









## Residential & Multifamily 2024 Program Updates

## Agenda

- Residential Incentive Information
- Ductless Heat Pump Billing Analysis Results
- Residential Market Trends
- Community Partner Funding Updates
- Incentive Processing & Quality Assurance Updates
- Resources for Contractors
- Multifamily Incentive Information

# Property Types

Residential	Small Multifamily	Large Multifamily
Detached single-family homes	Side-by-side (townhomes, rowhouses)	Apartments or condos in stacked structures with five or more units
		
Manufactured homes	Duplexes, triplexes, fourplexes	Assisted living, campus living, etc.
		



# Home Retrofit Incentives and Changes

## Residential Incentives

- Incentives, Program Incentive Guide (AKA the PI Sheet), Specifications Manual, and Qualified Products Lists (QPL) are on the Insider page
  - Main page of the Insider -> Forms on the right side -> Home Retrofit
  - <https://insider.energytrust.org/programs/home-retrofit/forms/>

### FORMS

For Home Retrofit

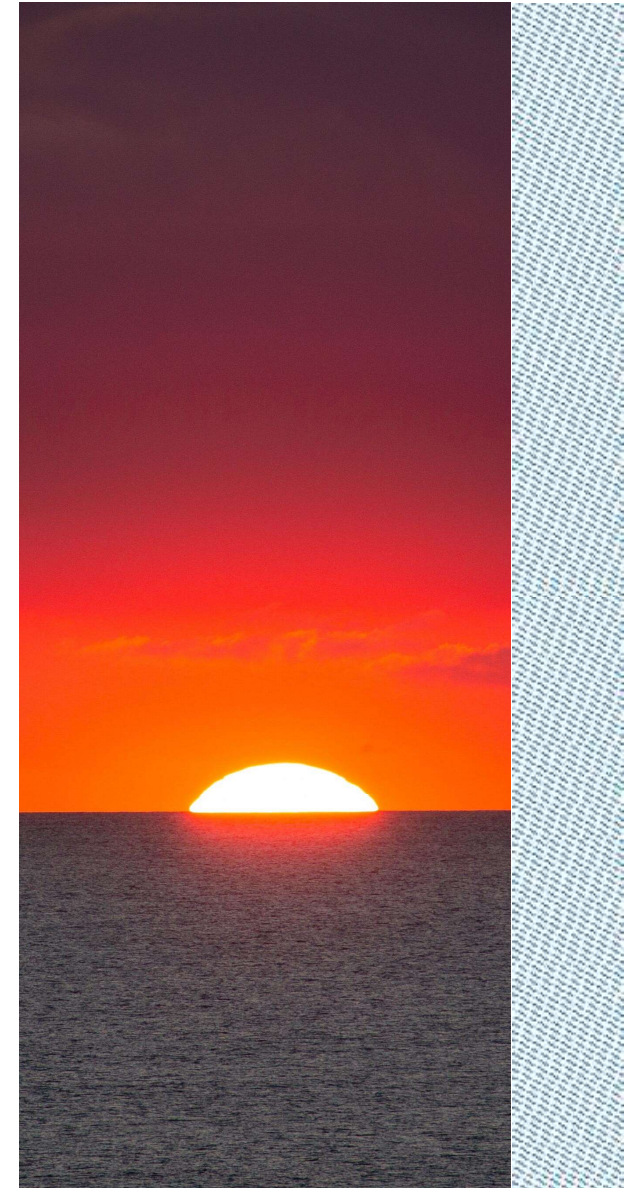
#### Program Incentive Guides

- [Residential Program Incentive guide – \*\*PI 320I\*\* \(PDF\)](#)
- [Residential Ductless and Ducted Heat Pump Program Incentive guide – \*\*PI 320I-HP\*\* \(PDF\)](#)
- [Enhanced CPF Windows Summary \(PDF\)](#)

## Incentive Offerings Sunset

- Energy Trust of Oregon's Residential program will discontinue central air conditioner (CAC) incentives for systems installed after December 31, 2024

Current Offers	Incentives 12/31/24 and Before	Incentives After 1/1/2025
Central AC SEER2 14.25 – 15.19	\$150	\$0
Central AC SEER2 15.20 or Greater	\$250	\$0



## Insulation Incentive Increases

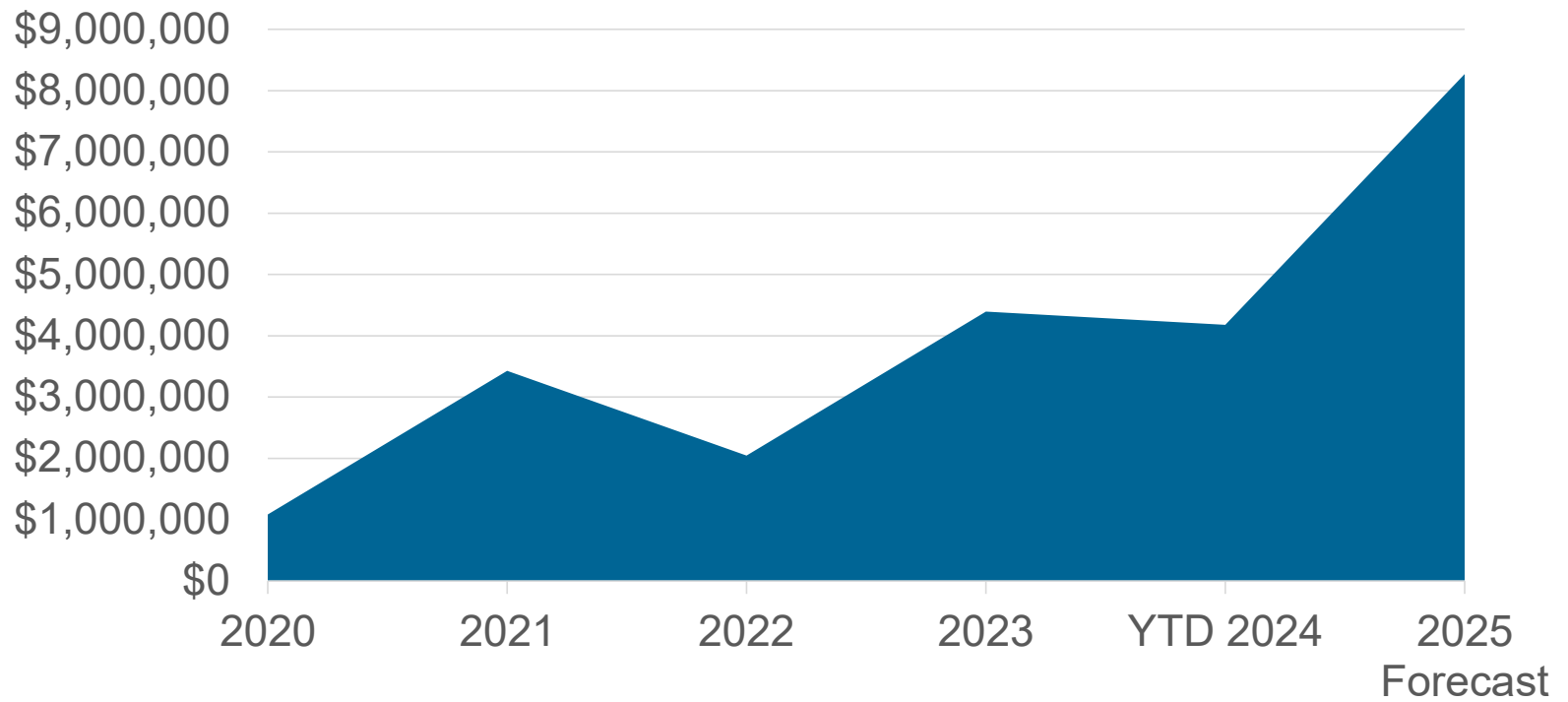
- Wall and Floor insulation incentives increased as of 10/1/24

Standard Rate		
Insulation Type	Incentives through 9/30/24	Incentives starting 10/1/24
Attic	\$1.25	\$1.25
Wall	\$0.50	<b>\$1.50</b>
Floor	\$0.50	<b>\$0.75</b>

Savings Within Reach		
Insulation Type	Incentives through 9/30/24	Incentives starting 10/1/24
Attic	\$1.50	\$1.50
Wall	\$0.75	<b>\$2.25</b>
Floor	\$0.75	<b>\$1.00 or \$1.25 (MH)</b>

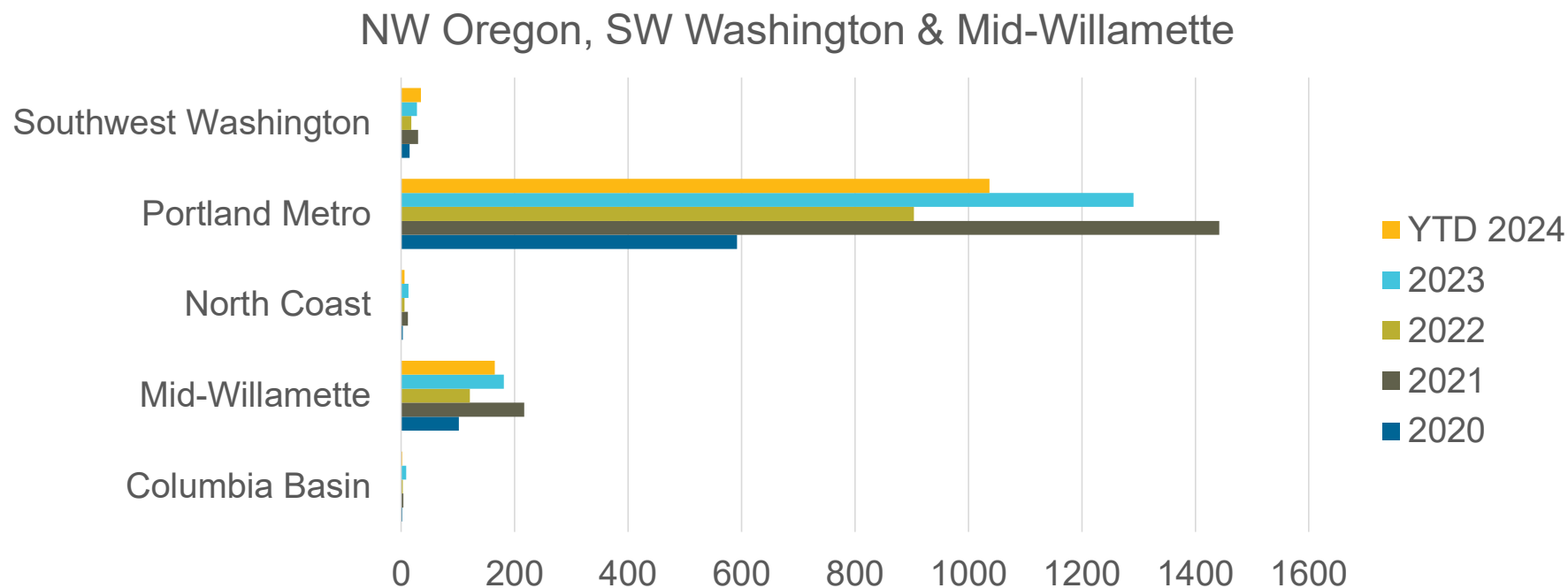
## Insulation Offers

### Residential Insulation Incentives by Year



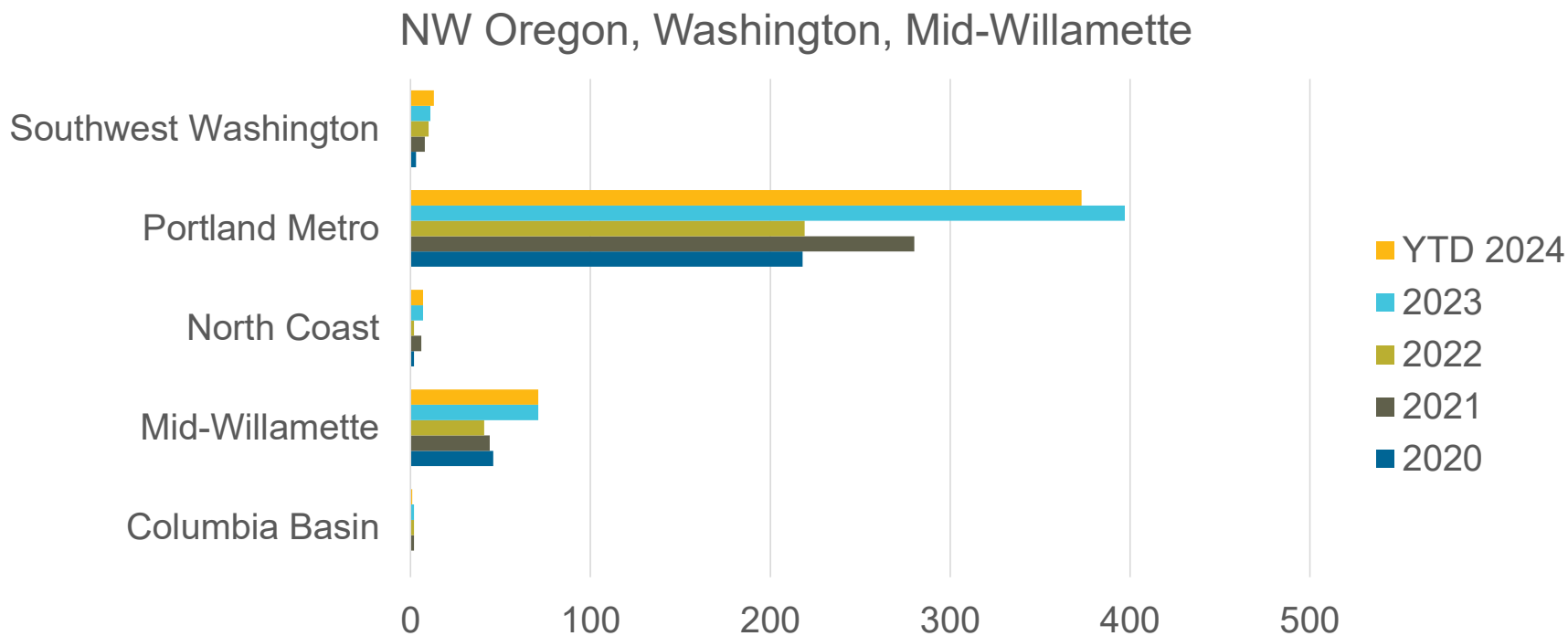


## Ceiling Insulation Trends – NW Oregon & Mid-Willamette



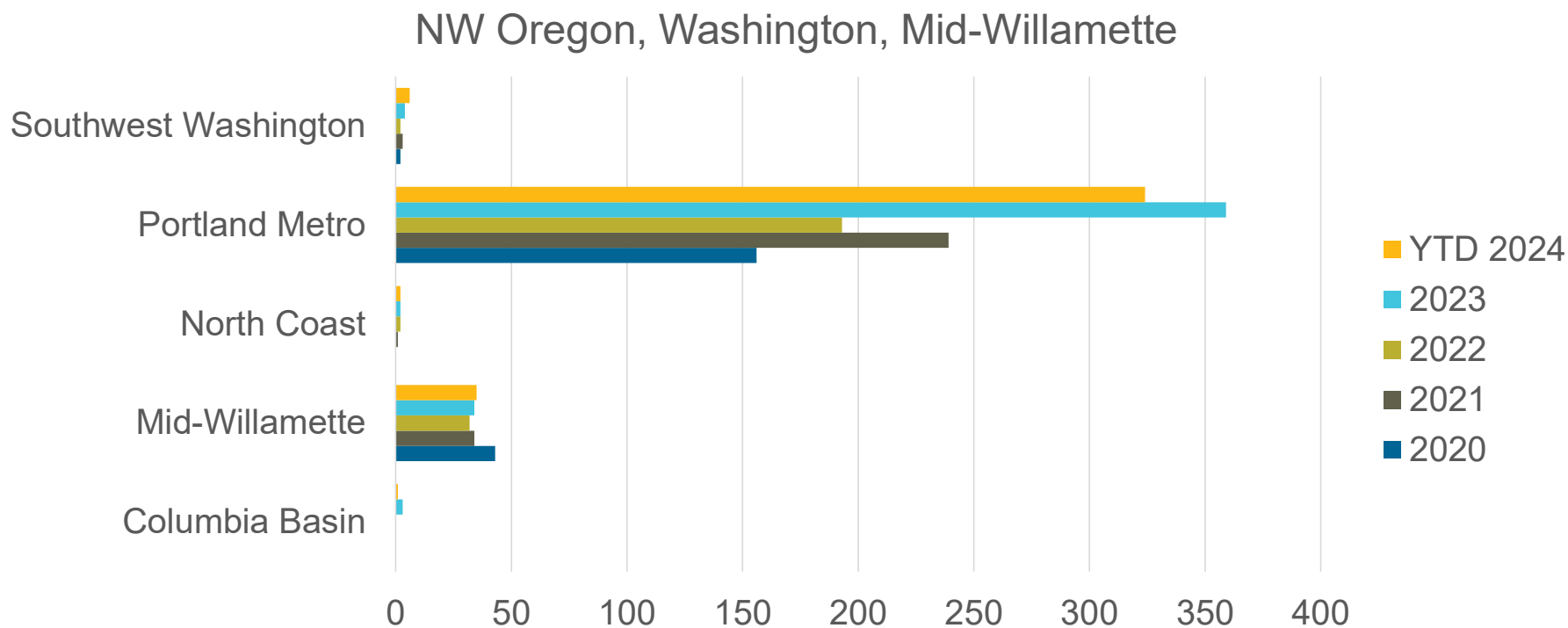
- On average Energy Trust incentives cover 52% of a ceiling insulation project's cost in these regions

## Floor Insulation Trends – NW Oregon & Mid-Willamette



- On average Energy Trust incentives have covered ~24% of a floor insulation project's cost in these regions

## Wall Insulation Trends – NW Oregon & Mid-Willamette



- On average Energy Trust incentives have covered ~20% of a Wall insulation project's cost in these regions

# Cost Effectiveness & DHP Billing Analysis Results

## Cost-effectiveness tests: Benefit cost ratios (BCRs)

Test	Total Resource Cost (TRC) Test	Utility Cost Test (UCT)
<b>Purpose</b>	To determine if we can offer a measure or approve a project	To determine range of incentives for a measure
<b>Benefits</b>	Avoiding the use of more expensive energy  Quantifiable non-energy benefits	Avoiding the use of more expensive energy
<b>Costs</b>	Incremental cost of measure compared to baseline	Incentives
<b>Measure passes if ...</b>	$\frac{\text{Benefits}}{\text{Costs}} \geq 1$	$\frac{\text{Benefits}}{\text{Costs}} \geq 1$

## Single-Family Ductless Heat Pump – Billing Analysis

Compare energy usage from over 2,000 DHP project sites spanning 2020 to 2022

Analyze electric consumption a full year before and after DHP projects were installed

Compare results to homes of similar size and characteristics that had not installed a DHP



**Results : On average single-family DHP projects are saving less electricity than expected**

Expected savings were roughly 2,307 kWh per site

Evaluated savings were roughly 1,032 kWh per site

The cost of an average DHP project has also increased by over 30% from 2020 to 2024

## Factors leading to lower DHP savings?

- Project installed secondary heads in previously un-conditioned or under-conditioned spaces (converted spaces or additions)
- Primary living space also had a secondary fuel source, such as a stove or fireplace, used more frequently than electric space heat
- Customer had poor understanding of how to operate the unit – long recovery periods
- Customer had low electric usage prior to install – living less comfortably

## Single Family Ductless Heat Pump – Billing Analysis

- The results of this evaluation will impact what incentives can be offered in the future
- Must obtain a cost effectiveness exception from OPUC
  - Seeking OPUC feedback in January 2025
- Lower savings means lower incentives
- Increased data collection about project site conditions
  - Location and existing condition of all spaces where indoor units were installed (not just primary living space)
  - Details of supplemental heating fuel use



## Ductless Heat Pump – Support to improve savings

- Promotions / direct marketing
  - Targeted marketing to customers with higher energy usage per sq. ft.
- Customer education materials
  - Proper DHP operation to maintain comfort and maximize efficiency
- When to expect savings and when not to
  - Have open conversations with customers about how changes in behavior also impact their energy use
- Additional technical training
  - Cold climate technologies
  - Mixed delivery systems
  - HVAC design

**Q:** What do you see with customers – when do they save energy or not? What is important to them?

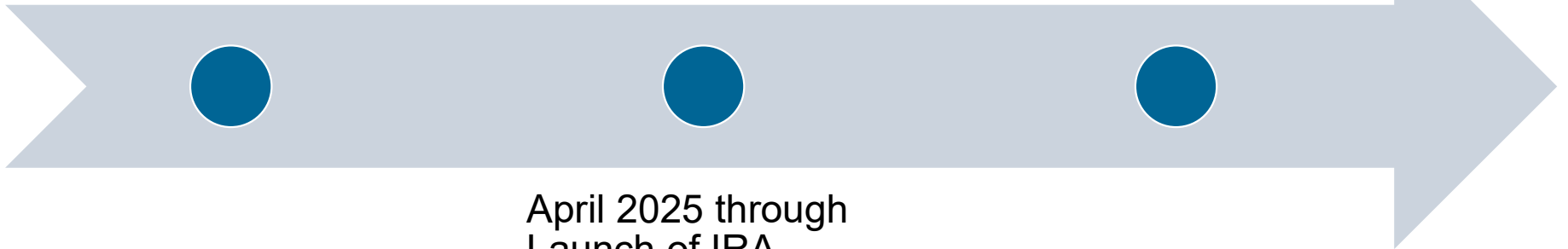
## Ductless Heat Pump – Offer Evolution

### Now through March 2025

- Standard Incentives
- Savings Within Reach
- Offers for priority customers or housing stock

### Launch of IRA and onward

- Stacking rebates
- IRA requirements
- Midstream incentives



### April 2025 through Launch of IRA programs

- Same offers
- Lower incentives
- Ask for more information about existing conditions

# Residential HVAC Markets and Trends

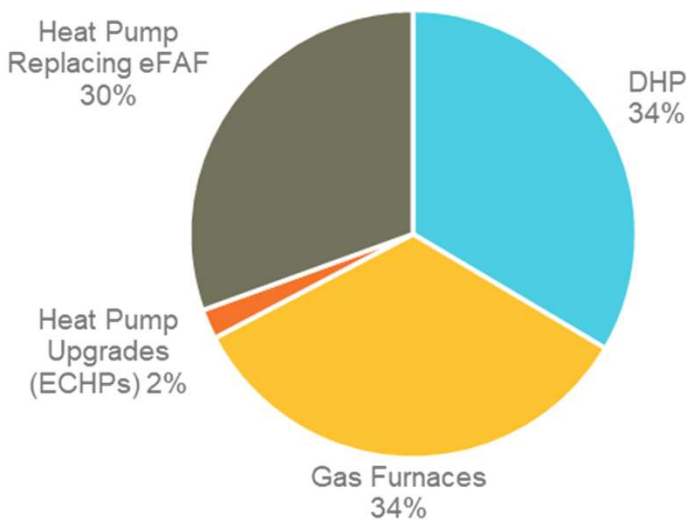
## Statewide HVAC Trends

- Growing consumer demand for more efficient heating and cooling systems
- Extreme weather events in 2021 and 2022
- Businesses are restructuring operations through **consolidation of services** (e.g., combining heating/cooling, electrical and plumbing services, weatherization services)
- **Community Based Organizations (CBOs)** are becoming increasingly important partners in delivering energy-efficiency benefits and reducing carbon emissions to customers in their communities – **especially those customers most in need**
- HVAC equipment **continues to go up in price**, most recently with the refrigerant change
- Customers are asking for heat pumps installed with gas forced-air systems, and it's a trend we're interested in monitoring and learning from
- New incentive programs are coming to the market – some with different requirements and systems than Energy Trust

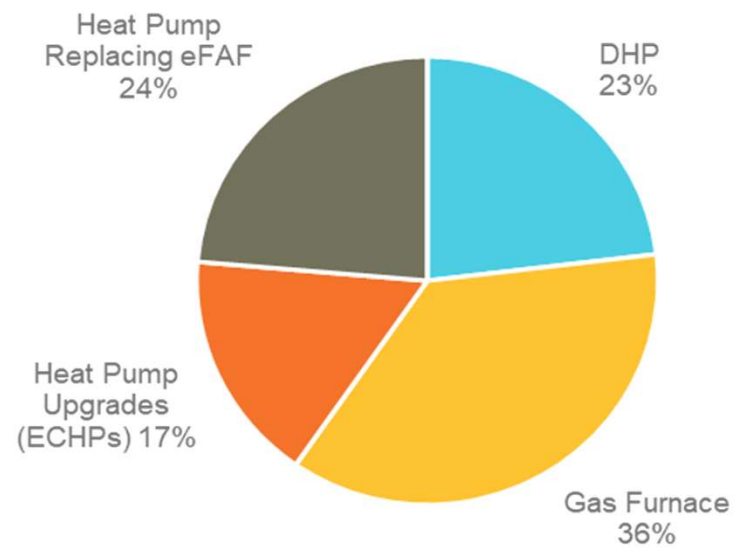
**Q: What recent trends do you see in the market? What challenges and opportunities does your company experience?**

# Statewide HVAC Installation Trends

202 Installations



2023 Installations



## Heat Pump Water Heaters

- \$500 + incentive when purchasing a qualifying HPWH from a [participating distributor](#).

- Airefco
- Budge McHugh Supply
- Consolidated Supply
- Ferguson
- General Pacific
- Gensco
- HD Supply
- Keller Supply
- Mar-Hy
- Mesher Supply
- Pace Supply
- Plumbing Materials Supply
- Saffron Supply
- Slakey Brothers
- Standard Supply



# Community Partner Funding Updates

# Community Partner Funding Updates

- Highest tier of incentives delivered through community-based organizations

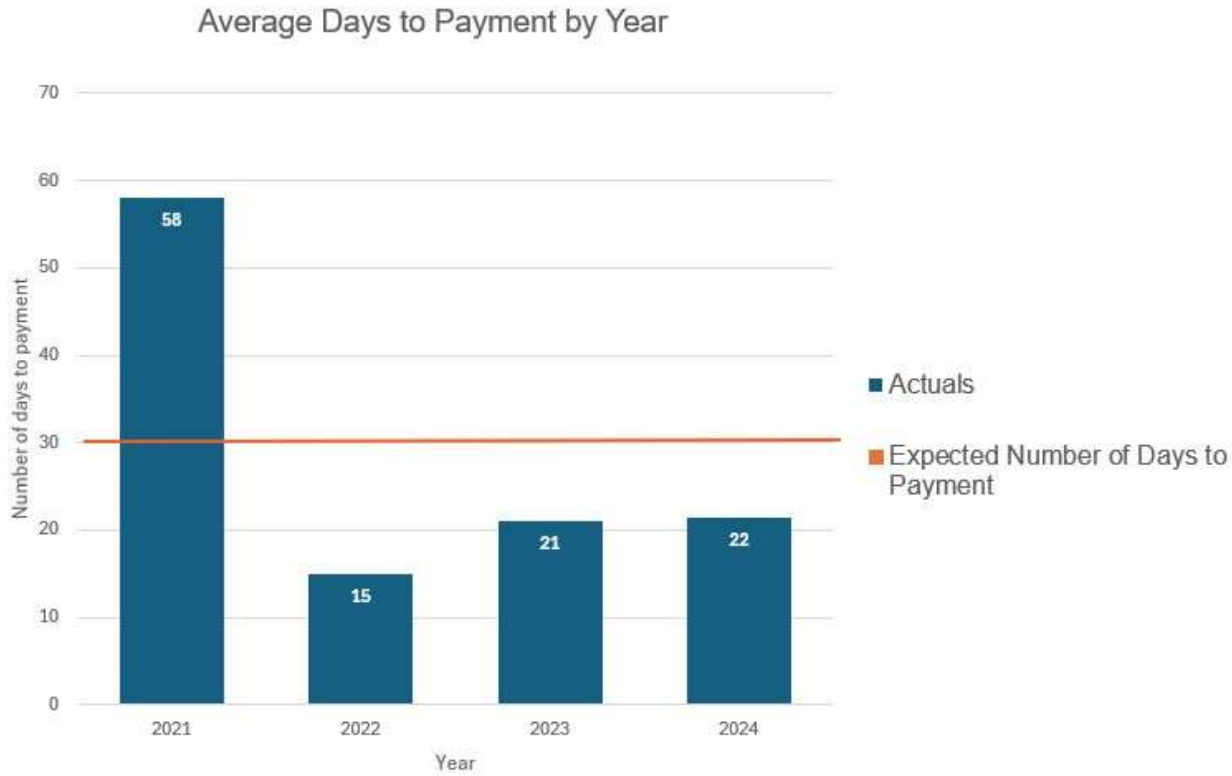
Community Partner Funding	2022	2023	2024 (YTD)
CBO Incentives Paid	\$552,733	\$1,571,982	\$2,615,186
Customers Served	525	797	906
Home energy assessments	458	697	699
HVAC projects	159	227	264
Weatherization projects	109	152	326
Total community Partners	16	22	25





# Incentive Processing and QA Updates

# Incentive Processing Information



- 62% improvement in 2024 compared to 2021
- 145% increase in projects paid within 30 days in 2024 compared to 2021

## Quality Assurance Processing Information



- Work Quality Verification (WQV) holds payment!

### To avoid WQV-related processing delays:

- Inform customers that WQV is selected at random
- Reply to any WQV requests in a timely manner
- Review the 2024 Specifications Manual prior to installation of energy saving measures
- Schedule corrective action visits within five business days of notification
- Request a WQV with Energy Trust for the final installation day or site revisit

## Common Quality Assurance Issues

- DHP DNQs (non-qualifying sites)
- Improper lockout controls for ducted heat pumps
- Dams for attic insulation
- Missing water line insulation and missed floor penetrations (not sealed) for floor insulation



Ductless Heat Pump – with additional heating source	\$500	Must have an HSPF2 of 8.10 or greater as rated by the Air Conditioning, Heating & Refrigeration Institution ( <a href="http://AHRlnet.org">AHRlnet.org</a> ) and <b>replace electric zonal heat</b> as the single-family home's primary heating system. Highest capacity indoor unit must be installed in the main living space (e.g., living room, great room). If replacing electric zonal heat, main living space allowed to have an additional non-electric heating source present. Mini-split systems with limited ducting may be eligible, email <a href="mailto:residentialta@energytrust.org">residentialta@energytrust.org</a> for review and approval. One incentive per residence. Only available to residences serviced by PGE and Pacific Power.
Ductless Heat Pump Installed in a Rental Property <sup>1</sup>	\$1,800	
Ductless Heat Pump (Savings Within Reach) <sup>1</sup>		
Ductless Heat Pump	\$1,000	Must have an HSPF2 of 8.10 or greater as rated by the Air Conditioning, Heating & Refrigeration Institution ( <a href="http://AHRlnet.org">AHRlnet.org</a> ) and <b>replace electric resistance heat</b> as the residence's primary heating system. Highest capacity indoor head must be installed in the main living space (e.g., living room, great room). Main living space cannot have an additional non-electric heating source present. Mini-split systems with limited ducting may be eligible, email <a href="mailto:residentialta@energytrust.org">residentialta@energytrust.org</a> for review and approval. Only available to residences serviced by PGE and Pacific Power.

## Other Resources

## Financing

- On-Bill Loan Repayment offer with Craft3 sunset in June 2024
- Puget Sound Community Credit Union currently has on-bill financing for Avista customers
- Energy Trust is exploring other financing partnerships

**Q:** What financing resources do you utilize with customers? What are you interested in seeing?

## Tax Credit Best Practices

Energy Efficient Home Improvement Tax Credit

<https://www.irs.gov/credits-deductions/energy-efficient-home-improvement-credit>

Qualified Products – ECHP insider article

<https://insider.energytrust.org/new-extended-capacity-heat-pump-qualification-procedure-training/>

### Best Practices

- Reference manufacturer to determine which products are eligible
- Clearly document all model numbers
- AHRI # of the system installed
- Line item for Energy Trust/utility incentives
- Line item for "Total Project Cost After Incentives"
- Ensure you or the customer can look up those model number combinations
- Raise awareness of other energy upgrade tax credits (windows or insulation)

# Upcoming Portland Clean Energy Fund (PCEF) Opportunities

## 2025 Opportunities:

1. Community Responsive Grants (RFP 3) approved 71 projects at nearly \$92m.
  - 21 grants for Clean Energy & 10 grants for Workforce & Contractor Development
2. Clean Energy Retrofits for Single-Family Homes (Strategic Program 3)
  - Upgrades for 3,100 homes mix of comprehensive whole-home retrofits, and limited upgrades
  - Emphasis on serving customers experiencing low or moderate incomes
  - Contractors to provide initial home assessment, provide bids for all work needed, and manage installation
  - Timeline: June 2025-2029

Household type	Household income	Eligible Upgrade Activity	Estimated number of homes over five years	PCEF investment per home	Target energy use reduction per home
<b>Owner-occupied</b>	≤ 80% AMI	Comprehensive	1,500	Up to \$50K	30%
	81% - 120% AMI	Limited	600	Up to \$30K	20%
	121% - 150% AMI	Limited	450	Up to \$15K*	20%
<b>Renters</b>	≤ 80% AMI	Limited	500	Up to \$15K	15%
<b>Small in-home childcare centers and congregate housing</b>	N/A	Limited	50	Up to \$15K*	20%



# Opportunities for Professional Development

- Increasing training opportunities
  - Incentive processing
  - Technical Trainings
  - New Technologies and Tools
  - Installation Best Practices
  - Social Media Playbook
- <https://insider.energytrust.org/training-calendar/>
- Contractor Development Pathway (CDP)

**Energy Trust of Oregon HVAC Design Training (Virtual)**  
An Overview Training on HVAC Design Best Practices  
November 5th, 2024 | 8:30 AM – 10:00 AM  
Join Energy Trust of Oregon for this CEU eligible FREE training opportunity by registering [HERE](#).

If you are a contractor, part of a community-based organization, or in a trade and are interested in learning more about proper HVAC design, please reserve your spot today.

**TOPICS INCLUDE**

- Steps to Proper HVAC Design
- ACCA Technical Manuals
- Heat Loss & Heat Gain to Properly Select Equipment Size
- Importance of Air Distribution
- Tips & Tricks for Successful Installations

EnergyTrust of Oregon



# Contractor Development Pathway

# Introducing the Contractor Development Pathway!

***Are you a diverse, rural, small business or new trade ally interested in growing your business with Energy Trust of Oregon?***



Increase Knowledge



Peer Mentorship



Network of Support



Business Development  
Services

## Who Should Join?

- Contractors in the Existing Buildings, Existing Multifamily and Home Retrofit Trade Ally Networks.
- Black, Indigenous, Latino/a/e, and person of color owned, woman-owned, veteran-owned and rural area contracting businesses are encouraged to apply.
- If you're passionate about energy efficiency and business growth, this pathway is for you!

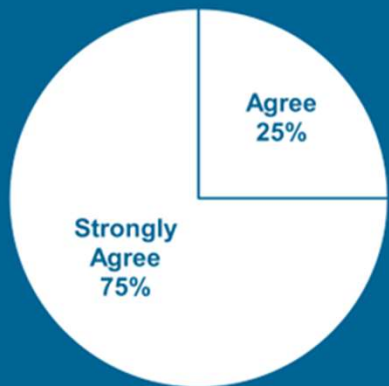
Get started today! Learn more and apply at: [insider.energytrust.org/CDP](https://insider.energytrust.org/CDP) or email [CDP@energytrust.org](mailto:CDP@energytrust.org)

## CDP Trade Ally Feedback

"I found the **networking** particularly helpful - it was great to put faces to names and to understand a little more about what each person does."



I WOULD RECOMMEND  
THE CONTRACTOR  
DEVELOPMENT PATHWAY  
TO MY PEERS.



"My mentor helped me grasp **how energy trust incentives work**. She also was very helpful in helping me understand key steps to help better my business."

"It was helpful to get more of an **understanding of the HVAC industry** through [my mentor] and expand my knowledge."



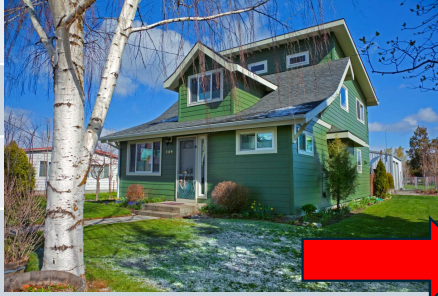





# 2023 Trade Ally Forums Multifamily & Commercial Updates



## Multifamily Agenda

- 2023 Program Savings & Incentives Paid (Final)
- 2024 Program Savings & Incentives Paid (\*YTD)
- Sunsetting Measures
- New Measures in 2025
- Looking Ahead...

# Property Types

Residential	Small Multifamily	Large Multifamily
Detached single-family homes	Side-by-side (townhomes, rowhouses)	Apartments or condos in stacked structures with five or more units
 A red arrow points from this image to the Small Multifamily column.		 A red arrow points from this image to the Large Multifamily column.
Manufactured homes	Duplexes, triplexes, fourplexes	Assisted living, campus living, etc.
 A red arrow points from this image to the Small Multifamily column.		 A red arrow points from this image to the Large Multifamily column.



# 2023 Savings and Incentives Paid: Thank you!

Utility	Goal	YTD Savings	YTD Pct to Goal
<b>Electric</b>	<b>50,937,975</b>	<b>49,574,558</b>	<b>97%</b>
PGE	33,441,211	32,777,519	98%
PAC	17,496,764	16,797,040	96%
<b>Gas</b>	<b>2,278,555</b>	<b>2,461,810</b>	<b>108%</b>
NWN	978,913	934,737	95%
NWN DSM	744,014	1,105,550	149%
NWN WA	169,245	183,197	108%
CNG	261,019	178,961	69%
AVI	113,893	59,299	52%
AVIINT	11,472	66	1%

Utility	Budget	YTD Incentives	YTD Pct to Budget
<b>Electric</b>	<b>\$14,563,494</b>	<b>\$14,263,712</b>	<b>98%</b>
PGE	\$9,027,503	\$8,644,967	96%
PAC	\$5,535,991	\$5,618,745	101%
<b>Gas</b>	<b>\$7,138,309</b>	<b>\$7,522,322</b>	<b>105%</b>
NWN	\$2,722,253	\$3,422,166	126%
NWN DSM	\$2,569,482	\$2,690,013	105%
NWN WA	\$688,951	\$557,907	81%
CNG	\$686,659	\$526,564	77%
AVI	\$401,824	\$325,408	81%
AVIINT	\$69,140	\$264	0%



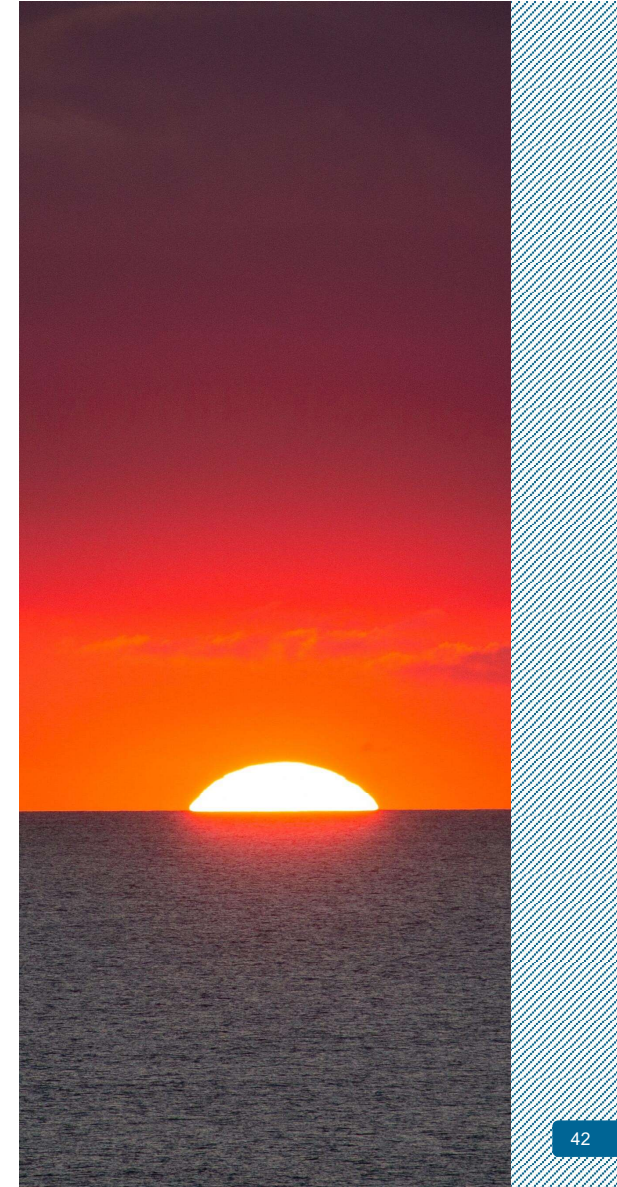


## 2024 Savings and Incentives Paid

<b>Savings</b>	<b>YTD (*as of September)</b>	<b>Goal</b>
Electric	26,617,196	74,336,464
Gas	1,092,454	2,493,161

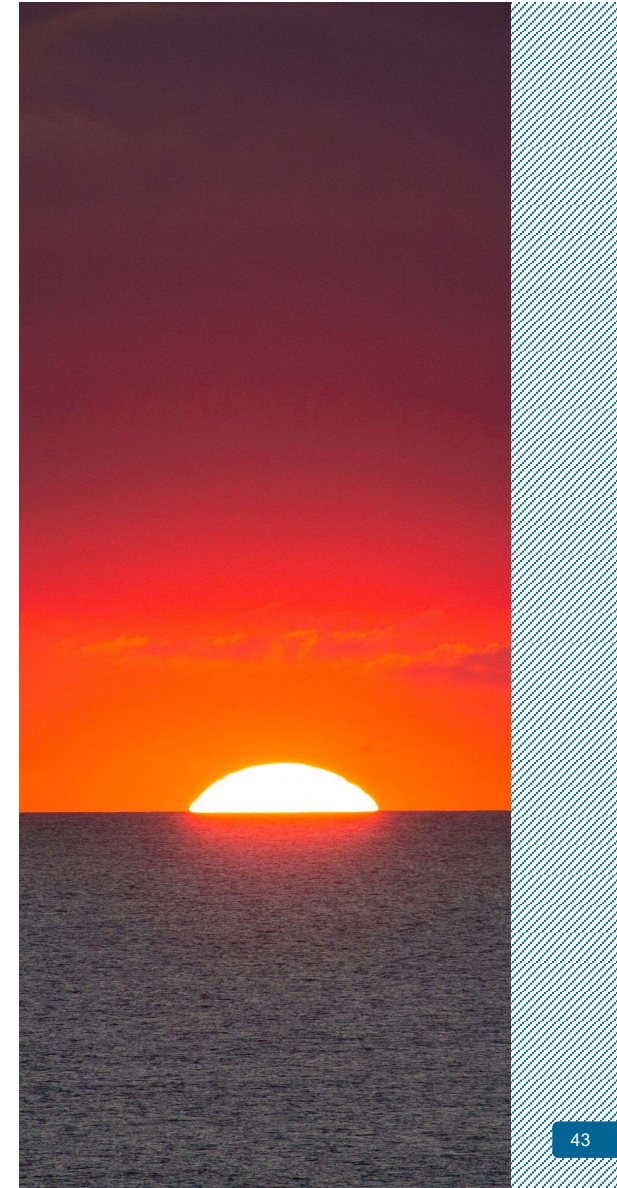
## Sunseting Measures: HVAC

- Rooftop Unit Controls
  - Commercial and Multifamily
- Garage Ventilation Controls
  - Commercial and Multifamily
- Central Air Conditioning
  - Commercial and Multifamily
- VRF Air-Cooled Heat Pumps
  - Commercial and Multifamily



## Sunsetting Measures: Foodservice

- Convection Ovens - Electric Half-size
  - Commercial and Multifamily
- Combination Ovens - Electric (3-4 Pans)
  - Commercial and Multifamily
- Gas Ovens in SW Washington
  - Commercial and Multifamily
  - Combination Ovens
  - Convection Ovens
  - Single Rack Ovens
  - Double Rack Ovens





## New Measures in 2025!

- High Efficiency Fryers
  - Gas and electric
  - Updated with a higher efficiency requirement than 2022
- Advanced Controls for Walk-in Coolers and Freezers
- Gas Convection Ovens in Oregon
- Gas and Electric Griddles in Oregon



## New Measures in 2025!

- Gas Combination Ovens in Oregon
- Under Counter Commercial Dishwashers
- Pot, Pan and Utensil Commercial Dishwashers
- Forced Circulation Generator Block Heaters

## Additional changes and updates...

- Other incentives to be added and/or updated
- All updates for 2025 will be shared through Insider
- Your trade ally coordinator will also be in touch!



# Thank you!

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Existing Buildings

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