



Residential & Multifamily 2022 Program Updates

Agenda

- Residential & Small Multifamily Introduction
- Single-Family & Small Multifamily Incentive Updates
- Multifamily Incentive Updates
- Discussion

Single-Family vs. Multifamily

- Single-Family

- Detached single family homes
- Manufactured homes

- Small Multifamily

- Side-by-side properties (townhomes, rowhouses)
- Duplex, triplex, fourplex

- Multifamily

- Apartments or condos in stacked structures with five or more units
- Assisted Living
- Campus Living

Single-Family and Small Multifamily Requirements & Incentive Changes

HVAC Minimum Efficiency Standards & Test Procedures

- New Federal Minimum Efficiency
- New Metrics: SEER2/EER2/HSPF2
- M1 Test procedure
 - More stringent
- Compliance based on date of manufacturer

Impacts to Energy Trust Requirements

Ducted and Ductless Heat Pumps

- Savings is generated from displacing electric resistance heat
- Minimum requirements are based on when units are manufactured in accordance with the following table

Minimum product efficiencies	Product manufactured before 1/1/2023	Product manufactured after 1/1/2023
System Type	HSPF	HSPF2
Ductless	9	8.55
Ducted	8.5	7.5

Impacts to Energy Trust Requirements

Central Air Conditioning

- Updated Qualified Product List
- Minimum requirements are based on when units are manufactured in accordance with the following table

Minimum product efficiencies	Product manufactured before 1/1/2023		Product manufactured after 1/1/2023	
	SEER	EER	SEER2	EER2
Offer Type				
Central AC SEER 15	15	12	14.25	11.4
Central AC SEER 16+	16+	12	15.2	11.4

Cost-effectiveness tests: Benefit cost ratios (BCRs)

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

Insulation in existing residential, small multifamily, and manufactured homes: Major exception request



Single-family and small multifamily homes with electric heated

- Wall and Floor insulation (from R0 – R11) do not pass TRC
- Attic insulation passes TRC for all single-family and small multifamily applications



Existing manufactured homes insulation

- Added measure applications for 2023
- Floor and attic insulation for both fuels do not pass TRC



Very low percentage of program incentives and savings

- Approx. 1% of program savings for both Residential and Existing Multifamily
- Major exception request due to some TRC BCRs < 0.8

Window upgrades – Single family and small multifamily homes: Major exception request



**Influencing customers actively
in the market for new windows**

- Compares high efficiency windows to other windows products on the market (market baseline)



**Lower savings,
higher costs**

- Exception is needed due to TRC between 0.3 – 0.6
- Decreasing percentage of program savings (1%) and incentives (3%)



**Establish “best” class of high
efficiency windows in the
market**

- Plan to remove lowest efficiency tier (u-value 0.28 - 0.30)
- Lower all incentives within UCT

Timeline for Oregon Single-Family and Small Multifamily OPUC Exception Requests

- Anticipate review by commission members in December 2022
- If approved by December 31, 2022
 - Updates to measures take effective January 1, 2023
- If not approved by December 31, 2022
 - Window incentives paused effective Jan 1, 2023
 - Insulation incentives for Wall & Floor in electrically heated homes paused effective Jan 1, 2023

Windows Transition – Incentive reservation process

- Projects sold on or before December 31st, 2022
 - Eligible for 2022 incentive structure

Window Tier	Incentive
Tier 1 (0.30 -0.28 u-value)	\$1.75 / square foot
Tier 2 (0.27 - 0.25 u-value)	\$4.00 / square foot
Tier 3 (0.24 or less u-value)	\$6.00 / square foot

- Project documentation must include a dated copy of the original signed contract
- Contractors must submit an incentive reservation request by project address prior to 1/30/2023 with required documentation

Windows Transition

- Projects sold on or **after** January 1, 2023
- Proposed incentive offering requires OPUC approval
- If approved, incentives can be retroactively applied to projects sold after Jan 1, 2023

2023 Window Tier	Proposed Incentive
New Tier 1 (0.27 -.23 u-value)	\$1.00 / square foot
New Tier 2 (0.22 or less u-value)	\$1.60 / square foot

- Windows Trade Ally Stakeholder Group Meeting – November 2022

Oregon Single Family & Small Multifamily Incentive Changes – Attic Insulation

Upgrade	Track	2022	2023
Attic Insulation	Market Rate	*\$0.25 /sqft	\$1.25 /sqft
Attic Insulation	SWR & Rentals**	*\$0.50 /sqft	\$1.50 .sqft

*represents standard incentive prior to 2022 bonus

** enhanced rental incentive not available in market rate multifamily properties

- \$1.25 /sq ft bonus incentive run through end of 2022
- Higher incentives for SWR and Rental properties
- January 1, 2023 – Starting condition increased to R18 or less

Oregon Single Family & Small Multifamily Incentive Changes – Wall & Floor Insulation

Upgrade	Track	2022	2023
Wall Insulation – Gas Heated Homes	Market Rate	\$0.30	\$0.50
Wall Insulation - Gas Heated Homes	SWR & Rentals*	\$0.50	\$0.75

Upgrade	Track	2022	2023
Floor Insulation - Gas Heated Homes	Market Rate	\$0.30	\$0.50
Floor Insulation - Gas Heated Homes	SWR & Rentals*	\$0.40	\$0.75

- No longer require Attic insulation to be installed along with wall and floor projects
- Projects in gas heated homes no longer capped at \$150 incentive

Oregon Single Family & Small Multifamily Incentive Changes – Wall & Floor Insulation

Upgrade	Track	2022	2023
Wall Insulation – Electrically Heated Homes	Market Rate	\$0.30	\$0.50
Wall Insulation - Electrically Heated Homes	SWR & Rentals*	\$0.50	\$0.75
Upgrade	Track	2022	2023
Floor Insulation - Electrically Heated Homes	Market Rate	\$0.30	\$0.50
Floor Insulation - Electrically Heated Homes	SWR & Rentals*	\$0.40	\$0.75

- **Proposed incentive structure requires OPUC approval**
- If approved incentives can be retroactively applied to project sold after Jan 1, 2023

Oregon Single Family & Small Multifamily Incentive Changes

Upgrade	Track	2022	2023
Gas Furnace	Savings Within Reach (SWR)	\$550	\$1,000
Gas Furnace	Rental Properties	\$550	\$1,000
Gas Furnace	Multifamily Market Rate Properties	\$550	\$1,000

- Bonus incentives run through end of 2022
- \$1,000 incentive in 2023

Washington Single Family & Small Multifamily Incentive Changes

Upgrade	Track	2022	2023
Gas Furnace	Market Rate	\$550	\$650
Gas Furnace	Rental Properties	\$1,000	\$1,000

- Market Rate incentive increased to \$650
- No change to rental property incentive

Washington Single Family & Small Multifamily Incentive Changes

Upgrade	Track	2022	2023
Attic Insulation	Market Rate	\$0.75	\$1.25
Attic Insulation	Rentals	\$0.75	\$1.25

Upgrade	Track	2022	2023
Wall Insulation	Market Rate	\$0.75	\$1.25
Wall Insulation	Rentals	\$0.75	\$1.25

Upgrade	Track	2022	2023
Floor Insulation	Market Rate	\$0.75	\$1.25
Floor Insulation	Rentals	\$0.75	\$1.25

- Increase to \$1.25 / sq ft for all insulation measures
- Attic insulation starting condition increased to R18 or less

New Homes Program: Planning for New Codes

- Code development in progress in Oregon and Washington
 - Anticipating final WA code to become mandatory mid-2023
 - Anticipating final OR code to become mandatory early 2024
 - New Homes program typically updates baselines 6-9 months after code enforcement date
- Draft 2023 Oregon Residential Specialty Code measures:

Updated additional measures table	Air handler inside the thermal envelope in all situations	Max 10' of ductwork outside the thermal envelope
ENERGY STAR® smart thermostats	Expanded solar ready requirements	Changes to units of measurement

Multifamily Incentive Updates: Oregon

2023 Multifamily Incentive Changes

Upgrade	2022	2023 Change
<p>Multifamily Insulation - Stacked structures 5+ units</p>	<p>Flat roof insulation available Wall insulation not available Starting attic insulation R-value R-18</p>	<p>Flat roof insulation no longer available Wall insulation is now available Starting attic insulation R-value R-11</p>
<p>Multifamily Pipe Insulation</p>	<p>Hot water used for space heating not allowed Incentive at \$4/LF</p>	<p>Hot water used for space heating now eligible Incentive increase to \$10/LF</p>
<p>Multifamily Windows - Stacked structures 5+ units</p>	<p>Incentives:</p> <ul style="list-style-type: none"> • 0.30 or lower U-value: \$3/sq. ft. <p>Electric heat only</p> <p>Replace single-pane or single-pane and storm window</p>	<p>Incentives increasing:</p> <ul style="list-style-type: none"> • 0.23-0.30 U-value, single or double pane: \$8 • 0.22 or lower U-value, single or double pane: \$12 • Storm windows: \$4 <p>Gas-heated buildings now eligible</p> <p>Double-pane window replacements now eligible</p>

2023 Multifamily Incentive Changes

Upgrade	2022	2023 Change
Gas Condensing Tankless Water Heater less than 200 kBtu/h	Minimum requirement 0.93 UEF Incentive \$300	Increase minimum requirement to 0.94 UEF Decrease incentive to \$140
Gas Condensing Tankless Water Heater greater than or equal to 200 kBtu/h	Not offered	Minimum requirement 94% thermal efficiency Incentive added: \$1.40 kBtu/h
Pool Heaters	Covered pools and spas not eligible Incentive range: \$2.35/sq ft indoor - \$3.50/sq ft outdoor	Pools with an existing cover now eligible New incentive range: \$0.90/sq ft indoor - \$5.00/sq ft outdoor

2023 Multifamily Incentive Changes

Upgrade	2022	2023 Change
Multifamily Condensing Boilers	Incentive \$8.50 kBtu/h ≥94% AFUE thermal efficiency	Incentive decrease from \$8.50 to \$6.50 kBtu/h Added requirement that new/replacement boiler must have a turndown ratio of 5:1
Building Operator Certificate	Gas and electric-heated properties eligible	Electric-heated properties no longer eligible

2022 Multifamily Sunsetting Incentives: Oregon

Offering	2022 Incentive	Sunset Date
Outdoor Hot Tub/Spa Cover	\$100 per cover	12/31/2022
Commercial Pool Pump	\$230 per pump	12/31/2022
Commercial Condensing Gas Furnaces	\$1.50-\$3.00 per kBtu/h	Temporarily being removed after 12/31/2022
Flat Roof Insulation	\$0.30 per sq. ft.	12/31/2022

- Applications for sunsetting measures must be received by 3/31/2023

2022 Multifamily bonus offerings: Oregon

Offering	Base Incentive	Bonus	Total incentive
Steam Traps	\$100/trap	+\$200/trap	\$300 total/trap
Thermostatic Radiator Valves	\$100/valve	+\$100/valve	\$200 total/valve
Commercial Condensing Tank Water Heater	\$3/kbtu/hr	\$0.35/kbtu/hr	\$3.35/kbtu/hr

- Equipment must be purchased on or after March 1, 2022, and installed on or before December 1, 2022
- To receive a bonus incentive, Energy Trust must receive a complete incentive application within 90 days from the date of purchase and installation, **and must be received no later than December 1, 2022 (whichever comes first)**
- Energy Trust may require a post-installation verification for select projects before incentive payment
- Customers should use the standard incentive application forms to apply for the standard bonus and can expect to receive their check six to eight weeks after a completed application is received

Multifamily Incentive Updates: Washington

2023 Commercial Multifamily Incentive Changes: SW Washington

- Changes to incentives for the Commercial Multifamily program in SW WA are still underway and will be available very soon
- Finalized incentive changes will be communicated when available through direct outreach to trade allies and through the Insider

IN ADDITION...

- Final changes to multifamily incentives for OR and SW WA, as well as any incentive changes to the small business program, will be communicated during the annual Existing Buildings Trade Ally Forum
- Final date and time TBD and will be communicated through direct outreach to trade allies and through the insider

2022 Multifamily Bonus Offerings: SW Washington

Offering	Base Incentive	Bonus	Total incentive
Steam Traps	\$100/trap	+\$200/trap	\$300 total/trap
Thermostatic Radiator Valves	\$100/valve	+\$100/valve	\$200 total/valve
Gas Steam Cooker (Assisted/Campus Living only)	\$2,000/cooker	\$1,000/cooker	\$3,000/cooker

- Equipment must be purchased on or after March 1, 2022, and installed on or before December 1, 2022
- To receive a bonus incentive, Energy Trust must receive a complete incentive application within 90 days from the date of purchase and installation, **and must be received no later than December 1, 2022 (whichever comes first)**
- Energy Trust may require a post-installation verification for select projects before incentive payment
- Customers should use the standard incentive application forms to apply for the standard bonus and can expect to receive their check six to eight weeks after a completed application is received

Current Initiatives

DHP in Rentals

- Available: July 1, 2022 - August 31, 2023
- Incentive Amount: \$1,500
- Need signed Participation Agreement
- No price cap or sizing requirements
- Install 1:1 DHP in primary living space
- Must replace electric resistance heat
- Customers of Portland General Electric or Pacific Power in Oregon
- Housing type
 - Existing **site-built Single-Family Home Rental Property** or
 - Existing **Small Multifamily Property**: duplex, triplex, fourplex, or side-by-side townhome/rowhome





Thank you

Marshall Johnson
Residential Sr. Program Manager
marshall.johnson@energytrust.org

Heath Heiberg
Existing Buildings Trade Ally Manager
Hheiberg@trccompanies.com