# Multifamily and Commercial New Construction Program



TOGETHER we can create a brighter energy future

### Presentation Agenda

- Program Overview, Approach and Territory
- Why Energy Efficiency?
- Program benefits and typical project profile
- Incentive offering
- Participation process and timeline



## New Construction Program Overview

- Provides energy efficiency incentives to owners of new buildings in PSE territory
- Categories: HVAC, Envelope, Lighting, Domestic Hot Water, Appliances
- Whole building model, performance approach
- Design specifications must exceed current WSEC code requirements





#### **PSE Service Area**

#### **Electric service:**

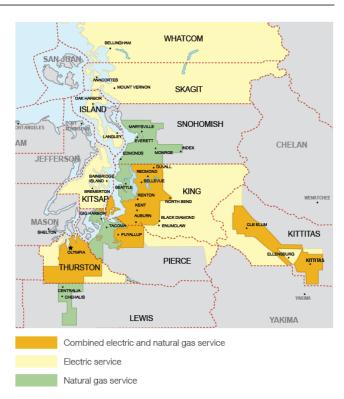
All of Kitsap, Skagit, Thurston, and Whatcom counties; parts of Island, King (not Seattle), Kittitas, and Pierce (not Tacoma) counties.

#### **Natural gas service:**

Parts of King (not Enumclaw), Kittitas (not Ellensburg), Lewis, Pierce, Snohomish, and Thurston counties. Washington state's oldest local energy company, Puget Sound Energy serves approximately 1.1 million electric customers and more than 790,000 natural gas customers in 10 counties. A subsidiary of Puget Energy, PSE meets the energy needs of its customers, in part through incremental, cost-effective energy efficiency, procurement of sustainable energy resources, and farsighted investment in the energy-delivery infrastructure. PSE employees are dedicated to providing great customer service and delivering energy that is safe, dependable and efficient.

For more information, visit **pse.com**.





## Together, We Can Reach Our Goals

PSE's mission today is deep decarbonization, reducing greenhouse gas emissions and transforming our business to deliver on the objectives of Washington's Clean Energy Transformation Act.

PSE will be coal free by 2025 and our electric system will be carbon neutral by 2030.

#### This effort will help us:

- Continue leading the way to cleaner, more affordable energy solutions
- Make a difference in the lives of our customers
- Preserve and protect our environment

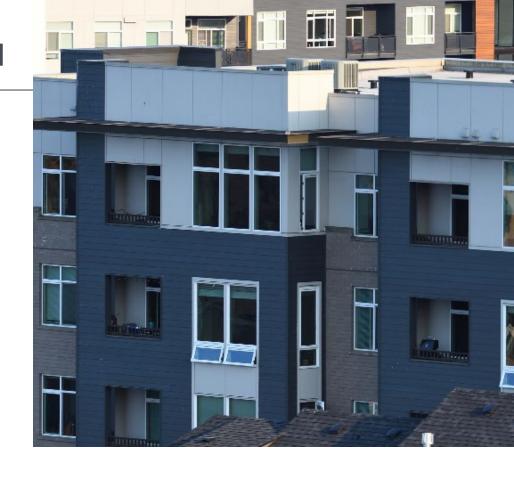




#### What It Means for You

Every new building you work on is an opportunity to maximize energy efficiency benefits:

- Reduce construction costs
- Lower maintenance and utility bills
- Improve occupant health and comfort
- Attract sustainably-minded tenants





# Program Participation Statistics

#### Average project profile:

- Building size: 133 units, 5 stories, 135,000 Conditioned SF
- Program Efficiency Tier: Good, Better, Best, Very Best
- Most common incentive categories: Lighting, appliances, and domestic hot water
- Incentive: \$43,000
- Annual energy savings:142,000 kWh and 3,200 therms



# Packaged Offerings





### In-Unit HVAC Measures

Measure	Points	Measure	Points
In-unit ductless heat pump – 14 SEER 8.2 HSPF	4.75	In-unit high-efficiency condensing furnace	1.25
In-unit ductless heat pump – 15 SEER 8.5 HSPF	5	In-unit condensing boiler – 94% efficiency	1.75
In-unit ductless heat pump – 16 SEER 9.0 HSPF	5.25	In-unit water-source heat pump – 14.95 EER 4.95 COP	0.5
In-unit ductless heat pump – 18 SEER 10 HSPF	5.50	In-unit water-source heat pump with 94% efficient condensing boiler	0.5
In-unit Variable Refrigerant Flow (VRF) – 11.3 EER or 14.2 IEER and 3.4 COP	0.25	In-unit water-source heat pump – 14.95 EER 4.95 COP with 94% efficient condensing boiler	1
In-unit high-efficiency PTHP - 13.96 EER / 3.69 COP	0.25	In-unit energy recovery ventilator – 70% sensible and 70% latent efficiency	1.75
In-unit air source heat pump – 15 SEER 8.5 HSPF	3.75	In-unit energy recovery ventilator – 85% sensible and 70% latent efficiency	2
In-unit air source heat pump – 16 SEER 9.0 HSPF	4	In-unit ENERGY STAR exhaust fan – 2.8 CFM/watt	0.5
In-unit gas furnace and air conditioner – 15 SEER 94% AFUE	1.25	In-unit high-performance exhaust fan – 10 CFM/watt	0.75
In-unit gas furnace and air conditioner – 16 SEER 96% AFUE	1.5		



#### In-Unit HVAC Control Measures

Measure	Points
Smart thermostat - electric heat	2.75
Smart thermostat - gas heat	0.25
Line voltage thermostats on resistance heat and unitary heating	0.25



# **Lighting Measures**

Measure	Points
In-unit Lighting Power Density (LPD) 0.308 watts per sq. ft.	1.25
In-unit LPD 0.213 watts per sq. ft.	2.25
In-unit LPD 0.177 watts per sq. ft.	2.75
Common area LPD of 0.31 watts per sq. ft.	0.25
Common area LPD of 0.29 watts per sq. ft.	0.50
Common area LPD of 0.27 watts per sq. ft.	0.75
Common area LPD of ≤0.25 watts per sq. ft.	1.00
Corridor Occupancy Sensors (dim to 50% output or shut off when unoccupied)	1.00



# Additional Lighting Measures

Measure	Incentive	Criteria
Parking garage	\$0.175 per annual kWh savings or \$0.225 per annual kWh	Must be 20% more efficient than applicable WA State Energy Code
Exterior building and site	savings (controls bonus)	Must be 25% more efficient than applicable WA State Energy Code (C406.3 pathway)



# **Envelope Measures**

Measure	Points
Performance windows (non-metal framed U value=0.24) (metal framed U value =0.34)	0.5
High-performance windows (non-metal framed U value=0.22) (metal framed U value=0.28)	0.75
Roof insulation: four or more stories, R-49 continuous insulation; three or fewer stories, R-60	0.25
Wall insulation R-21 + R-12 ci	0.5
Insulation bundle (wall + roof )	0.75

Compartmentalized test measure	Whole building test measure	Points
Air leakage - air tightness meeting 2 ACH @ 50 PA	Air leakage — 0.25 cfm/ sq. ft. @ 75 PA	1
Air leakage air tightness meeting 1.5 ACH @ 50 PA	Air leakage - 0.20 cfm/ sq. ft. @ 75 PA	1.25
Air leakage air tightness meeting 1.0 ACH @ 50 PA	Air leakage — 0.15 cfm/ sq. ft. @ 75 PA	1.50



### **Domestic Hot Water Measures**

Measure	Points	Measure	Points
Kitchen aerator - 1.5 Gallon Per Minute (GPM) - electric DHW	0.25	Drain water heat recovery - electric DHW	0.5
Bath aerator - 1.0 GPM - electric DHW	0.25	Drain water heat recovery - gas DHW	0.5
Bath aerator - 0.5 GPM - electric DHW	0.5	In-unit heat pump water heater	4.0
Showerhead - 1.75 GPM - electric DHW	0.75	Condensing efficient tank water heater	3.0
Showerhead - 1.5 GPM - electric DHW	1.0	Tank-less gas water heater	2.25
Kitchen aerator - 1.5 GPM - gas DHW	0.5	Thermostatic shower restriction valve - electric DHW	0.25
Bath aerator - 1.0 GPM - gas DHW	0.5	Thermostatic shower restriction valve - gas DHW	0.25
Bath aerator - 0.5 GPM - gas DHW	0.5		
Showerhead - 1.75 GPM - gas DHW	1.5		
Showerhead - 1.5 GPM - gas DHW	1.75		



# Unit Appliances and Other Measures

Measure	Points
ENERGY STAR® clothes washer	0.5
Heat Pump Clothes dryer meeting 3.0 < UCEF ≥ 5.29	1
Heat Pump Clothes dryer meeting UCEF ≥ 5.3	2.25
ENERGY STAR refrigerator	0.25
Tier 2 advanced power strip	1.25



# Performance, Points-Based Incentive Offering

Efficiency Tier	Incentive points required	\$/Eligible incentive point per square foot	Compliance points deducted
Good	1.00–4.75	\$0.035	2.5
Better	5.00-8.75	\$0.040	2.5
Best	9.00–14.75	\$0.045	2.5
Very Best	15.00+	\$0.050	2.5

The more measures you include in your project, the more points you earn. Choosing higher efficiency measures will result in more points earned.

More points increases your efficiency tier and incentive per square foot.



A project servicing 100,000 sq. ft. of conditioned space, earning 7.5 incentive points would receive a \$20,000 incentive.

# Commercial New Construction Offerings

Pathway	Incentive	Criteria
Whole Building Analysis (at least 50,000 sf)	\$0.30/kWh or \$5/therm (natural gas)	Energy modeled savings compared to applicable WA State Energy Code baseline Buildings must be at least 10% more efficient than WA State Energy Code
Lighting	\$0.175/kWh up to 100% of system cost \$75/fixture bonus for fixtures with embedded Luminaire Level Lighting Controls	WA State Energy Code Lighting Power Allowance (LPA) baseline  Energy savings calculated from lighting compliance forms  Lighting must be at least 20% more efficient than  WA State Energy Code
Component Approach (non-lighting. e.g. boiler, chiller, or industrial process)	\$0.30/kWh or \$5/therm (natural gas) up to 100% of the incremental cost	Individual new construction efficiency measures incremental to WA State Energy Code requirements, or standard practice where code is not applicable



# Participation Steps and Process

- 1. Contact--Project contacts PSE about incentives
- 2. Enrollment--Project completes program enrollment
- **3. Documents submission--** Project sends construction documents to PSE
- **4. Incentive Review--** PSE reviews documents and issues grant agreement to owner
- 5. Signatures--Project signs grant agreement and returns to PSE
- **6. Inspection**--PSE visits project to inspect efficiency measures
- **7. Payment**--PSE processes payment





# Thank you!

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