*

Health and Safety Repairs (including, but not limited to):

- Electrical safety inspection and repairs
- Extermination of pests, insects or rodents
- Mold/mildew abatement
- Installation of carbon monoxide monitors in homes with natural gas

Weatherization-Related Repairs (including, but not limited to):

- Roof repair
- Plumbing repair
- Manufactured home skirt repair
- Ground Cover

Ventilation

- Installation of bathroom and kitchen ventilation fans
- Crawlspace and attic ventilation

Energy Education

- In-unit and group consultations
- Leave-behind information in units and homes

Furnace/Water Heater Repair, Maintenance, or Replacement

9. Target Market

Low income customers including owners and tenants of single family, multi-family, and manufactured homes that meet the program's income guidelines and recieve natural gas and/or electricity from PSE. Low Income agencies are contracted with PSE to perform customer income eligibility, manage the installation, and track and report projects to PSE.

10. Marketing and Outreach Plan

The Low Income Weatherization program is a highly prescribed program that relies on its partner housing agencies to deliver its offerings to eligible low-income homeowner participants. The primary marketing objective is to elevate program awareness to customers and increase end-user participation through key housing agencies' administrators.

Through data-driven, targeted marketing and outreach tactics, PSE will increase awareness of PSE's Low Income Weatherization program and intake of qualified single family, manufactured home, and multifamily residential electric and natural gas customers within PSE's service territories, specifically:

- Customers who are income eligible for PSE Assistance programs or LIHEAP funding
- Manufactured Home Customers, in and out of park

- Named communities
  - Community Action Partner (CAP) Agencies
  - Community Development nonprofits and other social service entities
  - Landlords and property managers

PSE will continue its commitment to building on recent program enhancements that reach customers by providing and improving in-language outreach and tools to its income-eligible communities, and exploring other in-language strategies for non-English dominant customers.

PSE will continue to leverage existing and new data and relationships to co-create enhanced methods of program delivery and customer outreach and education.

a. *Low income Program Awareness Tactics*

The main tactic continues to be maintaining meaningful, consistent messages in marketing materials and continuing to center specific, localized outreach efforts that increase customer trust and program access. PSE will supplement community partner outreach with marketing and outreach tools that help maximize awareness of the Low Income Weatherization program in areas that are most likely to include income-eligible customers.

PSE will continue to innovate and implement new communications strategies that aim to break customer communication barriers and build trust.

Some of PSE's key communication channels to elevate customer awareness and participation in PSE low-income assistance programs might include:

- Weatherization Assistance/HELP joint brochure (multiple languages)
- Outreach events (virtual and in person, as appropriate)
- Presentations to neighborhoods and tenant associations (virtual and in person, as appropriate)
- Targeted direct mail pieces
- Paid and earned media placements, with a multicultural component
- Optimizing PSE web pages
- Trade publications
- PSE outreach efforts with local social service agencies and municipal jurisdictions
- Media testing in cultural/language specific media channels
- Participation in national and local Weatherization Days
- Social media content and advertisements
- Hosting and participating in multifamily energy fairs

Any PSE-supplemented community partnerships or marketing promotions will be done in close coordination with the program manager and local agencies.
Low Income Customer Energy Efficiency cross-program integration opportunities may include, but will not be limited to:

- Leveraging all PSE incentives
- Coordinate with partnering utilities
- Educational displays:
  - Posters or infographics explaining the program services
  - Partner Marketing with Housing Agencies

The key strategy is to encourage Housing Agency Administrators to move applications swiftly and smoothly through the approval process, and to identify Low Income Weatherization opportunities to eligible candidates.

This strategy requires a communications program that delivers the most current information about the Low Income Weatherization program to agencies.

There will also be an effort to passively deliver collateral through this channel on other single family residential offerings and energy efficiency tips that could be helpful to candidates on the waiting list. This effort must also allow for peer recognition and recognition of results accomplishment to motivate administrators to push this program opportunity whenever suitable.

B. Single Family Existing

Schedules E/G 214

1. Purpose

The Single Family Existing (SFE) suite of programs acquire cost-effective energy savings from existing single-family (less than or equal to four units on a parcel) retrofit measures and services. Programs under Schedule 214 include:

- Residential Lighting
- Space Heat
- Water Heat
- Residential Midstream HVAC and Water HeatWeatherization
- Home Appliances
- Smart Thermostats
- Home Energy Reports ~~and~~
- Efficiency Boost

2. Description

Single Family Existing programs implement cost effective, targeted, residential energy savings using a menu of prescriptive and calculated efficiency measure incentives, including rebates for single family existing structures. Prescriptive rebates are intended to facilitate participation by customers, tenants (who have obtained property owner consent), contractors, manufacturers, retailers, developers, trade allies, and provide administrative efficiencies for PSE in meeting energy efficiency goals.

A group of SFE programs are consumer-oriented—that includes, but is not limited to; smart thermostats, appliances, and energy efficient lighting. These programs are targeted to a wide variety of retail and manufacturer entities, which include PSE Marketplace and other online retail. Program staff also collaborate on consumer electronics and select appliances through PSE's funding relationship with NEEA.

Other SFE programs are delivered to customers mostly through contractors, including Single Family Weatherization, Space Heat, Water Heat, and Midstream. These programs' target market constituency consists primarily of resellers and contractors that sell, install, and service HVAC systems, water heating systems, windows and insulation as standalone measures.

3. Eligibility

Eligible parties include: a manufacturer, retailer, distributor, equipment supplier, contractor or agent acting on behalf of responsible party of service, the customer or tenant with applicable

owner authorization, of an existing single-family structure receiving electricity or natural gas through a PSE residential Schedule; Rates 7 (including 17, 27, 37 and 47), 8, 11 and 12.

Single Family Residences include structures with four or less single-family units that are attached by a contiguous roofline and manufactured or factory built homes (permanently sited). Single Family Residences that are within a multi-family campus as defined in electric and gas Schedules 217 and 218 of this Tariff, and structures under construction are ineligible for this program.

Rebates and incentives offered to eligible natural gas and/or electric PSE Single Family Existing customers include a variety of end-use classifications, not limited to:

- Light-Emitting Diode (LED) lighting.
- Consumer Electronics, such as sound bars and other efficient products, that PSE recommends but does not directly incentivize, through PSE's partnership with NEEA and the Regional Product Portfolio.
- Appliances—including clothes washers and clothes dryers.
- Weatherization, including windows, insulation, air sealing, and duct sealing.
- Smart Thermostats—including Line Voltage Connected Thermostats
- Space heating including integrated hydronic systems, high efficiency furnaces, high efficiency boilers, and conversion from electric resistance to heat pump.
- Water heating, including storage water heaters, tankless water heaters, and heat pump water heaters.

4. Programs

These programs are designed to ensure that customers have access to a wide variety of efficient product options. When advantageous to do so, PSE may purchase energy-efficiency products directly from manufacturers or distributors to resale to customers or provide to retailers for resale. This may occur at either traditional or online stores, including PSE Marketplace. PSE also provides field services to educate retail and distributor employees on its products, detail qualifying product, and ensure compliance with PSE agreements.

a. *Residential Lighting*

PSE will continue to offer incentives on Residential Lighting measures not impacted by Washington State's House Bill 1444, including indoor LED fixtures, outdoor LED fixtures, T8 LED fixtures, T8 LED retrofits, and patio style LED string lights.

Commercial lighting retail incentives are offered through the Lighting to Go program. Lighting to Go follows a similar programmatic format to residential retail lighting. More detailed program discussions are in the Business Energy Management section under Commercial Rebates.

i. **Delivery Method**

PSE offers instant discounts on qualifying patio-style LED string lights, T8 LED retrofits, and LED fixtures at participating retailers to residential electric customers. Retailers in the program include brick and mortar locations as well as the PSE Marketplace online platform.

ii. **Implementation Management**

In-store signage with utility rebate attribution indicates to customers the patio-style LED string lights, T8 LED retrofit, and LED fixtures with PSE's instant discount. Manufacturer partners submit for rebate processing to receive reimbursement for the instant discount that customers received at the retailer.

Program awareness is marketed via in-store signage, in-store events, email, social media, web, and paid advertising.

b. *Space Heat*

This program delivers incentives and encourages installations of efficient gas and electric space heating systems, including but not limited to natural gas furnaces, boilers integrated space and water heat systems, and electric resistance conversations to ductless and unitary heat pumps. The program previously included PSE's midstream space and water heat programs but will be modified in 2022 to only include downstream space heat rebates. Midstream rebates will be included under the Residential Midstream HVAC and Water Heat program.

i. **Delivery Method**

The Space Heat Program is a downstream model, in which customers apply for the rebate after purchase either through a mail-in or online application. Customers then receive a check in the mail or credit on their bill.

ii. **Implementation Management**

The Department of Energy (DOE) released a federal minimum efficiency and testing requirement change for air source heat pumps that will go into effect on January 1, 2023 and applies to all equipment manufactured on or after this date. The federal changes include the transition to measuring efficiency in HSPF2 (heating season performance factor 2) and SEER2 (seasonal energy efficiency rating 2) as opposed to the prior HSPF and SEER measurements.

As there will be existing stock for equipment manufactured under the previous federal minimum standards, the program will monitor the market and modify qualifying equipment metrics as needed. The AHRI Directory will continue to be used to determine efficiency and capacity ratings of equipment. Qualifying HVAC products include air cooled heat pumps as rated under AHRI Test Procedures 210/240.

Program staff will focus on working with PSE's Trade Ally Network to assist its customers in installing qualifying measures. Specific implementation focus will be made to designated sectors that include home type, equipment type, location, and/or income level.

The downstream and midstream Space Heat Programs, in collaboration with its regional partners and NEEA, will offer HVAC (and water heating) training to contractors that will provide: continuing education units for professional development and maintenance; lessons on HVAC sizing, system performance and balancing; professional tips on installation best practices; and an opportunity to participate in roundtable discussions with experts, manufacturers and utility representatives. Additionally, the regional partners are exploring scholarship opportunities for small contractor firms and contractors serving vulnerable populations.

The Space Heat program will launch advanced duct sealing measures in 2023, claiming RTF UES Duct Sealing -Measure B (visual inspection and tested) duct sealing savings values. Advanced duct sealing will run through the Space Heat program as HVAC contractors are the majority of the installers trained in this technology. PSE will monitor the market to see how this new technology changes the duct sealing landscape and will make program changes as needed.

The program has created higher incentive levels to help reach customers with manufactured homes and customers in the low-to-moderate income category. The program is also working with its Trade Allies to create more useful customer collateral to inform customers about pricing and expectations of HVAC replacements.

Rebate applications are processed by PSE in-house staff.

c. *Water Heat*

This program manages incentives and installations of water heating systems, including but not limited to domestic natural gas storage, natural gas tankless, and electric heat pump water heaters.

i. Delivery Method

In the Water Heat program, fulfillment delivery varies depending on the measure or measure type. A selected number of measures are managed within Energy Efficiency's Rebates Processing organization. Other measures receive "instant" coupon rebates from retailers.

Examples of measure fulfillment delivery:

- In-house Processed Measures: Natural Gas Water Heaters (Storage and Tankless), Heat Pump Water Heaters purchased via retail outlets not captured by instant coupon discount.
- Third Party Retail Instant Coupon Discount Measures: Heat Pump Water Heaters.

ii. Implementation Management

In house Processed Measures: Program implementation management will focus on working with PSE Trade Allies to assist its customers in installing qualifying measures. Specific implementation focus will be made to designated sectors that include home type, equipment type, location, and/or income level. The program has created a higher incentive level to help reach customers with manufactured homes and customers in the low-to-moderate income category.

Retail Heat Pump Water Heater Implementation: In September 2020, PSE launched its instant retail heat pump water heater rebate at regional Lowe's and The Home Depot stores. In September 2022, the program model was augmented to utilize an instant coupon to address retail risk. The program works with a third party to implement a retail instant coupon program. The effort is coordinated with Tacoma Power, Snohomish Public Utility District No. 1 and NEEA and utilizes the Regional Sales Allocation Tool created on behalf of Bonneville Power Association to ensure 100 percent of each store's incentive allocations are covered by a partner. The utility partners and NEEA are working together closely to identify customer and contractor education tactics for 2022-23.

The implementation strategy is focused on overcoming market hurdles experienced since the launch of the Retail program, increasing customer awareness and demand for the program as well as providing more help for customers undertaking DIY installs. Prices for steel have increased the cost of retail and wholesale high efficiency water heaters. PSE will continue to monitor the price fluctuations and work with regional partners and manufacturers to mitigate program impacts through Limited Time Offers, marketing campaigns, and customer education. Another focus area of the Water Heat program will be monitoring any potential introduction of split Heat Pump Water Heater systems in the retail space. PSE continues to investigate ways to enhance the retail delivery experience for customers at the point of sale.

The 2018 Washington State Energy Code (WSEC) went into effect on February 1, 2021. Any equipment purchased for homes permitted after this will be expected to adhere to 2018 WSEC. Program staff are monitoring the adoption of new codes in 2022-23 and will adjust programs as necessary.

Code impacts include but are not limited to: adjusting baselines for measures, creating new tiers to assure measures remain above code, and assessing cost-effectiveness.

d. *Residential Midstream HVAC and Water Heat*

The goal of the Residential Midstream HVAC and Water Heat program is to engage HVAC and water heater distributors to increase sales of high-efficiency equipment by reducing first costs, encourage upselling of high-efficiency products, and increase stocking of high-efficiency equipment so that it is readily available for new construction and customers in emergency replacement situations. By intervening up the supply chain, the program influences a much larger portion of the addressable market and helps increase energy savings compared to end-user focused downstream programs.

Residential customers, including historically underserved customer segments, can benefit from the lifetime energy savings of high-efficiency HVAC and water heating equipment without the inconvenience of becoming an equipment expert. Instead, builders and customers are motivated to purchase high efficiency equipment by the market through available stock and instant rebates.

i. Delivery Method

PSE utilizes a third party implementation contractor that works with distributors and direct sales manufacturers to increase stocking and sales of high efficiency residential HVAC and hybrid heat pump water heating equipment. Incentives are paid to distributors when they collect and submit an active PSE installation address. Distributors retain a small fee for data collection and are required to pass through the incentive to the contractor, who is encouraged to pass through the discount to the customer.

This midstream model with pass through incentive requirements helps involve contractors. Downstream programs don't consider contractors' influence on purchasing decisions. By providing the incentive directly to the contractor, they have the tools to upsell high efficiency units. Contractors also know their customer base and can identify which customers are good candidates for heat pump water heaters and air source heat pumps. Rebates play a key role in subsidizing the additional time and effort required to upsell a high efficiency unit and reducing the total equipment cost.

ii. Implementation Management

The Department of Energy (DOE) released a federal minimum efficiency and testing requirement change for air source heat pumps that will go into effect on January 1, 2023, and applies to all equipment manufactured on or after this date. The federal changes include the transition to measuring efficiency in HSPF2 (heating season performance factor 2) and SEER2 (seasonal energy efficiency rating 2) as opposed to the prior HSPF and SEER measurements.

As there will be existing stock for equipment manufactured under the previous federal minimum standards, the program will monitor the market and modify qualifying equipment metrics as needed. The AHRI Directory will continue to be used to determine efficiency and capacity ratings of equipment. Qualifying HVAC products include air cooled heat pumps as rated under AHRI Test Procedures 210/240.

In response to changes to Washington State Energy Code, program staff have adapted heat pump water heater program requirements to align with NEEA Tiers and Cold Climate Efficiency (CCE). These 2022 changes resulted in adjustments to savings and restructuring rebate levels based on project type (i.e., new construction or existing home); added a contractor spiff for installations in existing homes; and reduced the size category to ≤120 gallons.

The Regional Technical Forum has provided further definition around residential split HPWH systems, which have the compressor and heat exchanger located outside of the home reducing the impact to the HVAC load. These systems have always been accepted into the Program but used the same savings methodology as traditional HPWHs. The Program will be adding a new measure in 2023 to better account for the savings of these types of HPWHs using the existing rebate level structure. Additionally, the Program will remove NEEA Tier 1 offering in 2023, as this equipment is the lowest efficiency HPWH option on the market currently and only offering rebates for NEEA Tier 3 or 4 aligns with other PSE programs and pushes the market toward highest efficiency equipment.

In collaboration with its regional partners and NEEA, PSE will offer HVAC and HPWH training to contractors that will provide: continuing education units for professional development and maintenance; lessons on HVAC sizing, system performance and balancing; lessons on how to maximize revenue for HPWH installation; professional tips on installation best practices; field testing and myth busting on HPWH venting needs; NEEA Tier 4 and 120V HPWH's product overviews; and an opportunity to participate in roundtable discussions with experts, manufacturers and utility representatives. Additionally, the regional partners are exploring scholarship opportunities for small contractor firms and contractors serving vulnerable populations.

Midstream continues to be an effective tool in broadening contractor knowledge on PSE's single family existing rebates. When contractors are trained on how the midstream program works, information can also be included on how to qualify for two PSE HVAC rebates: one from the downstream program for the conversion of old inefficient electric resistance heating systems up to a code compliant model, and another from the midstream program for installing equipment above code.

e. *Weatherization*

The weatherization program oversees the “shell” of residential structures; installation of windows, insulation of various types, air sealing and duct sealing. In addition to rebates for site-built homes, there are increased rebates to encourage manufactured home customers to participate.

i. Delivery Method

There are two pathways by which customers can participate in the Single Family Weatherization program.

The first pathway utilizes PSE’s Trade Ally Network and accounts for over 99 percent of projects. Contractors provide bids to customers using a PSE-created bid form. Once the bid is accepted, contractors provide an instant rebate to the customer on the invoice.

Contractors submit projects via an online portal, and are reimbursed twice a month through rebate checks from PSE. This pathway is encouraged by PSE since its trade allies are familiar with the weatherization specifications and rebate requirements.

The second pathway is discouraged due to quality and safety considerations. However, it does allow customers to either do the work on their own, or select an out-of-network contractor. This pathway accounts for less than one percent of projects. Customers are provided with a DIY Weatherization Application, the Weatherization specifications, a photo documentation checklist, and instructions on how to apply for the rebate. These projects are also inspected by PSE's Verification Team. If the work passes inspection, the customer is mailed a rebate check.

Customers may apply for windows rebates after purchase either through a mail-in or online application. Customers then receive a check in the mail or credit on their bill for the rebated amount. The use of Trade Allies for windows projects are encouraged but not required.

ii. Implementation Management

The Single Family Weatherization program is managed via in-house, PSE program staff. Contractor support is offered through the PSE Verification Team and the Trade Ally Support team. Rebates are processed in-house.

In 2022-23, PSE will change the insulation and air sealing incentive delivery model from percentage of project cost to a per-square-foot based incentive. This change is being made after consultation with PSE Trade Allies to align PSE's incentives with RTF's measures and with other regional utility offerings. The new incentive calculations will also ensure greater parity in rebate payments and make forecasting and cost-effectiveness calculations more straightforward.

As of January 1, 2022, PSE retired the Whole House Air Sealing and Whole House Ventilation with Air Sealing measures due to low cost-effectiveness and low participation. Finally, PSE has added a U-22 Window rebate based on a RTF measure to match proposed ENERGY STAR Window changes and provide customers with a higher efficiency window rebate option.

f. *Home Appliances*

The Home Appliances program incentivizes customers to upgrade from old inefficient clothes washers and clothes dryers to ENERGY STAR® rated or above.

Rebate program offerings include front-loading ENERGY STAR clothes washers and ENERGY STAR dryers.

i. Delivery Method

The Home Appliances Program is a downstream model, in which customers apply for the rebate after purchase either through a mail-in or online application. Customers then receive a check in the mail or credit on their bill. Store signage, social media and the PSE website are leveraged to promote the program to customers.

ii. Implementation Management

Program design, metric analysis, incentive-setting and program policies are managed in-house by PSE program staff. Incentive processing is also managed in-house. Retailer relationships are managed by a third party implementer.

g. *Smart Thermostats*

The Smart Thermostat program incentivizes customers to upgrade their regular or programmable thermostat to an ENERGY STAR rated smart thermostat or select Electric Line Voltage Connected Thermostat models approved by PSE.

i. Delivery Method

The Smart Thermostat program is primarily a downstream model, in which customers apply for the rebate after purchase either through a mail-in or online application. They then receive a check in the mail or credit on their bill. Store signage, social media and the PSE website are leveraged to promote the program to customers. Instant rebates are also available on the PSE Marketplace and through PSE Trade Ally Network contractors.

ii. Implementation Management

The program and rebate processing are implemented by PSE staff. In 2021, PSE added an instant rebate to PSE Marketplace in an effort to ease the application process and increase program participation. Customers receive the rebate at the point of sale after validating their eligibility. The PSE Marketplace is managed by a contracted third party. In 2022, PSE added the ability for HVAC contractors to offer instant discounts on smart thermostats.

Program awareness is marketed via in-store signage, in-store events, email, social media, web, and paid advertising.

h. *Home Energy Reports*

PSE's Home Energy Reports (HER) program was implemented in 2008 and delivers customized, periodic reports on energy consumption to participating households and compares the households' energy consumption to that of similar neighboring homes. In addition, the reports provide personalized tips on how to save energy based on the energy usage and housing profile of participants. The HER program is designed to motivate households to reduce energy consumption through behavior changes and participation in other PSE energy efficiency programs.

The HER program provides approximately 512,000 reports to participating customers, including 85,000 gas-only customers receiving digital only reports added to the program in September 2021. In early 2022, PSE added 70,000 multi-family customers. In mid-2022, PSE added 60,000 gas-only customers and 40,000 low-to-moderate income customers.

The additions of the multi-family and LMI (Low to Moderate Income) waves help improve program equity to customers with potentially higher energy burdens by providing low-to-no cost energy savings tips.

PSE will continue to enhance and adapt the energy-saving messaging provided to customers based on their input and feedback. PSE will also evaluate this program on an annual basis, as it has since the program's inception. For planning purposes, a deemed value, based on the previous year's actual is used, while the verified savings trues up the reported savings in the following year.

i. **Delivery Method**

PSE structures the program as a randomized controlled trial (RCT). The RCT experimental design randomly assigns a population of interest to control and treatment groups. Due to this random assignment, the only differentiating factor between the two groups is the receipt of Home Energy Reports (treatment). This approach produces an unbiased estimate of the change in consumption with a high level of statistical precision. Program energy savings are established by an independent evaluation, based on differences in energy use between control and treatment groups.

Participant groups receive periodic reports via email and mail. As part of program design, customer groups get different combinations of delivery mechanism (digital or paper) and cadence (monthly, bi-monthly, quarterly).

ii. **Implementation Management**

The HER program is currently managed via a contracted third-party implementer.

In 2023 PSE will shift from a 2-year to a 1-year measure life for the Home Energy Report program, in alignment with the nationwide standard. This will ensure all energy savings are claimed from the independent evaluation performed annually for the program.

i. *Efficiency Boost*

The intent of the Efficiency Boost program is to reach moderate income customers who do not quite meet the qualifications of low-income programs, yet quite often do not have the same resources as other customer segments.

i. **Delivery Method**

Efficiency Boost rebates are increased rebate amounts for various measures within the Space Heat, Water Heat, Weatherization, Smart Thermostat and Home Appliance programs. The delivery method depends on the program the measure resides in. Generally speaking, if the customer uses a PSE Trade Ally for the measure, they receive the full rebate instantly. If a contractor outside of the Trade Ally Network is used, the customer can submit a rebate form for processing, and will receive a check if the rebate requirements are met.

ii. Implementation Management

Efficiency Boost rebates require that the customer have an 'income conversation' with an Energy Advisor (EA) in order to determine income eligibility, and direct the customer to the most appropriate pathway. Two exceptions to the income conversation rule are thermostats and appliances. The customer still must attest that their income is eligible for the Efficiency Boost rebates for these products, but an income conversation is not required since it is unlikely that a customer would pursue Low Income Weatherization for these.As of January 1 2022, the income threshold for LIW changed to the higher of 80 percent Area Median Income (AMI) or 200 percent Federal Poverty Level (FPL), in compliance with WAC 480-109-060(22). As a program designed to serve moderate income customers just beyond the low-income thresholds, Efficiency Boost thresholds will also be adjusted as of January 1, 2023 as reflected below.

- If the customer has an income below 80 percent Area Median Income, the EA directs the customer towards Low Income Weatherization (LIW) and bill assistance. Customers may elect to participate in Efficiency Boost even if they are eligible for LIW or bill assistance.
- If the customer has an income between 80-90 percent Area Median Income, an EA will direct the customer towards Efficiency Boost rebates.
- If the customer has an income above 90 percent Area Median Income, the EA directs the customer towards standard rebates.

Category	Measure	Maximum Incentive Amount Each	Incentive for non-income-qualitied customers (repeated from tables above for comparison)
Weatherization	Attic Insulation R-11 or less to R-49	$1.30 per sq. ft.	$0.50 per sq. ft.
	Floor Insulation R-11 or less to R-30	$1.450 per sq. ft.	$0.25 per sq. ft.
	Wall Insulation R-0 to R-13	$1.60 per sq. ft.	$0.75 per sq. ft.
	Prescriptive Duct Sealing and Insulation	Up to $800	Up to $400
	Duct sealing only	Up to $600	Up to $300
	Prescriptive Air Sealing (attic and/or crawl space)	$0.20 per sq. ft.	$0.10 per sq. ft.
Windows	Windows, Single Pane to U30	$200 per window, up to $2,000	$50 per window, up to $750
	Windows, Single Pane to U22	$200 per window, up to $2000	$50 per window, up to $750

	Windows, Double Pane to U22	$200 per window, up to $2,000	$100 per window, up to $1500
Water Heat	Hybrid Heat Pump Water Heater Tier 3	$700	$500
	Natural Gas Tankless Water Heater: ENERGY STAR® qualified	$600	$250
	Natural Gas Storage Water Heater: ENERGY STAR® qualified	$100	$50
Space Heat*	Natural Gas Boiler: 95% AFUE	$1,000	$700
	Natural Gas Furnace: 95% AFUE	$1,400	$700
	Zonal electric resistance to ductless heat pump conversion	$2,400	$800
	Electric forced-air furnace to heat pump conversion	$2,400	$1500
Thermostats	Line Voltage Connected Thermostat	$130	$75
	Smart Thermostat	$175	$75
Appliances	ENERGY STAR® frontload clothes washer	$125	$50
	ENERGY STAR® dryer	$100	$50

- PSE is monitoring DOE's federal minimum code changes and will modify HSPF requirements to incorporate HSPF2 criteria as the equipment comes to market.

5. Customer Incentives

. A list of all requirements for incentive eligibility and participation can be found on individual incentive or program application forms.

PSE maintains a comprehensive list of approved conservation Measures in its List of Measures, Incentives, and Eligibility. Program staff regularly review incentive amounts and savings values, which are based on regionally accepted energy savings estimates and incremental efficiency measure cost. Incentives may be subject to change in response to revisions in savings estimates, average incremental cost, market conditions, or changes in Federal efficiency standards or State codes. PSE reserves the right to adjust incentives.

a. *Single Family Existing Electric Service*

PSE regularly offers some measures on a pilot basis. In these cases, the measure is color-coded separately from standard offerings in the applicable program's measure tables. PSE pursues pilot measures in order to test market acceptance and confirm savings potential.

PSE may, from time to time, also offer bonuses, sales incentives (also known as SPIFFs), or limited-time-offers to the below-noted incentives. For example, PSE will offer a bundle incentive to customers who receive three or more weatherization measures as part of the same project. PSE may offer or withdraw these measures at its discretion.

Category		Measure	Maximum Incentive Amount Each
Appliances		ENERGY STAR Clothes Washer	$125.00
		ENERGY STAR Clothes Dryer	$100
Controls		Smart Thermostat	$175.00
HVAC	**Heat Pumps***	Electric resistance to Ductless Heat Pump HSPF 9.0 (Site Built Homes)	$1,300.00
		Electric resistance to Ductless Heat Pump HSPF 9.0 (Manufactured Homes)	$2,900.00
		Electric Forced Air Furnace to Heat Pump HSPF 8.5 (DHP HSPF 9.0) (Site Built Homes)	$1,900.00
		Electric Forced Air Furnace to Heat Pump HSPF 8.5 (DHP HSPF 9.0) (Manufactured Homes)	$2,900.00
		Midstream retrofit and new construction Air Source Heat Pumps (Tiered ranging from HSPF 9.5 to 11.0)	Tiered ranging $300 - $600
		Advanced Duct Sealing	$1,250

- PSE is monitoring DOE's federal minimum code changes and will modify HSPF requirements to incorporate HSPF2 criteria as the equipment comes to market.

Single Family Existing electric measures, continued

Category	Measure	Maximum Incentive Amount Each
Lighting	Indoor LED fixtures	$3.00
	Outdoor LED fixtures	$10.00
	TLED Fixtures	$2.00
	TLED retrofit LED bulbs	$4.00
	Patio Style LED string Lights	$3.00
Reporting	Home Energy Reports	Direct mail to program participants. No cost to customers.
Water Heating	Midstream Retrofit HPWH (NEEA Tier 3 and 4)	$500.00
	Midstream New Construction HPWH (NEEA Tier 4)	$150.00
	Downstream HPWH (NEEA Tier 3)	$700.00
	Downstream HPWH (NEEA Tier 3) – Manufactured Home	$700.00

Single Family Existing electric measures, continued

Category	Measure	Maximum Incentive Amount Each
Weatherization	Attic Insulation (R-0 to R-49)	$1.50 per sq. ft.
	Attic Insulation (R-11 to R-49)	$1.30 per sq. ft.
	Floor Insulation (R-0 to R-30)	$1.50 per sq. ft.
	Wall Insulation (R-0 to R-13)	$1.60 per sq. ft.
	Prescriptive Air Sealing – attic and crawl space	$0.20 per sq. ft.
	Prescriptive Duct Sealing and Insulation	Up to $400.00 per dwelling unit
	Prescriptive Duct Sealing Only	Up to $300.00 per dwelling unit
	ENERGY STAR Whole House Ventilation	Up to $50.00 per unit
	Floor Insulation R-0 to R-22 - Manufactured Home	$1.30 per sq. ft.
	Prescriptive Duct Sealing - Manufactured Home	Up to $450.00/dwelling unit
	Attic Insulation (R-0 to R-30) - Manufactured Homes	$1.50 per sq. ft.
Windows	Upgrade single-pane windows to a 0.23-0.30 U-factor– Site Built	$50.00 per window, up to $750.00 per structure
	Upgrade single-pane windows to a 0.22 U-factor or better – Site Built	$100.00 per window up to $1,500.00 per structure
	Upgrade double pane with metal frame windows to a 0.22 U-factor or better – Site Built	$100.00 per window up to $1,500.00 per structure
	Upgrade single-pane windows to a 0.30 U-factor or better – Manufactured Home	$200.00 per window, up to $2,000.00 per structure
	Upgrade double-pane with metal frame windows to a 0.30 U-factor or better – Manufactured Home	$200.00 per window, up to $2,000.00 per structure

Note: *Some structural and water heat measures require qualified contractor installation in order to be eligible for the indicated incentive.*

b. *Single Family Existing Gas Service*

PSE regularly offers some measures on a pilot basis. In these cases, the measure is color-coded separately from standard offerings in the applicable program's measure tables. PSE pursues pilot measures in order to test market acceptance and confirm savings potential.

PSE may, from time to time, also offer bonuses, sales incentives (also known as SPIFs), or limited-time-offers to the below-noted incentives. PSE may offer or withdraw these measures at its discretion.

Category	Measure	Maximum Incentive Amount Each
Controls	Smart Thermostat	$150.00
Heating	Energy Star® qualified Gas Furnace (Site Built Homes)	$1,500.00
	Energy Star® qualified Gas Furnace (Manufactured Homes)	$1,900.00
	Energy Star qualified Boiler,	$700.00
	Integrated Space/Water Heating System with Energy Star qualified Tankless or Energy Star qualified Boiler	$800.00
	Advanced Duct Sealing	$1,250 per home
Reporting	Home Energy Reports	Direct mail to program participants. No cost to customers.
Water Heating	ENERGY STAR qualified Storage Water Heater	$100.00
	ENERGY STAR qualified Tankless Water Heater	$600.00
	ENERGY STAR qualified Storage Water Heater – Manufactured Home	$100.00
	ENERGY STAR qualified Tankless Water Heater – Manufactured Home	$600.00

Single Family Existing Natural Gas Measures, continued

Category	Measure	Maximum Incentive Amount Each
Weatherization	Prescriptive Duct Sealing and Insulation	Up to $400.00 per dwelling unit
	Prescriptive Duct Sealing Only	Up to $300.00 per dwelling unit
	Prescriptive air sealing – attic and crawl space	$0.20 per sq. ft.
	Attic Insulation (R-0 to R-49)	$1.50 per sq. ft.
	Attic Insulation (R-11 to R-49)	$1.30 per sq. ft.
	Floor Insulation (R-0 to R-30)	$1.50 per sq. ft.
	Wall Insulation (R-0 to R-13)	$1.60 per sq. ft.
	Floor Insulation R-0 to R-22 - Manufactured Home	$1.30 per sq. ft.
	Attic Insulation (R-0 to R-30) - Manufactured Home	$1.50 per sq. ft.
	Prescriptive Duct Sealing - Manufactured Home	Up to $450.00 per dwelling unit
Windows	Upgrade single-pane windows to a 0.23-0.30 U-factor – Site Built	$50.00 per window, up to $750.00 per structure
	Upgrade single-pane windows to a 0.22 U-factor or better – Site Built	$100.00 per window up to $1,500 per structure
	Upgrade double-pane with metal frame windows to a 0.22 U-factor or better – Site Built	$100.00 per window up to $1,500 per structure
	Upgrade single-pane windows to a 0.30 U-factor or better – Manufactured Home	$200.00 per window, up to $2,000.00 per structure
	Upgrade double-pane with metal frame windows to a 0.30 U-factor or better – Manufactured Home	$200.00 per window, up to $2,000.00 per structure

Note: *Some structural and water heat measures require qualified contractor installation in order to be eligible for the indicated incentive.*

6. Target Market

The target market for these programs includes, but is not limited to single family property owners or tenants, service contractors, retail partners, efficiency equipment suppliers, distributors and manufacturers.

7. Marketing and Outreach Plan

PSE continues to explore offering instant discounts and rebates on energy-efficient lighting, appliances, smart thermostats, heat pump water heaters, and water-saving products to residential customers via in-store and online retailers.

By partnering with national/regional/local retailers and manufacturers, PSE can offer its residential customers an array of discounted energy-efficient product and appliance options as well as limited-time promotions to deliver solutions to help lower their energy use and save money on their bill.

The Single Family Existing suite of programs delivers prescriptive rebates on home heating, water heating, and weatherization to residential customers through its network of trade ally partners. By partnering with local contractors, distributors and third party providers, PSE can offer its residential customers a trusted and reliable network of trained professionals who can install energy-efficient equipment and products and streamline the rebate delivery process.

PSE leverages the value trade allies provide to its customers while also providing value to trade allies in the form of referrals, marketing materials, limited-time offers, training, and the opportunity for trade allies to provide input on program design and delivery strategies.

Additionally, each program also has a dedicated page on pse.com. As applicable, program pages include offerings, participation requirements, links to qualified product lists, PDF mail-in applications, and links to the in-house rebate processor online rebate portal. All materials for rebate processing must be approved by PSE Brand, Marketing and Digital Experience departments prior to being made available to customers for use.

The goal for the Single Family Existing (SFE) marketing and Outreach Plan is to reach a wide and diverse segmentation of customers, both existing and new, through unique and innovative advertising, retail, customer engagement and customer outreach campaigns that build awareness of and drive participation in PSE's energy efficiency programs. The SFE team will strive to anticipate customers' needs and deliver to them the right energy efficiency solutions at the right time that help them use less energy and save more money.

This will be achieved through the following more specific objectives:

- **Customer awareness**: Continually and regularly notify and alert customers via multiple channels that PSE has energy efficiency programs and rebates that can save them money.
- **Market intelligence**: Refine existing propensity models and utilize new customer segmentation technology and tools to deliver targeted marketing messages and offers.
- **Strategic partnerships**: Collaborate with retailers, manufacturers, contractors, distributors, community non-profit service providers, and regional utilities to increase awareness of program offers and driving savings.

- **Savings**: Send motivated consumers to in-store or online retailers for product purchase, including instant discounts and limited time offers.
- **Contractor referrals**: Provide customers referrals to trusted, reliable and safe contractors to help them choose the right energy-efficient equipment and drive participation in rebates.
- **Self-service tools**: Design campaign and promotions utilizing online, self-service tools that eliminate barriers to participation and streamline the rebates process.
- **Customer satisfaction**: Improve PSE's relationships with customers by offering first-rate offers and products, access to PSE's contractor network, and providing stellar service.
- **Education**: Help customers understand how PSE's myriad energy efficiency options can not only save them money, but also increase the comfort and improve the value of their homes.

The Single Family Existing team will endeavor to accomplish their goals by focusing on the following strategies and tactics:

a. *Advertising*

- PSE will leverage targeted email sends based on propensity scores and utilize new customer segmentation technology to create effect campaigns that raise customer awareness and drive results. Digital web banners, social media posts and keyword search will also be used to target qualified customers who are in the market for energy-efficient products.
- Leverage brand awareness through creative advertising campaigns to promote energy efficiency programs and offers.
- Comprised of digital web banners and keyword search, programmatic advertising will be targeted to qualified customers who are in the market for energy-efficient lighting, appliances, smart thermostats, and energy-efficient home heating, water heating, weatherization and other equipment.
- Individual program advertising campaigns to be planned and implemented according to relevant seasonality and feature category, contextual and audience/behavior targeting to optimize messaging and reach the right customers at the right time.
- Advertising campaigns will be delivered through a variety of different channels, including but not limited to: digital display, digital video, TV, radio, keyword search, paid social, out-of-home, and transit.

b. *Cross-Program Campaigns*

- Collaboration with other relevant programs with a shared audience and similar goals on an integrated residential customer engagement campaign approach will be integral to increasing customer awareness and driving overall residential energy efficiency savings.
- A multi-program integrated approach gives customers a comprehensive look at the full range of energy efficiency offerings.
- Cross-program campaigns will be delivered through a variety of channels and tactics, including but not limited to: email, direct mail, social media, events, customer outreach.

c. *Retail-Focused Campaigns*

- PSE will partner with retailers and manufacturers to further promote PSE's goal of reaching and engaging with more of its customers.
- Retail campaigns and promotions put PSE's messaging in front of customers at the point-of-purchase via custom packaging/labeling and in-store signage.
- Engaging customers in-stores through high-impact events will allow PSE to further educate customers and retail store associates on the benefits of energy efficiency and increase attribution to PSE.
- In collaboration with retailers and manufacturers, provide limited-time offers and/or special product placement to leverage rebate and product pricing structure that would be more likely to get customers to buy.
- Continue to educate customers both directly and through retail sales associates engaging them within the stores on the best energy efficiency products on the market.

d. *Contractor-Driven Campaigns*

- PSE will partner with contractors, distributors and manufacturers to promote special and limited-time offers to drive participation in programs and rebates.
- Integrate trade allies into customer engagement campaigns to provide opportunity to increase contractor referrals and educate customers on the benefits of energy efficiency.
- Leverage contractor partners' customer base to co-promote programs and rebates.

e. *Ongoing Promotions*

- Refine point-of-purchase materials/custom packaging, both online and in-store, to drive sales and increase attribution.
- Develop new and unique limited time offers to attract new and encourage repeat customers.

- Leverage PSE-owned channels to regularly stimulate Single Family Existing promotions and limited time offers.
- Drive customers via seasonal/usage notifications, email and advertising to access the online Energy Center for personalized tips and tools to use less energy and save more money.
- Conduct more active follow up to customers who receive referrals to contractor-enabled programs.

f. *Customer Outreach Campaigns*

- Deliver customer engagement and promotion of specific programs and campaigns targeted to Named Communities identified through market intelligence and research.
- Integrate and utilize PSE's service provider and Energy Efficient Communities team at outreach tabling events (virtual and in person as appropriate) across the service territory.
- Coordinate with local stakeholders to develop strategies to maximize local impacts and open opportunities to build awareness.

g. *Trade Ally Network (TAN)*

- Support a data-driven performance framework to manage trade allies operating in PSE energy efficiency programs.
- Drive customer referrals for select TAN related products.
- Develop updated suite of marketing collateral and training opportunities for contractors to drive awareness of PSE's energy efficiency rebates and offers.
- Create targeted and innovative advertising campaigns to promote TAN as a trusted resource of pre-screened, independent trade allies committed to helping customers make safe, dependable and efficient energy choices.

8. Program-Specific Marketing and Outreach

The following discussions provide outlines of initiatives that PSE will undertake on a program-specific basis. These initiatives are in concert with, or addition to, those broad marketing and outreach tactics outlined in the previous discussions.

a. *Retail Lighting*

- Clear point-of-purchase materials (online and in store) that drive customers to purchase discounted LED products.
- Increase awareness of the variety and quality of LED products and technology on the market.
- In-store events to train sales associates and engage with customers about PSE's retail rebates on energy efficient measures such as LED products.

b. *Space Heat*

By partnering with local contractors, distributors and third party providers, PSE can offer its residential customers a trusted and reliable network of trained professionals able to install energy-efficient equipment and products and streamline the rebate delivery process. PSE leverages the value trade allies provide to its customers while also providing value to trade allies in the form of referrals, marketing materials, limited-time offers, and the opportunity for trade allies to provide input on program design and delivery strategies.

In the coming biennium, PSE will focus on the following initiatives:

- Develop down-cycle marketing strategies to encourage even participation rates throughout the year.
- Develop marketing and outreach strategies to bring space heat measures to market.
- Regional partnerships to increase market penetration of high efficiency measures. This partnership will focus on existing barriers to market uptake of efficient heating systems, contractor training, customer awareness

c. *Water Heat*

By partnering with local contractors, distributors and third party providers, PSE can offer its residential customers a trusted and reliable network of trained professionals able to install energy-efficient equipment and products and streamline the rebate delivery process. PSE leverages the value trade allies provide to its customers while also providing value to trade allies in the form of referrals, marketing materials, limited-time offers, and the opportunity for trade allies to provide input on program design and delivery strategies.

In the coming biennium, PSE will focus on the following initiatives:

- In collaboration with manufacturers, distributors and contractors, provide special discounts and limited-time offers to leverage rebate and product pricing structure that would be more likely to get customers to buy.
- Develop down-cycle marketing strategies to encourage even participation rates throughout the year.
- Develop marketing and outreach strategies to bring natural gas storage and tankless water heater measures to market.
- Cross-promote product and rebate offerings and develop integrated multi-channel marketing and outreach campaigns.
- Regional partnerships to increase market penetration of heat pump water heaters. This partnership will focus on existing barriers to market uptake of heat pump water heaters, contractor training and customer awareness.
- Develop educational and outreach strategies to address top barriers and myths beyond cost for HPWHs and tankless natural gas water heaters.

d. *Midstream HVAC and Water Heat*

PSE contracts with a vendor for distributor engagement. The engagement includes point of purchase collateral and events coordination as well as emails and phone calls.

In 2023, PSE will continue the well-received one on one contractor engagement implemented in 2022 to improve midstream and downstream program design, understanding, and participation rates. Contractors unfamiliar with program requirements fail to provide accurate information and increase administrative burdens for distributors seeking reimbursement for qualifying sales.

e. *Weatherization*

The program is marketed in a variety of ways, including PSE awareness emails, educational presentations, and contractor-led marketing. In 2022-23, PSE will continue to offer Customer Bonus incentives for projects with three or more measures. This concept has demonstrated multiple benefits, including higher energy savings, lower overall costs for the customer, and less customer disruption.

In 2022-2023 Window Rebate Program specific marketing material was developed and deployed to boost customer participation and awareness, and additional educational materials and resources were created and added to the Windows Rebate webpage.

f. *Home Appliances*

The goal for the Home Appliance program is to reach a wide and diverse group of customers, both existing and new, through unique and innovative advertising, retail, customer engagement and customer outreach campaigns that build awareness of and drive participation in PSE's energy efficiency programs.

Additionally, PSE will:

- Increase awareness of rebate offerings and appliance product options, especially appliances featuring new technology.
- Promote partnerships and limited-time offers with appliance manufacturers and retailers.

g. *Smart Thermostats*

The goal for the Smart Thermostat program is to reach a wide and diverse segmentation of customers, both existing and new, through unique and innovative advertising, retail, customer engagement and customer outreach campaigns that build awareness of and drive participation in PSE's energy efficiency programs.

Additionally, Marketing and Outreach strategies will include, but not be limited to:

- Increase consumer adoption of smart thermostat and connected home technology to manage home heating energy use.
- Developing clear point-of-purchase materials/custom packaging (online and in store) that drive customers to purchase smart thermostats.
- Integrate promotion of smart thermostats with home heating equipment rebates.

C. Single Family New Construction

Schedules E/G 215

The SFNC program works with builders and raters to influence higher-than-code energy efficiency homes throughout the PSE electric and natural gas service territory.

1. Purpose

PSE's SFNC program increases the installation of energy-efficient measures into new electric and natural gas SFNC homes constructed in the PSE service territory. High efficiency measures ideally need to be specified and installed during design and construction; otherwise, it may be a long time before energy efficient changes to the buildings will take place. As a result, it becomes a lost opportunity and single family residences may potentially be limited to reduced efficiency and higher energy use for decades.

The SFNC program targets structures with three or fewer residential units per building. Energy conservation measures include, but are not limited to, energy efficient upgrades to building shell, appliances, and lighting. Most HVAC and water heating systems are no longer eligible for incentive through the SFNC program since they are now incentivized through the midstream model.

Eligible customers include owners, developers, or agents acting on behalf of responsible parties of service receiving electricity or natural gas through PSE. This program provides financial incentives to the above audience for both natural gas and electric residential meters. The savings are calculated using REM/Rate modeling software adjusted to the Pacific Northwest Standard modeling protocols. PSE is considering additional incentive models more prescriptive in nature.

All single family new construction buildings that are in a stage of construction which are not yet completed or ready for occupancy will be served by residential or commercial incentives. Incentives also apply to new additions to structures and complexes along with renovations that change the occupancy use to residential use. Relevant measures will apply only to the newly constructed and/or substantially renovated portion of the structure. Accessory dwelling units (ADUs) will only be eligible for incentives if they have a separate heating system from the main structure.

Structures include all Group R Occupancy and other occupancies as outlined in the International Energy Conservation Code of the State of Washington, also known as the WSEC. These include, but are not limited to: single-family, townhomes and duplexes.

2. Description

Based on the measure/product type and market factors, PSE may provide incentives to its customers at different points along the value chain. Market barriers vary dramatically from measure to measure and incentive amounts are based on regionally accepted energy savings estimates and incremental efficiency measure costs.

Incentives may be subject to change in response to revisions in savings estimates, average incremental costs or changes in State codes.

With the change to 2018 Washington State Energy Code (WSEC), the baseline for efficiency for new construction homes has increased significantly. Due to this higher baseline, savings will be harder to come by for PSE's SFNC program. This change, compounded with the loss of HVAC/water heat savings to midstream, will be key challenges for the SFNC program in the next biennium.

3. Eligibility

Qualifying customers include, but are not limited to, single-family new construction builders, property owners, contractors, efficiency equipment suppliers, distributors and manufacturers. Structures must be newly constructed single-family homes prior to occupancy. Single family buildings are classified as containing three attached dwelling units or less. Accessory dwelling units (ADUs) will only be eligible for incentives if they have a separate heating system from the main structure.

NEEA has developed a savings-above-code calculator tool to help raters and builders understand the impacts of their building design on an individual home. This helps to provide builders with the options and information they need to determine the costs and benefits of their design beyond the energy code.

PSE, in alignment with NEEA's New Homes Performance Path, MBA's Built Green programs, and other regional utilities, developed a comprehensive marketing awareness strategy to support current and future homebuilders that construct energy efficient homes.

PSE's awareness in the community will be communicated through home raters,[2] program collateral, and PSE outreach efforts designed to inform prospective buyers of the program benefits.

4. Delivery Method

The Single Family New Construction program effects conservation measures through the installation into eligible single family new construction structures by homebuilders.

5. Implementation Management

The Single Family New Construction program manages all conservation measure installations via in-house, PSE program staff. Additionally, in 2021, NEEA transitioned the following tasks to utilities: rater onboarding, rater support, and REM/Rate model quality assurance. PSE contracted with Washington State University's Energy Program in 2021 to manage these tasks.

[2] "Certified HERS Raters". HERS = Home Energy Rating System; a nationally recognized system for inspecting and calculating a home's energy performance.

6. Customer Incentives

Program incentives will be based on estimated savings aligned with the current BPA payment structure for single-family new construction. BPA requirements also integrate the NW Modeling Requirements v.22 and RTF Unit Energy Savings (UES) Measures through the AXIS Database. When state energy codes are updated, base case homes for each state will be updated, which may result in a reduction in potential energy savings and payment.

Select stand-alone measures consistent with Single Family Existing may also be considered for inclusion. This will help provide builders with options and help streamline the participation process. Builders must demonstrate that any qualifying measures were not used as credits to meet the code minimum.

The Single-Family New Construction Performance Path utilizes REM/ Rate, RTF UES Measures, and the NEEA-maintained AXIS database to compare the modeled energy consumption of a new home to the modeled energy consumption of a typical, code-built home. This allows a customer to request a payment based on the energy savings of the new home, compared to the code home. Calculations are performed by the AXIS database, which provides a report with required documentation to customers.

Measure incentive eligibility criteria are based on, but not limited to, established, industry-standard cost effectiveness tests, structure type and location within the PSE service territory, fuel type (natural gas or electric), product type and product quantity.

The incentives are effective January 1, 2022. PSE may, at its sole discretion, adjust rebates based on market variables.

Incentive amounts and savings values are regularly reviewed by PSE and are based on regionally accepted energy savings estimates and incremental efficiency measure cost. Rebates may be subject to change in response to revisions in savings estimates, average incremental cost or changes in Federal appliance efficiency standards or State codes.

Incentive schedules are identified by heat source. Incentives may be paid upon completion of work and submittal of required program documentation. Field inspections and audits may be conducted at random to ensure quality installations and verify completion of work.

PSE is also investigating alternative payment pathways for the future.

a. *Single Family New Construction Electric Service*

Category	Measure	Maximum Incentive Amount Each
Single Family New Construction	Shell Upgrades, incl. Windows	$0.45 per kWh
	HVAC and Water Heat Upgrades	$0.00 (incentive captured via Midstream program)
	Appliance Upgrades	$0.27 per kWh
	Smart Thermostats	$0.10 per kWh

b. *Single Family New Construction Natural Gas Service*

Category	Measure	Maximum Incentive Amount Each
Single Family New Construction	Gas Savings, all categories	$5 per therm

7. Target Market

The target market includes builders and raters of single family homes. Among the motivations cited by builders for constructing homes that exceed energy codes, some use it as a marketing tactic to differentiate their homes in the marketplace. Others have a strong personal ethic toward energy conservation that drives them to build more energy-efficiently. In some cases the impetus to build a more energy-efficient home comes at the request of the buyer.

Other frequently mentioned motivations include building a better-quality home and buyer comfort, both of which builders stated are important for achieving buyer satisfaction.

8. Marketing and Outreach Plan

The Single Family New Construction program uses a diverse mix of integrated marketing, promotion, and communication strategies and tactics to raise customer awareness.

The primary objective is to elevate awareness of energy efficient building practices and standards to building partners and help educate their customers (homebuyers) about the benefits of building and living in an energy efficient home.

The program also uses a mix of marketing activities to reach the designers, builders, owners, and developers of new single family homes.

PSE plans to partner with MBAs and NEEA, and work with raters to increase program participation. The primary high-level strategies used to help penetrate the market include the following:

a. *Green Building Cooperatives*

The Single Family New Construction program's partnership goal with various green building associations is to increase the number of homes certified through Built Green, LEED, and other green building programs.

Green building cooperatives help PSE to extend visibility using less money, as they provide a broader reach than what could be obtained independently. Partners promote PSE's energy efficiency programs, green building, and building practices that result in energy efficient homes. Key partners include but are not limited to: Master Builder Associations (King, Snohomish, Pierce, Central, Skagit, Island Counties); and Sustainable Connections.

b. *Education, Communication and Awareness*

Maintaining consistent program communication, awareness and energy efficiency educational elements are complimentary to the success of achieving savings target goals.

Some key initiatives to elevate education, communication and awareness may include:

- Direct-to-builder brochures.
- Direct mail and advertisements.
- Newsletters.
- Online/website development.
- Consumer education: model home signage, builder cooperatives.
- Cross program positioning: Customer Outreach, REM.
- Other PSE division collaborations: Customer Construction Services and CRMs.

c. *Industry Events and Builder Relations*

As a lead-generating tool and to increase program awareness with large volumes of industry partners, builders, contractors, suppliers and associated design professionals, the program exhibits at various green building conferences and exhibitions as well as presenting to smaller organizations and workshops.

Primary promotional tactics include:

- Development of displays and signage.
- Design and production of collateral materials.

- Pre-event advertising: publications, e-news, e-vites, web.
- Tracking leads generated for ROI.
- Continue to participate in conferences and tradeshows.
- Host or co-host events for customers and contractors with other programs.
- Continue to co-sponsor the MBA at a modest level.

d. *Outreach Plan*

The Energy Efficient Communities team will work with program team lead in a variety of outreach initiatives in 2022 to support the Single Family New Construction program, and may include:

- Relationship building and presentations (in person and virtual as appropriate) to the development community.
- Promote new construction programs to municipalities.

D. Manufactured Home New Construction

Schedules E/G 215

The Manufactured Home New Construction (MHNC) program engages retailers and retail sales staff to influence increased energy efficiency standards throughout PSE territory.

1. Purpose

PSE's program is designed to increase purchases of efficient manufactured homes that meet ENERGY STAR ® and Northwest Energy Efficient Manufactured Housing (NEEM) standards. In this way, high efficiency measures are included for customers right away; otherwise, it may be a long time before energy efficient changes to the buildings will take place.

2. Description

The Manufactured Home New Construction (MHNC) program provides incentives for cost-effective measures to electric and natural gas customers. The base case (pre-existing) is a current manufactured home built in the Pacific Northwest, which tends to be slightly better than HUD-code. The base case considers individual components including envelope, HVAC, lighting, appliances and water heating.

3. Eligibility

Qualifying customers include, but are not limited to, manufactured home owners, single-retailers, and manufacturers. Structures must be newly constructed, single-family manufactured homes prior to occupancy.

PSE will work to influence the market with manufacturers, sales people, and manufactured homebuyers to build and sell more efficient manufactured homes. PSE awareness in the community will be communicated through in-unit program collateral designed to inform the residents of the program benefits.

Measure incentive eligibility criteria are based on, but not limited to, established, industry-standard cost effectiveness tests, structure type and location within the PSE service territory, fuel type (natural gas or electric), product type and product quantity. PSE may, at its sole discretion, adjust rebates based on market variables.

Incentive amounts and savings values are regularly reviewed by PSE and are based on regionally accepted energy savings estimates and incremental efficiency measure cost. Rebates may be subject to change in response to revisions in savings estimates, average incremental cost or changes in Federal appliance efficiency standards or State codes.

Incentive schedules are identified by heat source. Incentives may be paid upon completion of work and submittal of required program documentation. Field inspections and audits may be conducted at random to ensure quality installations and verify completion of work.

4. Delivery Method

The Manufactured Home New Construction program effects conservation measures through manufacturers building qualified homes which retailers then sell to residential PSE customers.

5. Implementation Management

The Manufactured Home New Construction program manages all conservation measure via in-house, rebate processors. PSE and its third-party field services team, when appropriate, will engage with retailers to provide education around energy efficiency in Manufactured Homes and assistance with strategies to assist customers to make energy efficient decisions.

Starting in 2021, PSE and Snohomish County Public Utility District (SnoPUD) aligned incentives and program rules to simplify the rebate experience for manufactured home retailers that exist in and around locations close to both PSE and SnoPUD territory.

6. Customer Incentives

All incentives are planned to be prescriptive based on RTF-Approved or PSE deemed measures. The base case (pre-existing) is a current manufactured home built in the Pacific Northwest, which tends to be slightly better than HUD-code. The base case considers individual components including envelope, HVAC, lighting, appliances and water heating. Energy savings for a new, ENERGY STAR® (NEEM 1.1) or ENERGY STAR® with NEEM+ (NEEM 2.0) manufactured homes are based on multiple analyses using the SEEM simulation engine for baseline and efficient cases for a weighted average of five cities (to represent the Northwest).

These are based on a prototype and heating/cooling system type for single-prototype square footage. Output of this analysis is then divided into three heating/cooling zones, based on a weighted average of SEEM run results for the five locales.

The SEEM model also accounts for interaction with the lighting power reduction of this measure. BPA Documentation Requirements consider these factors. More-detailed information is available on the RTF's Unit Energy Savings (UES) Measures webpage.

Manufactured homes must be electrically heated and designed, constructed and certified by NEEM as a new, high-performance manufactured home.

a. *Manufactured Home Electric Service*

Category	Measure	Maximum Incentive Amount Each
***Manufactured Home New Construction**	ENERGY STAR	$1,000.00
	ENERGY STAR w/ NEEM+	$2,000.00

Sales Performance Incentive Funds (SPIFs) may be offered through PSE's sales incentives for ENERGY STAR® and ENERGY STAR® w/NEEM+ rated manufactured homes for up to $400 per unit sold.

These sales incentives are given to individual salespeople who sell qualified manufactured homes to customers in PSE's service area and assist the customer with the paperwork process. There may be instances where the company (retailer, reseller, etc.) receives the SPIF. SPIFs are offered to encourage salespeople to offer PSE's rebates at the point of sale

b. *Manufactured Home Natural Gas Service*

Category	Measure	Maximum Incentive Amount Each
***Manufactured Home New Construction**	ENERGY STAR	$1,000.00
	ENERGY STAR w/ NEEM+	$2,000.00

Sales Performance Incentive Funds (SPIFs) may be offered through PSE's sales incentives for ENERGY STAR® and ENERGY STAR® w/NEEM+ rated manufactured homes for up to $400 per unit sold.

These sales incentives are given to individual salespeople who sell qualified manufactured homes to customers in PSE's service area and assist the customer with the paperwork process. There may be instances where the company (retailer, reseller, etc.) receives the SPIF. SPIFs are offered to encourage salespeople to offer PSE's rebates at the point of sale

7. Target Market

The target market includes, but is not limited to, manufactured home end users, retailers, and manufacturers.

8. Marketing and Outreach Plan

The Manufactured Home New Construction program uses a diverse mix of integrated marketing, promotion, and communication strategies and tactics to raise customer awareness. The primary objective is to elevate awareness of energy efficient manufacturing practices and standards to manufacturing partners and help educate their customers (homebuyers) about the benefits of building and living in and energy efficient manufactured home.

The primary high-level strategies used to help penetrate the market include the following:

a. *Retailer Outreach*

The Manufactured Home New Construction program's goal is to increase the number of manufactured homes certified through the Northwest Energy Efficient Manufactured (NEEM) housing program and to promote the benefits of purchasing a certified home. Through retailers and retailer salespersons the MHNC program will promote PSE's energy efficiency programs, and green building practices that result in energy efficient manufactured homes. Key partners may include but are not limited to: NEEA, ENERGY STAR, and NEEM.

b. *Education, Communication and Awareness*

Maintaining consistent program communication, awareness and energy efficiency educational elements are complimentary to the success of achieving savings target goals.

Some key initiatives to elevate education, communication and awareness may include:

- Manufacturer learning sessions.
- Online/website development.
- Consumer education: model home signage.
- Cross program positioning: Customer Outreach.
- Other PSE division collaborations: Customer Construction Services.
- Turn-key retailer marketing packets communicating the value of energy efficiency may be provided by NEEA.
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E. Multifamily Retrofit

Schedules E/G 217

1. Purpose

The objective of the Multifamily Retrofit program is to increase the installation of cost effective energy efficient Measures into existing multifamily (MF) buildings with PSE natural gas and/or electric service.

2. Description

The Multifamily Retrofit program is designed to increase the uptake and installation of selected energy efficient Measures in existing multifamily buildings with five or more attached residential dwelling units located in PSE's electric and natural gas service areas. The team works with property owners, managers, trade ally contractors, and tenants to encourage program participation. The program also serves multifamily campuses which have a mixture of building types including buildings with less than five units. Multifamily structures and campuses typically have opportunities for upgrades in the units, common areas, and building envelope.

Measures may include windows, insulation, and air sealing enhancements; appliance, lighting, and HVAC upgrades; O&M improvements; behavioral modification; and calculated commercial upgrades such as central boilers and solar pool heaters. This program targets installation of energy efficient measures occurring during planned retrofit and replace upon failure. PSE will update current measures list and incentives as needed.

The program continually researches and develops new and innovative means to achieve cost effective energy savings. Examples may include behavioral based programs such as smart thermostats and Strategic Energy Management (SEM).

Smart thermostats empower customers with both knowledge and control of their heating costs through a simple user-interface accessed on their smart phone. SEM provides a holistic approach to multifamily property portfolios by engaging managers, maintenance staff, and residents to achieve energy cost savings through behavioral changes, operational improvements, facility maintenance, and attention to utility accounting.

Through effective customer education and implementation, PSE is continually exploring the impacts of how new technologies and energy management plans can contribute to the quantification of behavioral based energy savings.

3. Eligibility

An owner, developer, contractor, equipment supplier or agent acting on behalf of responsible party of service, or the customer of service of an existing multiple-family structure receiving electricity or natural gas through a PSE residential Schedule 7 (including 17, 27, 37 and 47) and 7A, or commercial Schedules 8, 11, 12, 24 and 25 and/or natural gas service under residential Schedule 23 or commercial Schedule 31 or 41.

Structures include, but are not limited to: apartments, town homes, condominium residences, and similar structures with five or more attached dwelling units. The program also serves multifamily Campuses[3] which may include buildings with less than five units. Single Family buildings[4] within a campus may also be eligible to receive measures.

The Multifamily Retrofit program also provides custom measures affecting commercial Rate Schedules, where savings and incentives are calculated by a PSE Energy Management Engineer on a per-project basis.

Multifamily measures not listed may be individually considered for incentives, based on overall cost effectiveness and energy efficiency.

4. Delivery Method

The Multifamily Retrofit utilizes a third-party implementer for the direct installation of in-unit measures (LED products, WaterSense® rated thermostatic restrictor valves). Common area and building envelope measures are contractor driven, but the third-party implementer organizes marketing and outreach activities to achieve PSE savings targets.

5. Implementation Management

Program design, measure metrics analysis, policy, and financial reconciliation are all performed by in-house PSE staff. A third-party implementer coordinates with property owners the direct installation of in-unit measures. The implementation vendor also performs outreach and marketing activities among property owners and trade ally contractors to drive projects for common area and building envelope of qualifying structures. Installation projects are inspected and site verified before incentive applications are authorized by PSE.

6. Customer Incentives

Measure incentive eligibility criteria are based on, but not limited to, established industry standard cost effectiveness tests, structure type, fuel type (natural gas or electric), pre-existing conditions, product type, and product quantity.

a. Multifamily Retrofit Electric Service

PSE regularly offers some measures on a pilot basis. In these cases, the measure is color-coded separately from standard offerings in the applicable program's measure tables. PSE pursues pilot measures in order to test market acceptance and confirm savings potential. PSE may offer or withdraw these measures at its discretion.

PSE may also, from time to time, implement Limited Time Offers (LTOs) to stimulate market activity.

[3] Campuses are defined in Electric and Gas Conservation Schedule 217 in the Availability Section.

[4] Single family structures are discussed in the Eligibility section under Single Family Existing.

Additionally in 2022, the Multifamily Retrofit program will implement a moderate-income tier for customers that are either, Tribe owned, housing agency operated, rent subsidized or the structure is 1985 or older to better serve this customer segment.

Category	Measure	Maximum Incentive Amount Each
Air Sealing	Dense Pack Walls and Rim Joists	$2.00 per sq. ft.
	Attic and/or Crawl Space	$0.75 per sq. ft.
	Door Kits	$100.00
	Recessed Can Covers	$40.00
	ENERGY STAR® Bathroom Fans	$200.00
	Bathroom Fan Control (Timer/Occupancy)	$50.00
Appliances	ENERGY STAR® qualified Clothes Washer	Up to $125.00
	ENERGY STAR® qualified Clothes Dryer	Up to $100.00
Common Area	Common Area Lighting	Calculated incentive
HVAC	Electronic Line Voltage Thermostat	$50.00
	Electronic Line Voltage Thermostat	No charge to eligible customers
	Electronic Line Voltage Smart Thermostat	$100.00
	Electronic Line Voltage Smart Thermostat	No charge to eligible moderate-income customers
	Smart Thermostat	$175.00
	ENERGY STAR® Whole House Ventilation Fan	$50.00
	Energy or Heat Recovery Ventilation (EVR/HVR)	Calculated Incentive
	Electric resistance to Ductless Heat Pump Conversion	$2,400.00
	Variable Speed Drive	Calculated Incentive
Plug Load	Advanced Power Strip (Tier 1) Residential	No charge to eligible customers
	Advanced Power Strip (Tier 1) Office	No charge to eligible customers

Multifamily Retrofit electric measures, continued.

Category	Measure	Maximum Incentive Amount Each
Insulation	Attic Insulation R-0 to R-38	$1.25 per sq. ft.
	Attic Insulation R-0 to R-49	$1.50 per sq. ft.
	Attic Insulation R-11 to R-38	$0.75 per sq. ft.
	Attic Insulation R-11 to R-49	$1.00 per sq ft
	Attic Insulation R-19 to R-38	$0.75 per sq. ft.
	Attic Insulation R-19 to R-49	$0.50 per sq. ft.
	Floor insulation R-0 to R-30	$1.50 per sq. ft.
	Floor Insulation R-11 to R-30	$1.00 per sq. ft.
	Wall insulation R-0 to R-11	$1.50 per sq. ft.
Lighting	Tenant controlled T8 Lamp replacement (pilot)	$70.00 per unit.
O&M and Behavioral	Strategic Energy Management	No charge to eligible customers
Pool Heat	Solar or Heat Pump Pool Heater upgrade	Calculated incentive
Water Heat	Directly Installed Thermostatic Flow Restrictor Showerhead Adaptor	No charge to eligible customers
	Directly Installed Auto-diverting Tubspout Pilot	No charge to eligible customers
Windows	Single-Pane Windows to U value 0.30 or less	$25.00 per sq. ft.
	Single-Pane Windows to U value 0.22 or less	$3500 per sq. ft.
	Double-Pane Windows to U value 0.30 or less	$15.00 per sq. ft.
	Double-Pane Windows to U value 0.22 or less	$20.00 per sq. ft.

Specific requirements for electric incentives

- A signed Multifamily Incentive Application must be authorized by PSE prior to installation of upgrades for projects affecting more than one dwelling unit (unless otherwise approved by PSE),
- Customer must meet all requirements outlined in the most current PSE Multifamily Retrofit Program Guidelines to participate and receive incentives,
- A Multifamily Payment Request must be authorized by PSE in order to execute incentive payment,

- All calculated incentives will be evaluated using currently accepted PSE commercial engineering calculations,
- All installed measures and incentives require installation by a qualified contractor.
- Air sealing measures must be specifically installed by a PSE certified Multifamily air sealing contractor.

b. Multifamily Retrofit Natural Gas Service

PSE regularly offers some measures on a pilot basis. In these cases, the measure is color-coded separately from standard offerings in the applicable program's measure tables. PSE pursues pilot measures in order to test market acceptance and confirm savings potential. PSE may offer or withdraw this measures at its discretion. PSE may also, from time to time, implement Limited Time Offers (LTOs) to stimulate market activity or to drive participation among the moderate income customer segment.

Category	Measure	Maximum Incentive Amount Each
Appliances		
Building Envelope	Attic Insulation R-0 to R-38	$1.25 per sq. ft.
	Attic Insulation R-0 to R-49	$1.50 per sq. ft.
	Attic Insulation R-11 to R-38	$0.75 per sq. ft.
	Attic Insulation R-11 to R-49	$1.00 per sq. ft.
	Floor Insulation R-0 to R-30	$1.50 per sq. ft.
	Floor Insulation R-11 to R-30	$1.00 per sq. ft.
	Wall Insulation R-0 to R-11	$1.50 per sq. ft.
	Single-pane Windows to U-value 0.30 or lower	$25.00 per sq. ft.
	Single-pane Windows to U-value 0.22 or lower	$35.00 per sq. ft.
	Double-pane Windows to U-value 0.30 or lower	$15.00 per sq. ft.
	Double-pane Windows to U-value 0.22 or lower	$20.00 per sq. ft.
HVAC	Smart Thermostat	$175.00
	Replace Existing Space Heat Boiler	Calculated incentive
	Integrated Space/Water Heating Systems with Energy Star® Tankless or Energy Star® Boiler (In-Unit)	$800.00
	Energy Star® qualified Boilers (In-Unit)	$1,000.00
	Energy Star® qualified Gas Furnace, 95% AFUE (In-Unit)	$1,400.00

	Variable Speed Drive Pump/Motor	Calculated incentive
O&M and Behavioral	Strategic Energy Management	No charge to eligible customers

Multifamily Retrofit natural gas measures, continued

Category	Measure	Maximum Incentive Amount Each
Pool Heaters	Solar Pool Heater	Calculated incentive
	Pool Boiler	Calculated incentive
Water Heat	Directly Installed Thermostatic Restrictor Shower Head Adaptor	No charge to eligible customers.
	ENERGY STAR® qualified Tankless Water Heater	$600.00
	ENERGY STAR® qualified Storage Tank Water Heater	$100.00
	Directly Installed Auto-diverting Tubspout Pilot	No charge to eligible customers

Specific requirements for natural gas incentives

- A signed Multifamily Incentive Application must be authorized by PSE prior to installation of upgrades for projects affecting more than one dwelling unit (unless otherwise approved by PSE),
- Customer must meet all requirements outlined in the most current PSE Multi-family Retrofit Program Guidelines to participate and receive incentives,
- A Multifamily Payment Request must be authorized by PSE in order to execute incentive payment,
- All calculated incentives will be evaluated using currently accepted PSE commercial engineering calculations,
- All installed measures and incentives require installation by a qualified contractor.

7. Target Market

The target market includes multifamily property owners, managers, maintenance staff, equipment suppliers, and contractors.

8. Marketing and Outreach Plan

PSE's marketing and outreach team works in tandem with the program's business development team to promote, expand, and build prospects network in a changing market.

Outreach efforts will aim to increase program participation with multifamily property owners and property managers, and leverage relationships with trade ally contractors.

In 2022 the program will continue to design outreach and marketing for properties with a focus on those who serve low-income and vulnerable communities. The SEM program aims to pilot in-language collateral, outreach and education about the benefits of energy efficiency and changing customer behavior.

PSE will use segmentation studies and market research to increase program participation and will target properties to take additional energy efficiency actions and upgrades to further their savings and increase the health and marketability of the property.

The Multifamily Retrofit program will partner with PSE's LIW program to provide resources and raise program awareness of PSE's products and services.

Additionally the Energy Efficient Communities team will perform targeted outreach over email, phone, virtual and in person meetings to promote opportunities for energy efficiency, build awareness and support property managers looking for a way to engage tenants and help them reduce bills.

The primary promotional strategies include but are not limited to the following initiatives.

a. *Industry Events and Membership Collaborations*

Industry events are a strong lead generating tool for the program – it is one of the best ways to develop relationships with contractors and property owners.

The program partners with several multifamily associations managing these types of events. The program leverages outreach through various association memberships such as the Washington Multifamily Housing Association (WMFHA) and the Rental Housing Association (RHA).

These partnerships broaden the program reach to provide venues where members can collectively engage.

The program targets several large-scaled exhibitions that are comprised of multifamily property owners, on-site leasing managers, maintenance personnel, contractors, suppliers and associated professionals. In addition to attending conferences, there are several workshops and presentations held throughout the year that provide additional networking opportunities, learning, recognition and motivation with smaller organizations. The promotional tactics used to support this strategy include:

- Booth & tabletop displays as appropriate
- Booth materials: brochures, drawings, signage
- Program handbooks: company and program profiles, logo usage and applicable advertisements
- Pre-event advertising (publications, e-news, evites, web)
- Presentation leave behinds
- Post event surveys/debriefs
- Tracking and pursuing leads

In partnership with the Marketing team, the Energy Efficient Communities team will help develop and implement outreach strategies to promote PSE's residential and commercial energy efficiency programs and services. The outreach strategy for the Multifamily Retrofit program will work with both customers and business partners.

The team will provide tenant customers with information about applicable products and services that PSE provides, and help deliver information to property managers/owners and trade allies. This will be done through a variety of outreach mechanisms, including multifamily complex educational events (when safe and appropriate), program awareness campaigns, general community events (when safe and appropriate), presentations (virtual and in person, as appropriate),

The Energy Efficient Communities team will work with the program team leads and Marketing to identify ways to reach Multifamily Retrofit constituents in conjunction with other mass marketing strategies developed across Energy Efficiency programs.

b. *Education, Communication & Awareness*

Maintaining consistent program communication, awareness and energy efficiency educational elements are complementary to the success of achieving savings target goals.

Some of the key initiatives to elevate education, communication and awareness may include:

- Awareness and marketing kit for portfolio managers.
- Program staff will explore the market viability for energy use monitoring devices and their potential to drive behavioral energy savings.
- Quarterly e-Newsletter to property managers and contractors.
- Energy challenges via our third-party implementer to bolster tenant engagement and encourage behavioral modification specifically for the SEM program.
- Energy efficiency certification/recognition to promote property management participation in PSE programs.

- Developing new materials to highlight the beneficial components of Strategic Energy Management (SEM).
- Energy Advisor and/or Energy Efficient Communities team members to capitalize on Direct Install customer engagement opportunities and to help promote related PSE products & services.

c. *Collateral Development*

To complement the program's business development outreach efforts, promotional materials are designed and produced to effectively communicate key messages and highlight the benefits of the efficiency measures to target audiences. Persuasive collateral is used during direct and virtual customer engagement, site visits and event outreach as well as a cross-selling tool for program contractors.

Educational leave behinds are also designed to help tenants understand the functionality as well as the immediate and long-term benefits of installations. The collateral development strategy may include but is not limited to the following materials:

- Executive summaries
- Direct installation notices in multiple languages
- Case studies
- Videos
- Cross utility interaction
- Service area maps
- Third party business cards
- Customer participation surveys

d. *Advertising Campaigns and Media Relations*

To generate program awareness amongst multifamily customers, various advertising campaigns are launched through multiple means or channels to make customers aware about its presence in the market. The program typically uses a bundled approach to highlight measures and program benefits.

The advertising and media relations tactics used may include:

- Print advertisements in trade publications
- Contractor advertising co-operatives
- Direct Mail and/or e-blasts
- Online/Website Development
- Newsletters

- Internet advertisements
- Social media
- Television
- Radio
- PR / Editorial coverage

e. ***Overall Multifamily Retrofit Channel Outreach Strategies Include:***

- Identify projects and reach contractors before the retrofit process begins.
- Deliver energy efficiency presentations (virtual and in person) to various community audiences.
- Identify and recognize business partners for their contributions in serving PSE's customers.
- Using targeted marketing by measure
- Collaboration on limited time offers with distributors and recommended energy professionals

F. Multifamily New Construction

Schedules E/G 218

The following discussion applies to newly-constructed multifamily structures. Conservation Schedule terms and conditions, as outlined in the above-noted Schedule numbers, govern the applicability, measure types, funding, analyses and general rules and provisions for each structure classification. Where there are specific requirements, service offerings, measures, incentives, marketing, or outreach applicable to the specific structure type, those are so noted in each of the following sections.

1. Purpose

The Multifamily New Construction program acquires cost-effective energy savings from multifamily new construction projects that increase the installation of energy efficient measures into new electric & natural gas heated buildings constructed in the PSE service territory.

In addition to newly constructed multifamily structures covered under terms of Schedule 218 (for both natural gas and electric service), the Multifamily New Construction program may also include single family structures where the single family homes are a part of a campus or larger multifamily project under schedule 215 (for both natural gas and electric service).

Eligible customers for multifamily new construction include owners, developers, or agents acting on behalf of a responsible party of service receiving electricity or natural gas through PSE. This program provides financial incentives to the above audience for both natural gas and electric residential and commercial meters. The incentives offered are both prescriptive and calculated.

In the new construction marketplace, high efficiency measures ideally need to be specified and installed during design and construction. Otherwise, it may be decades before energy efficient changes to the buildings will take place. For measures and incentives that apply to existing multifamily structures please refer to the Multifamily Retrofit Program.

2. Description

Incentives are offered to eligible natural gas and electric PSE new construction developers, contractors, trade allies and customers (cumulatively, the program refers to these as “partners”) who are constructing new multifamily buildings.

The program also works with these partners to market energy efficient equipment to their customers. Energy Efficiency encourages the purchase and installation of energy efficient products for their construction projects.

For new construction multifamily projects, financial incentives are packaged under one grant and are structured to work in accordance with current Business Energy Management programs. PSE provides a single point of contact to development teams for all energy efficient measures and/or upgrades. This allows PSE to maximize the energy savings opportunity in each development and reduce multi-program confusion for the customer.

Structures include but are not limited to single-family dwellings, duplexes, apartments, town homes, condominiums, dormitories, affordable housing, low-income housing, workforce housing, and assisted living residences.

There may be any combination of residential and commercial meter mixes in each type of construction. Once the meter type mix is confirmed with the development team, the appropriate PSE programs are identified to serve that development. Incentives include a variety of end-use classifications, not limited to:

- Envelope: Windows, insulation, air sealing
- Lighting: Common area, in unit, exterior
- Appliances: Clothes washers, clothes dryers, refrigerators, dishwashers Ventilation: in-unit, whole-home, common area, heat recovery
- While some HVAC and residential water heat equipment may be eligible in the MFNC program, most equipment will be incentivized through the midstream model.

For all of the conservation Measures installed, PSE receives measure installation data directly from builders, developers, showrooms and distributors. It is therefore possible to precisely track measure details.

a. Affordable Housing

The Multifamily New Construction program acknowledges there is a critical need in the PSE service territory for affordable housing.

There is an extensive need for more living units in the affordable and workforce housing market sector. It is likewise important to help provide customers most in need with high levels of energy efficiency and affordable utility costs. Given the current construction boom in multifamily new construction projects now is a strategic and critical time to maximize investment in communities that PSE serves.

In response to the affordable housing deficiency, PSE offers a higher energy efficiency financial incentive level to MFNC projects that have households that are as high as 80% AMI, so long as the average house income for the entire property is 60% AMI or less. The goal is to remain consistent with the LIW program and Washington State Housing Finance Commission income eligibility guidelines.

The energy conservation measures offered are intended to be identical to those offered in the standard Multifamily New Construction program and all enhanced measure incentives are cost effective.

3. Eligibility

Any Customer, owner or tenant with appropriate owner consent, of a new construction commercial, multi-family, or mixed-end-use facility or outdoor lighting which will receive natural

gas service from the Company, and/or electric service under a special contract, or Schedules 7, 7A, 8, 24, 25 & 11, 26 & 12, 31, 35, (or their equivalent) of Electric Tariff G or Natural Gas Tariff of the Company through PSE's residential schedule 23 and commercial schedule 31 is eligible for this program.

4. Delivery Method

Measure incentive eligibility criteria are based on, but not limited to, established, industry-standard cost effectiveness tests, structure type and location within the PSE service territory, fuel type (natural gas or electric), product type and product quantity. The incentives are effective January 1, 2022.

Incentive amounts and savings values are regularly reviewed by PSE and are based on regionally accepted energy savings estimates and incremental efficiency measure cost. Incentive and savings determination is based on a whole building approach.

Incentives may be subject to change in response to revisions in savings estimates, average incremental cost or changes in Federal appliance efficiency standards or State codes. Most of the HVAC and water heat equipment will no longer be allowed in the MFNC program as it is now incentivized via the midstream model.

Incentive schedules are identified by primary heat source. Calculated incentives will be offered based on standard energy efficient calculation practices. Incentives may be paid upon completion of work and submittal of required program documentation.

Field inspections and audits will be conducted to ensure quality installations and verify completion of work.

Qualifying customers receive incentives by submitting a processing application form, project backup documentation such as drawings/cut sheets/energy models, and invoices/receipts at the time of verification. Incentive requests are screened for completeness of customer entries, and where required, for submittal of additional documentation. Incentive processing complies with PSE internal audit standards. For projects that are in a shared utility territory (for example, Seattle City Light provides electric and PSE provides gas), PSE will encourage the customer to participate in the other utility's programs for the appropriate measures.

5. Implementation Management

The Multifamily New Construction Program services are implemented through the coordinated efforts of a PSE-contracted third-party vendor and PSE staff. The third-party implementer conducts program outreach and creates a pipeline of projects to go through the MFNC program. The third party also acts as the customer's PSE point of contact throughout the grant process if they are going through the prescriptive whole building route. The third-party is responsible for documenting the proposed efficiency measures and verifying the installation of each measure. The whole building grant process follows the BEM Custom Grant procedure.

A Quality Control (QC) package and payment package provided by the third-party is reviewed by a PSE Energy Management Engineer (EME) for each project. The third-party activities are managed by Energy Efficiency program staff, who are also responsible for establishing metrics, Key Performance Indicators (KPIs), collecting, archiving, and reporting of savings and expenses, as well as ensuring customer satisfaction.

If the customer is able to provide an energy model, the project follows the BEM Custom Grants Whole Building Energy Model Approach (this includes a model review, EME QC package, EME QC, and EME verification).

In the 2022-2023 biennium, PSE's new construction programs will aim to seek deeper savings with projects. There are a number of headwinds that will make it tougher to achieve energy savings in new construction, including:

- An increasingly stringent WSEC
- Measure attrition due to both legislation and overlap with PSE's midstream program
    - Stricter appliance, lighting, and water fixture standards from the 2019 Washington House Bill 1444 Page 17 of 74
    - Heat pumps, heat pump water heaters, and condensing boilers are now incentivized under PSE's Midstream rebate program.
- Fewer opportunities for gas savings due to general trend towards electrification in the region

PSE will lean heavily on Early Design Assistance in order to provide the technical assistance and cost/benefit analysis to assist customers in seeking deeper savings.

6. Customer Incentives

Measure incentive eligibility criteria are based on, but not limited to, established, industry-standard cost effectiveness tests, structure type and location within the PSE service territory, fuel type (natural gas or electric), product type and product quantity. PSE may, at its sole discretion, adjust rebates based on market variables.

PSE regularly reviews incentive amounts and savings values and are based on regionally accepted energy savings estimates and incremental efficiency measure cost.

Rebates may be subject to change in response to revisions in savings estimates, average incremental cost or changes in Federal appliance efficiency standards or State codes.

Incentive schedules are identified by heat source. Calculated incentives will be offered based on standard energy efficient calculation practices. Incentives may be paid upon completion of work and submittal of required program documentation.

Customers assume full responsibility for selecting and contracting with third-party service providers. A grant agreement or signed prescriptive measure rebate application will be

required. Field inspections and audits may be conducted at random to ensure quality installations and verify completion of work.

a. *Type of Rebate or Incentive*

Qualifying customers receive incentives by submitting a processing application form, project backup documentation such as drawings/cut sheets, and invoices/receipts at the time of verification. Incentive requests are screened for completeness of customer entries, and where required for submittal of additional documentation. Incentive processing complies with PSE internal audit standards.

The Multifamily New Construction program provides incentives based on a whole-building approach. Qualifying projects may be eligible for varying degrees of incentives, based upon analyses of the range of measures installed and commissioned. Component measures are evaluated individually and funding is based upon cost-effectiveness. Under this approach, customers may receive up to 100 percent of the incremental cost over a code-compliant baseline. There is a streamlined process for new construction lighting projects that have allowable lighting power density values listed in the applicable code.

i. Multifamily New Construction Electric Incentives

The Affordable Housing Incentive serves projects up to 80% AMI so long as the property average is 60% AMI or less. Maximum incentive amount per square foot is 150 percent of standard market rate.

Category	Measure	Maximum Incentive Amount Each
Whole Building	Electric – Market Rate Incentive	Up to $0.40/kWh
	Electric – Affordable Housing Incentive	Up to $0.60/kWh

ii. Multifamily New Construction Natural Gas Incentives

Affordable Housing incentives serve projects up to 80% AMI so long as the property average is 60% AMI or less.

Category	Measure	Maximum Incentive Amount Each
Whole Building	Natural Gas – Market Rate Incentive	Up to $6.00/Therm
	Natural Gas – Affordable Housing Incentive	Up to $7.50/Therm

7. Target Market

The target market for this program may include but is not limited to multifamily new construction builders, developers, architects, mechanical and electrical engineers, lighting designers, property owners, contractors, retail partners, housing authorities, efficiency equipment suppliers, distributors and manufacturers.

8. Marketing and Outreach Plan

In order to reach the right audience at early stages, marketing and Energy Efficient Communities teams will explore a diverse set of messaging and tactics to reach architects, municipalities, developers and engineers. These methods include, but are not limited to: Lunch and Learns, Early Design Assist (EDA) Meetings, and Big Check Presentations.

Overarching strategies will include, but will not be limited to:

- Identify projects and reach development teams early in design process.
- Utilizing third party vendors, host Early Design Assist (EDA) meetings with architects, developers, and designers to promote efficient equipment. The EDA is designed to coordinate cross-disciplinary conversations during the design process while substantive changes can still be made.
- Drive traffic to new construction homes shows and demos.
- Deliver energy efficiency presentations (in person and virtual) to various community audiences.
- Identify and recognize business partners for their contributions in serving PSE's customers.
- Host Lunch and Learns with local architecture/developers/designers to showcase PSE's efficiency offerings.

The program also uses a mix of marketing activities to reach the designers, builders, owners, and developers of new multi-unit residential structures.

The primary high-level strategies used to help penetrate the market include the following:

a. *Green Building Cooperatives*

Green building cooperatives help PSE to extend visibility using less money, and have a broader reach than what could be obtained independently. Partners promote PSE's energy efficiency programs, green building, and building practices that result in energy efficient multifamily homes. Key partners include but are not limited to: Sustainable Connections; AIA Seattle; and Cascadia Green Building Council.

These programs use a bundled approach to release reoccurring messaging and updates to primary and secondary target audiences. They will also develop a strategy based on the developing market conditions and affordable opportunities in appropriate publications.

b. *Education, Communications and Awareness*

Maintaining consistent program communication, awareness and energy efficiency educational elements are complimentary to the success of achieving savings target goals. Some key initiatives to elevate education, communication and awareness may include:

- Direct-to-builder brochures.
- Direct mail and advertisements.
- Leave-behind collateral for new residents.
- Newsletters.
- Online/website development.
- Consumer education: model home signage, builder cooperatives.
- Cross program positioning: Energy Efficient Communities and Events teams.
- Other PSE division collaborations: Customer Construction Services.

c. *Industry Events and Builder Relations*

As a lead-generating tool and to increase program awareness with large volumes of industry partners, builders, contractors, suppliers and associated design professionals, the program exhibits at various green building conferences and exhibitions as well as presenting to smaller organizations and workshops. Primary promotional tactics include:

- Development of displays and signage.
- Design and production of collateral materials.
- Pre-event advertising: publications, e-news, e-vites, web.
- Post event surveys and debriefs.
- Tracking leads generated for ROI.
- Continue to participate in conferences and tradeshows.
- Host or co-host events (in person and virtual) for customers and contractors with other programs.

G. Residential Pilots

Schedules E/G 249

Pilot programs and demonstration projects may be undertaken to determine whether certain strategies and Measures are cost-effective in the long run. Pilots are employed to test cost-effective ways to demonstrate market opportunities for energy efficiency.

Pilots may include tests of measure cost and performance, customer acceptance and delivery methods. In compliance with WAC 480-109-100(1)(c) and condition (7)(c), PSE will pursue pilots when there is a reasonable expectation of savings achievement in the current or subsequent biennium, and will only claim energy savings that achieve energy savings sufficient to demonstrate cost-effectiveness by passing the Total Resource Cost (TRC) test.

The follow are the major residential pilots that PSE will undertake in 2022-2023:

- **Retail Choice Engine**, branded as the PSE Efficient Product Guide - Using a web platform to guide customers to choose energy efficient options when shopping for products.

  PSE is currently working with an independent third-party evaluator to determine customer benefits and savings potential for this tool. Once the evaluation is complete, PSE will determine appropriate next steps and potential continuation of the pilot program into 2023.

- **Single Family AMI Enhanced Engagement** – Using AMI meters in conjunction with equipment that transmits meter data in near real-time to customers via visual interface to encourage behavior change that reduces energy consumption.

- **Hybrid Heating Pilot** – Designed to quantify the carbon emissions benefit of using heat pumps in conjunction with gas heating furnaces. In parallel, this pilot aims to quantify the electric peak-load benefit, or reduction, when continuing to use gas heating only on the coldest days and an electric heat pump for the remainder of the season. PSE will collaborate with distributors, contractors, builders and customers to identify cost-effectiveness, barriers, value proposition, technological constraints, and other key factors that will assess the potential to create a duel fuel heating program. In 2023, PSE is adding a full electrification cold climate heat pump measure to the pilot due to interest from stakeholders and for comparison purposes.

IV. Business Energy Management

A. Commercial/Industrial Retrofit

Schedules E/G 250

1. Purpose

The purpose of the Commercial and Industrial Retrofit program is to encourage Puget Sound Energy's existing Commercial and Industrial (C/I) customers to use electricity and natural gas efficiently by installing cost-effective energy-efficient equipment, adopting energy-efficient designs, and incorporating energy-efficient operations at their facilities.

2. Description

PSE works with Commercial and Industrial customers to provide incentives for cost-effective energy efficiency upgrades to lighting, equipment, building shell, industrial process, and select O&M improvements. These services are provided on the customer's behalf and, where specified by the customer, will be developed in conjunction with design engineers, contractors, and/or vendors.

PSE conducts site assessments to identify savings opportunities, verify existing equipment and system operations, and makes recommendations to customers. PSE also reviews third-party savings estimates and analyses, and when required performs in-house analyses to validate energy savings. PSE works with financial decision makers at the customer's facility to ensure the customer is aware of cost-savings opportunities, including review of energy saving projections that can help obtain favorable financing rates.

Commercial/industrial retrofit projects commonly include: lighting system upgrades, HVAC equipment upgrades, HVAC controls improvements, commercial refrigeration measures, and industrial process modifications. Additionally, incentives for existing building commissioning (O&M) improvements are provided through the Existing Building Commissioning (EBCx), Monitoring-based Commissioning (MBCx), Building Tune Up measures and AMI Small and Midsize Virtual Commissioning Program.

Upon the customer's decision to proceed with a project, PSE issues a standardized Conservation Grant Agreement and Grant Attachment that establishes terms and conditions for participation in PSE's Custom Grant Program and also explains how the measure will be verified. After the agreement is signed by both parties, the customer is given notice to proceed with the energy efficiency project.

Following completion of the project, PSE verifies the installation and energy savings via a site inspection, review of equipment operation and trend log data where necessary, and collection of project invoicing and specifications of installed equipment.

3. Eligibility

All Commercial and/or Industrial customers receiving electricity or bundled natural gas service from PSE are eligible. Schedule 448, 449, 458, and 459 customers may utilize their Schedule 258 funding allocation for measures offered under this Retrofit program and its related contracted programs. Industrial customers receiving commodity electric service and/or commodity natural gas from PSE are eligible for programs under this schedule. Electrical retail wheeling and gas transport customers are not eligible.

Projects must be approved for funding prior to installation/implementation.

4. Programs

a. *Custom Lighting Grants*

To simplify the customer experience, PSE offers one Business Lighting Incentive (BLi) grant program. This single program addresses customers' needs by providing custom calculated incentives for lighting and lighting controls measures.

i. Delivery Method

The Business Lighting programs affect conservation measures through the direct installation into customers' eligible structures by contractors or their customers who make incentive applications.

ii. Implementation Management

The Business Lighting programs manage all conservation measure installations via in-house, PSE program staff.

b. *Business Lighting Express*

In an effort to ensure that maintenance of lighting systems are upgraded to efficient lighting, the Business Lighting Express (BLx) Program was created and is a subset of the Business Lighting Incentive (BLi) program. BLx is a hybrid between Business Lighting custom grants and Lighting To Go point-of-sale incentives. It provides prescriptive incentives for exterior and limited interior lighting upgrades for contractors and customers who are doing maintenance work.

i. Delivery Method

The Business Lighting programs affect conservation measures through the direct installation into customers' eligible structures by contractors or their customers who complete incentive applications.

ii. **Implementation Management**

The Business Lighting Incentive (BLi) Program manages all conservation measure installations via in-house, PSE program staff.

c. *Industrial Programs*

The objective of the Industrial Energy Management (IEM) is to work with industrial customers to identify, evaluate, and implement projects or change energy management practices to improve energy efficiency.

The Industrial Energy Management program provides a comprehensive set of offerings directed at its Industrial sector customers. This includes traditional custom capital projects, Industrial Systems Optimization Program (ISOP), Industrial Strategic Energy Management (ISEM), and the Comprehensive Small Industrial (CSI) offering, which provides custom grants targeted at small industrial sector customers. In 2023, a pilot offering will be added to the program targeted at customers participating in ISOP to encourage customers to pursue capital measures identified in the ISOP process by bundling them with the O&M measures and offering additional incentives.

i. **Delivery Method**

The Industrial Energy Management program affects conservation measures through incentivizing the installation of efficient equipment, low & no-cost operations and maintenance measures, or customer behavior training via strategic energy management seminars.

ii. **Implementation Management**

The Industrial Energy Management program manages all conservation measure installations via in-house, PSE program staff with targeted support for certain program tasks provided by third-party contractors. The pilot offering for ISOP will be implemented using existing resources and engineering support.

d. *Clean Buildings Accelerator*

The Clean Buildings Accelerator (CBA) is designed to assist building owners as they come into compliance with the requirements of the Clean Buildings Law (HB1257). It is a third party led, strategic energy management-based service that includes training, templates, and a path to some quick, low-cost energy savings actions.

The CBA was designed for lower resourced and smaller organizations, including public organizations and non-profits. However, organizations of larger sizes including hospitals and property management groups have also joined cohorts.

Recruitment efforts are targeted towards customers who have not participated in many past PSE programs who need extra support in starting their compliance journey.

i. **Delivery Method**

The CBA achieves energy savings by completing a four-month sprint, which includes a virtual energy scan for up to 3 buildings per customer. The energy scan includes low & no-cost opportunities, primarily via the building's controls system and results in 2 percent deemed savings. A one-year savings true-up is completed at the end of the 15 month engagement, using a regression analysis methodology for each building.

PSE supports customers by presenting other energy efficiency programs to customers and helping to establish existing performance as compared to performance targets for buildings in the CBA program.

The CBA is offered at no cost to participants, however, there are no incentives for energy savings. Customers that complete the CBA program may go on to participate in any other Energy Efficiency programs.

ii. **Implementation Management**

The CBA program is delivered by Stillwater Energy in a cohort-based approach. Customers work through the four-month sprint together through online workshops, supplemented by individual organization coaching calls and a virtual energy scan for eligible buildings. PSE works closely with Stillwater Energy to help recruit participants and assists during engagement. Stillwater Energy reports to PSE on program participants and their buildings, including performing an energy savings analysis at the end of the engagement.

A pilot-like cohort ran in 2021 in order to influence program design for the 2022-23 biennium. Three to four cohorts will be added in 2022 and 2023. Three to four cohorts will be added in 2022 and 2023.

PSE may leverage Business Services, Municipal Relations, Outreach, and other internal teams to help market the CBA. PSE also seeks speaking engagements to promote awareness of the law and to recruit CBA participants. The Department of Commerce sent out notification letters to affected building owners, but PSE received minimal inquiries for assistance. In response, PSE issued notification letters directed at building occupants and building operators to increase participation rates in CBA.

e. ***Telecommunications Efficency Program***

The objective of the Telecommunications Efficiency Program (TEP) is to identify, evaluate, and implement projects for PSE's telecommunication customer and to improve energy efficiency in their facilities by providing them with a comprehensive and flexible program

combining capital and performance-based incentives. TEP will be provided to all telecommunication customers receiving commodity electric service from PSE. These telecommunication and internet service providers are in an industry that operate in radio, telecom, cellphone, broadband, and cable television, among other services and their facilities.

i. **Delivery Method**

The program includes all measures that cost effectively save energy. Those measures can be capital investment measures, operational and maintenance (O&M) measures, instant rebates, and custom grants.

ii. **Implementation Management**

PSE has contracted with Willdan to deliver the TEP program starting in 2022. Willdan has direct experience working with telecom customers and energy efficient technologies for this sector. PSE program staff will oversee contacts, including internal communication and coordination. Willdan is responsible for marketing, outreach, and recruitment of program participants.

f. *AMI Small and Midsize Virtual Commissioning™ Program*

The objective of the AMI Small and Midsize Virtual Commissioning Program is to identify customer sites that have large opportunity for energy savings, engage with those customers remotely, provide recommendations for no-cost energy saving improvements, and assess the realized savings based on reductions to the site usage over a span of 3-4 months. Savings will then be trued up towards the end of the contract period to reconcile savings differences.

i. Delivery Method

PSE sends all available rate schedule 24EC, 25EC, and 31GC AMI interval data to the implementing consultant daily. The consultant contacts customers on PSE's behalf after reviewing site billing data. Email and phone conversations are used to recommend more efficient operating strategies – typically HVAC setpoint and schedule adjustments. There are no customer costs outside the labor hours to correspond with the consultant, and there are no customer incentives provided. Customers interested in capital improvements get referred to PSE for follow-up from the proper person or group.

ii. Implementation Management

This program is delivered via Power TakeOff with support from PSE in the form of contract oversight and general coordination. The third party maintains an updated Implementation Plan document that details timelines, deliverables, processes, and protocols, among other things. PSE and the third party hold meetings twice per month

to make sure any issues are addressed promptly, and any outstanding questions are answered.

This is not an openly advertised program, because participants are selected based on which sites have the most savings potential. However, if a specific customer has several locations that are PSE rate schedule 24EC, 25EC, and/or 31GC, and they would like for all their sites to participate in this program, the implementer can examine the usage data and have conversations to see if there is savings potential.

5. Customer Incentives

C/I Retrofit programs include custom incentives. They are not limited to any measure type or market segment. It is intended to provide the customer flexibility in developing projects that will result in energy savings.

Incentives are:

Site-Specific Basis Incentives, or "custom" incentives, rely on generally accepted engineering calculations and measure costs provided by the customer or the customer's contractor. Electric and natural gas measures may receive a maximum incentive of up to 70 percent of the measure cost when the grant incentive does not exceed the cost-effectiveness standard, less program administration costs. Measures where cost exceeds the cost-effectiveness standard will receive grants that are on a declining scale and will be less than 70 percent of the measure cost.

Generally, electric and natural gas measures that have a Simple Payback of less than one year are not eligible for a Site-Specific Basis incentive.

Prescriptive Basis Incentives are provided for Commissioning and Optimization of Existing Buildings and for measures that are eligible for rebates under Schedule E/G 262, Commercial and Industrial Incentive Program.

The incentive amount for a measure is the same as that which is available under Schedule E/G 262.

Performance Basis incentives may be provided where energy savings are determined through direct measurement of energy usage and/or the use of efficiency indicators.

Energy-Use Monitoring: PSE may provide secure web site access to facility energy-use data for building occupants, free of charge for up to two years.

More typically, access will be free of charge for one year to allow the occupant to verify building and/or measure performance according to energy-use projections.

To be eligible, customers must be on a rate schedule with demand (kW) as well as energy (kWh) charges. Compatible metering and remote data retrieval capability must be in place at the customer's facility. PSE is not obligated to replace or upgrade nonconforming meters.

Customers are expected to use the monitored information to improve energy efficiency at the facility. Customers will demonstrate annual energy savings potential through energy management operations and maintenance as well as identification of further efficiency measures and equipment upgrades.

Incentives for short and long payback projects will be adjusted as needed, according to market conditions.

Processing of Incentives: Customers provide PSE with project costs and estimated savings. Customers assume full responsibility for selecting and contracting with third-party service providers. Projects must be approved for funding prior to installation/implementation. A grant agreement will be required.

All Commercial and Industrial Retrofit incentives will be processed using a standard Grant Agreement, listing the measure description, measure life, measure cost, and grant amount. An attachment to the Grant Agreement will list specific measure details, and will describe the process PSE will use to verify that the measure is installed correctly and performing efficiently.

The PSE Energy Management Engineer (EME) and the Manager of Business Energy Management oversee all incentives and program operations. EMEs update project changes in the tracking system and review monthly results.

The Manager of Business Energy Management reviews the cost-effectiveness of all efforts. A review of results and refinement of program strategies are conducted annually.

Measure incentive eligibility criteria are based on, but not limited to, established, industry-standard cost effectiveness tests, structure type and its location within the PSE service territory, fuel type (natural gas or electric), product type and product quantity.

Business Lighting Incentives:

Business Lighting incentives include, but are not limited to:

Measures	Description	Maximum Incentive
Grants for Business Lighting	Based on cost and savings analysis, pay the lesser of 70% of project cost or the sum of the kWh incentives below.	
	TLED tube prescriptive incentive	$4 per TLED ($2/TLED when replacing an existing TLED – must save 5 watts/tube)
	Per annual kWh savings for Retrofit Lamps and component kits	$0.17
	Per annual kWh savings for full retrofit kits and new fixtures	$0.25
	Per annual kWh savings for new automatic controls in addition to the $0.17/$0.25 fixture incentive	$0.10
	$75.00 paid per each interior LED upgraded LLLC fixture installed **$75.00 paid for each exterior LED upgraded NLC fixture installed**	$75.00 $75.00

Business Lighting Incentives, continued

Measures	Incentive	Eligibility
Business Lighting Express Incentives	**LED Fixtures**	
	Fixture - LED 15W or less - from HID 50W	$40.00
	Fixture - LED 30W or less - from HID 70W	$50.00
	Fixture - LED 40W or less - from HID 100W	$70.00
	Fixture - LED 50W or less - from HID 150W	$110.00
	Fixture - LED 50W or less - from HID 175W	$140.00
	Fixture - LED 90W or less - from HID 250W	$175.00
	Fixture - LED 105W or less - from HID 320W	$210.00
	Fixture - LED 155W or less - from HID 400W	$250.00
	Fixture - LED 315W or less - from HID 1000W	$645.00
	Troffer - LED - 25w to 50w - from FL	$59.00
	High Bay or Low Bay - LED - 50w to 149w - from FL or HID	$212.00
	High Bay or Low Bay - LED - 150w to 200w - from FL or HID	264.00
	HID-LED Screw in Lamps	
	Screw-in - LED 15W or less - from HID 50W	$25.00
	Screw-in - LED 30W or less - from HID 70W	$35.00
	Screw-in - LED 40W or less - from HID 100W	$45.00
	Screw-in - LED 50W or less - from HID 150W	$70.00
	Screw-in - LED 50W or less - from HID 175W	$90.00
	Screw-in - LED 90W or less - from HID 250W	$110.00
	Screw-in - LED 105W or less - from HID 320W	$130.00
	Screw-in - LED 155W or less - from HID 400W	$155.00
	Screw-in - LED 315W or less - from HID 1000W	$405.00
	TLED Tubes	
	Lamp - TLED - Any - from any T8 - Comm	$4/tube
	Lamp - TLED - Any - from any TLED with minimum 5W savings per lamp – Comm	$2/tube

Commercial/Industrial Grants

Measures	Incentive	Eligibility
Grants for Non-Lighting Measures including Telecommunications Efficiency Program	Based on cost and savings analysis, pay the lesser of 70% of project cost or $0.40 per annual kWh or $6.00 per annual therm savings.	Non-lighting measures, subject to PSE cost-effectiveness standards.
Grants for Advanced Rooftop Controls (ARC)	Based on $225/ton for PSE electric equipment and an additional $50/ton for PSE gas equipment.	Existing, single-zone units that are less than 15 years old, have a cooling capacity greater than 5 tons, and a supply fan greater than 1 HP. Projects that don't meet the eligibility requirements may pursue a non-lighting grant.
Commissioning Offerings **Post-Occupancy** **Existing Building** **Monitoring-Based** **Building Tune-Up** **AMI SMB Virtual Commissioning**	See table and information that follows	Depends on services provided by PSE. See table and information that follows
Major HVAC Controls Upgrade	See table and information that follows	Depends on services provided by PSE. See table and information that follows

Retail wheeling customers may utilize their Schedule 258 Large Power User Self-Directed Program incentive allocation.

Post-Occupancy Commissioning Incentives

If the customer engages the services of a third party commissioning agent for post occupancy building commissioning, who is independent of the design and construction team, then the customer may be eligible for an incentive.

To qualify for this incentive, post-occupancy commissioning will start after the warranty period starts and complete within an 18 month time period of occupancy. Post Occupancy Commissioning will focus on optimization of building energy systems including, but not limited to: lighting, HVAC, and building controls.

PSE will consider the measure cost as that portion of the commissioning agent services that will impact energy efficiency on the project. The savings shall be assumed to be a

percentage of the building's estimated annual energy use. This percentage will be based on studies of the energy savings impact of commissioning.

The commissioning agent will utilize the building's energy consumption data from PSE as well as any building system control trends and point/system energy monitoring, to assist in analyzing the building's energy use and to support the energy optimization activities.

The commissioning agent shall prepare (or update if one already exists) a Facility Guide which describes the major energy using building systems (HVAC, lighting, domestic hot water, etc.), including control sequences, operating set points, schedules, and procedures for testing and verifying proper and efficient operation of the equipment and controls. As part of this post occupancy service, the Commissioning Agent will provide all deliverables specified in the Program Requirements (for example, On-Going Commissioning Plan, On-Going Training Plan, Facility Guide, Investigation Details/Cx Report, etc). The owner's operation and maintenance staff will be trained on how to monitor energy use and efficiently operate the building's systems.

Energy-Use Monitoring: Upon occupancy, and subject to availability, the Company may provide secure web site access to facility energy-use data for building occupant, free of charge. Typically, energy consumption data will be available to allow the occupant to verify building and/or measure performance according to energy-use projections. To be eligible, customers must be on a rate schedule with demand (kW) as well as energy (kWh) charges.

Compatible metering and remote data retrieval capability must be in place at the customer's facility. PSE is not obligated to replace or upgrade nonconforming meters. Customers will have the ability to use the monitored information to improve energy efficiency at the facility, capitalize on additional energy savings opportunities, and identify further efficiency measures, equipment upgrades, and O&M activities.

Measure incentive eligibility criteria are based on, but not limited to, established, industry-standard cost effectiveness tests, structure type and its location within the PSE service territory, fuel type (natural gas or electric), product type and product quantity.

Description	Incentive Details	Maximum Incentive Building's Utility Services		
		PSE all services	PSE Electricity only (other gas)	PSE gas only
Base Incentive for Commissioning (CX)	Incentive Cap	75% of Commissioning (CX) Provider Costs		
	CX Process: (Investigation, Verification, Systems Manual, Training)	$0.35/sf	$0.25/sf	$0.15/sf

Existing Building Commissioning (EBCx) Incentives

For existing building commissioning, (buildings older than 18 months) incentives are designed to cover up to 100 percent of the commissioning costs, as well as to provide the owner a full list of cost-effective energy savings opportunities.

Incentives are paid in three phases. An assessment paid once the assessment is completed, base Incentive paid after a Commissioning is completed, and a performance bonus Incentive is paid after first-year savings requirements are met and the owner documents that savings improvements are still in place. If the assessment indicates the building is an inappropriate candidate for Commissioning, only the assessment incentive will be paid.

If there is no metering at the building level, the customer may also be eligible for an incentive for sub-metering to assist the owner in monitoring building energy usage.

Description	Incentive Details	Maximum Incentive Building's Utility Services		
		PSE all services	PSE Electricity only (other gas)	PSE gas only
Base Incentive for Commissioning (CX)	Incentive Cap	75% of Commissioning (CX) Provider Costs		
	Assessment (Minimum Grant)	$5,000	$4,000	$2,000
	Remaining CX Process: (Investigation, Verification, Systems Manual, Training)	$0.35/sf	$0.25/sf	$0.15/sf
Owner Commitment	Cost of Improvements (Maximum)	$0.15/sf	$0.10/sf	$0.10/sf

	Required Improvements	Improvements with ≦ 2 year payback.		
	Implementation Time Frame	Within 6 months of Investigation		
	Senior O&M Staff Time	50 hours to participate in process and training		
One Year Performance Bonus Incentive	Incentive Cap	100% of Total Cost (CX Provider + Implementation)		
	Incentive for Electric Savings	$0.05/kWh	$0.05/kWh	N/A
	Incentive for Electric Savings	$0.05/kWh	$0.05/kWh	N/A
	Incentive for Gas Savings	$0.80/therm	N/A	$0.80/therm
	Required Building Savings	8%	8%	11%
	Required documentation	Evidence that improvements are still in place.		
Sub-metering Incentive	Eligible for incentive if no metering is present at the building level	Pay up to $3,000 per building to install sub-metering.		

Combined Utility path for EBCx in the City of Seattle

Each PSE customer located within the City of Seattle will participate through a combined incentive structure designed and implemented by both utilities. The customer participating in the program must secure preapproval from either both or one of the utilities prior to participation and will adhere to all measure and qualifications and requirements. There is a current requirement within Seattle for all buildings equal to or greater than 50,000 square feet in size to undergo a building tune-up, which includes some, but not all commissioning activities. As a result, the incentive offered by PSE to these customers is reduced as to not incentivize activities required by the ordinance. The incentive structure for qualifying customers will be as listed below.

Description	Incentive Details
Assessment Incentive	$1,000
Commissioning Phase	$0.10/sf
Performance Phase	$0.80/therm

Eligibility for incentives, all building fuel types, requires independent commissioning.

Monitoring-Based Commissioning (MBCx) Incentives

For Monitoring-Based Commissioning, (buildings older than 18 months), incentives are designed to cover up to 100 percent of the commissioning costs, as well as to provide the owner a full list of cost-effective energy savings opportunities.

Incentives are paid in three phases. A base incentive is paid once the implementation is completed, and two (2) performance incentive are paid after first and second-year savings requirements are met and the owner documents and provides quarterly reporting.

If there is no metering at the building level, the customer may also be eligible for an incentive for sub-metering to assist the owner in monitoring building energy usage.

Description	Incentive Details	Maximum Incentive Building's Utility Services		
		PSE all services	PSE Electricity only (other gas)	PSE gas only
Base Incentive for Implementation	Install Monitoring-Based Commissioning software and implement Cx regular process meetings.	$0.15/sf	$0.10/sf	$0.05/sf
Owner Commitment	Cost of Improvements (Maximum)	$0.15/sf	$0.10/sf	$0.10/sf
One Year Performance Bonus Incentive	Incentive Cap	100% of Total Cost (CX Provider + Implementation)		
	Incentive for Electric Savings	$0.05/kWh		
	Incentive for Gas Savings	$0.80/therm		
	Required Building Savings	6%		
	Required documentation	Quarterly reporting		
Second Year Performance Bonus Incentive	Incentive Cap	100% of Total Cost (CX Provider + Implementation)		
	Incentive for Electric Savings	$0.05/kWh		
	Incentive for Gas Savings	$0.80/therm		
	Required Building Savings	6%		
	Required documentation	Quarterly reporting		
Sub-metering Incentive	Eligible for incentive if no metering is present at the building level	Pay up to $3,000 per building to install sub-metering.		

Building Tune-up Incentives

For Building Tune-up, (buildings older than 18 months) incentives are designed to cover up to 100 percent of the tune-up costs, as well as to provide the owner a full list of cost-effective energy savings opportunities.

Incentives are paid in two (2) phases. A base incentive is paid once the implementation is completed, and one (1) performance incentive is paid after first-year savings requirements are met.

If there is no metering at the building level, the customer may also be eligible for an incentive for sub-metering to assist the owner in monitoring building energy usage.

Description	Incentive Details	Maximum Incentive Building's Utility Services		
		PSE all services	PSE Electricity only (other gas)	PSE gas only
Base Incentive for Implementation	Implement cost-effective measures.	$5,000	$4,000	$2,000
Owner Commitment	Cost of Improvements (Maximum)	$0.15/sf	$0.10/sf	$0.10/sf
One Year Performance Bonus Incentive	Incentive Cap	100% of Total Cost (Tune-up specialist + Implementation)		
	Incentive for Electric Savings	$0.05/kWh		
	Incentive for Gas Savings	$0.80/therm		
	Required Building Savings	6%		
Sub-metering Incentive	Eligible for incentive if no metering is present at the building level	Pay up to $3,000 per building to install sub-metering.		

AMI SMB Virtual Commissioning Program

Description	Incentive Details	Incentive Amounts	
		Electric Incentive	Gas Incentive
AMI SMB Virtual Commissioning	Vendor Invoice Payment	$0.21/kWh	$0/Therm

Major HVAC Controls Upgrade Incentives

Major HVAC controls upgrade incentives can cover up to 50 percent of the total applicable project cost depending on verified energy saving from the project. Major HVAC controls upgrades involve adding and/or modifying 3 or more significant energy saving control sequences as well as other major upgrades such as new controllers and a new web-based graphical user interface.

Incentives are provided in 2 phases: a base incentive paid at the end of the installation and a performance incentive paid after almost a full year of actual operation. The performance incentive is based on verified savings at the whole building level. The incentive level varies depending on the services provided by PSE. See the table below.

The project must meet PSE prescribed requirements for the controls sequences and features and the system must undergo testing to verify proper installation and operation. The project must also include customer training and a facility guide designed to help the operator maintain the facility energy efficiency performance over time.

If there is no energy metering at the building level, the customer may also be eligible for an incentive for sub-metering to assist in determining the actual building performance. Whole building sub-metering incentive follows the same guidelines as the sub-metering incentive in the CBTU program.

Incentive Description	PSE Electric (or combined Electric & Natural Gas Service)	PSE Natural Gas Service Only
Maximum Total Incentive = Base + Performance	50 percent of total project cost	25 percent of total project cost
Base Incentive (Based on 5 percent whole building savings*)	$0.40 per kilowatt-hour (kWh) saved (+ $6.00 per therm saved)	$6.00 per therm saved
Maximum Base Incentive	35 percent of cost	15 percent of cost

Performance Incentive (Based on first year whole building savings)	Based on actual percentage of whole building savings greater than six percent	$6.00 per therm saved

**Whole building energy use may exclude large non-HVAC uncontrollable/process loads like data centers.*
Whole Building Metering: If there is no energy metering at the building level, the customer may also be eligible for an incentive of up to $3,000 for sub-metering to assist in determining the actual building performance.

Industrial Energy Management Incentives

Industrial Energy Management measures are classified into four categories: capital investment measures, operational and maintenance (O&M) measures, strategic energy management (SEM) and behavioral measures, and comprehensive small industrial measures.

Capital Investment Measures: examples include replacing an inefficient blower with a high efficient blower, install a VFD on a centrifugal fan or pump for part load controls, and install and new control system to operate the industrial refrigeration system.

O&M Measures: examples include control sequence modification and set-point adjustment for refrigeration or heating systems, compressed air leak detection and repair, compressed air shut-off valves at workstations, modulation of fan or blower speeds based on demand, and controls, modification, or installation of timers to shut off pumps when not required for the operation.

SEM and Behavioral Measures: examples include creating a SEM cohort and working with customers to establish an organizational changes to set energy saving goals and engage all level of people in the organization to work together to achieve the goals. Energy saving can be from behavioral changes, O&M, and capital investment.

Comprehensive Small Industrial Measures: examples include a combination of capital investment, O&M, and behavioral changes. This category is for customer with energy usage of less than 1 million kWh and/or 100,000 therms.

The customer incentive varies based on measure categories as outlined below:

Measures	Incentive	Eligibility
Capital Investment	Based on cost effectiveness of the measure using Autofund to determine the incentive. In general, incentive will be $0.40/kWh or $6/therm up to 70% of project cost.	Cost effective measures based on Autofund. Incentive can be based on saving estimates or based on measured savings.
Industrial System Optimization	Engineering cost from PSE contracted service providers are covered by program 100%. Customer incentive is based on $0.05/kWh and $0.8/therm up to 100% of the customer implementation cost not to exceed $25,000 per site.	Based on verified savings.

Strategic Energy Management	1) $0.02 times verified kWh saved up to $25,000 per site. 2) Two (2) $1000 potential milestones incentives and a $2,000 training stipend for each participating customer per site	Based on meeting milestones or verified savings.
Comprehensive Small Industrial	Based on cost effectiveness of the measure using Autofund to determine the incentive. In general, incentive will be $0.40/kWh or $6/therm up to 70% of project cost.	Cost effective measures based on Autofund. Incentive can be based on saving estimates or based on measured savings. .
Industrial System Optimization Plus – Pilot Offering	Engineering cost from PSE contracted service providers are covered by program 100%. Customer incentive is based on $0.30/kWh and $4.8/therm up to 100% of the customer implementation cost of the bundled O&M and capital projects pursued. Customer must complete at least one capital project in order to be eligible for the bundled incentive rate.	Based on verified savings.

6. Target Market

PSE targets all Commercial and Industrial customers with program offerings and marketing efforts appropriate to given business type, size and operation.

7. Marketing and Outreach Plan

Customers will learn about the program through awareness building activities as well as targeted proactive prospecting to customers with high potential for energy savings. Such activities include targeted messaging delivered directly to selected business through email, phone calls, and other digital efforts.

Additionally, routine communications with internal PSE channels responsible for direct communication with customers and others who influence decisions about energy efficiency, such as public officials, will yield greater program awareness. This includes:

- Proactive coordination with Energy Efficient Communities staff.
- Regular meetings and communications with Business Services staff, including Major Accounts Executives, Business Accounts Managers, and Energy Efficiency Account Executives.
- Routine updates to PSE Energy Advisors about programs.
- Collaboration with PSE media outreach and social media teams to publicize significant projects and program offerings.

PSE's Commercial Industrial Retrofit Program, which includes Business Lighting and custom grants, primarily relies on the following channels to maintain an abundant quantity of custom retrofit project leads:

- Repeat program participants,
- Internal PSE channels such as Business Services and Energy Efficient Communities.
- Trade ally relations with contractors, engineering design firms and energy services companies (ESCOs).

a. *Communications*

PSE will communicate about C/I Retrofit program offerings as follows:

- Continue creating collateral to be more awareness-driving than project generation-focused which is focused on taking control of your energy.
- Provide information on the web addressing customer needs and more effectively communicate program offerings.
- Provide in-person and virtual application and program offering trainings.
- Pursue web-based applications.
- Leverage other PSE customer-facing departments to communicate PSE Efficiency Program information.

b. *Coordination with PSE Staff and Departments*

Routine communications with internal PSE channels responsible for direct communication with customers and others who influence decisions about energy efficiency, such as public officials, will yield greater program awareness.

- Proactive coordination with Energy Efficient Communities staff.
- Regular meetings and communications with Business Services staff, including Major Accounts Executives, Business Accounts Managers, and Energy Efficiency Account Managers.
- Routine updates to PSE Energy Advisors about programs.
- Collaboration with PSE media outreach and social media teams to publicize significant projects and program offerings.

c. *Customer Outreach*

Energy Efficient Communities staff will develop and implement outreach strategies to promote program offerings as follows:

- Leverage relationships with local governments and other entities to gain awareness of new commercial and industrial developments, and connect developers and architects with program offerings.
- Identify business customers whose energy efficiency achievements illustrate results of PSE program participation and highlight their successes at events, in case studies and through media outreach to increase awareness of program offerings.

d. *Coordination with Program Providers*

PSE will continue to work with contractors, engineers and ESCOs who develop and deliver custom retrofit energy efficiency projects and who communicate with building owners and managers about PSE's programs.

Coordination efforts will include the following:

- Participation in meetings to update trade allies on program offerings.
- Providing information about PSE's role in energy efficiency retrofit projects.
- Coordination with trade allies on PSE energy efficiency program messaging.
- Expansion of Trade Ally Network into the C/I sector of trade allies.
- Leveraging of the Northwest Trade Ally Network for promotion of lighting efficiencies, and trade ally relations with contractors, engineering design firms and energy services companies (ESCOs).

A section on the Website will be built out to contain relevant information around C/I Retrofit including product options, potential energy savings, product costs, and contact information for PSE's retrofit specialists.

Additionally, PSE will build out its commercial business followers on various social media platforms so it can connect with them, share relevant information and white papers, and begin to position PSE as a trusted expert in the field of commercial retrofits.

B. Commercial/Industrial New Construction

Schedules E/G 251

1. Purpose

The purpose of the Commercial and Industrial New Construction Program is to influence efficient design, building components and equipment in new buildings by working with customers, developers, tenants, owners, designers and builders of new Commercial and Industrial (C/I) facilities. The program provides incentives for installation of cost-effective energy efficient measures to achieve savings beyond the applicable Energy Code or industry standard practice where Code requirements do not exist.

2. Description

PSE works with owners, designers and developers of any large or small new Commercial and Industrial facilities, or major remodels, to propose cost-effective energy efficient upgrades that exceed energy codes or standard practice where minimum efficiency requirements are not prescribed by code. Four paths are available to provide assistance and/or funding for New Construction energy efficiency measures. New Construction Post-Occupancy Commissioning is also offered in addition to the building paths.

The first path is similar to the retrofit program where component measures are evaluated individually and funding is based upon cost-effectiveness. Under this approach, customers may receive up to 100 percent of the incremental cost over a code-compliant baseline. There is a streamlined process for new construction lighting projects that have allowable lighting power density values listed in the applicable code.

The second path is an energy-modeled whole-building approach that utilizes building energy simulation to demonstrate improvement over energy code requirements.

PSE will work with designers to incorporate measures that produce at least 10 percent overall savings beyond applicable energy code, including local jurisdiction amendments. Given the time required for planning and construction, these projects typically take several years to complete.

The third path is also a whole-building approach but does not require energy modeling. This approach, called the EUI Performance Method (EUI PM), uses an EUI (in kBTU/sq-ft) as the baseline and one year of metered data to calculate the savings. In 2023, the baseline EUI will be determined using ASHRAE 100 standard EUIs for multiple building types in the Puget Sound climate zone. These values are more conservative than the EUIs developed as part of HB 1257 (current baseline for 2022), and more accurately represent the Washington State Energy Code. This approach reduces barriers to participation by reducing the documentation requirements and incentivizes good building operation by using actual consumption data.

The fourth path includes Prescriptive Basis incentives for measures that are eligible for rebates under Schedule E/G 262, Commercial and Industrial Incentive Program. The incentive amount for a measure is the same as that which is available under Schedule E/G 262, but energy savings may be calculated based on actual Site-Specific conditions and Code Baseline adjustments, if necessary.

Customers assume full responsibility for utilizing their design teams and contractors to provide information to PSE for evaluation of grant funding. Projects must be approved for funding prior to installation/implementation to be eligible.

3. Eligibility

Any Customer, owner or tenant with appropriate owner consent, of a new construction commercial, industrial, multi-family, or mixed-end-use facility or outdoor lighting which will receive natural gas service from the Company, and/or electric service under Special

Contracts, or Schedules 7A, 24, 25, 26, 31, 35, 40, 43, 46, 49, 50, 51, 52, 53, 54, 55, 57, 58, 448, 449, 458, 459 (or their equivalent) of Electric Tariff G of the Company.

Customer must currently be or plan to be a PSE business electric and/or natural gas customer, and the new business site must be within PSE's electric and/or natural gas service areas. Customer must be pre-approved by PSE prior to the installation of all energy efficiency improvement measures.

4. Delivery Method

The Commercial New Construction program effects conservation measures through the direct installation into customers' eligible structure by contractors, developers, and customers who, with consulting services provided by energy management engineers, enter into a custom grant agreement with PSE.

5. Implementation Management

The Commercial New Construction program manages all agency conservation measure installations via in-house, PSE energy management engineers. C/I New Construction works closely with Multifamily New Construction and their 3rd party implementer. Where synergies exist, the 3rd party implementer also markets the C/I New Construction program through their outreach strategies.

6. Customer Incentives

Customers provide PSE with project scope, costs, proposed design details, and energy savings calculations, and PSE will utilize this to calculate estimated savings and incentives. Customers assume full responsibility for selecting and contracting with third-party service providers. A grant agreement or signed prescriptive measure rebate application will be required.

Component Measure Incentives: For energy-efficient measures with a simple customer payback greater than one year, PSE provides grants toward the incremental installed cost of the measure. Maximum grants will be based on the Company's cost-effectiveness criteria. Electric and natural gas measures may receive incentive grants up to 100 percent of the incremental measure cost where the grant incentive does not exceed the cost-effectiveness standard less program administration costs. Measures that exceed the cost-effectiveness standard will receive grants that are on a declining scale and will be less than 100 percent of the measure cost.

In instances where project first-costs, site conditions, or operational parameters lead to a customer fuel choice that would offset gains from implemented efficiency measures, incentives for fuel switching will not be provided, and choices that totally eliminate the need to provide an energy source to the site are not eligible for incentives.

Lighting Power Density NC Measure: This measure is a streamlined approach to providing a component incentive for new construction lighting systems that provide better energy

performance than a code minimum compliant lighting system. This measure utilizes a PSE-designed energy savings workbook that incorporates the Washington State Energy Code (WSEC) required lighting power densities for different space types. Projects must exceed the current code by five percent in order to qualify for an incentive.

***Energy-Modeled Whole Building Approach Incentives*:** PSE provides incentives for projects designed and built to be at least 10 percent more energy efficient than a baseline building built under the applicable Energy Code. The incentive will be based on a whole-building, full-year energy model, with the savings being the difference between a minimally code-compliant baseline model and the proposed building design model.

***Eligibility for Energy-Modeled Whole Building Incentives*:** Whole Building Incentives are designed for buildings which will receive electric service from PSE and/or natural gas service from PSE. Projects to be served only with natural gas from PSE only qualify for whole building incentives based on the modeled natural gas savings. As a guideline, buildings using the whole building approach incentive should be greater than 50,000 sq-ft, but exceptions can be made by PSE staff on a case by case basis. Commercial customers that submit a project through Willdan's Early Design Assist (EDA) offering can be less than the 50,000 sq-ft requirement. In this case, Willdan provides the energy model to the customer and PSE to determine savings. The project does not need a 3rd party energy model review, therefore, the size requirement is no longer necessary. Willdan's energy modeling protocol has been reviewed by PSE staff and deemed acceptable for commercial and multifamily projects. More information regarding the Willdan EDA offering can be found in the EDA section below and under Multifamily New Construction, as they are responsible for all MFNC projects.

Projects using multiple energy sources, but to be served with electricity from PSE must demonstrate that the whole-building efficiency is improved by a minimum of 10 percent to qualify for an incentive. In instances where project first-costs, site conditions, or operational parameters lead to a customer fuel choice that would offset gains from implemented efficiency measures, incentives for fuel switching will not be provided, and choices that totally eliminate the need to provide an energy source to the site are not eligible.

EUI Performance Method Incentives: PSE provides incentives for projects designed and operated at least 10 percent more energy efficient than the baseline EUI. The savings will be based on one year of metered data that is weather adjusted, compared to the baseline EUI, which will be based on space type. The incentive rate for both gas and kWh savings matches the incentive for the energy-modeled whole building incentive. A base payment has been implemented in 2022 and will continue in 2023. PSE will assume 5 percent savings is guaranteed based on the proposed high efficiency equipment and will pay the associated grant amount to the customer after construction is complete. An EME will verify that high efficiency equipment has been installed before making this payment. After the performance period any additional savings will be captured and the associated grant will be paid.

Prescriptive Basis Incentives: Rebates for equipment listed under the electric/natural gas Commercial and Industrial Rebate Incentive Program are available for new construction

except when required by the applicable Energy Code. Other Prescriptive Basis Incentives are not available within the Schedule 251 program.

When a rebated equipment item has an energy interaction with Measures proposed under the whole building approach, EUI Performance Method, or the component approach, the energy savings for the rebated equipment will be removed from the whole building energy calculations or the component approach energy savings calculation.

Post Occupancy Building Commissioning Incentives: If the customer engages the services of a third-party commissioning agent for post occupancy building commissioning, who is independent of the design and construction team, then the customer may be eligible for an incentive. To qualify for this incentive, post-occupancy commissioning will start after the warranty period starts and complete within an 18 month time period of occupancy. Projects that participate in the EUI PM are not eligible for Post Occupancy Commissioning incentives. Post Occupancy Commissioning will focus on optimization of building energy systems including, but not limited to: lighting, HVAC, and building controls.

PSE will consider the measure cost as that portion of the commissioning agent services that will impact energy efficiency on the project. The savings shall be assumed to be a percentage of the building's estimated annual energy use. This percentage will be based on studies of the energy savings impact of commissioning.

The commissioning agent will utilize the building's energy consumption data from PSE as well as any building system control trends and point/system energy monitoring, to assist in analyzing the building's energy use and to support the energy optimization activities.

The commissioning agent shall prepare (or update if one already exists) a Facility Guide which describes the major energy using building systems (HVAC, lighting, domestic hot water, etc.), including control sequences, operating set points, schedules, and procedures for testing and verifying proper and efficient operation of the equipment and controls. As part of this post occupancy service, the Commissioning Agent will provide all deliverables specified in the Program Requirements (for example, On-Going Commissioning Plan, On-Going Training Plan, Facility Guide, Investigation Details/Cx Report, etc). The owner's operation and maintenance staff will be trained on how to monitor energy use and efficiently operate the building's systems.

Energy-Use Monitoring: Upon occupancy, and subject to availability, the Company may provide secure web site access to facility energy-use data for building occupant, free of charge. Typically, energy consumption data will be available to allow the occupant to verify building and/or measure performance according to energy-use projections. To be eligible, customers must be on a rate schedule with demand (kW) as well as energy (kWh) charges.

Compatible metering and remote data retrieval capability must be in place at the customer's facility. PSE is not obligated to replace or upgrade nonconforming meters. Customers will have the ability to use the monitored information to improve energy efficiency at the facility,

capitalize on additional energy savings opportunities, and identify further efficiency measures, equipment upgrades, and O&M activities.

Measure incentive eligibility criteria are based on, but not limited to, established, industry-standard cost effectiveness tests, structure type and its location within the PSE service territory, fuel type (natural gas or electric), product type and product quantity.

Early Design Assistance: In conjunction with PSE's Multi-Family New Construction program, C&I New Construction offers an Early Design Assistance program in which an energy-focused meeting is held with the entirety of the design team early in the design process. This program is designed to get all disciplines talking about energy at a point in the design when substantive changes can still be made. In 2022-2023, program staff will focus on conducting more commercial Early Design Assist (EDA) meetings for customers who do not have access to energy modeling. The EDA meetings will provide estimated savings for a variety of high efficiency design options to help the customer determine the best design for their project. EDA meetings will also provide information on PSE's incentive paths and will create a pipeline of projects for the program. This option provides energy guidance and access to energy modeling for smaller projects or customers who do not have the resources to fully analyze efficiency options.

Commercial/Industrial New Construction Incentive Table

Figures based on maximum funding amount.

Path	Incentive	Eligibility
Energy Model Whole Building	$0.40 per annual kWh savings and $6.00 per annual therm savings compared to code-baseline or standard practice system. Incremental cost to be the same as the incentive amount.	Facilities must be more than 50,000 sq. ft. and involve multiple measures, as determined by PSE. Facilities less than 50,000 sq. ft may qualify with PSE approval. Facility must use 10% less energy than applicable energy code.
EUI Performance Method	$0.40 per annual kWh saved, and $6.00 per annual therm saved compared to EUI baseline. Incremental cost to be the same as the incentive amount.	Any commercial or industrial space that falls within the space types. Facilities must use 10% less energy than the EUI for the given space type.
Component Approach	**Lighting:** $0.25 per annual kWh savings compared to code-baseline or standard practice system. Incremental cost to be the same as the incentive amount. In addition, a $0.10/kWh controls bonus and a $75 per LLLC fixture incentive will be available for qualifying fixtures.	For lighting, proposed system must have 5% less lighting power density than applicable energy code. LLLC fixtures must meet qualifying criteria listed in the Business Lighting Program.
	Non-lighting, electric: lesser of 100% of the incremental cost or $0.40 per annual kWh savings, subject to PSE Cost-Effective Standards.	
	Natural gas: lesser of 100% of the incremental cost or $6.00 per annual therm savings, subject to PSE Cost-Effective Standards.	
Rebates Measure	See eligible measures list under Commercial & Industrial Incentives Schedule 262 section.	

*__Note:__ A commissioning incentive may be used in combination with any of these paths with the exception of the EUI Performance Method.

New Construction Post-Occupancy Commissioning Incentive Table – *Figures based on* *maximum funding amount.*

Description	Incentive Details	Maximum Incentive Building's Utility Services		
		PSE all services	PSE Electricity only (other gas)	PSE gas only
Base Incentive for Commissioning (CX)	Incentive Cap	75% of Commissioning (CX) Provider Costs		
	Remaining CX Process: (Investigation, Verification, Systems Manual, Training)	$0.35/sf	$0.25/sf	$0.15/sf

Eligibility for incentives, all building fuel types, requires independent commissioning.

7. Target Market

Owners and developers of commercial or industrial facilities to be served by PSE with electricity or natural gas are eligible for new construction incentives. Also targeted are market actors, including but not limited to, owner's representatives, facility design architects and engineers, trade allies, development organizations, property management companies, and financing organizations.

8. Marketing and Outreach Plan

PSE marketing and Energy Efficient Communities teams will explore a diverse set of messaging and tactics to reach architects, municipalities, developers and engineers, respectively. Internal to BEM, PSE will focus on collaborating with the MFNC and Energy Efficient Communities team to best utilize resources and reach PSE's customer base.

The Commercial/Industrial New Construction (CNC) team will work with the Commercial Strategic Energy Management (CSEM) team, Energy Efficient Communities, Municipal Relations, and Business Services to develop synergies on new projects early in the design process. The CNC team will also work closely with Business Lighting to increase participation in the new construction lighting offering.

Market activity for new construction is expected to be generally unchanged in the 2022-2023 program period. Due to long lead time for new construction project development, major projects that are started during 2022-2023 often will not contribute energy savings until the 2024-2025 program period. There is an anticipated decrease in natural gas program savings due to more stringent code requirements and proposed or passed local natural gas bans for new construction projects.

PSE's program for commercial and industrial new construction will remain an incentive for building owners, designers, and developers to include energy-efficiency measures that are above and beyond that which is required by the building code or industry standard practice.

In order to reach the right audience at early stages, marketing and Energy Efficient Communities teams will explore a diverse set of messaging and tactics to reach architects, municipalities, developers and engineers.

Marketing, Communication, and Event personnel with partner with a C & I New Construction SME (Subject Matter Expert) on developing and implementing strategies designed to build program awareness, strengthen relationships, and increase participation in PSE's program.

Potential programs and tactics may include:

-
- Identifying upcoming building projects and connecting with project engineers, architects, and/or builders to make them aware of program offerings during the early stages of the project.
- Provide sponsorships with targeted trade associations, industry conferences, and events where PSE can connect with architects, municipalities, developers, engineers, and contractors to promote the program and the benefits of partnering with PSE.
- Leverage current relationships with key architects, municipalities, developers, engineers, and contractors by asking them for referrals for new projects. Consider offering them a nominal stipend for each referral that results in a complete project.
- Identify and connect directly with architects, municipalities, developers, engineers, and contractors who are likely to benefit from PSE's service.
- Develop digital and printed copies of program collateral highlighting the services, benefits and advantages this program offers. These materials will be distributed widely during events, presentations, and meetings to architects, municipalities, developers, engineers, and contractors.
- Identify cross-promotion opportunities with other appropriate PSE programs.

C. Energy Performance Incentive Programs

Schedules E/G 253

1. Purpose

Energy Performance Incentive Programs includes whole-building, performance based programs that achieve cost-effective electric and natural gas savings through energy management practices. Savings may be derived from: preventative O&M, process improvements, and occupant behavior changes.

2. Commercial Strategic Energy Management (CSEM) Program

The CSEM program supports and incentivizes customers to establish and maintain their own Strategic Energy Management (SEM) program which will provide leadership for efficient management of energy used in their organization. The SEM program focuses on the development and implementation of a Resource Management Plan (RMP) to achieve savings by coordinating efficient operations and quality maintenance with low-cost actions and behavior changes by the users at the facilities. The SEM program will use resource accounting software to allow trained staff to monitor resource use and to report on savings. A CSEM customer employs, contracts, or designates existing staff to implement Energy Management responsibilities, including accounting for resource consumption, assessing facilities, recommending actions, monitoring progress, calculating savings and communicating program information to organization stakeholders.

Monetary grants include a start-up incentive for completion of deliverables associated with building the program foundation, performance incentives based on achieving energy savings associated with Energy Management practices and target incentives for meeting or exceeding pre-established energy-reduction targets.

The CSEM agreement is valid for three years. Over this time, PSE anticipates a 10-12 percent reduction in overall energy use. Savings are calculated using industry standard practices and energy accounting methodologies. PSE may elect to renew a customer's CSEM agreement in three-year increments to provide continued support and additional performance incentives.

PSE’s CSEM support program is comprised of a "menu" of services, which can be tailored to meet the specific needs of the customer. Typical services include, but are not limited to, the following assistance and support:

Program Start Up

- Designing and implementing a CSEM program.
- Developing baselines, policies and guidelines, and facility action plans.

Resource Accounting Software

- Purchase and/or implementation of resource accounting software.
- Audits of existing databases to review for inclusion of all facilities, accounts, meters, etc., sufficient facility details, missing data, and overall data integrity.

Technical Assistance

- “Three-for-free” on-site walk-through audits to train customer staff to identify opportunities for improved efficiency. This helps jump-start customers on the process of completing Facility Action Plans.

- Analysis and reporting of savings relative to established baseline. PSE engineers will work with the customer to calculate O&M energy savings after each 12-month period of their CSEM contract. Adjustments will be made for major capital improvements, change in use, weather, and other factors that may have had a significant impact to facility energy use.
- SEM Hub: SEM Hub is a self-service website for customers to access SEM, M&V and O&M resources to implement at their facilities.
- Energy350 Technical SEM Support: PSE will provide high engagement SEM technical support to 5 customers in the program. Gas customers will be targeted in order to try and fill the gas savings gap. The technical support includes virtual energy scans, facility audits, monthly check-ins, and energy management assessments.
- SEI – Climate Corps Fellowship: Through SEI, PSE will sponsor a fellowship for customers that are facing staffing shortages/difficulties. PSE will pay for 75% of the fellowship in the first year, 50% in the second year and 25% in the third year, with the customer being responsible for the remainder of fellowship cost.

Education & Training

- Training in fundamental concepts for designated Energy Managers and support personnel such as custodial, maintenance, and facilities staff.
- Educational materials for classroom or building occupant use including checklists, fact-sheets, and calculators.
- Training stipend to support professional development in Building Operation or Energy Management.
- Seasonal Campaigns: The purpose of these campaigns is to generate conversations with CSEMs and other stakeholders at their organization about low-cost /no-cost seasonal energy saving opportunities. The audience for these campaigns include energy champions, building operators and site supervisors, executive sponsors and building occupants. These campaigns have been designed with the following goals in mind:
    - Ease of use. These campaigns include templates, draft language and tools designed for busy employees.

- Proactive, preemptive action. Facilities teams often operate in a reactive mode, responding to occupant requests, operational crises, and external events such as weather. These campaigns support a paradigm shift towards the continuous improvement framework of SEM, where activities are strategic, planned and preventative.
- Scalability. These campaigns are made up of talk cards that can be used to prioritize seasonal energy saving opportunities. The content is organized into manageable, easy-to-implement components so busy teams can incorporate new ideas and activities slowly and deliberately, as the schedule allows.

Energy Data Services

- Historical and on-going monthly PSE billing data and access to resource accounting software.
- Energy interval data for internet viewing of facility natural gas and electric interval meter data.

a. *Delivery Method*

The CSEM program effects conservation measures through the behavioral efficiency management conducted by a customer's Strategic Energy Manager, and the direct installation into customers' eligible structure by contractors engaged in a custom grant.

b. *Implementation Management*

The CSEM program directs all measure installations, tracking and reporting of site performance, trainings and meetings via in-house, PSE program staff and energy management engineers.

PSE continues to explore ways to make the CSEM program cost-effective for smaller customers. PSE efforts will continue to work with CSEM consultants, customers, and other support agencies to develop this market.

PSE periodically works with third parties to deliver customer trainings or other supporting CSEM content.

c. *Customer Incentives*

PSE continues to develop creative incentive options to increase CSEM support for a variety of customer segments. The CSEM program incentives are as follows:

- **Start-Up Incentive** – The start-up incentive is provided in the first year and is intended to share the cost of program start-up. It is paid upon satisfactory completion of deliverables, including a Resource Management Plan, at least one Facility Action Plan (or Portfolio Action Matrix), and at least one quarter of Site Quarterly Checklists.
- **Performance Incentives** – The performance incentive is based on calculated SEM energy savings using linear regression analysis, performed by PSE engineers.
- **Target Incentive** – The participant must meet or exceed the performance target with their "Total Savings" in order to qualify for the target incentive. Alternatively, the Target Incentive may be achieved through Continuing Engagement Credits (CECs).
- **Training Allowance** – The total incentive payment will be based on actual training and/or software costs and will not exceed the training allowance.

The table on the following page summarizes the incentives for the CSEM program. The grant measures are allocated to the year in which PSE expects them to be paid; the actual timing will vary based on the customer's completion of deliverables.

CSEM Direct Customer Incentive Table – *Figures based on maximum funding amount.*

Program Element		Formula / Notes	Measure Cost	Incentive
Year One	**Training Allowance/ Software Stipend**	Stipend for participation in BOC level 1 & 2 training or other accredited training if desired, subject to approval by PSE. Measure cost is PSE discounted tuition. Support for purchase of resource accounting software.	$2,000	$2,000
	Start-Up Incentives	Start-up incentive provided to customers that submit required first year deliverables within first year of grant. Measure cost is 100% of incentive amount.	$10,000	$10,000
	Performance Incentive	Performance incentive of $0.02/kWh and $0.15/therm of savings up to PSE defined performance target (typically 3% of baseline). If a customer exceeds the target, the performance incentive increases to $0.035/kWh and $0.25/therm for each additional unit of energy savings over the target up to 70% of the measure cost. In this table, an example performance incentive of $12,000 is shown for a customer that saved 600,000 kWh, or 3% of 20,000,000 kWh baseline. The measure cost is equal to 100% of deemed customer annual program cost, minus the start-up and bonus incentive amount.	$80,000	$56,000 maximum
	Target Incentive or Continuous Engagement Incentive	Target incentive if customer meets or exceeds PSE defined performance target (typically 3% of baseline energy use, or completion of continuous engagement credit requirements). Measure cost is 100% of incentive amount.	$10,000	$10,000

CSEM direct incentives, continued

Program Element		Formula / Notes	Measure Cost	Incentive
Year Two and Three	**Training Allowance/Software Stipend**	Stipend for participation in BOC level 1 & 2 training or other accredited training if desired, subject to approval by PSE. Measure cost is PSE discounted tuition. Support for purchase of resource accounting software.	$2,000	$2,000
	Performance Incentive	Performance incentive of $0.02/kWh and $0.15/therm of savings, up to PSE defined performance target (typically 5% of baseline). If a customer exceeds the target, the performance incentive increases to $0.035/kWh and $0.25/therm for each additional unit of energy savings over the target up to 70% of the measure cost. In this table, an example performance incentive of $20,000 is shown for a customer that saved 1,000,000 kWh, or 5% of their 20,000,000 kWh baseline. The measure cost is equal to 100% of deemed customer annual program cost, minus the bonus incentive amount.	$80,000	$56,000 maximum
	Target Incentive or Continuous Engagement Incentive	Target incentive if customer meets or exceeds PSE defined performance target (typically 5% of baseline energy use, or completion of continuous engagement credit requirements). Measure cost is 100% of incentive amount.	$20,000	$20,000
Total Incentives for Initial Three-Year Agreement			**$306,000**	**$234,000 maximum**

To encourage customers to continue to engage with the CSEM program and take on energy-saving actions, the CSEM team has developed a Continuing Engagement Credit (CEC) system as an alternate to the Target Incentive system. To receive the CEC incentive (which is the same amount as the Target Incentive), each Energy Manager must earn at least 8 points (single fuel) or 12 points (dual fuel) by completing and providing the appropriate verification for actions under the categories of Training, Implementation, Communication, and Documentation.

d. *Target Market*

PSE offers Commercial Strategic Energy Management (CSEM) to any school district, public-sector government agency, and commercial customer with a minimum portfolio baseload to meet cost-effective thresholds. The CSEM program targets larger commercial customers with multiple facilities such that the cost of implementation can be recovered through savings achieved. Schedule 448, 449, 458, and 459 customers may utilize their Schedule 258 funding allocation for CSEM.

Customers qualify for the CSEM program based on their annual PSE energy purchases. A typical customer baseline for maximum program funding is 20,000,000 kWh for electric only or 2,700,000 therms for natural gas-only service from PSE. Funding levels are prorated based on the amount of staff a customer would need to allocate in order to achieve cost-effective savings from SEM efforts. At a minimum, the customer needs to use 1,000,000 kWh or 135,000 therms, or the equivalent to participate in the program.

e. *Marketing and Outreach Plan*

Commercial, municipal, educational, and governmental customers will learn about the program through awareness building and proactive prospecting activities. PSE partners with other PSE departments, like Business Services and Municipal Relations to make connections with potential CSEM applicants. Such activities include targeted messaging delivered directly to selected business through targeted email, phone calls, and other digital efforts. Additionally, program awareness will created on PSE's behalf from lighting distributors, trade allies, and contractors when they interact with customer located in the PSE service territory.

PSE's CSEM program utilizes a broad array of marketing materials and training activities to reach its customer base. The nature of the CSEM program and its need for ongoing communications efforts with customers blurs the distinction between promotional marketing and customer communications. An integrated approach is required to support this program.

Program Communications to Existing Customers

- Support the CSEM program with development of information and training materials for customers.
- Recognize outstanding customers with awards and designations.
- Update collateral and web pages to be more user-friendly.
- Continue to promote and enhance tools to support ownership of process, making them easy for customers to use and implement.
- Support for the CSEM annual meeting with displays and handouts as needed.
- Establish resources and protocol for webinar trainings.

Marketing Communications to Existing and Potential Customers

- Provide marketing materials including brochures, web updates and standard presentation materials to communicate about the CSEM program.
- Continue to update marketing materials to incorporate program changes required.
- Continue to develop case studies to demonstrate an array of CSEM success stories and feature these businesses in monthly newsletters.
- Implement webinars to add value to existing membership while appealing to potential customers.

Internal PSE Communications

- Communicate key messages about the CSEM program to audiences inside of PSE that serve as channels to customers and other stakeholders.
- Provide a conduit for communicating critical updates or program information to the Energy Efficient Communities and Business Services groups.
- Review communications developed by Energy Efficient Communities.

Publicity

- Work with media outreach and social media teams to publicize successful projects.
- Work with media outreach team to develop articles about Energy Managers and their accomplishments.

Customer Outreach

- Energy Efficient Communities staff will develop and implement outreach strategies to promote enrollment in the CSEM program:
- Presentations to Chambers of Commerce, Large Businesses, and Municipalities to encourage program participation.
- Leverage relationships with local governments and other entities to gain awareness of program offerings.
- Targeted proactive outreach to customers with high potential for energy savings and meet program threshold requirements.
- Identify business customers whose energy efficiency achievements illustrate results of PSE program participation and highlight their successes at events, in case studies and through media outreach to increase awareness of program offerings.

3. Pay for Performance Program

The Pay for Performance (P4P) program targets the engagement of several customers in 2022-2023 to produce both electric and natural gas savings.

The program's objective will be the selection of customers with building of at least 50,000 square feet with large savings potentials. In 2023, PSE will look to pilot a couple P4P projects that are in buildings 20,000-50,000 square feet in order to align with the Clean Buildings Expansion Law (SB5722), that will eventually bring building performance requirements down to these smaller buildings. Incentives will be designed to be source-blind, and consist of a combination of capital, O&M, and behavior savings. Incentives would be based on conservation savings realized, and are paid out annually over the five year grant term. The source of energy savings cannot come from a single measure.

a. *Delivery Method*

The P4P program delivers conservation measures through the installation of capital measures, O&M, and behavior savings. The program is expected to be delivered via Energy Service Companies (ESCOs) or similar contractors, but may be performed by customer's staff if the resources and expertise to do so are present.

b. *Implementation Management*

The P4P program manages all program tasks via in-house, PSE program staff.

c. *Customer Incentives*

Category	Measure	Maximum Incentive Amount Each
Base Incentive	Years 1-5 of proposed savings measures, as outlined in the grant agreement	$0.40/kWh or $6.00/therm
Performance Incentive	Years 2-4 of savings beyond the proposed savings amount	$0.05/kWh or $0.50/therm for savings above & beyond the base incentive

d. *Target Market*

The target market for the Pay for Performance program is existing commercial buildings that are 50,000 sq ft or larger, or buildings with unusually high consumption per square foot. These are generally buildings like offices and schools with regular schedules, where consumption can be modeled using HDD and/or CDD.

e. *Marketing and Outreach Plan*

In 2022-2023, program staff plan to enhance the awareness and participation in the program through working with ESCOs to familiarize them with the process, seeking out speaking engagements with industry groups, and increasing internal capacity to identify potential projects. Additionally, the P4P program is being marketed as an option for customers looking to comply with the Clean Buildings Law.

D. Large Power User/Self-Directed

Schedule E258

1. Purpose

The purpose of this program is to acquire cost-effective energy savings from large Commercial and Industrial (C/I) customers by providing incentives that support self-directed energy efficiency projects that the customers themselves propose.

2. Description

This program solicits electric energy efficiency upgrades through a Request for Proposal (RFP) process. C/I customers receiving electric service under Schedules 46, 49, 448, 449, 458, or 459 receive a funding allocation based on their electric usage and are responsible for proposing cost-effective project(s) to utilize their allocation. This is classified as the non-competitive phase.

Proposals are evaluated by PSE engineering staff for technical soundness, cost-effectiveness and compliance with energy code and tariff requirements. Customers sign a standard PSE Conservation Grant Agreement, defining project cost, PSE incentive amount, and verification requirements prior to installation of project Measures.

The Large Power User Self-Directed program is implemented in cycles, with the current program cycle spanning January 1, 2023 to December 31, 2026. Customers are given until Q1 of the third year of the cycle to propose projects that utilize their incentive allocations under the non-competitive phase. Customers not designating projects that fully utilize their allocation forfeit their remaining balance to a competitive phase, in which remaining funds are available to all program participants via competitive bid.

In the Competitive Phase, eligible customers respond to an RFP in order to obtain remaining incentive funding that was not claimed during the non-competitive phase. In this phase, eligible customers may have access to funds beyond their original allocation. This RFP is typically released in May of the third year of the cycle.

Proposals received are ranked based on cost-effectiveness and other criteria specified in the RFP. Competitive funding is awarded, in order of project ranking, until all funds are allocated to projects.

3. Delivery Method

The Large Power User/Self-Directed program effects conservation measures through the direct installation into customers' eligible structures by contractors engaged by customers.

4. Implementation Management

The Large Power User/Self-Directed program manages all program elements via in-house, PSE energy management engineers, with the exception of energy studies and SEM activities, which are handled by PSE-selected consultants

5. Eligibility

Customers receiving electrical service from the Company under Schedules 46, 49, 448, 449, 458 or 459 (or their equivalent) of Electric Tariff G with cost-effective electric energy efficiency projects are eligible to respond to the Company's Requests for Proposals (RFPs). Schedule 258 and the RFPs outline all project funding criteria.

Incentives are calculated on an individual basis. They take the form of a grant, which is provided upon completion and verification of the project.

6. Customer Incentives Overview

The incentive budget for eligible customers will be the Electric Conservation Rider revenues less deductions made for the Company's administrative program costs (7.5 percent) and for the Northwest Energy Efficiency Alliance (NEEA) budget line item (10 percent).

The total Electric Conservation Rider revenue amount and customer allocation will be determined by the Company's State Regulatory and Cost of Service Department.

Energy efficiency measures are subject to the Company's Total Resource Cost Test to determine the grant amount to be paid. The incentive amount is up to $0.50 per annual kWh savings, subject to PSE Cost Effectiveness Standards.

Customers receiving service under Schedules 448, 449, 458 or 459 only receive incentives through the Schedule 258 program and cannot receive funding from other programs.

Measure incentive eligibility criteria are based on, but not limited to, established, industry-standard cost effectiveness tests, structure type and its location within PSE service territory, product type and product quantity.

The program is a custom incentive program. It is not limited to any measure type or markets. It is intended to provide the customer flexibility in developing projects that will result in energy savings.

Large Power User/Self-Directed measure categories include, but are not limited to:

Category	Includes
HVAC and Refrigeration	HVAC – unitary
	HVAC – central
	Heat Recovery Systems
	Chillers
	Economizers
	VAV Boxes
Commissioning and Optimization	Commissioning/Optimization of energy systems
Process Efficiency Improvements	Refrigeration Systems
	Motor and Drive Systems
	Fan, Compressor and Pump Systems or Stations
	High Efficiency Motors
	Other Process Modifications
Building Thermal Improvements	Roof and Ceiling Insulation
	Exterior Roof Insulation
	Wall Insulation
	Insulated Windows
	Duct Insulation

Large Power User/Self-Directed measure categories, continued

Category	Includes
Existing Building Insulation Controls	Energy Management Systems
	Lighting Control Systems
	Process and Other Efficiency
	Control Systems
Lighting Improvements	Fluorescent Luminaires
	LED Luminaires
Water Heating Improvements	Water Heaters
	Piping Insulation
	Low Flow Devices
Resource Conservation Management (RCM)	Participation in the Commercial Strategic Energy Management program

7. Target Market

Commercial and industrial customers receiving electric service under Schedule 46, 49, 448, 449, 458 or 459, or equivalent special contract are eligible to participate in this program.

8. Marketing and Outreach Plan

Effort will be made to ensure that eligible customers have every opportunity to take advantage of the incentive allocation available to them. If it becomes evident early in the program duration that some customers are having difficulty initiating the program process, the Company will offer to provide extra assistance to identify projects and perform any required follow-through.

E. Energy Efficient Technology Evaluation

Schedules E/G 261

1. Technology Evaluation Overview

The purpose of Energy Efficiency Technology Evaluation is to identify new, energy efficient technologies and products for PSE program offerings. Ideally, PSE would identify cost effective technologies and measures with significant savings potential, which are commercially available. However, there are many emerging technologies that range from “commercially available, but not used in the Northwest, to “conceptual” or “prototypical” technologies still in the development phase.

It is relatively simple to determine whether new, commercially available technologies are suitable, as long as generally accepted engineering calculations can be used, and manufacturers can provide reliable data. For example, vendors frequently approach PSE with new, improved products, claimed to save more energy than their older models, or their competition. Usually these proposals are evaluated by the Energy Management Engineer who is managing the project, who then shares his/her experience with others in the group.

Some technologies are not so simple to evaluate. Those that are truly new typically have little experiential history, or there is no generally accepted method to calculate the performance. Clearly, it would be risky to broadly offer incentives through PSE’s programs - risky with regard to uncertain savings and risky for its customers due to unforeseen product issues. If the potential savings look significant, PSE may try the technology on a limited quantity of projects, especially if it is working with a customer who understands the risks and would like to be an “early adopter.” Sometimes the most prudent approach is to monitor the progress of the technology, especially if the savings potential appears limited. PSE’s effort is not intended for basic research, or product development, but to identify technologies that are available and suitable for its programs.

The most challenging situations arise when vendors propose products that are “too good to be true.” Often their savings claims are supported by testimonials from satisfied customers, with little or no reliable test data. Many technologies, such as transient voltage suppressors, power factor correction devices and paint with high R-Value, have been known for years to save little or no energy, but the vendor may insist their product is different, even though it may only have a different name on the box.

Fortunately, PSE has experience with many of these products, or can readily find others who have had experience. It is important, however, to distinguish between inaccurate claims and those that might truly be the new emerging technology that deserves attention.

F. Commercial Rebates

Schedules E/G 262

1. Purpose

PSE offers prescriptive incentives for select, commonly-applied measures to commercial and industrial customers. These rebates have been developed for measures in which energy savings can be standardized over a wide variety of applications, and where a competitive market pricing structure exists to ensure cost-effectiveness.

2. Description

PSE program staff develops program design, monitors program performance, results, and trends. Programs are coordinated closely with the electric and natural gas Commercial and Industrial Retrofit Program.

Program refinements and cost-effectiveness are reviewed with engineering staff, the Evaluation Team, and the Managers of Residential Energy Management and Business Energy Management as necessary on an ongoing and adaptive basis. Incentives, measures, marketing and the fulfillment process may be modified, as needed, to respond to developments in technology, market conditions, customer acceptance and/or changes in supplier/contractor delivery and pricing. These programs offer prescriptive rebates to qualifying distributors and commercial customers:

- Commercial Midstream Lighting – Lighting To Go,
- Commercial Foodservice,
- Lodging Rebates,
- Commercial HVAC,
- Commercial Midstream HVAC and Water Heat, and
- Small Business Direct Install.

3. Eligibility

All Commercial and/or Industrial customers receiving electricity or bundled natural gas service from PSE are eligible. Schedule 448, 449, 458, and 459 customers may utilize their Schedule 258 funding allocation for measures offered under this program. Multifamily-related businesses or those with dwelling units will be referred to the Multifamily Program.

In the rare instances that customers operate a business on residential rate schedules (for instance, out of the home or garage) PSE will offer the appropriate measures providing that

the customer is able to show proof of business license, pending individual approval by PSE staff.

4. Program Delivery Method and Implementation Management

PSE implements each of the Business Rebate programs slightly differently. The following table provides an overview of the delivery method (how the customer or distributor receives a rebate/remuneration/benefit) and implementation management (which entity manages the delivery of the program).

PSE may also, from time to time, implement Limited Time Offers (LTOs) and to stimulate market activity, special performance incentives for field forces (sometimes referred to as SPIFFs).

Program Name	Delivery Method	Implementation Management
Lighting To Go	Conservation measures delivered through instant rebates paid to customers that purchase qualifying equipment through a participating Point of Purchase (POP) distributor partner.	Program design, metric analysis, incentive-setting and program policies are managed via in-house, PSE program staff. Distributor relations are managed by a third party implementer.
Commercial Foodservice Midstream	Conservation measures delivered through instant rebates paid to customers that purchase qualifying equipment through a participating Point of Purchase (POP) distributor partner. As part of the regional delivery of this program, in applicable instances PSE will coordinate with overlapping energy providers and the water utilities for consideration of potential incentives where those utilities have corresponding rebates.	Program manages some measure rebates through a third-party implementer. Program design, metric analysis, incentive-setting and program policies are managed via in-house, PSE program staff.
Commercial Foodservice Downstream	Conservation measures delivered through rebates paid to customers that purchase qualifying equipment and apply for a rebate after the purchase.	Program design, metric analysis, incentive-setting and program policies are managed via in-house, PSE program staff. Distributor relations are managed by a third party implementer.

Commercial Rebates Overview, continued

Program Name	Delivery Method	Implementation Management
Lodging Rebates	Conservation measures delivered through rebates paid to customers or contractors that purchase qualifying equipment and apply for a rebate after the purchase.	Program design, metric analysis, incentive-setting and program policies are managed via in-house, PSE program staff.
Commercial HVAC	Conservation measures delivered through rebates paid to customers that purchase qualifying equipment and apply for a rebate after the purchase.	Program design, metric analysis, incentive-setting and program policies are managed via in-house, PSE program staff.
Commercial Midstream HVAC & Water Heat	Conservation measures delivered through instant rebates paid to distributors or contractors that purchase qualifying equipment for installation within PSE's service territory.	Program manages all measure rebates through a third-party implementer. Program design, metric analysis, incentive-setting and program policies are managed via in-house, PSE program staff.
Small Business Direct Install	Conservation measures through the installation of low-or no-cost measures in customers' eligible structures via a third-party implementer.	Program manages all measure rebates through a third-party implementer. Program design, metric analysis, incentive-setting and program policies are managed via in-house, PSE program staff.

5. Customer Incentives

Most incentives are a fixed dollar amount for a qualifying product (for instance, ENERGY STAR certified commercial deep fat fryers). Some incentives are a flat amount per "unit size", where unit size may be "per ton" or "per horsepower." A list of all requirements for eligibility and participation can be found on individual program application forms or participation agreements.

Commercial rebates are delivered to market in different ways and are typically defined per program. They can be best categorized in the following two categories:

- **Downstream Rebates:** a traditional mail-in rebate requires the customer or contractor (often on behalf of the customer) to submit applications after the installation of qualifying equipment. The customer or contractor receives the rebate in the mail;
- **Midstream or Instant Rebates:** a rebate is provided through market distribution or point-of-sale, which may require no paperwork from customers or contractors.

This category is slightly nuanced depending on retailer, dealer, distributor, or wholesale participant and their relationship or agreement with PSE's program(s). Depending on the measure, the rebate may be given directly to the customer by the dealer, distributor, or wholesale participant at the point of purchase; meaning the customer receives the rebate instantly and the seller is later reimbursed. For programs or measures that include contractors the rebate may be paid to the contractor, who is then at liberty to pass their discount on to the end-use customer.

Measure incentive eligibility criteria are based on, but not limited to, established, industry-standard cost effectiveness tests, structure type and its location within PSE service territory, fuel type (natural gas or electric), product type and product quantity. A detailed list of Energy Efficiency service measures, incentives and eligibility are included below.

a. *Commercial Midstream Lighting to Go*

Customers may receive incentives for energy efficient lighting upgrades by purchasing efficient lighting products from approved distributors that provide incentives at point of sale. Residential and New Construction are not eligible for this program specific eligibility requirements are listed in the table below.

The Business Lighting program is available for larger purchases of exterior fixtures and retrofit kits.

Measure		Maximum Incentive Amount	Eligibility
LED Lamps	CFL- LED replacements: 4-pin	$3.00	All LED lamps or fixtures must be listed on Design Lights Consortium Qualified Products List.
	HID Replacements	Up to $300	
Linear Lamps	Retrofit to TLED (T5 & T8 Tubular LED)	$4.00 per lamp	Based on a lamp-for-lamp exchange.
	Retrofit to TLED (T8 Tubular LED)	$4.00 per lamp	
Exterior Fixtures	LED Outdoor Pole/Arm & Wall Mount, Architectural Flood & Spot, and Fuel Pump Canopy	Up to $645	Includes retrofits Project quantity limit 30
Interior Fixtures	Troffer and Kits	Up to $20	Must be listed on Design Lights Consortium Qualified Products List. Project quantity limit 30
	Wrap and Strip Fixtures	Up to $15	Must be listed on Design Lights Consortium Qualified Products List. Project quantity limit 30

	High Bay >125W	Up to $140	Must be listed on Design Lights Consortium Qualified Products List. Project quantity limit 30
	Downlight Retrofit Kit	Up to $30	Must be Energy Star Project quantity limit 30

Calculated Lighting Measures

Please note: Calculated lighting measures are processed as a part of custom lighting grants, discussed in the C/I Retrofit section of the Business Energy Management Sector chapter.

b. *Commercial Foodservice*

Commercial Foodservice treats customers within PSE's service territory who are high energy users due to the foundation of their business (additional customer segmentation detail can be found within the Targeted Market Outreach section).This program includes measures offered at both the Midstream/Instant and Downstream level. PSE's Midstream model was first in the country for the commercial foodservice sector and it partners with local, regional, national, and online sales channels to broaden program reach. Employing a heavy suite of equipment categories, incentives are designed to achieve the greatest customer savings due to the financial vulnerability of the sector and general high cost of upgrades, and all rebate dollars are directly passed through to the end-use customer to maximize attribution and customer benefit.

The standard enumerated in Washington State 2019 House Bill 1444 impacts some commercial cooking equipment within the portfolio, and there continues to be some uncertainty in the market around awareness and adoption of the House Bill. In response to this, and with CRAG approval, PSE will continue rebates on those impacted measures (fryers, steamers, and dishwashers) in 2023, and program staff will monitor the local market efficiency baselines and equipment availability.

Dishwasher Type	Temperature[2]	Water Heater Fuel Type[3x]	PSE Electric-only	PSE Natural Gas-only	PSE Combined Fuel
Under Counter	Low	Electric	$345	-	$ 345
Under Counter	Low	Natural Gas	-	$345	$345
Under Counter	High	Electric	$345	-	$345
Under Counter	High	Natural Gas	$285	$ 60	$345
Stationary Single Tank Door Type	Low	Electric	$3750	-	$3750

Stationary Single Tank Door Type	Low	Natural Gas	-	$3750	$3750
Stationary Single Tank Door Type	High	Electric	$3750	-	$3750
Stationary Single Tank Door Type	High	Natural Gas	$3750	$750	$3750
Single Tank Rack Conveyor	Low	Electric	$8700	-	$8700
Single Tank Rack Conveyor	Low	Natural Gas	$450	$8700	$8700
Single Tank Rack Conveyor	High	Electric	$8700	-	$8700
Single Tank Rack Conveyor	High	Natural Gas	$5250	$3450	$8700
Multi Tank Rack Conveyor	Low	Electric	$4500	-	$4500
Multi Tank Rack Conveyor	Low	Natural Gas	-	$4500	$4500
Multi Tank Rack Conveyor	High	Electric	$4500	-	$4500
Multi Tank Rack Conveyor	High	Natural Gas	$2250	$2250	$4500

Commercial Foodservice: Cooking Equipment Rebates

Measure	Maximum Incentive Amount			Eligibility
Deep Fat Fryers	Any Sized Vat – electric		$1275.00/ unit	ENERGY STAR V3.0 Qualified
	Any Sized Vat – natural gas		$1500.00/unit	
Ovens	Convection	Commercial Natural Gas or Electric Convection Ovens	$1200.00/Half-size unit $1500.00/Full-size unit, per cavity	A list, based on the Food Service Technology Center (FSTC) and combined with ENERGY STAR v2.2 will be made available to equipment dealers and will be posted on PSE's website.
	Combination, Gas	Natural Gas Combination Oven <15 pans	$3750/unit	
		Natural Gas Combination Oven 15-28 pans	$4500.00/unit	
		Natural Gas Combination Oven >28 pans	$10,500.00/unit	
	Combination, Electric	Electric Combination Oven <15 pans	$1500.00/unit	
		Electric Combination Oven 15-28 pans	$2250.00/unit	
		Electric Combination Oven >28 pans	$10,500.00/unit	
	Deck/Rack, Electric or Gas	Electric Deck Oven, any size	$4500.00/deck	
		Natural Gas Double-Rack Oven	$6000.00/unit	
	Conveyor, Gas	Natural Gas Conveyor Oven	$3300/deck	

Commercial Foodservice: Cooking Equipment Rebates, continued

Measure	Maximum Incentive Amount		Eligibility
Steamers	Any Size - Electric	$3450.00/unit	ENERGY STAR V1.2 Qualified
Steamers	Any Size - Gas	$3750.00/unit	ENERGY STAR V1.2 Qualified

Commercial Foodservice: Ventilation Equipment Rebates

Measure	Maximum Incentive Amount	Eligibility
Demand Control Kitchen Ventilation – Electric	Up to $1200 per total fan Horse Power (exhaust fan HP + supply fan HP) For units 2 – 30 total HP Dual fuel customers would receive both Electric and Gas incentive amounts based on the total HP.	A list, based on the CA State Utilities, will be made available to equipment dealers and will be posted on PSE's website. Eligibility is also dependent upon additional equipment settings and individual verification. Retrofit applications only - new construction is ineligible
Demand Control Kitchen Ventilation – Natural Gas	Up to $1200 per total fan Horse Power (exhaust fan HP + supply fan HP) For units 2 – 30 total HP Dual fuel customers would receive both Electric and Gas incentive amounts based on the total HP.	A list, based on the CA State Utilities, will be made available to equipment dealers and will be posted on PSE's website. Eligibility is also dependent upon additional equipment settings and individual verification. Retrofit applications only - new construction is ineligible

Commercial Foodservice: Ice Machine Rebates

Ice Machine Category		Incentive Amount	Eligibility
Ice Making Head	Up to 299 lbs ice/day	$263	ENERGY STAR V 3.0 qualified
	300 - 799 lbs ice/day	$375	
	800 – 1,499 lbs ice/day	$563	
	1,500+ lbs ice/day	$675	
Remote Condensing	Up to 987 lbs ice/day	$563	
	988+ lbs ice/day	$750	
Self-Contained	up to 109 lbs ice/day	$225	
	110 - 199 lbs ice/day	$263	
	200+ lbs ice/day	$300	

iii. Sales Performance Incentive Funds

A Sales Performance Incentive Fund (SPIFF) refers to paying a small and often immediate bonus to a sales rep for a specific sale or end-result. Utilities often utilize SPIFF programs for the benefits they can provide to energy efficiency programs as they can add long-term visibility and recognition to help a program or product stand out and is a way to encourage staff to push one product – in this case efficient products – over a non-SPIFF paid product. Providing the right sales incentive or SPIFF can mean the difference between a sales staff going through the motions of their day-to-day work and motivated sales staff who go above and beyond and push efficient equipment to their customer base on behalf of PSE. SPIFFS are tied to specific equipment sales and are tracked per unit/transaction. They are paid directly to sales staff unless otherwise noted and justified.

While there are no direct energy savings associated with SPIFF measures, sales staff are engaging in activity that ultimately results in the customers' direct benefit of an Energy Efficiency incentive or rebate, and then subsequent energy savings.

PSE staff have developed a purposeful strategy around SPIFF amounts in the Commercial Foodservice Midstream program in order to help increase the effectiveness of some of the more difficult to achieve equipment measures with participating dealers. Many of these SPIFFs are set at a base amount of $50.00, but a higher dollar amount is offered for measures that require significantly more effort to make high efficiency sales and are often also special-ordered and not pre-stocked (specifically steamers, combination ovens, and rack ovens). These measure also coincide with greater energy savings to the program. The program may also utilize Limited Time Offer (LTO) SPIFF increases in order to capitalize on market conditions or move specific categories, or for other staff-identified reasons.

c. *Lodging Rebates*

The Lodging rebates are designed to assist hotel and motel customers in affording the significant cost associated with making changes to their greatest energy burden – heating and cooling. The program is available to all hotel and motel customers utilizing PSE fuel for heating and cooling and is not limited by size, though PSE's small and medium sized hotel and motel customers are the greatest focus. Rebates are offered through a downstream model and set at an "up to" amount based on the individual cost of the equipment. There are numerous required checks and balances through the rebate process, managed closely by PSE staff, to ensure qualifications are accurately met for these measures. This includes pre- and post-installation specifications. At times and only when specifically approved by PSE staff, contractors or other entities that are able to pass through the rebate to the end-use customer and fulfill all of the necessary requirements for the program may be paid the rebate.

The following incentives do not cover installation, labor, or taxes. PSE requires invoicing showing the line itemed costs in order to determine this rebate amount.

<table>
<tr><th>Measure</th><th>Incentive Amount</th><th>Eligibility</th></tr>
<tr><td>In-Room Occupancy-based Thermostat Controls</td><td>Up to $200.00 per guest room</td><td>• Stand-alone guest room HVAC occupancy controls with automatic, unoccupied setback capabilities.*
or
• A networked guestroom control with automatic, unoccupied setback capabilities.*
*Unoccupied temperature set points must be at least 5º higher in the cooling mode and at least 5º lower in the heating mode than the occupied set points.</td></tr>
<tr><td>Packaged Terminal Heat Pumps</td><td>Up to $1000.00 per unit</td><td>Unit must exceed code by a minimum of 10% (see table below)
<table>
<tr><th colspan="4">PTHP Efficiency Requirements</th></tr>
<tr><td>Capacity in BTU</td><td><8,000</td><td>8,000 – 10,999</td><td>11,000+</td></tr>
<tr><td>Cooling - Minimum EER</td><td>10.2</td><td>9.8</td><td>9.1</td></tr>
<tr><td>Heating - Minimum COP</td><td>3.0</td><td>2.9</td><td>2.8</td></tr>
</table></td></tr>
</table>

d. *Commercial HVAC*

Commercial HVAC retrofit rebates are designed to help PSE's small and medium commercial customers reduce their energy usage without having to upgrade costly rooftop equipment. Customers must have PSE electric service in order to be eligible for rebates, and each measure has specific pre- and post-install requirements for equipment retrofit eligibility.

Category	Measure	Maximum Incentive Amount Electric	Eligibility
HVAC	Web Enabled Thermostats	$200/unit	New thermostat is on the BPA qualified product list and old thermostat is not web-enabled
	Electric resistance to Heat Pump (HSPF 8.2; HSPF2 7.5)	$1000 Per Ton	Unit meets efficiency requirements and replaces electric resistance zonal heating
	Advanced Rooftop Controls – Single Phase	$500 Per Unit	N/AInstallation of an ECM motor or VFD and controller for variable speed fan operation; RTU is < 5 tons
	Advanced Rooftop Controls - Lite	$2000 Per Unit	A VFD and controller for variable speed fan operation, or a multispeed motor and controller for multispeed fan operation; RTU is 5-20+ tons
	Advanced Rooftop Controls—Full	$4500 Per Unit	A VFD and controller for variable speed fan operation, or a multispeed motor and controller for multispeed fan operation A controller with digital, integrated economizer controls, and Demand Control Ventilation based on CO2 sensor readings RTU is 5-20+ tons

On January 1, 2023, the revised Department of Energy's Federal Minimum Efficiency Standard (Federal Minimum Standard) for Small, Large, and Very Large Air-Cooled Commercial Package Air Conditioning and Heating Equipment and Commercial Warm Air Furnaces is set to take effect. The revised standards will require a new measure to be created for ductless heat pumps that requires a new minimum efficiency standard of 7.5 HSPF2. Incentives for both the HSPF and HSPF2 commercial ductless heat pump measures will be increased from $500/ton to $1000/ton in alignment with the BPA.

e. *Commercial Midstream HVAC & Water Heat*

The Commercial Midstream incentive program will work with HVAC and Water Heater Distributors to make high-efficiency HVAC equipment more readily available to PSE customers. This will benefit PSE customers who need an emergency replacement, and install qualified products from locally-stocked resources.

Category	Measure	Maximum Incentive Amount Each Electric	Maximum Incentive Amount Each Gas
HVAC	Air Conditioning and large Heat Pumps	$40 - $160 Per Ton	N/A
	High Efficiency Air Source Heat Pump ≤ 5.4 tons	Tiered up to $600.00/unit	N/A
Water Heating	Condensing Tankless and Storage Water Heaters and Boilers	N/A	$3.00-$5.00/Mbtuh
	Hybrid Electric Heat Pump Water Heater ≤ 120 gallon	$600.00/Unit	N/A

For large heat pumps and air conditioning equipment, distributors are allowed flexibility in how they use the rebate, meaning they are not required to pass any of the rebate through to the contractor. The volume of these projects is small and distributors are not motivated to participate if they must pass the rebate to the contractor. Conversely, small commercial sized hybrid electric heat pump water heaters and air source heat pumps (<5.4 tons) have much greater sales volumes and distributors are required to pass the entire rebate through to the Contractor. Contractors are encouraged to share all or a portion of the rebate with the end use customer. For these smaller systems, whether installed in commercial or residential facilities, distributors are provided a sales incentive of $50 to alleviate the administrative burden of providing the installation address and equipment specifications to PSE.

The logic supporting the Midstream Rebates Program design recognizes that a small number of distributors and manufacturers are in a position to impact thousands of commercial customers and influence their choice of equipment by increasing the stocking and promotion of high-efficiency space and water heating equipment. Midstream rebates cost-effectively leverage this market structure and existing relationships.

Regardless of how the rebate is factored into the price of the HVAC equipment or water heater, the end use customer benefits from the lifetime energy savings associated with installation of the high efficiency equipment.

Federal minimum changes will impact the 2023 large HVAC measures with the removal of Tier 1 units in January 2023 and the removal of Tier 2 units in July 2023. Program staff are taking a phased approach but will watch the HVAC market and make adjustments to offerings when products manufactured under the old federal minimum are no longer available in the market.

The Department of Energy (DOE) released a federal minimum efficiency and testing requirement change for air source heat pumps that will go into effect on January 1, 2023, and applies to all equipment manufactured on or after this date. The federal changes include measuring efficiency in HSPF2 (heating season performance factor 2) and SEER2 (seasonal energy efficiency rating 2), as opposed to the prior HSPF and SEER measurements. As there will be existing stock for equipment manufactured under the previous federal minimum standards, the program will monitor the market and modify qualifying equipment metrics as needed. The AHRI Directory will continue to be used to determine efficiency and capacity ratings of equipment. Qualifying HVAC products include air cooled heat pumps as rated under AHRI Test Procedures 210/240.

The Regional Technical Forum has divided commercial HPWHs into consumer and unitary categories, essentially distinguishing between low usage equipment designed for the residential market and medium to high usage equipment specifically designed for the commercial market. The 2023 program adopts that distinction and splits the commercial measures into two categories 50-80 gallons and 81-120 gallons, which have different savings values based on the gallon per day water usage expected for each equipment size grouping. Larger HPWH systems will continue to be processed via PSE's Custom Grant program.

Regional alignment in program offerings is a key component to success by providing distributors a consistent platform to engage contractors. PSE, Seattle City Light, and SnoPUD will continue to collaborate during monthly regional planning meetings to identify new midstream opportunities and to expand participation into Named Communities.

6. Small Business Direct-Install

The Small Business Direct Install (SBDI) program is designed to encourage small business customers to complete energy efficiency upgrades to their facilities and buildings through lighting, refrigeration, and HVAC retrofits. The program will focus on providing no-cost business energy assessments to identify basic and complex retrofit opportunities and facilitate participation in PSE's rebate and custom programs, based on the businesses' needs.

Specific segments such as hospitality, grocery and agriculture, typically have product and service needs specific to their industries in addition to more standard measures which is incorporated into the available measures and marketing tactics.

a. *Eligibility*

Qualifying customers are owners, customers and tenants, with appropriate owner consent, of small to mid-sized businesses receiving electricity through PSE commercial Rate Schedule 24, 25 (under 10,000 square feet) and 31G. An exception to the square footage requirement exists in the lodging sector where the size limit of 150 rooms or less has been put in place in order to qualify for the program.

Common area facilities supported by commercial meters in multifamily buildings, as defined in electric and gas Schedules 217 and 218 of this Tariff; and structures under construction, as defined in electric and gas Schedules 250, are ineligible for this program.

Qualifying agriculture customers own or operate greenhouses, dairies, livestock production, nurseries, crop farms, food processors, and the like, billing with annual gross sales of $250,000 or less, or on gas rate schedule 31.

Measures are installed at the customer's site directly by the third party implementer and/or a PSE authorized contractor managed by the implementer.

b. *Incentives*

The majority of the measures are provided at no cost to the customer. Complex measures will require a co-pay by the customer. Incentives payments for measures with a co-pay will be in alignment with the other rebate programs. Incentives are paid to the service provider and/or contractor, and are not intended to be a direct-to-customer rebate.

c. *Measures*

Direct Install: Electric Measures

Measure	Eligibility
Aerators	Rated at 0.5 and 1.0 gpm to be installed in hot water applications only. For customers who use electricity or natural gas to heat water. 1.0 gpm aerators will only be installed in commercial kitchens or lodging guest rooms.

Anti-Sweat Heater Controls	Must install a device that reduces the energy consumption of the anti-sweat heaters by at least 50% for the glass door (if applicable) and door frame. Technologies that reduce energy consumption of anti-sweat heaters based on sensing humidity only. Does not apply to doors equipped with low/no anti-sweat heat.
Bi-Level Lighting	Occupancy controlled bi-level lighting in stairwells through direct install at no cost to the customer. This measure assumes an existing 2-lamp T-12 or T8 fixture. Bi-level stairwell fixtures with occupancy control are intended for use in areas where high levels of illumination are required to be on all the time to meet emergency egress code requirements in spite of the fact that these areas are often unoccupied.
HID Retrofits	LED fixtures installed under this rebate must be qualified by ENERGY STAR, or the DesignLights Consortium. Each exterior fixture installed will have a photocell.

Direct Install: Electric Measures, continued

Measure	Eligibility
In-Room Occupancy-based Thermostat Sensors (Lodging)	Lodging Customers shall install either stand-alone guest room HVAC occupancy controls with automatic, unoccupied setback capabilities or a networked guestroom control with similar capabilities. Unoccupied set points must be a minimum of 5 degrees F from the occupied set point.
LED Canopy Lighting	LED fixtures installed under this rebate must be qualified by ENERGY STAR or DesignLights Consortium. Each fixture installed will have a photocell. To align with PSE's other commercial lighting program, the following specifications also apply: Must replace existing 320w or 400w HID fixture with a LED fixture; the fixtures must be hardwired to prevent the future installation of less-efficient lamps; LED lights must have minimum CRI of 80 and provide a minimum of 70% of initial lumens at 50,000 hrs; Manufacturer's warranty must be a minimum of five years.
LED Exit Sign	LED Exit Signs must use 5 Watts or less and have a 5 year Manufacturer's Warranty.
LED Open Sign	Installed signs must have an efficiency (lumens/Watt) of 80 or greater, must be complete new LED fixtures, and LED Replacement signs will operate at a maximum of 11-watts when on, and draw zero measurable watts when off.
Occupancy Sensors	Must allow for both infrared (IR) and sonic detection
Packaged Terminal Heat Pump (Lodging)	New packaged Terminal Heat pumps must meet or exceed current Washington state energy code by a minimum of 10%.
Pre Rinse Spray Valve	Rated at 0.65 gpm to be installed in hot water food service applications only.
Refrigerated Case Lighting	Must consume between 4.0 and 7.5 W of electricity per linear foot and listed on the Design Lights Consortium qualified lists for linear LED lamps. Fixtures must be hardwired.
Retrofit to TLED	Baseline savings will be based on the existing T12 or T8 lamp wattage and replacement using a 10W TLED lamp. Fluorescent lamp and ballast will be removed and replaced with a ballast by-pass TLED. Lamp must be ENERGY STAR or Design Lights Consortium Listed.
Strip Curtains	Strip curtains, made generally of clear PVC strips, must be nominally between 4' to 8' wide and between 0.060" to 0.080" thick and clear enough to allow for see-through visibility. This measure consists of new strip curtains installed on doorways of refrigerated freezer or cooler boxes. This measure is NOT eligible for display cases or for replacing existing strip curtains.

Direct Install: Natural Gas Measures

Measure	Eligibility
Pre-rinse sprayers - gas heated hot water	Rated at 0.65 gpm to be installed in hot water food service applications only.
Aerator - gas heated hot water	Rated at 0.5 and 1.0 gpm to be installed in hot water applications only. For customers who use electricity or natural gas to heat water. 1.0 gpm aerators will only be installed in commercial kitchens or lodging guest rooms.
Web Enabled Thermostats	1) Must be connected and able to be accessed remotely 2) Must be able to maintain settings during power failure. 3) Must allow seven-day programming, temporary manual override and manual selection for fan operation. 4) Must also be an electric customer, not a stand-alone gas measure

7. Target Market

Rebate Measures are targeted to appropriate distributors and commercial markets, including but not limited to: Large Office, Small Office, Large Retail, Small and Specialty Retail, Restaurants, Commercial Laundries, Hotels/Lodging, Groceries, Convenience Stores, HealthCare/ Assisted Living, Schools, Property Management, Farms and Agricultural businesses.

Schedule 448, 449, 458, and 459 customers may utilize their Schedule 258 funding allocation for Measures and incentive amounts offered under this program. Multifamily related businesses or those with dwelling units are served under the Multifamily Retrofit programs, Schedules E217 and G217.

In the rare instance that customers operate a business on residential rate schedules (for instance, out of the home or garage) PSE will offer the appropriate measures to them specifically tied to their type of business providing that the customer is able to show proof of current business license.

8. Marketing and Outreach Plan

PSE's Commercial Rebates programs deliver prescriptive rebates on commercial foodservice, lodging, HVAC and lighting equipment for distributors, and business customers through its network of local contractors, distributors and third party vendors. PSE offers its commercial customers a trusted and reliable network of trained professionals who can install energy-efficient equipment and offer upgrades tailored to their specific business needs.

The goal for Commercial Rebates 2022-2023 marketing and outreach plan is to reach small and medium-sized business customers through targeted advertising, email, direct mail, social media,

earned media and customer outreach to build awareness of and drive participation in PSE's energy efficiency programs and rebates.

The objective for Commercial Rebates is to anticipate business customers' needs and deliver to them tailored energy efficiency solutions that help them use less energy and save more money. In addition, the commercial midstream HVAC and WH program ensures high efficiency HVAC and water heat equipment is available locally in replace on burn out scenarios.

This will be achieved through the following more specific objectives:

- **Customer awareness:** Continually and regularly notify and alert customers via multiple channels that PSE has energy efficiency programs and rebates for businesses of all sizes that save them money.
- **Market intelligence:** Conduct research to create segmentation, heat mapping, and propensity models to develop a targeted strategy for delivering marketing messages and offers to the appropriate decision makers dependent on the different type and size of the business. Utilize data analytics to effectively deliver outreach campaigns in communities where they are needed most.
- **Strategic partnerships:** Collaborate with cities, municipalities, communities, distributors and organizations to extend the reach of program offers, drive savings, build brand credibility and foster community involvement.
- **Contractor referrals:** Provides customers referrals to trusted, reliable and safe contractors to help them chose the right energy-efficient equipment and upgrades and drive participation in rebates.
- **Self-service tools:** Design campaigns and promotions utilizing online, self-service tools that eliminate barriers to participation and streamline the rebates process.
- **Customer satisfaction:** Improve relationships with distributors, contractors and customers by offering first-rate products and offers, access to contractor network and providing stellar service, as well as measuring satisfaction post-installation.
- **Education:** Help stakeholders and customers understand how PSE's energy efficiency options can save them money, both in the short-term and long-term, no matter how large or small the upgrade.

Additionally, commercial incentives offered through the Midstream program model will partner with distributors, showrooms, and manufacturing representatives to offer rebated product to customers. This point of sale approach provides discounts, which are often passed on to the customer, encouraging greater uptake of more efficient products.

To promote these products, marketing efforts will encourage participation by building program awareness across distributor, showroom, and related channels. Additional efforts include:

- PSE Staff and its Midstream implementation contractor work closely with distributors and manufacturers to create awareness to customers and contractors. Distributors are provided metrics and details about performance in the program, and are engaged on individual opportunities to support promotion of the program, including printed program materials, digital resources, web events, in person events, etc.
- PSE partners with a vendor for individual distributor and sales staff engagement and training. The engagement includes disbursement of point of purchase (POP) collateral and signage for participating equipment dealers in addition to support and coordination for events

The Commercial Rebates programs will accomplish their goal and objectives by focusing on the following specific strategies and tactics by program:

a. *Commercial Midstream Lighting To Go*

To promote efficient lighting incentives, marketing efforts will encourage participation by building program awareness across distributor, showroom, and contractor channels. Specific activities may include:

- Disbursement of point of purchase (POP) signage for participating instant rebate vendors, supported by professional field service staff.
- Development of marketing collateral that provides increased awareness of PSE Lighting to Go program rebates and distributor network, delivered to contractors through various interaction points.
- Promote contractor education on how to access discounted products.

b. *Commercial Foodservice and Lodging Rebates*

PSE employs similar marketing tactics for the programs and sectors that fall within this grouping of programs, focusing strategically on customer and market actors within the individual sectors affected. Customers and sectors include but are not limited to:

- Commercial Foodservice customers include a wide variety of customers from independent coffee shops, to institutional cafeterias, to chain fast food restaurants. Restaurants make up the largest segment, followed by institutions (education, healthcare, and corrections) and recreation and retail at (hotels, supermarkets, convenience stores).
- Lodging customers include the hospitality-lodging industry, mainly consisting of hotels and motels, but may also include boarding/rooming houses, apartment hotels, dormitory, and shelter facilities. Also peripherally included are residential care building types which include nursing homes, retirement home, and assisted living facilities.

To promote these products, marketing efforts will encourage participation by building program awareness across customer, retailer, distributor, contractor, and related association and partnership channels. It is identified that there is some customer overlap in these sectors which helps maximize program reach.

Specific activities may include:

- Targeted marketing and outreach strategy utilizing segmentation research with a specific emphasis on restaurant/lodging/hospitality industry.
- Cross-promotion of products to customers who have already participated in other commercial efficiency programs.
- Collaboration with equipment supply distributors to co-promote rebates and incentives.
- Collaboration with equipment manufacturers to develop limited-time offers to drive participation in rebate program.
- Enhanced partnership with local industry associations to offer sponsored and streamlined marketing reach across overlapping sectors.
- Identify opportunities and develop strategy for promoting equipment upgrades and rebates to multilingual customers.
- Promotion of rebates to business customers at relevant industry trade shows
- Participation in small business outreach activities to cross-promote programs as part of a comprehensive small business energy assessment.
- Coordinated marketing and outreach efforts to promote participation in customer engagement events or direct install “blitzes”.
- Phone, email or stop in (when safe and appropriate) to businesses to identify and discuss potential for energy savings.
- Enhanced city engagement to demonstrate community partnerships with city staff, elected officials and chambers of commerce.
- Collaboration with local retailers in blitz communities to provide exclusive efficiency offers for commercial and residential customers.
- Cross-promotion of other relevant commercial rebate programs to encourage replacement of aging and inefficient equipment
- Provide sponsorships with targeted trade associations, industry conferences, trade shows, and events where PSE can connect with customers, wholesalers, distributors, contractors, trade allies, and other trades to publicize program offerings
- Develop a custom communications approach tailored to the customer segment
- Using research and survey results to continue to improve customers’ awareness, engagement and education.

c. *Commercial HVAC*

Commercial customers will learn about the program through awareness building activities. Such activities include targeted messaging delivered directly to selected business through email and other digital efforts. Additionally, program awareness will be created on PSE's behalf fromdistributors, trade allies, and contractors when they interact with customer located in its service territory.

Additionally, PSE will build out its commercial business followers on various social media platforms so it can connect with them, share relevant information and white papers, and begin to position PSE as a trusted expert in the field of commercial HVAC and water heating.

Marketing, Outreach and Events personnel with partner with a commercial HVAC and water heating Subject Matter Expert on developing and implementing strategies designed to build program awareness and installation of commercial HVAC and water heating solutions.

Potential programs and tactics may include:

- Presentations to chambers of commerce, visitors and convention bureaus, restaurant and hospitality associations and other trade associations to publicize program offerings.
- Continue to identify, build and leverage partnerships to identify upcoming building projects and then connect with distributors, trade allies, and contractors to make them aware of program offerings during the early stages of the project.
- Leverage relationships with key wholesalers, distributors, contractors, and trade alleys to gain awareness of new commercial and industrial developments, and consider offering them a nominal stipend for each referral that results in a completed project.
- Identify business customers whose energy efficiency achievements illustrate results of PSE program participation and highlight their successes at events, in case studies and through media outreach to increase awareness of program offerings.
- Provide support to the Commercial Space Heat team to identify and support events, trainings, webinars, expos and conferences.
- Provide and manage event kit displays for small to medium business related programs.
- Develop digital and printed copies of program collateral highlighting the lighting program, benefits, and advantages. These materials will be distributed widely during events, presentations, and meetings to wholesalers, distributors, contractors, trade allies, and to business customers.

- Track metrics around event participation and impressions and engagements to drive tactics and strategy in order to remain nimble and ready to serve this unique customer base, including the use of trackable URLS on collateral meant to be used at events.

d. *Commercial Midstream HVAC & Water Heat*

PSE Staff and its implementation vendor work closely with distributors and manufacturers to create awareness to customers and contractors. PSE provides distributors with metrics and details about performance in the program, and works with each distributor and manufacturer on individual opportunities to support promotion of the program, including printed program materials, digital resources, web events, in person events, etc.

PSE partners with a vendor for distributor and contractor engagement for the small commercial measures added to the program in 2020. The engagement includes point of purchase collateral and events coordination as well as emails and phone calls.

Potential programs and tactics may include:

- Presentations to wholesalers, distributors, contractors, trade allies, and other trades to publicize program offerings.
- Provide sponsorships with targeted trade associations, industry conferences, and events where PSE can connect with customers, wholesalers, distributors, contractors, trade allies, and other trades to publicize program offerings.
- Identify cross-promotion opportunities with other appropriate PSE programs.
- Distributor engagement training sessions to promote technologies to contractors including but not limited to: heat pump water heater and HVAC training opportunities
- Contractor 1:1 engagement meetings

e. *Small Business Direct Install*

The Small Business Direct Install (SBDI) program is designed to encourage small business customers to complete energy efficiency upgrades to their facilities and buildings through lighting, refrigeration, and HVAC retrofits. The program will focus on providing varying levels of business energy assessments to identify basic and complex retrofit opportunities and facilitate participation in PSE's rebate programs, based on the business's needs.

Specific segments, such as hospitality, grocery and agriculture, typically have product and service needs specific to their industries in addition to more standard measures which is incorporated into the available measures and marketing tactics.

The Puget Sound region is blossoming with diversity which indicates there are exciting opportunities to learn and serve new audience groups. According to the Puget Sound Regional Council, there are five cities in PSE's service territory with majority-minority

populations including SeaTac, Renton, Kent, Federal Way and Bellevue. PSE aims to address barriers and expand equity and inclusion into the SBDI program.

The source of trust for these groups come from within their communities, initiatives and organizations that bring value to their lives and businesses. PSE will continue to identify and leverage the sources of trust relevant to these small businesses to position itself as part of the community. By doing this, the brand will be able to transcend across the priority multicultural audiences. Building on the Pilot phases 1 and 2 in 2019, PSE will continue to develop a strategy that seamlessly integrates multicultural perspectives and outreach tactics.

To promote these programs, marketing efforts will encourage participation by targeting commercial business owners and operators, small business tenants, and contractor channels.

Marketing activities may include:

- Coordinated marketing and outreach efforts to promote participation in community engagement events (in person and virtual) or direct install blitzes (as safe and appropriate).
- Identifying geographic clusters of businesses in need of interior and/or exterior efficiency upgrades
- Enhanced city engagement to demonstrate community partnerships with city staff, elected officials and chambers of commerce.
- Collaboration with local retailers in blitz communities to provide exclusive efficiency offers for commercial and residential customers.
- Cross-promotion of other relevant commercial rebate programs to encourage replacement of aging and inefficient HVAC, and kitchen equipment
- Cross-promotion of product and rebate offerings to residential customers in blitz communities.
- Promotion of rebates to business customers at relevant industry trade shows.
- Develop a custom approach for more complex small business types such as hospitality, agriculture and grocery.
- Social media campaigns to targeted demographics

G. Business Pilots

Schedule E/G 249

Pilot programs and demonstration projects may be undertaken to determine whether certain strategies and Measures are cost-effective in the long run. Pilots are employed to test cost-effective ways to demonstrate market opportunities for energy efficiency.

Pilots may include tests of measure cost and performance, customer acceptance and delivery methods. In compliance with WAC 480-109-100(1)(c) and condition (7)(c), PSE will pursue pilots when there is a reasonable expectation of savings achievement in the current or subsequent biennium, and will only claim energy savings that achieve energy savings sufficient to demonstrate cost-effectiveness by passing the TRC test.

V. Regional Programs

A. Northwest Energy Efficiency Alliance

Schedule E/G 254

1. Description

NEEA is a non-profit organization working to accelerate the innovation and adoption of energy-efficient products, services and practices in the Northwest. As a partner with NEEA, Puget Sound Energy contributes funding for regional energy efficiency initiatives, actively participates on NEEA's Board of Directors and advisory committees, and supports various related initiatives in the Puget Sound Energy service area.

2. Regional Electric Market Transformation

The NEEA Board approved an operating budget of $159 million in funding for 2020-2024 market transformation initiatives from Northwest utilities including the Bonneville Power Administration (BPA) (on behalf of more than 130 utilities), Puget Sound Energy, Energy Trust of Oregon, Idaho Power, Avista Corporation, PacifiCorp, Seattle City Light, Tacoma Power, Snohomish County PUD and others.

3. Regional Natural Gas Market Transformation

In 2022-2023 NEEA intends on the following programs:

- Efficient Rooftop Units (ERTU's)
- Triple Pane Windows
- Next Step Homes
- Efficient Gas Water Heating
- Codes and Standards

PSE's share of the natural gas market transformation funding is 42.01 percent, with a 2022-2023 total of $3.18 million.

B. Production and Distribution Efficiency

Schedule E292

1. Purpose

The purpose of the Production and Distribution Efficiency program is to evaluate and implement energy conservation Measures within PSE's own power generation and distribution facilities.

2. Description

The Production and Distribution Efficiency program involves implementing energy conservation Measures within PSE's own production and distribution facilities that prove cost-effective, reliable and feasible. Within production facilities (power generation), conservation Measures reduce ancillary loads at the site and exclude efficiency improvements made to the generating equipment itself. These Measures may include, but are not limited to, lighting upgrades, variable speed drives and compressor upgrades. For transmission and distribution (T&D) efficiency, improvements are implemented at PSE's electric substations. These improvements focus on measures like phase balancing and conservation voltage regulation (CVR) (also referred to as voltage optimization [VO]). The methodology used to determine CVR savings is the Simplified Voltage Optimization Measurement and Verification Protocol provided by the Regional Technical Forum.

Analyses performed during 2022-2023 planning revealed that there are no cost-effective retrofit measures available for PSE generation facilities. Program staff will maintain examination of these facilities in 2023 for incremental efficiency improvements that can be implemented during other capital upgrade work.

For the 2023-2023 biennium, PSE plans to implement CVR at substations most likely to provide cost-effective energy savings. CVR involves lowering the feeder voltage settings in order to receive energy savings when operating the distribution system more efficiently and within the ANSI Standard of 114 – 126 V. The plan for CVR implementation includes required system upgrades, implementation of RTF prescribed measurement & verification protocols, as well as the required phase-balancing work, which is a precursor to successful CVR implementation. Energy Efficiency staff closely coordinate with PSE engineering staff, system planning teams, and major project teams to plan, track, report, and coordinate potential CVR projects. PSE's engineering, system planning, and third-party design teams engineer the projects, while PSE's major projects, program infrastructure, and third-party contractors build the projects.

These programs will operate under Schedule 292 and require coordination between various PSE departments.

The review, classification, project design, and implementation is a dynamic process. As the profile of customer demand on a particular circuit evolves, so too does the circuit's feasibility for CVR: only select distribution substations prove to be eligible for CVR. Circumstances that impact a circuit's CVR viability include, but are not limited to:

- The number of three-phase customers,
- The number of solar/net metered customers on the circuit,
- The potential for phase balancing,
- Potential load growth,
- Reliability issues with the suggested voltage settings,

- Difficulty of implementing CVR on Distribution Automation (DA) enabled circuits due to lack of integration with Advanced Distribution Management System (ADMS),
- Ratio of residential and small commercial in the substation,
- There are also instances in which, after applying the CVR feasibility study on a circuit, a voltage *increase* is required, rather than a reduction.

As of the third quarter of 2022, there are approximately 158 substations that have a potential for CVR. 21 have had CVR implemented, with an additional projects planned..

The plan for CVR implementation includes required system upgrades, implementation of RTF prescribed measurement & verification protocols, as well as the required phase-balancing work, which is a precursor to successful CVR implementation. There are 24 projects planned for 2022-2023.

The planned number of CVR projects in 2022-2023 is an expansion of CVR project implementation. PSE is still implementing the Advanced Metering Infrastructure (AMI) project and ADMS projects. These two projects will enable Voltage Var optimization, an improved CVR method that allows for deeper levels of savings over PSE's current CVR implementation method of line drop compensation (LDC). Planning for Volt-Var Optimization implementation has started, however, implementation of the two pilot projects is now anticipated for 2025. Additionally, PSE staff decided to internally develop a measurement and verification process to quantify savings from Volt-Var implementation.

C. Targeted Demand-Side Management (Targeted DSM)

Schedule E/G219

1. Purpose

The Targeted DSM (TDSM) program works to support the Delivery System Planning (DSP) efforts of the Electric and Natural Gas infrastructure planning teams. Specifically as related to Non-Wires Alternatives (NWA) and Non-Pipe Alternatives (NPA) analysis. The TDSM analysis coupled with the renewables (PV, CHP) analyses will determine the Distributed Energy Resources (DER) potential. Additionally, the Energy Storage System (ESS) analysis will round out the NWA potential (DER+ESS). If available, TDSM efforts may help in deferring traditional pipes and wires T&D projects (NWA Projects).

2. Description

Targeted DSM (TDSM) is an Energy Efficiency initiative to identify localized conservation and demand response potential, develop plans to achieve a defined percentage of that potential, then implement those plans to deliver identified energy efficiency and capacity savings.

The Targeted DSM program uses avoided costs for a specific municipality to calculate the cost-effectiveness of conservation measures. This allows PSE to offer rebates and incentives

to PSE customers in these locations that are higher than those in its broader service territory. These rebates and incentives are available only during the duration of the specific NWA Project, as determined by PSE.

3. Eligibility

Eligible customers will be served by a proposed NWA Project where a non-wired and/or non-pipe alternative analysis has determined TDSM to be cost effective in deferring said project. Qualifying customers are owners, customers and tenants, with appropriate owner consent, of single-family, multifamily, or commercial and Industrial structures. Measures are installed at the customer's site directly by the third-party implementer and/or a qualified Trade Ally Network representative.

4. Delivery Method

The Targeted DSM program effects conservation measures through the installation of low-or no-cost measures in customers' eligible structures via a third-party implementer and/or a qualified Trade Ally Network representative.

5. Implementation Management

The Targeted DSM measures are managed within the purview of the TDSM Program. Program staff manage all measure rebates through a third-party implementer. Program design, metric analysis, incentive-setting and program policies are managed by PSE program staff.

6. Customer Incentives

Targeted DSM measures are offered in specific localized Non-Wires, or Non-Pipes, Alternative (NWA) T&D deferral project (NWA Project) areas and are subject to revisions: offer duration is limited to the length of the NWA project. Incentive amounts are calculated based on the localized avoided cost for the specific NWA project.

Targeted DSM Electric Measures – Bainbridge Island NWA Project area

Single Family Existing Electric Measures

Category	Measure Description	TDSM Incentive Maximum	Non-TDSM Incentive Maximum
Controls	Smart Thermostat	$350.00/unit	$75.00/unit
	Electronic Line Voltage Thermostat	$140.00/unit	$75.00/unit
HVAC	Zonal Heating to Ductless Heat Pump Conversion 9.0 HSPF or Greater (Single Family, Multi-Family, Manufactured Homes)	$3,900.00/unit	$800.00/unit
	Electric Forced-Air Furnace to Ductless Heat Pump Conversion (Single Family)	$4,750.00/unit	$800.00/unit
	Electric Forced Air Furnace to Heat Pump Conversion (Single Family)	$8,400.00/unit	$1,500.00/unit
	Electric Forced Air Furnace to Heat Pump Conversion (Manufactured Home)	$7,750.00/unit	$2,400.00/unit
	Electric Forced-Air Furnace to Ductless Heat Pump Conversion (Manufactured Home)	$5,700.00/unit	$2,400.00/unit
Water Heat	Tier 3 & 4 NEEA Northern Climate Specs Heat Pump Water Heater (Single Family & Manufactured Home)	$1,650.00/unit	$1.00/sq. ft.

Single Family Existing Electric Measures, continued

Weatherization	Attic Insulation: R0 to R30 (HUD Manufactured Home)	$2.54/sq. ft.	$.50/sq. ft.
	Attic Insulation: R0 to R49	$3.00/sq. ft.	$.50/sq. ft.
	Attic Insulation: R11 to R49	$2.00/sq. ft.	$.25/sq. ft.
	Floor Insulation: R0 to R30	$2.79/sq. ft.	$.75/sq. ft.
	Wall Insulation: R0 to R13	$4.79/sq. ft.	$1.00/sq. ft.
	Attic Insulation: R0 to R22 (Pre-HUD Manufactured Home)	$1.89/sq. ft.	$.10/sq. ft.
	Attic Air Sealing	$.69/sq. ft.	$.10/sq. ft.
	Floor Air Sealing	$.69/sq. ft.	$300/dwelling
	Duct Sealing	$2,850.00/dwelling	$50.00/dwelling
	Energy Star Whole House Ventilation	$125.00/unit	$50.00/unit
Windows	Upgrade Single-Pane Wood or Metal Frame Windows to a 0.30 U-Factor or Better	$200.00 per window, up to $2,000.00 per structure	$100.00 per window, up to $1,500 per structure
	Upgrade Double-Pane with Metal Frame Windows to a 0.22 U-Factor or Better	$200.00 per window, up to $2,000.00 per structure	$100.00 per window, up to $1,500 per structure

Multifamily Retrofit Electric Measures

Category	Measure Description	TDSM Incentive Maximum	Non-TDSM Incentive Maximum
HVAC	Zonal heating to ductless heat pump conversion: 9.0 HSPF or greater	$2450.00/unit	$800.00/unit
Weatherization	Attic Insulation: R0 to R49	$3.00/sq. ft.	$1.50/sq. ft.
	Attic Insulation: R11 to R49	$2.50/sq. ft.	$1.00/sq. ft.
	Attic Insulation: R19 to R49	$1.19/sq. ft.	$.50/sq. ft.
Windows	Double Pane - U-factor from 0.60 to 0.30	$55.00/sq. ft.	$5.00/sq. ft.
	Double Pane - U-factor 0.30: from 1.20 single pane	$100.00/sq. ft.	$7.00/sq. ft.
	Triple Pane - U-factor 0.22: from 0.30 double pane	$10.00/sq. ft.	$3.00/sq. ft.
	Triple Pane -U-factor 0.22: from 0.60 double pane	$60.00/sq. ft.	$7.00/sq. ft.
	Triple Pane -U-factor 0.22: from 1.20 single pane	$115.00/sq. ft.	$9.00/sq. ft.
Lighting	30 watt or less LED fixture: replacing 2-lamp 75 watt T12	$130.00/unit	$70.00/unit
	30 watt or less LED fixture: replacing 2-lamp 59 watt T8	$85.00/unit	$70.00/unit
Controls	Smart electronic line voltage thermostat	$140.00/unit	$75.00/unit

Targeted DSM Natural Gas Measures – City of Duvall NWA Project area

Single Family Existing Natural Gas Measures

Category	Measure Description	TDSM Incentive Maximum	Non-TDSM Incentive Maximum
Controls	Smart Thermostat	$350.00/unit	$75.00/unit
Heating	ENERGY STAR Qualified Gas Furnace, 95% (In-Unit)	$1,780.00/unit	$700.00/unit
	ENERGY STAR Qualified Gas Furnace (Manufactured Homes)	$1,100.00/unit	$1,000.00/unit
	ENERGY STAR Qualified 95% boiler	$1,650.00/unit	$700.00/unit
	Integrated Space/Water Heating Systems with ENERGY STAR Tankless or ENERGY STAR Boiler (In-Unit)	$1750.00/unit	$700.00/unit
Water Heating	ENERGY STAR Storage Water Heater	$160.00/unit	$100.00/unit
Weatherization	Attic Insulation: R0 to R49	$3.00/sq ft.	$.50/sq. ft.
	Attic Insulation: R11 to R49	$1.08/sq. ft.	$.50/sq. ft.
	Floor Insulation: R0 to R30	$1.18/sq. ft	$.25/sq. ft.
	Wall Insulation: R0 to R13	$2.27/sq. ft.	$.75/sq. ft.
	Prescriptive Air Sealing - Attic and Crawl Space	$.29/sq. ft.	$.10/sq. ft.
	Prescriptive Duct Sealing	$850.00/dwelling	$300.00/dwelling
Windows	Upgrade Double-Pane with Wood or Metal Frame Windows to a 0.22 U-Factor or Better	$200.00 per window, up to $2,000.00 per structure	$100.00 per window up to $1,500 per structure
	Upgrade single-pane with wood or metal frame windows to a 0.30 U-factor or better – Manufactured Home	$200.00 per window, up to $2,000.00 per structure	$200.00 per window, up to $2,000.00 per structure

Multifamily Retrofit Natural Gas Measures

Category	Measure Description	TDSM Incentive Maximum	Non-TDSM Incentive Maximum

Water Heating	0.67 energy factor Energy Star storage water heater using natural gas	$160.00/unit	$50.00/unit
Weatherization	Attic insulation: R11 to R38	$.89/sq. ft.	$.75/sq. ft.
	Floor insulation: R0 to R30	$1.75/sq. ft.	$1.50/sq. ft.
	Wall insulation: R0 to R11	$2.89/sq. ft.	$1.50/sq. ft.
Windows	Double Pane - U-factor from 0.60 to 0.30	$15.00/sq. ft.	$5.00/sq. ft.
	Double Pane - U-factor 0.30; from 1.20 single pane	$34.00/sq. ft.	$7.00/sq. ft.
	Triple Pane - U-factor 0.22; from 0.30 double pane	$3.85/sq. ft.	$3.00/sq. ft.
	Triple Pane - U-factor 0.22; from 0.60 double pane	$20.00/sq. ft.	$7.00/sq. ft.
	Triple Pane - U-factor 0.22; from 1.20 single pane	$35.00/sq. ft.	$9.00/sq. ft.

Targeted DSM Electric Measures – Bainbridge Island NWA Project area

Small Medium Business Electric Measures

Category	Measure Description	TDSM Incentive Maximum	Non-TDSM Incentive Maximum
Controls	Commercial Use Web-Enabled Thermostat (any type	$400.00	$250.00

7. Target Market

PSE customers living in identified NWA Project areas, including Single Family, Multi-Family, and Small Commercial Customers.

8. Marketing and Outreach Plan

Communications for the Targeted DSM program will be customized for each targeted locality. Only Direct Marketing to eligible customers will be utilized. Due to the nature of selected

municipalities and limited large multi-family dwellings, the bulk of marketing efforts are directed towards single-family customers who are either owners or renters of single-family homes. Commercial customers will be served by working with the Business Energy Management group and account executives to identify good fit partnerships with the goal of creating energy efficiency solutions based on usage and needs of the business.

The outreach team will conduct regular canvassing of selected TDSM municipalities to gauge potential opportunities for events to attend and provide the community with information about how they can participate in the program.

VI. Other Customer Programs

A. Customer Connected Solar

Customers that interconnect a qualifying renewable system PSE ("Customer-Generators") are eligible to participate in PSE's Net Metering program (terms of the program are outlined in Schedule 150) and/or in the WA State Renewable Energy Production Incentive program (these terms are outlined in Schedule 151). PSE organizes those programs in the Customer Connected Solar group.

1. Net Metering

Schedule E150

a. *Purpose*

PSE's Net Metering program provides interconnection, metering and billing to qualifying customer-generators in accordance with State legislation enacted into law in February 11, 1999, and most recently amended July 28, 2019 (see RCW 80.60).

b. *Description*

PSE provides interconnection and net metered billing services to qualifying Customer-generators who operate fuel cells, hydroelectric, solar, wind, or biogas generators of no more than 100 kW AC. PSE is required to offer service under this schedule on a first-come, first-served basis until the total of cumulative nameplate generating capacity reaches 179.2 MW, which is 4 percent of PSE's peak 1996 load. As of August 31, 2022, PSE has a total of 124.5 MW of net metered generation operating in its service territory. Customer generation can be used to offset part or all of the Customer-generator's electricity use under Schedules 7 through 49 of Electric Tariff G.

c. *Eligibility*

Customer-Generators who operate fuel cells or produce electricity and used and useful thermal energy from a common fuel source or who generate electricity using hydroelectric, solar, or wind energy or biogas from animal waste as fuel, with a total capacity of no more

than 100 kilowatts (kW) AC and the generation is located on their own premises. Such generator must operate in parallel with PSE's transmission and distribution facilities. Detailed availability is outlined in PSE's Schedule 150.

d. *Target Market*

All customers who are within the Company's service territory and receive electric service under terms of the Company's electric Tariff G.

e. *Customer Incentives*

No direct customer incentives are provided under the Net Metering tariff. Energy produced by Customer-generator systems directly reduces energy used in the home or business from the grid. When energy generated exceeds home or business electrical loads, the excess energy flowing to PSE is metered and credited to the customer at the retail rate for future use. Any excess credit each month is rolled forward to the following month until March 31 annually, when "banked" net metering credit is reset to zero.

Once the cumulative capacity of net metering systems equals 179 MW or after June 30, whichever comes first, PSE will have a successor tariff in place for new customers with net metered systems that allows customers to self-consume their solar power, but does not provide credit at full retail rate for energy exported to the grid. Existing customers will continue to receive service under the rules of the current Electric Schedule 150 Net Metering Tariff.

f. *Marketing and Outreach Plan*

Marketing of Net Metering is primarily done by the local solar industry and advocates. PSE focuses on education of prospective and existing solar customers, making information about the process available as well as providing referrals for local, qualified solar installers . PSE does this through:

- www.pse.com/savingsandenergycenter/customer-connected-solar
- Energy Advisors
- Trade Ally trainings and communications
- Speaking engagements such as Solar Washington forums
- Customer Renewables brochure used at various events.
- Social Media

2. Production Metering

Schedule 151

a. *Purpose*

The WA State Renewable Energy Production Incentive Program is a production-based financial incentive for customers with solar, wind, and bio-digester generating systems. PSE voluntarily administers this state incentive to qualified customers, as determined by Washington State University Energy Extension, the WA State Program Administrator.

b. *Description*

In order for a customer-generator to participate in Schedule 151 they must:

- Be a PSE customer with a valid interconnection agreement with PSE for the operation of their grid-connected renewable energy system.
- Have a system that includes production metering capable of measuring the energy output of the renewable energy system.
- Be certified (as named on the PSE account) by the Washington State Program Administrator as eligible for annual incentive payments.

Participants in Schedule 151 included customers certified in two different Washington State Production Incentive Programs:

- Renewable Energy Cost Recovery Incentive Program (Legacy Program)- State certification in this program was available from 2006- October 2017. Certified participants were eligible for annual incentive payments for energy produced through June 30, 2020.
- Renewable Energy System Incentive Program (RESIP)- State certification in this program was available October 2017-June 2019. Certified participants are eligible for annual incentive payments on a rolling 8 year term or when 50% of the system cost has been recouped, as determined by the State Program Administrator.

Since 2019, the state budget for this program has been fully obligated, and in 2021 the program officially closed statewide as described in RCW 82.16. As such, this program is no longer a driver of new PSE customer solar adoption.

c. *Annual Incentive Payments*

Production payments administered by PSE are recovered through WA State taxes.

Final annual payments were issued to approximately 5000 Legacy program participants in 2020.

Participants with State Certification on or after October 1, 2017, who maintain ongoing eligibility requirements are eligible for up to eight years of annual incentive payments on kilowatt-hours generated July 1, 2017 through no later than June 30, 2029.

Individual participant eligibility for a given rate, term, payment limit, and annual incentive payment amounts are determined by the Washington State Program Administrator, based on RCW 82.16, including the following incentive rate guidelines:

Fiscal year of system certification	Base rate residential scale	Base rate commercial-scale	Made-in-Washington bonus
2018	$0.16	$0.06	$0.05
2019	$0.14	$0.04	$0.04
2020	$0.12	$0.02	$0.03
2021	$0.10	$0.02	$0.02
Annual limit per Participant	$5000	$25,000	

Annually, PSE measures and reports the kilowatt-hours generated by participants' renewable energy systems from July 1 through June 30 and makes incentive payments to eligible customers as determined by the Washington State Program Administrator.

d. *Target Market*

Schedule 151 is no longer available to new customers. As such, PSE have revised its customer generation standards to emphasize that production metering is optional. Production metering helps customer generators understand their energy production and consumption on their PSE electric bills, but for new solar customers does not impact ongoing charges or incentives.

B. Targeted Demand Response Pilots

Schedule E/G 249A, E/G 271

1. Purpose

The purpose of the Localized Demand Response Pilot (DR) is to evaluate DR options applicable to identified NWA projects. Pilot attributes to evaluate include technology requirements and performance, Customer behavior and preferences, impacts and integration of DR to Company operations, program costs, and demand reductions achieved, Energy savings achieved, and localized distribution system benefits. The Company seeks experience with DR technologies, greater understanding of Customer acceptance and tolerance of Demand control, the need for Customer incentives (financial or other), Demand reduction effectiveness and reliability, Energy savings impacts, and acquisition and management of resulting data. This experience will help determine cost-effectiveness of further efforts in DR.

2. Description

The DR Pilot provides reduced energy consumption, by cycling space and water heat measures during periods of peak usage demand within both electric and natural gas NWA Projects, during periods of peak demand.

3. Eligibility

Eligible customers will be served by a proposed NWA Project where a non-wired and/or non-pipe alternative analysis has determined DR to be cost effective in deferring or delaying said project.

4. Delivery Method

The DR Pilot program effects reduced demand by cycling space and water heat measures during periods of peak usage demand within both electric and natural gas NWA Projects.

5. Implementation Management

The DR Pilot is managed within the purview of the Targeted Demand Side Management (TDSM) program. Program staff manage all measure rebates and participation incentives through a third-party implementer. Program design, metric analysis, incentive-setting and program policies are managed via in-house, PSE program staff.

6. Measures

DR measures are offered in specific municipalities, and are subject to revisions: offering duration, and incentive amounts.

Measure	Maximum Incentive Amount	Eligibility
Space Heat Demand Response	$300 per year	Customers in NWA Project areas, electric and/or natural gas, for the duration of the project.
Water Heat Demand Response	$200 per year	Customers in NWA Project areas, electric and/or natural gas, for the duration of the project.
Demand Response Activation	$100 one-time payment	Customers in NWA Project areas, electric and/or natural gas, for the duration of the project.

7. Target Market

PSE customers living in specifically-identified NWA Project areas that are affected by planned infrastructure projects.

8. Marketing and Outreach Plan

Communications for the DR Pilot program will be customized for each targeted locality. Only Direct Marketing to eligible customers will be utilized.

VII. Portfolio Support

A. Data and Systems Services

The Data and Systems Services organization performs the critical role of planning, development, support, and enhancement of Energy Efficiency systems and tools. The team manages the ongoing support of the department's Demand Side Management central (DSMc) system, which:

- Compiles and tracks Energy Efficiency programs, projects and measures, and
- Serves as an online rebate-submittal platform for both customers and contractors.

The Data and Systems Services organization also provides program reporting, portfolio forecasting and data-driven dashboards to provide management and staff ongoing business performance metrics. The team is also responsible for reviewing and ensuring data integrity from a wide variety of sources, including vendors, program staff, and contractors.

B. Rebates Processing

Rebates processing functions include intake, qualification, payment and customer service, as well as process improvement in the customer experience.

Improvements include, but are not limited to, redesigning rebate forms for clear instructions and qualifying criteria, analyzing rejection reasons for the root cause of non-qualified rebates, and simplifying the application process for customers.

1. Description

The Rebates Processing budget is predominantly labor and includes training, planning and development costs projected by Rebate Processing staff.

Rebates Processing roles include:

- Intake, qualifying, data entry, and incentive payment processing;
- Communicating with customers regarding the rebate submittal, including status and payment;
- Collaborating with the Energy Advisors to provide a seamless and efficient customer experience;
- Demonstrating best practices and continuous improvement;
- Coordinating timely customer payment with PSE Accounts Payable.

2. Target Markets

Rebates processing staff are integral to PSE's Residential and Business Energy Management groups' energy savings and target needs.

C. Verification Team

As one of the key "V" components in EM&V, PSE's Verification Team performs on-site inspections and confirmations of randomly-selected participating homes and businesses to assure energy efficiency measures are properly installed. Combined with other Evaluation and Measurement functions, the Verification Team seeks to secure both confidence in claimed energy savings and improvements in program quality.

Exhibit 6: *Evaluation, Measurement & Verification,* introduces M&V protocols to be used across the Energy Efficiency functions.

1. Verification Team Guidelines

PSE created the "Measurement & Verification: Policies, Guidelines, Protocols & Processes" document in response to Condition (6)(f)(ii): [5]

"Measurement & Verification – PSE shall provide detailed descriptions of its measurement & verification (M&V) policies, protocols, guidelines, and processes to the CRAG [Conservation Resources Advisory Group] for review and advice. Additionally, PSE shall provide to the CRAG an estimate of the costs associated with the detailed M&V plan and PSE will maintain activities at levels that are at least commensurate with regional peers."

The document provides detailed descriptions of PSE M&V policies, protocols, guidelines and processes.

Verification of energy efficiency installations: This is conducted in multiple venues through review of documentation, surveys and on-site inspections. The team has increased capacity for more virtual verification options for customers. In 2022-2023, virtual verifications will continue to expand, except where on-site inspections are required to retain the integrity of the verification. To ensure the accuracy of program and measure savings claims, verification activities encompass many different steps, including invoice and calculation reviews, on-site inspections and phone verifications among others.

Verification of energy savings: Energy Efficiency programs have documented procedures in place to fully verify measure savings. Verification procedures described in the Verification Manual vary depending on measure, participant, or program type. Practices documented in the Verification Manual detail expectations for all stakeholders including Program Implementation Staff, program participants and installation contractors. The processes most reflective of day to day functions of the Verification Team are the pre and post-installation inspections described in the Manual.

[5] Agreed Conditions for Approval of Puget Sound Energy, Inc.'s 2010-2011 Biennial Electric Conservation Targets under RCW 19.285, Docket UE-100177.

D. Programs Support

The Programs Support organization, as its name implies, provides critical services to Energy Efficiency program staff. These services allow program staff to focus on achieving cost-effective conservation savings while prudently using ratepayer funds. The Programs Support team's role is particularly critical during Energy Efficiency planning periods, as they facilitate several planning initiatives for program staff, manage the RFP/RFI process, and produce and maintain many Energy Efficiency process manuals. Their role also includes support of other groups within Energy Efficiency, including the Data and Systems Services team, Verification, and Rebates Processing. Program Support roles include:

- Biennial and strategic program planning support;
- Customer experience – Energy Efficiency program participation surveys;
- Manage and facilitate BCP planning including stakeholder integration and RFP/RFI bidding activities;
- Writing, creating and maintaining Energy Efficiency Manuals and Procedures;
- Provide tools for employee engagement;
- Plan energy efficiency communications, schedule activities and implement OCM activities
- Produce literary compositions, articles, reports presentations or other texts;
- Manage document control, business cases, contracts, applications and invoices related to energy efficiency
- Trade ally support;
- Product positioning and Integrated Go-To Market strategic planning;
- Integrated analysis and IT support; and
- Best practices and continuous improvement.

E. Trade Ally Support

Trade Ally Support manages PSE membership costs in Energy Efficiency (EE) trade associations. These organizations stand apart from other trade memberships managed in individual Energy Efficiency programs in that they provide comparatively broad-based EE research, training and/or implementation support services.

Trade Ally Support organizations provide education, information and related services for:

- The adoption or expansion of energy-efficiency products, services, and practices; and
- Conducting research toward the development of new, or improved validation or delivery of existing conservation measures, programs and services.

2. Description

The Trade Ally Support line item budgets and tracks only annual membership dues or Energy Efficiency services subscriptions PSE pays to broad-based industry trade and research organizations who perform and support ongoing development and implementation of Residential and Business Energy Management programs. PSE participates in and utilizes the services of many such organizations to support delivery, management, and promotion of energy efficiency services. Utility, customer, and service provider benefits primarily include education and information exchange on end-use technologies, energy legislation, efficiency services, and related industry trends.

Other Trade Ally expenses not related to dues, for example conference attendance by PSE Energy Efficiency staff, are budgeted and tracked with the pertinent efficiency program(s) receiving the benefit.

3. Target Market

Organization memberships budgeted in Trade Ally Support for the 2022-2023 biennium include (but may not be limited to):

- Association of Energy Service Professionals (AESP)
- Building Owners & Managers Association (BOMA) of Seattle & King County,
- Consortium for Energy Efficiency (CEE),
- E Source
- Electric League of the Pacific Northwest,
- Energy Solutions Center (ESC), and
- Northwest Energy Efficiency Council (NEEC).

The table below provides summaries of Energy Efficiency's Trade Ally organizations. The table attributes include a description of the organization ("What is it?"), the nature of the expense ("Why?"), the need for PSE participation ("What for?"), and if there are associated sponsorships or events ("Event/Sponsorship").

Descriptions of Energy Efficiency Trade Ally Organizations

AESP (Association of Energy Services Professionals)	
What is it?	AESP (Association of Energy Service Professionals) is a trade association promoting the common business interests of Energy Efficiency products and services vendors, contractors, utilities, and related industry stakeholders both nationally and throughout the Puget Sound Region.
Why?	Annual membership dues payment. Membership dues support the day to day operations and business activities of the organization.
What for?	This expense is for annual membership dues only; there are no associated sponsorship expenses. AESP membership gives PSE access to valuable services and relationships vital to the implementation of energy efficiency programs and services throughout the Puget Sound region.
Event/Sponsorship?	Group Membership
ASE (Alliance to Save Energy)	
What is it?	ASE's mission (from www.ase.org) is to promote energy efficiency worldwide to achieve a healthier economy, a cleaner environment and energy security. The Alliance is the sum of more than 140 Associates and a diverse and bipartisan Board of Directors.
Why?	ASE's event objectives align with PSE interests in supporting local and regional energy efficiency initiatives. They further support customer awareness of PSE Energy Efficiency programs and achievement of the 2022-2023 Energy Efficiency program targets. ASE has assured PSE in separate correspondence that none of PSE's contribution will be used for lobbying purposes.
What for?	PSE is participating as a supporter and co-sponsor of the ASE Event "Accelerate Energy Productivity 2030."
Event/Sponsorship?	Sponsorship

Error! Reference source not found. of Trade Ally Organizations, continued

CEE (Consortium for Energy Efficiency)	
What is it?	The Consortium of CEE is the US and Canadian consortium of natural gas and electric efficiency program administrators. They work together to accelerate the development and availability of energy efficient products and services for lasting public benefit. CEE organizes its day-to-day work into committees focused on defining a market approach aimed at more efficient use of regulated energy sources—electricity and natural gas. Committees address specific opportunities for end uses, systems, or structures independent of fuel. CEE members share their diverse perspectives and develop a collective wisdom that leads to strategic national initiatives.
Why?	CEE continues to be a reliable resource for informing PSE Energy Efficiency planning decisions. PSE has a history of success in participating on CEE subcommittees to identify and promote effective energy efficiency measures and activities, and in CEE online and onsite events to learn about innovative approaches as well as create national visibility for PSE's own successful innovations.
What for?	Gaining useful information on energy efficient technologies of promise, and on practical program innovations. Participating in CEE-hosted subcommittees, webinars and conferences to exchange information with program administrators with a breadth of experience in the field to discover ways to improve existing programs and develop new ones.
Event/Sponsorship?	Membership dues

Energy Solutions Center (ESC)	
What is it?	ESC (Energy Solutions Center) is a trade association promoting the common business interests of Energy Efficiency products and services manufacturers, vendors, contractors, utilities, and related industry stakeholders both nationally and throughout the Puget Sound Region.
Why?	ESC membership gives PSE access to valuable services and relationships vital to the implementation of energy efficiency programs and services throughout the Puget Sound region.
What for?	This expense is for annual membership dues only; there are no associated sponsorship expenses.
Event/Sponsorship?	Membership dues

Error! Reference source not found. of Trade Ally Organizations, continued

Electric League	
What is it?	The Electric League is a trade association serving the common business interests of utilities and electrical industry trades throughout the Puget Sound Region, particularly in supporting Energy Efficiency (EE) interests. For example, the Electric League hosts the biannual Powerful Business Conference, annual EE Utility Programs Presentation, and various other EE end-use training workshops for both service providers and consumers.
Why?	Annual membership dues payment. Membership dues support the day to day operations and business activities of the Electric League.
What for?	This expense is for annual membership dues only; there are no associated sponsorship expenses. Electric League membership gives PSE access to valuable services and relationships vital to the implementation of energy efficiency programs and services throughout the Puget Sound region.
Event/Sponsorship?	Membership dues
NW Energy Efficiency Council (NEEC)	
What is it?	NEEC (NW Energy Efficiency Council) is a trade association promoting the common business interests of Energy Efficiency products and services vendors, contractors, utilities, and related industry stakeholders throughout the Puget Sound Region.
Why?	Annual membership dues payment. Membership dues support the day to day operations and business activities of the organization.
What for?	This expense is for annual membership dues only; there are no associated sponsorship expenses. NEEC membership gives PSE access to valuable services and relationships vital to the implementation of energy efficiency programs and services throughout the Puget Sound region.
Event/Sponsorship?	Membership dues

F. Trade Ally Network

The Trade Ally Network (TAN) is administered by the Trade Ally Support (TAS) team and informed by the Trade Ally Guiding Principles. Trade allies are identified as playing a critical role in achieving cost-effective energy savings and considered Energy Efficiency's "boots on the street" as they are often the first to learn of marketplace trends. Insights may include customer preferences, innovations, process improvements, and market readiness of technologies. The TAS team engages and interacts with trade allies to learn and refine program delivery strategies.

Trade Ally Guiding Principles:

- **Extension of Trust** - PSE is the clean energy partner of choice, and the Trade Ally carries that trust.
- **Steward of Strategy** - PSE proactively engages Trade Allies to be a steward of PSE's EE brand and strategic objectives.
- **Mutual Beneficiaries** - PSE's EE department and its Trade Allies mutually benefit through the exchange of information and ideas.
- **Culturally Embedded** - The PSE TA team collaborates with its internal stakeholders to ensure that Trade Ally resources are understood and internally and externally promoted.

The primary functions of the TAS team are to provide Account Management of PSE's trade allies, and to formerly manage the TAN program. Account Management encompasses the overarching processes and guidance for effective trade ally engagement, which fosters a culturally accepted (internally) and inclusive (externally) trade ally network.

PSE's Account Management activities, informed by the Trade Ally Guiding Principles, are designed to achieve the Objectives outlined in the Strategic Framework outlined below.

Categories	Objectives			
Account Support	Provide coordinated and targeted outreach though Account Management	Develop resources that trade allies find value in	Enable Trade Allies to become stewards of PSE brand	
Engagement	Drive positive recognition of PSE's EE program	Provide transparent performance management tools	Create a channel for consistent Trade Ally engagement	Recognize trade allies who demonstrate PSE's values
Customer Satisfaction	Embed the customer intent statement through Trade Allies	Leverage customer feedback to drive continuous improvement	Demonstrate value of PSE's trade ally management program to rate payers	
Products and Services	Provide access to EE products and services to meet customers' needs	Optimize EE product and service portfolio consistent with long-term strategy	Support planning and implementation of cost effective EE program delivery	
Drive Results	Establish culture that embraces trade ally integration	Streamline processes to drive administrative effectiveness and efficiencies	Optimize trade ally management systems	

Trade Ally Network: PSE's formal conduit for Trade Ally engagement with and participation in PSE's Energy Efficiency Programs, the Trade Ally Network currently consists of approximately 200 independent contractors who deliver energy efficiency (and ancillary) products and services to PSE's customer base. The Trade Ally Network is organized into multiple trades across both residential and commercial programs. Members of the Trade Ally Network are licensed, insured, and trained and must meet PSE's continuing performance requirements in order to remain in good standing. Trade allies who exceed the performance requirements may be eligible for cobranding, customer referrals, or other marketing and promotional opportunities through PSE's Trade Ally Network program.

Trade Ally Portal: The trade ally portal and partner database maximizes trade ally integration within the EE conservation programs. The portal helps facilitate the TAS team strategies by enabling broader communications across all trade allies, TAN members and non-members. Furthermore, the portal serves a pivotal role in refining account management strategies to help the EE team:

- Achieve cost-effective energy savings;
- Adaptively manage targeted marketing and outreach activities;
- Explore the possibility of non-incentive value-add services for customers receiving conservation measures.

G. Automated Benchmarking System

In 2022, PSE migrated from *MyData* (launched in 2013 by PSE) to EnergyCAP, to maintain PSE's compliance requirements with the City of Seattle benchmarking mandate. All Commercial, Industrial, and Multifamily PSE customers are eligible to use EnergyCAP to obtain up to 24 months of monthly usage and cost data, with the option to upload to and synchronize with their Energy Star Portfolio Manager account if desired and applicable.

1. Description

EnergyCAP is a free web-based tool to PSE customers that allows building owners, managers, and operators to track and assess energy consumption of their buildings. By customers registering their property, they will participate in what is becoming an industry standard, and will receive quick and accurate data on a monthly basis for their entire building.

This tool enables customers to track energy usage for a portfolio of buildings, track the results of energy efficiency projects, develop Energy Star® ratings and comply with state regulations including required reporting in the City of Seattle via Energy Star Portfolio Manager, and to the WA State Department of Commerce per the Clean Buildings Law.

2. Target Market

Approximately 75 percent of the whole-building energy usage requests PSE receives come from building owners (or their contractors) that are tracking their energy usage or tracking the results of energy efficiency projects.

MyData was nearing end-of-life so a replacement resource, EnergyCAP was readied for a 2022 implementation, in part to prepare for the increased customer usage expected in the coming years. The City of Seattle benchmarking mandate model will be implemented statewide as a provision of the 2019 Washington State Clean Buildings Law (House Bill 1257). PSE anticipates that there will be 7,000 commercial buildings subject to the law across the PSE service territory, of which the current users in the City of Seattle is only a fraction. The early adopter period begins July 1, 2021, and the first mandatory compliance date begins in June, 2026. Further, a Clean Buildings Expansion (SB5722) was passed in 2022, which takes benchmarking requirements down to buildings 20,000 square feet and above, which may add as many as 80,000 more buildings and therefore users to EnergyCAP.

H. Energy Advisors

The Energy Advisor Department is a unique, customer solution operation. This expert group brings efficiency into PSE's customer homes by guiding them in changing behaviors, understanding their energy use, and assisting them in using PSE's programs that are best for the customer's individual circumstances. Energy Advisors also promote and explain PSE's renewable energy programs, community challengers, available promotions and tax incentives. The Energy Advisors assist customers with these services over the phone, email, in person, and through social media.

Unlike transaction-based customer care departments, the Energy Advisors provide expertise and deliver solutions tailor-made for customers' homes. The Energy Advisors perform research, conduct analyses, provide resolution, and respond to customer inquiries. They follow-up on requests related to energy efficiency and conservation that inform customers, and make suggestions on how customers can reduce their energy use. They represent PSE in an effort to promote and cross-market energy-efficiency products and services by presenting and providing educational materials to employees, organizations and community groups.

Energy Advisors receive training and instruction in departmental procedures, current programs, building science, and customer service. They are expected to use good judgment in independently responding to recurring customer issues and/or complaints.

Unique, difficult or unusual customer service issues are referred to Senior Energy Advisors. Individual Energy Advisors are also located in several PSE Business Offices throughout PSE's service territory to provide direct support for energy-efficiency questions. Customers have access to speak directly to an Energy Advisor through a toll-free number, 1-800-562-1482, Monday through Friday, 8am to 5pm.

I. Energy Efficient Communities

Energy Efficient Communities (EEC) is a program-support channel to deliver Energy Efficiency program information directly to residential and commercial customers and through partnerships with community organizations and municipalities. The program works to leverage community resources to connect with, educate and move customers to Energy Efficiency program participation.

1. Description

Puget Sound Energy's Energy Efficient Communities channel works to generate participation in PSE's Energy Efficiency programs through direct-to-customer outreach and through partnerships. The team works to discover locally relevant ways of engaging with customers by leveraging PSE's resources, community knowledge and partner support.

The EEC team works closely with the Energy Efficiency programs to determine whether a broader partnership with a community organization or a more targeted, direct-to-customer approach is needed, such as a door-to-door initiative or targeted digital engagement. As an outreach team for both residential and commercial programs, the EEC team also works on cross-program promotion, where appropriate.

2. Target Markets

PSE's Energy Efficient Communities team members are based throughout the PSE service area. This makes for improved connection to the multiple community stakeholders and provides a deepened understanding of local opportunities as well as customer needs and goals.

Both of these tacks enable PSE to position Energy Efficiency as a solution and trusted partner.

These partnerships provide opportunities to connect directly and indirectly with the residential and commercial markets. This model also helps the staff members learn about the customers in the communities in order to design locally-appropriate outreach strategies to encourage program participation. The team centrally plans their general outreach initiatives as a group, but each team member customizes that outreach for their community.

Energy Efficient Communities (EEC) works closely with the Energy Efficiency program teams to reach out to Named Communities and small to medium businesses to deliver consistent programs throughout the service area. Staff provide leads for the small and medium business programs through proactive outreach to customers with high potential for energy savings, partnerships with cities, local business associations, and community groups, and presentations (in person and virtual) to the business community to open doors to build awareness and understanding of customer options.

EEC staff also assist in the design of residential customer outreach initiatives to ensure programs are brought to a variety of customer segments. Presentations (virtual and in person, as appropriate) to home owner and tenant groups as well as targeted engagement of property

managers and partnering with community entities provide the opportunity to engage with more customers about the benefits of the Energy Efficiency programs.

J. Customer Digital Experience

PSE's customers expect to receive information and interact with PSE online in the same sophisticated ways they do with other companies. Customer Digital Experience is designed to support the development and maintenance of tools that simplify the energy-efficiency educational process, providing interactive, engaging experiences that drive PSE's customers to manage and lower their energy usage. In 2021, AMI (Advanced metering infrastructure) data was added to residential customer's usage information, which gives them more granular and personalized feedback to help manage their energy usage.

1. Description

Customer Digital Experience is designed to significantly improve Energy Efficiency's ability to communicate the "how and why" of energy efficiency, using new technologies and engaging interactive methods.

Customer Digital Experience consists of the initiative to make PSE's energy-efficiency web tools effective in delivering electricity and natural gas savings. The team also supports interactive content development, e-newsletters and other miscellaneous software applications, including online form, database and web hosting services.

These tools help customers understand the specifics behind their energy usage, show neighbor comparisons (residential customers),[6] and provide new ways to encourage efficient behaviors, by suggesting personalized tips, tools, ideas and checklists, based on a customer's automated energy usage profile and self-assessment information.

Customer Digital Experience also supports interactive content development, e-newsletters and the fees for other miscellaneous software applications, such as online form, database and web hosting services.

2. My Energy Usage

- When PSE residential customers log onto their myPSE account, they can view their energy usage center, which is moderated by PSE's contractor.
- Additionally, the energy usage center also allows customers to select ways to be more energy efficient, complete a home energy survey to learn about their usage, and to help them save energy.

[6] Specific customer details; addresses, names, account information, etc. are rigorously protected. Instead, only general, non-specific comparisons will be provided.

K. Customer Awareness Tools

Customer Awareness Tools are tools to aid in Energy Efficiency's ability to communicate the "how and why" of energy efficiency, using new tools and engaging interactive methods.

The Customer Awareness Tools category is comprised of four electronic services provided to PSE residential customers via a variety of media, designed to fit customers' communication expectations. The services include:

1. Unusual Usage Alerts (UUA)

- Unusual Usage Alerts are sent to customers when their energy usage is abnormal compared to the previous year.
- In 2020 alone, over 500,000 PSE customers received the alerts.
- Unusual usage alerts are triggered when a customer is trending to use more than 30 percent of the energy used for the same billing cycle the year prior.

2. Seasonal Readiness Emails (SRE)

- PSE's contractor sends over 300,000 reports to customers twice a year during the changing seasons, once in the summer and once in the winter.

3. Customer Engagement Tracking (CET)

The Customer Engagement Tracker (CET) survey is an instrument designed to explore utility customer reactions to the Home Energy Reports program and other related outreaches. At PSE, the instrument aims to accomplish the following key objectives:

- Explore customer interaction with and reception of the Home Energy Reports;,
- Gauge overall impact of the program on the PSE customer relationship, both via self-reported influence and by measuring differences in engagement between program participants and non-participants (controls).
- Compare results between PSE deployments and to those of other contractor utility partners, with an eye towards potential program improvements.

4. Delivery method

PSE's customer awareness tools are managed by its third party vendor and housed on pse.com.

5. Implementation Management

The online web tools were first implemented in 2014 and regularly improved and updated since then through a combination of in-house and vendor staff.

L. PSE Marketplace

Launched in January 2021, the PSE Marketplace is a successor to ShopPSE. This online shopping platform is managed by a third party contractor.

The PSE Marketplace features a selection of energy-saving products for gas and/or electric customers. Shoppers are validated as PSE customers and then awarded their eligible PSE rebates instantly. The products and rebates offered on the PSE Marketplace are aligned with PSE's brick and mortar retail rebate programs. The rebate costs and energy savings are recorded under the relevant measure's program. PSE has developed a robust marketing strategy for the online shopping platform and closely monitors customer adoption and use of the site. These tactics include but are not limited to limited time offers, seasonal promotions, targeted emails, and social media advertising.

PSE maintains focus on the customer journey to streamline participation and maximize value. PSE will continue to add more products to the marketplace in 2023.

M. Market Integration

Market Integration consists of salary costs of employees working on energy-efficiency marketing platform development and maintenance, as well as general energy efficiency awareness marketing campaign costs. This budget category is designed to increase the transparency of the work done on broad energy-efficiency marketing-related items.

This includes the enhancement of online energy-efficiency tools and features, as well as traditional marketing executions that center on promotional channels used across all programs (that is, social media, email, digital content, graphic design, video and photography, collateral and websites), and broad, general advertising and customer engagement campaigns to increase customer awareness of PSE's energy efficiency rebates, incentives, tools and services. Market integration complements PSE's program-specific marketing efforts, while improving attribution to PSE for energy efficiency offerings.

N. Events

The Energy Efficiency department participates in community, local, and regional events throughout the year, including home shows, trade shows, seminars, corporate events and community events. The event audience consists of general public, businesses, builder/contractors, multifamily property owners, city leaders, home owner associations, and students/teachers. PSE maintains a presence at these venues to promote its residential and commercial energy efficiency programs in addition to the other communication methods PSE uses to educate customers about its offerings.

Participation in events provides unique opportunities for Energy Efficiency staff to interact directly with customers and discuss a variety of products, programs and services that the department offers. Energy Efficiency staff will also match customer interests and needs with Energy Efficiency programs, as well as bring back customer feedback.

The Events team provides specific criteria for event participation that matches overall business and strategy of the programs supporting Energy Efficiency programs with emphasis on presence, affiliation, and relevance. Each event holds a particular value to stakeholders and relates to objectives of PSE Energy Efficiency programs.

The Events team organizes activities using an event management data system to improve communication and customer experience. The team assesses event requests and reviews opportunities in advance with a focus on tactical planning for and vetting events. PSE proactively seeks new audiences to deliver energy efficiency services, using available demographic data to identify harder to reach communities.

PSE often employs a third-party vendor to augment its dedicated events staffing to ensure the maximum energy-efficiency exposure. The goal of this is to increase awareness and uptake of PSE Energy Efficiency programs, drive energy savings and reach a broad and diverse audience base through virtual and in-person events.

VIII. Research & Compliance

A. Conservation Supply Curves and Strategic Planning

The Conservation Supply Curve and Strategic Planning roles include, but are not limited to:

- Internal and external research, planning and development,
- Biennial and strategic program planning support,
- Coordination with regional organizations including NEEA and RTF,
- Holistic assessment of Measurement & Verification protocols,
- Developing and managing IRP and related DSR bidding activities, and
- Programs Cost-Effectiveness.

1. Conservation Supply Curves

The purpose of the Conservation Supply Curve function is to complete a Conservation Potential Assessment (CPA) for the company's Integrated Resource Plan (IRP). The CPA identifies the amount of energy savings potential that is technically and economically achievable over the 20-year planning horizon of PSE's IRP. The CPA, which is filed every two years, is the basis for PSE's electric and natural gas energy resource acquisition strategy. The analysis is also used to derive the year-by-year, ten-year conservation potential that is the basis for the two-year energy savings targets, as required by WAC 480-109-100(2), to comply with the Washington Energy Independence Act (RCW 19.285).

a. *Description*

PSE's 2023 Electric and Natural Gas CPA process will begin in early 2022 to inform the subsequent biennium planning cycle. The 2022-2023 budget includes costs to complete the CPA, which includes input analysis for the modeling, the modeling analysis itself, stakeholder engagement, reporting, and development of inputs for biennial program planning.

2. Strategic Planning

The Strategic Planning function conducts a variety of research studies and analyses to support regulatory compliance proceedings and other strategic initiatives.

a. *Description*

The Strategic Planning function is responsible for providing support and guidance to a variety of regulatory and other strategic initiatives. Responsibilities include regulatory compliance filings, federal and state legislative review, policy analysis, or other strategic efforts related to energy efficiency.

The Strategic Planning group's 2022-2023 primary activities will include support for the implementation of the regional Residential Building Stock Assessment, research focused on leveraging AMI interval data to understand peak load impacts from conservation measures and programs, and continued support for the Regional End-Use Load Research study. Finally, Market Research will develop tools to help Energy Efficiency Services understand its program implementation across named communities in alignment with its Clean Energy Implementation Plan.

B. Market Research

Market Research conducts a variety of research studies and analyses to support program design, marketing strategies, and development of effective program promotion and customer communications for energy efficiency.

1. Description

The focus of the Market Research function is on acquiring information about customers that is relevant for the development of energy-efficiency programs, educational materials, and promotional campaigns that will be effective in encouraging program participation.

Through various techniques such as surveys, focus groups, and analysis of existing databases, Market Research provides understanding of customer perceptions, motivations and barriers to adoption of energy-efficient applications and behavior, as well as tracking customer awareness of program offerings and satisfaction with non-program specific education and information services. Market Research is also called upon for analysis of localized characteristics, attitudes, behavior, and energy usage trends, necessitating more geographically targeted research.

Over the past biennium, a company-wide focus for Market Research has focused on digital barriers, how to make information and enrollment easy to find, intuitive, and easy to transact. This effort includes and benefits EES at PSE. Market Research expenses are driven by the customized nature of the work and the large sample sizes required in quantitative studies for results to be valid for multiple market segments and geographic areas.

The Market Research Staff works closely with Program Implementation, Marketing, Energy Efficient Communities, and Program Evaluation Staff to identify research needs that support

the effective development, delivery, and evaluation of energy efficiency programs. These research needs are then coordinated and leveraged to result in a slate of research projects that are responsive to internal client needs, eliminate duplication of effort, and are cost-efficient.

PSE's conservation market research activities are divided into two basic components:

Baseline Research with Broad Applications: This type of research provides foundational information about PSE customers that will be a common source of knowledge for the general planning and design of all energy efficiency programs and promotional campaigns.

Examples include research into customers' attitudes, beliefs, and behaviors that suggest customer segments for effectively marketing EES programs and customers' propensity to participate in EES offerings.

Application-Specific Research: This research is focused on specific programs or promotional initiatives. It includes research that supports specific energy efficiency program promotion and communications campaigns, such as message testing, target markets, and campaign effectiveness studies. Other research efforts will be focused on tracking customer satisfaction with information services, such as the Energy Advisors. Finally, research may be conducted to provide customer input on the design and implementation of specific programs, primarily using qualitative methods such as focus groups.

Market Research has made greater use of data science research tools and secondary data sources, which helps to control costs. PSE has improved its internal research capability minimizing the need for external resources, but does purchasing existing demographic data from third-party providers, rather than conducting original research to collect this information.

C. Program Evaluation

PSE Evaluation staff are committed to the evaluation of energy savings and the continual improvement of energy-efficiency service delivery to customers. PSE program implementation teams work together with the Evaluation team to inform the development of evaluation scopes of work. The Evaluation Team then develops and maintains a strategic Evaluation Plan (Exhibit 6 of the Biennial Conservation Plan), in accordance with the guiding Evaluation Framework (Exhibit 6, Supplement 1 of the Biennial Conservation Plan), ensuring that all programs receive review on a maximum four-year cyclic basis.

Evaluations are conducted by third-party evaluation consultants that are selected by a competitive Request for Proposals (RFP) process. For 2022-2023, PSE will contract with one or more third-party evaluators.

PSE evaluates all of its tariffed programs at least once every four years. The level of detail at which each program is evaluated will be determined by prioritizing each program into evaluation tiers. All levels of rigor will be consistent with the principles, objective, and metrics prescribed in the guiding Evaluation Framework. In prioritizing programs for evaluation, PSE considers the

level of energy savings, significant program changes, results of prior evaluations and whether a program is new or never been evaluated before.

Adjustments to the evaluation plan may be made during the biennium, with CRAG review and advice. A number of changes to evaluation are already taking place specifically due to COVID, both in terms of post-installation investigation of projects as well as baselining and measuring buildings whose occupancy or operations were and still are affected by the pandemic. Initially, PSE's third-party evaluation consultant reduced the pace of evaluation to give PSE time to adjust its programs. After performing stage 1 sampling for some of the non-residential impact evaluations, it was determined that there was not significant evidence to justify more thorough sampling (stage 2). Adjustments can be made mid-program cycle to dive deeper into areas that show signs of deviation from expected behavior, either from the program implementation perspective or from gained insights during evaluation efforts.

The compliance impact and process evaluations are largely leveraging remote data collection and virtual site visits, until a time that in-person/on-site data collection is determined to be necessary. The evaluation team is utilizing a virtual data collection platform to gather critical data from program participants for site-specific impact evaluations.

Evaluation staff continuously look to improve program evaluations, including integration of advanced data analytics, which combines the principles from the EM&V Framework, with specialized software and technology applications to provide more timely feedback and granular results to program implementation teams.

After an evaluation deliverable is completed, members of the EES Program Team participate in the Evaluation Report Response (ERR) process to ensure that evaluation results are implemented in the program. The Program Team completes the ERR, indicating what actions will be taken in response to evaluation findings and recommendations. This ensures a closed-loop system with Evaluation findings and Implementation responses and adjustments being documented in the Source of Savings database.

PSE frequently shares the results of its evaluations with the RTF to support continuous improvement of measure energy savings values widely used in the region.

In addition, PSE monitors the Regional Technical Forum (RTF), NEEA, and the Northwest Research Group (NWRG), as well as directly reaching out to neighboring utilities, for opportunities to collaborate on common evaluation needs.

For additional information on planned evaluation activity, including initial prioritization of programs for evaluation, please refer to Exhibit 6: *2022-2023 Evaluation Plan* in the 2022-2023 Biennial Conservation Plan. Because it is a newly launched program, the PSE Marketplace Program evaluation has been replaced with the Appliance Program Evaluation. PSE Marketplace will be evaluated in a future biennium once enough data has been collected to facilitate a full process and impact evaluation.

D. Biennial Conservation Achievement Review (BCAR)

The Evaluation organization is also responsible for managing PSE's 2022-2023 Biennial Conservation Achievement Review (BCAR) required by WAC 480-109-120(4)(b)(v).

In partnership with Commission Staff, PSE implements an independent review of its biennial electric savings. Every two years, PSE and Commission Staff, with review by PSE's CRAG, selects a consultant to conduct the independent electric savings review for the biennium. In 2022-2023 per UTC Order 01 in Docket UG-210823 as a condition of approval of PSE's 2022-2023 Biennial natural gas conservation target, PSE will also conduct an independent third-party evaluation of portfolio level biennial natural gas conservation savings achievement,

The review examines electric savings baselines, measure savings calculation methodology, tracking and reporting accuracy, validates reported electric and natural gas savings, reviews Company actions taken in response to the recommendations from the previous BCAR, and assesses whether the company has undertaken follow-up actions on program evaluation studies completed after the previous BCAR.

The independent consultant that conducts the BCAR also makes recommendations for PSE operations, measure savings calculation methodology, and data collection. The independent consultant may also make recommendations for electric and natural gas savings adjustments, which PSE considers and reviews with the CRAG prior to implementing any revisions.

PSE provides the CRAG with interim BCAR status and reports throughout the biennium, and includes the BCAR final report as an appendix to its Biennial Achievement Report to the Commission, in accordance with WAC 480-109-120(4).

IX. Glossary

Unless otherwise noted in a specific Conservation Schedule, the following commonly-used terms, used throughout this document have the below noted meanings:

Commonly Used Terms and Acronyms	
AIA	American Institute of Architects
AMI	Advanced Metering Infrastructure
ASHRAE	American Society of Heating, Refrigerating, and Air-Conditioning Engineers
BPA	Bonneville Power Administration
CHP	Combined Heat & Power
Cost Element	Also referred to as account numbers. Cost element groups typically include; labor, overhead, employee expenses, miscellaneous expenses, materials, etc.
CRAG	Conservation Resource Advisory Group
DDC	Design Development and Construction
DHW	Domestic Hot Water
Direct Install Measure	A conservation measure that is installed by a PSE representative—rather than a PSE customer—into a qualifying structure.
ECM	Electronically Commutated Motor
HID	High Intensity Discharge (related to lighting)
HVAC	Heating, Ventilation and Air Conditioning
IRP	Integrated Resource Plan. PSE's two-year view of 20-year resource needs and how the Company will meet those needs.
kWh	Kilowatt Hour
MBA	Master Builders' Association

NEEA	Northwest Energy Efficiency Alliance
NEMA	National Electrical Manufacturers Association
O&M	Operations and Maintenance
Order Number	An eight-digit accounting number, used to track expenditures. FERC rules require that expenditures associated with energy conservation begin with a 1823nnnn (where “n” is another number). This is the most detailed view of accounting for a program’s expenditures. Within an order number, cost elements account for the specifics of those expenditures, as explained above.
TRC	Total Resource Cost
UC	Utility Cost
ULI	Urban Land Institute
USGBC	U.S. Green Building Council
WAMOA	Washington Association of Maintenance and Operations Administrators