

ORDER NO. 24-397

ENTERED Oct 31 2024

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UM 1696

In the Matter of

PUBLIC UTILITY COMMISSION OF
OREGON,

Energy Trust of Oregon Cost Effectiveness
Exception Request for Manufactured
Homes.

ORDER

DISPOSITION: STAFF'S RECOMMENDATION ADOPTED

At its public meeting on October 29, 2024, the Public Utility Commission of Oregon adopted Staff's recommendation in this matter. The Staff Report with the recommendation is attached as Appendix A.

BY THE COMMISSION:



Alison Lackey
Chief Administrative Law Judge



A party may request rehearing or reconsideration of this order under ORS 756.561. A request for rehearing or reconsideration must be filed with the Commission within 60 days of the date of service of this order. The request must comply with the requirements in OAR 860-001-0720. A copy of the request must also be served on each party to the proceedings as provided in OAR 860-001-0180(2). A party may appeal this order by filing a petition for review with the Circuit Court for Marion County in compliance with ORS 183.484.

ITEM NO. CA5

**PUBLIC UTILITY COMMISSION OF OREGON
STAFF REPORT
PUBLIC MEETING DATE: October 29, 2024**

REGULAR CONSENT EFFECTIVE DATE _____ N/A _____

DATE: October 21, 2024

TO: Public Utility Commission

FROM: Kiran Ayub

THROUGH: Caroline Moore, JP Batmale, and Sarah Hall **SIGNED**

SUBJECT: OREGON PUBLIC UTILITY COMMISSION STAFF:
(Docket No. UM 1696)
Energy Trust of Oregon cost effectiveness exception request for
manufactured Homes, and schedule for public comments.

STAFF RECOMMENDATION:

Adopt Staff's proposed schedule for submission of public comments, and for Staff's final recommendation to grant exceptions to cost effectiveness of energy efficiency measures for manufactured homes as requested by Energy Trust of Oregon.

DISCUSSION:

Issue

Whether the Public Utility Commission of Oregon (Commission, OPUC, or PUC) should adopt the schedule for public comment and Staff's presentation of its final recommendation on exceptions to cost effectiveness for energy efficiency measures for manufactured homes.

Applicable Rule or Law

The Oregon legislature has granted the PUC discretion to require that a portion of the funds collected in an electric company's rates under ORS 757.054(4) be paid to a nongovernmental entity for the purpose of making expenditures consistent with the provisions of ORS 757.054. The legislature has further authorized the PUC under ORS 757.612(3)(d) to require funds collected by electric companies through public purpose charges be directed to a nongovernmental entity for investment in public purposes described in ORS 757.612(1). The legislature also recognizes in

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ORS 757.746 that the PUC may, through natural gas tariffs, require local distribution companies to direct funds collected to a nongovernmental entity for similar purposes.

In addition, under ORS 757.695(1), the PUC may address the mitigation of energy burdens on customers as described in ORS 757.230(1) through various measures, including demand response and weatherization programs.

On August 19, 2024, the Commission and Energy Trust of Oregon (Energy Trust) entered into an Agreement to Direct Funding to Nongovernmental Entity (Agreement). Exhibit A of the Agreement provides that energy efficiency programs “generally must use measures and incentive levels that are cost-effective. Energy Trust may apply the Total Resource Cost (TRC) test, Utility Cost Test (UCT) or another test approved by the PUC to demonstrate cost-effectiveness. . .”¹ Exhibit A also authorizes Energy Trust to request and receive an exception from the Commission from the use of a cost effectiveness test of energy efficiency measures. Exhibit A of the Agreement states that an exception from the use of a cost-effectiveness test may be granted for a measure, building or program, as applicable (collectively referred to here as “measure”), when:

- A. The measure produces significant non-quantifiable non-energy benefits;
- B. Inclusion of the measure will increase market acceptance and is expected to lead to reduced cost of the measure;
- C. The measure is included for consistency with other demand side management (DSM) programs in the region;
- D. Inclusion of the measure helps to increase participation in a cost-effective program;
- E. The package of measures cannot be changed frequently, and the measure will be cost effective during the period the program is offered;
- F. The measure or package of measures is included in a pilot or research project

¹ The cost effectiveness test required under Order No. 94-590 is the Total Resource Cost Test (TRC). In The Matter Of An Investigation Into The Calculation And Use Of Conservation Cost-effectiveness Levels, Docket No. UM 551, Order No. 94-590 (April 6, 1994). Energy Trust has used the TRC test with the approval of the Commission since its inception to guide what measures can be offered by Energy Trust programs. Energy Trust has used the Utility Cost Test (UCT) to set the maximum allowable incentive amount that can be offered to participants. The TRC measures cost effectiveness from the total utility system perspective and includes costs and benefits incurred by both participants and non-participants. The UCT measures costs and benefits from the perspective of the utility only and does not consider the non-energy benefits or incremental measure costs experienced by program participants.

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intended to be offered to a limited number of customers;

G. The measure is required by law or is consistent with Commission policy and/or direction; and

H. Inclusion of the measure mitigates energy burden.

Under the August 19, 2024, Agreement, Energy Trust may request an exception pursuant to processes directed by the Commission or as otherwise required by law or by alternative guidelines set by the Commission. The process to consider cost effectiveness exceptions was last discussed in Docket No. UM 1622 and is as follows:²

- For minor exception requests, where the size and scope are limited, Energy Trust provides details to OPUC Staff who review and if appropriate, provide approval through an email. A copy of the email is kept on file by OPUC Staff.
- For major exception requests, Energy Trust provides an official filing and requests an exception. OPUC Staff makes formal recommendations to the Commission at a public meeting. Commissioners then decide on the exception request at the public meeting. For more significant requests, the recommendation presentation and the decision may occur on different meetings to allow more time for comments.

In May 2020, under the prior agreement with Energy Trust, the Commission granted exceptions for manufactured homes replacement measures through December 31, 2021, so that Energy Trust could complete a pilot study to explore the costs and benefits of manufactured homes replacement.³

In September 2021, under the prior agreement with Energy Trust, the Commission granted exceptions to cost effectiveness of energy efficiency measures for manufactured homes replacements through March 31, 2025, with a cap of \$5 million in measures under the exception.⁴

² In the Matter of Energy Trust of Oregon, Request for Approval of Exceptions to Cost Effectiveness Guidelines, Docket No. UM 1622, Order No. 14-332 (October 1, 2014).

³ In the Matter of Energy Trust of Oregon, Cost Effectiveness Exception Request for Electric Measures, Docket No. UM 1696, Order No. 20-158.

⁴ In the Matter of Energy Trust of Oregon, Cost Effectiveness Exception Request for Electric Measures, Docket No. UM 1696, Order No. 21-312.

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Analysis

Background

Energy Trust seeks to continue using the TRC and the UTC under the August 2024 Agreement but requests a major cost-effectiveness exception for measures supporting the retirement of existing pre-1995 manufactured homes and their replacement with new ENERGY STAR or Northwest Energy Efficient Manufactured (NEEM) Homes, available in single- or double-wide formats. Energy Trust requests a major exception to measures within its Manufactured Homes Early Replacement offering because many of the requested measures have TRC scores below 0.8. Staff presents its initial recommendation and asks that the Commission approve the proposed schedule to allow for public comment and for Staff to present its final recommendation at a later public meeting.

This exception will enable Energy Trust to combine various funding sources essential for completing these replacement projects. The TRC scores for these measures mostly fall between 0.6 and 0.7, which is below the threshold for minor exceptions. A detailed overview of the proposed energy efficiency measures and their cost-effectiveness scores can be found in Table 1 below and in Attachment A. To present a conservative estimate, Energy Trust calculated cost-effectiveness without applying additional, external funds from other programs against the approved measures' incremental costs. TRC values will most likely increase with application of those external funds. Energy Trust proposing incentives such that the Utility Cost Test for each measure is 1.0.⁵

As context, Commission Order No. 21-312 granted Energy Trust a major exception to fund energy efficiency measures for manufactured homes replacements, with an established a maximum incentive expenditure of \$5 million through March 31, 2025. Spending to date has been \$1,712,540, or 34 percent of the exception allowance. Moving forward, Energy Trust forecasts an annual incentive spend to grow to \$1.2 million, driven by growing interest in the program, particularly from new manufacturers and funding partners entering the market.

Most early replacement measures for manufactured homes rely on co-funding for successful completion. From 2023 to 2024, 82 out of 88 completed projects (93 percent) received co-funding, primarily from Oregon Housing & Community Services (OHCS). On average, co-funding accounted for \$153,760, covering approximately 84 percent of total project costs.

⁵ As a cost-effectiveness test, the UCT focuses only ratepayer dollars spent for the benefit of avoided energy costs. It does not account for total measure cost.

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The availability of the incentive from Energy Trust empowers rural and low-to-moderate income customers to access energy-efficient manufactured homes that they might otherwise be unable to afford. The success of Energy Trust's initiative is closely tied to co-funding since customers often delay starting projects until additional funding becomes available. A decision to approve this exception will likely increase the accessibility of the OHCS manufactured homes offer, as more customers can combine benefits to replace aging homes

Since 2018, Energy Trust, in collaboration with a network of partners, has successfully replaced older manufactured homes. By 2024, the Manufactured Homes Early Replacement measures have achieved the replacement of 100 outdated homes with new, energy-efficient models, significantly enhancing living conditions for many families.⁶

Table 1: Cost Effectiveness of Manufactured Homes Early Replacement

#	Measure	Savings (kWh)	Savings (therms)	Incremental Costs (\$)	Total NEB (Annual \$)	Maximum Incentive (\$)	UCT BCR at Max Incentive	TRC BCR w/o Cofunding
1	ENERGY STAR 2.0 - SW - Any Zone - Electric	15,228.18	0.00	\$102,411.27	\$2,275.81	\$41,793.33	1.0	0.9
2	ENERGY STAR 2.0 - DW - Any Zone - Electric	18,362.03	0.00	\$133,583.03	\$2,968.51	\$50,394.10	1.0	0.8
3	NEEM+ - SW - Any Zone - Electric	15,639.49	0.00	\$134,493.79	\$2,988.75	\$42,922.17	1.0	0.8
4	NEEM+ - DW - Any Zone - Electric	18,947.66	0.00	\$175,430.78	\$3,898.46	\$52,001.35	1.0	0.7
5	ENERGY STAR 2.0 - SW - Any Zone - Gas	678.85	387.88	\$102,411.27	\$2,275.81	\$19,396.56	1.0	0.6
6	ENERGY STAR 2.0 - DW - Any Zone - Gas	690.38	532.80	\$133,583.03	\$2,968.51	\$25,978.96	1.0	0.6
7	NEEM+ - SW - Any Zone - Gas	696.89	407.60	\$134,493.79	\$2,988.75	\$20,337.40	1.0	0.6
8	NEEM+ - DW - Any Zone - Gas	696.96	561.06	\$175,430.78	\$3,898.46	\$27,274.30	1.0	0.6
9	ENERGY STAR 2.0 - SW - Any Zone - Gas Only	0.00	387.88	\$102,411.27	\$2,386.05	\$17,533.48	1.0	0.6
10	ENERGY STAR 2.0 - DW - Any Zone - Gas Only	0.00	532.80	\$133,583.03	\$3,080.62	\$24,084.22	1.0	0.7
11	NEEM+ - SW - Any Zone - Gas Only	0.00	407.60	\$134,493.79	\$3,101.92	\$18,424.82	1.0	0.6
12	NEEM+ - DW - Any Zone - Gas Only	0.00	561.06	\$175,430.78	\$4,011.64	\$25,361.52	1.0	0.6

The TRC cost-effectiveness of each home will vary based on several factors, primarily the availability of complementary funding for individual projects. Energy Trust proposes measures that will be cost-effective however, without substantial funding from other

⁶ September 25, 2024, More than 100 Oregon families receive new, energy-saving homes - Energy Trust Blog Energy Trust Blog.

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sources, these measures may not be cost-effective for participants in terms of energy savings alone.

For 2024, Energy Trust estimates that the Manufactured Homes Early Replacement measures will serve 68 homes, contributing to 1.95 percent of electric and 0.16 percent of gas savings within the Residential Sector portfolio. This translates to annual savings of approximately 1,082,186 kWh and 3,338 therms, as detailed in Table 2 here and in Attachment A.

Table 2: 2024 Forecasted Budget of Manufactured Homes Early Replacement Program

2024 Manufactured Homes Early Replacement Forecast	Number of Homes	Reportable kWh	Reportable therms	Total Incentives
Double Wide - Any Zone - Electric	21	503,456	-	\$310,500
Double Wide - Any Zone - Gas	2	520	1,804	\$30,000
Single Wide - Any Zone - Electric	42	577,617	-	\$418,000
Single Wide - Any Zone - Gas	3	594	1,534	\$30,000
MHR Total	68	1,082,186	3,338	\$788,500
Total Residential Portfolio		55,395,325	2,084,795	\$46,387,995
	% of total	1.95%	0.16%	1.70%

Upon approval of this exception request, Energy Trust anticipates increasing programmatic output by working with around 110 homes annually, yielding estimated savings of 1,838,700 kWh and 2,345 therms, as illustrated in Table 3 here and Attachment A. Staff notes that this is a significant increase and requested supporting explanation from Energy Trust. In response, Energy Trust explained that additional implementation contractor capacity, and several new funding sources coming online or becoming available in 2025 have led to these increased estimates. These sources include potential Federal funding through the OHCS application to Preservation and Reinvestment Initiative for Community Enhancement (PRICE) and State funding of the Homeowner Assistance and Reconstruction Program (HARP).

Table 3: Forecasted 2025 Manufactured Homes Early Replacement Participation

2025 Manufactured Homes Early Replacement Forecast	Number of Homes	Reportable kWh	Reportable therms	Total Incentives
Double Wide - Any Zone - Electric	22	446,028	-	\$330,000
Double Wide - Any Zone - Gas	2	1,491	1,122	\$30,000
Single Wide - Any Zone - Electric	83	1,388,943	-	\$830,000
Single Wide - Any Zone - Gas	3	2,237	1,223	\$30,000
MHR Total	110	1,838,700	2,345	\$1,220,000
Total Residential Portfolio		54,716,497	1,780,997	\$45,660,351
	% of total	3.36%	0.13%	2.67%

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Exception Criteria

Energy Trust requests the exception under Categories A, C, and G, providing the following arguments:

A. Measure produces significant non-quantifiable nonenergy benefits.

Energy Trust recognizes that while it can quantify certain non-energy benefits, significant advantages exist beyond energy savings. Replacing aging manufactured housing enhances comfort, health, safety, and durability for residents.

C. Measure is included for consistency with other DSM programs in the region.

Several regional DSM programs align with this initiative. OHCS operates a Manufactured Housing Replacement Program, supported by funding from HB 2896, which can potentially co-fund Energy Trust's program. Both Energy Trust and OHCS are committed to a coordinated customer service approach, aided by a Navigator model to streamline the process for clients navigating multiple programs. Additionally, the Bonneville Power Administration (BPA) offers a similar program for homes built before 1976. The Regional Technical Forum (RTF) Manufactured Home Replacement measure is available through May 31, 2027. Northwest Energy Efficiency Alliance (NEEA) has historically supported energy-efficient manufactured homes and is collaborating with the Department of Energy and ENERGY STAR on relevant certifications.

G. The measure is required by law or is consistent with the Commission Policy.

The Commission's approval of DEI-specific performance metrics for Energy Trust through Order No. 21-068 emphasizes partnerships with organizations advocating for affordable housing and services for low-income customers.⁷ Collaboration with OHCS enhances the effectiveness of both programs.

These exceptions also support Executive Order No. 20-04 (2021) by reducing greenhouse gas emissions and alleviating energy burdens for low-income customers, as well as House Bill 2475 (2021).

H. Inclusion of the measure mitigates energy burden

Staff thinks that the exception request also qualifies under category H resulting in the reduction of energy burden due to lower energy bills.

Staff concurs that Categories A, C, G, and H are applicable, noting that the non-quantifiable benefits make these measures valuable to participants despite the low

⁷In the Matter of Energy Trust of Oregon: Recommendations for Performance Measures, Docket No. UM 1158, Order No. 21-068.

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TRC scores. Overall, the proposed exceptions will bolster efforts to improve low-income housing.

Stakeholder Engagement

During the Conservation Advisory Committee (CAC) meeting on September 11, 2024, Energy Trust discussed plans to seek a measure exception for the 2025-2027 period. No organizations expressed opposition to this initiative. In addition to the recent CAC meeting and as detailed in Attachment A, Energy Trust has actively engaged stakeholders regarding the major exceptions related to application of the TRC cost-effectiveness test of energy efficiency measures for manufactured homes. As a result, Staff finds that Energy Trust's proposal reflects the collective views of many entities. Staff looks forward to reviewing additional stakeholder feedback prior to presenting a final Staff position.

Staff's Recommendation

Staff preliminarily proposes granting the major TRC exception for the measure applications in Manufactured Homes Early Replacement measure through December 31, 2027. Manufactured homes play a vital role in addressing Oregon's housing crisis, offering an affordable pathway to homeownership for many residents. Out of approximately 140,000 manufactured homes in the state, over 110,000 were built before 1995, prior to the implementation of federal energy standards that dramatically improved construction and insulation practices. Homes built before this benchmark are often energy-inefficient, frequently past their expected lifespan, and may pose safety concerns. This program specifically targets rural areas, including Eastern and South-Central Oregon, as well as housing occupied by low-income residents.

Also, an important consideration for the TRC and UCT is the anticipated adoption of a new Housing and Urban Development (HUD) code in 2026, which may impact costs and savings used in cost effectiveness testing. A three-year exception will allow alignment with forthcoming updates to the New Manufactured Homes measures, the new HUD code, and revisions to both ENERGY STAR and NEEM specifications.

Procedural Schedule for Public Comment

Staff proposes a schedule to allow the filing of public comment through November 13, 2024. This will allow stakeholders two weeks after the October 29, 2024, Public Meeting to review and respond. If the Commission adopts the proposed schedule, Staff will receive and compile comments, and return at the December 10, 2024, Public Meeting with a final recommendation.

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Event	Date
Deadline to file written public comments in Docket No. UM 1696 or contact Staff with comments	November 13, 2024
Staff's final recommendation at Commission Public Meeting	December 10, 2024

Conclusion

Staff preliminarily concludes that Energy Trust should be granted exceptions for manufactured homes replacement measures through December 31, 2027. Staff proposes that stakeholders have until November 13, 2024, to file comments or contact Staff regarding the recommended major cost effectiveness exceptions. Staff will present stakeholder comments and Staff's final recommendations at the November 26, 2024, Public Meeting.

PROPOSED COMMISSION MOTION:

Adopt Staff's proposed schedule for submission of public comments, and for Staff's final recommendation on major exceptions to cost effectiveness of energy efficiency measures for manufactured homes as requested by Energy Trust.

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Major Exception Request for Manufactured Home Early Replacement

We are requesting a major TRC exception for the measure applications in our Manufactured Homes Early Replacement measure.

If approved, we hope to continue the measure with updates January 1, 2025. We suggest the exception be in place through December 31, 2027, in alignment with our standard 3-year measure update cycle. Federal Housing and Urban Development, HUD, building codes for manufactured homes and specifications for ENERGY STAR® are scheduled to occur in 2026 but the timeline is uncertain due to a litigation case. This measure will be updated at the end of 2027, or within 6 months of the new HUD & ENERGY STAR implementation, whichever occurs first. If the code and above-code specifications are not updated during the life of this measure, Energy Trust will seek another cost-effectiveness exception.

Overview

Energy Trust's Manufactured Homes Early Replacement offering is operated through our Products Program within the Residential Sector. The incentives are provided to the homeowner based on the size and efficiency level of the home, ranging from \$10,000 to \$16,000 per home.

This offer is focused on the early retirement of existing pre-1995 vintage single- or double-wide manufactured homes or homes destroyed by natural disasters such as wildfires or flooding and the replacement of these homes with new ENERGY STAR or Northwest Energy Efficient Manufactured Home, NEEM, single- or double-wide manufactured homes. Manufactured Homes built before 1995, the year that HUD implemented energy standards to their building standards, are known to be largely past their life span, energy-inefficient, and many have safety issues. This offer focuses on serving rural regions, such as Eastern and South Central Oregon¹ and housing occupied by low-income residents².

Reason for exception

This measure falls under the following exception criteria:

A. Measure produces significant non-quantifiable nonenergy benefits.

Energy Trust is able to incorporate quantifiable non-energy benefits into our cost-effectiveness calculations. However, customers receive significant non-quantifiable benefits when their aging manufactured housing is replaced, which are not captured within our cost-effectiveness calculations. These benefits include increased physical comfort and health benefits, and reduction in mental burdens due to lingering maintenance issues and high energy costs associated with living in a home beyond its functional life. Customers purchasing new manufactured homes benefit from the safety

¹ University of Oregon Manufactured Housing Memo, 2016: https://www.oregon.gov/lcd/UP/Documents/UO-Manufactured_Housing.pdf

² Ten-Year Plan - Reducing the Energy Burden in Oregon Affordable Housing: <https://www.oregon.gov/energy/Get-Involved/Documents/2018-BEEWG-Ten-Year-Plan-Energy-Burden.pdf>

and durability of their energy efficient home, and in some cases are able to pass on generational wealth to their family generational wealth to their family generational wealth to their family.

C. Measure is included for consistency with other DSM programs in the region.

There are several DSM programs in the region similar to ours. Oregon Housing and Community Services, OHCS, runs a Manufactured Housing Replacement Program, which replaces old, energy-inefficient homes. This program was supported by funding from HB 2896 and can potentially be co-funded with our program. There is a high level of coordination between OHCS and Energy Trust to support manufactured home replacement customers, with an emphasis from both organizations to have a supportive customer service approach. Both programs have invested resources into a Navigator model where a dedicated customer contact helps the customer navigate the intricacies of each program, while reducing the challenges of working in two different programs on the same project. The programs are much more effective with the additional support and coordination added for the customer. Additionally, Bonneville Power Administration, BPA, offers a program that replaces manufactured homes built before 1976 with new, energy-efficient models. The Regional Technical Forum, RTF, Manufactured Home Replacement measure is available through May 31, 2027³.

Northwest Energy Efficiency Alliance, NEEA, has historically supported energy-efficient manufactured homes in the region. While NEEA has shifted their efforts to long-term monitoring and tracking efforts, they are also engaged in collaboration with the Department of Energy and ENERGY STAR regarding Net Zero Ready and ENERGY STAR certification and alignment with NEEM+, as noted in the April 2024 memorandum to the NEEA Manufactured Homes Transition Market Progress Evaluation Report from December 2023⁴. These efforts will likely inform analysis and program to regional organizations and offerings.

G. The measure is required by law or is consistent with the Commission Policy.

The Commission approved the OPUC Equity Metrics which provides direction to allocate resources to serve environmental justice communities, including no- and low-cost offers for customers experiencing energy burden. These measures will be offered in partnership with organizations that advocate for affordable housing, as well as other organizations that provide services to benefit low-income households. These exceptions would also support Executive Order 20-04 by reducing greenhouse gases while also mitigating energy burden among low-income customers.

Prevalence

In 2024, the Manufactured Homes Early Replacement offer is forecasted to serve 68 homes, making up 1.95% of electric and 0.16% of gas savings within the Residential Sector portfolio. This is equivalent to an annual savings of 1,082,186 kWh and 3,338 therms, as shown in Table 1. These values represent both ENERGY STAR and NEEM+ configurations combined; the majority of homes are expected to be ENERGY STAR efficiency levels. Projects in this forecast

³ Regional Technical Forum, Manufactured Home Replacement:

<https://rtf.nw council.org/measure/manufactured-home-replacement/>

⁴ NEEA Manufactured Homes Transition Market Progress Evaluation Report, Report \$e23-474, 12/22/23:

<https://neea.org/resources/manufactured-homes-transition-market-progress-evaluation-report>

and within the analysis include both co-funded and non-co-funded projects, some of the co-funded measures may be cost-effective with co-funding while others may not.

Table 1 Budgeted Prevalence of Manufactured Homes Early Replacement in 2024

2024 Manufactured Homes Early Replacement Forecast	Number of Homes	Reportable kWh	Reportable therms	Total Incentives
Double Wide - Any Zone - Electric	21	503,456	-	\$310,500
Double Wide - Any Zone - Gas	2	520	1,804	\$30,000
Single Wide - Any Zone - Electric	42	577,617	-	\$418,000
Single Wide - Any Zone - Gas	3	594	1,534	\$30,000
MHR Total	68	1,082,186	3,338	\$788,500
Total Residential Portfolio		55,395,325	2,084,795	\$46,387,995
	% of total	1.95%	0.16%	1.70%

We expect to serve more customers in 2025 than in previous years if this exception is approved. This offering is budgeted to serve approximately 110 homes per year moving forward. This is equivalent to 1,838,700 kWh and 2,345 therms, as shown in Table 2. As with 2024 forecasts, these values represent both ENERGY STAR and NEEM+ configurations combined; the majority of homes are expected to be ENERGY STAR efficiency levels.

Table 2 Prevalence of Manufactured Homes Early Replacement Forecasted for 2025

2025 Manufactured Homes Early Replacement Forecast	Number of Homes	Reportable kWh	Reportable therms	Total Incentives
Double Wide - Any Zone - Electric	22	446,028	-	\$330,000
Double Wide - Any Zone - Gas	2	1,491	1,122	\$30,000
Single Wide - Any Zone - Electric	83	1,388,943	-	\$830,000
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MHR Total	110	1,838,700	2,345	\$1,220,000
Total Residential Portfolio		54,716,497	1,780,997	\$45,660,351
	% of total	3.36%	0.13%	2.67%

Exception Order 21-312, approved 9/21/2021, allowed a maximum incentive spend of \$5 million through 3/31/2025. The program has paid a total of \$1,136,000 through August 2024, with an additional \$576,540 in incentives expected through March 2025 for a total spend of \$1,712,540 over the life of the exception period, 34% of the \$5 million exception allowance.

Over the course of this updated measure, we forecast a total incentive spend of \$1.2M per year. Interest in this program is increasing, specifically with new manufacturers and funding partners coming into the market. There is potential for a higher volume during the period of this measure.

Cost Effectiveness details

Cost effectiveness is shown below in Table 3, using 2025 Oregon electric and gas avoided costs. The maximum incentives and resulting UCT shown are for reference only. Actual incentives are expected to be between \$10,000 and \$16,000 per project.

Table 3 2025 Cost Effectiveness of Manufactured Homes Early Retirement

#	Measure	Savings (kWh)	Savings (therms)	Incremental Costs (\$)	Total NEB (Annual \$)	Maximum Incentive (\$)	UCT BCR at Max Incentive	TRC BCR w/o Cofunding
1	ENERGY STAR 2.0 - SW - Any Zone - Electric	15,228.18	0.00	\$102,411.27	\$2,275.81	\$41,793.33	1.0	0.9
2	ENERGY STAR 2.0 - DW - Any Zone - Electric	18,362.03	0.00	\$133,583.03	\$2,968.51	\$50,394.10	1.0	0.8
3	NEEM+ - SW - Any Zone - Electric	15,639.49	0.00	\$134,493.79	\$2,988.75	\$42,922.17	1.0	0.8
4	NEEM+ - DW - Any Zone - Electric	18,947.66	0.00	\$175,430.78	\$3,898.46	\$52,001.35	1.0	0.7
5	ENERGY STAR 2.0 - SW - Any Zone - Gas	678.85	387.88	\$102,411.27	\$2,275.81	\$19,396.56	1.0	0.6
6	ENERGY STAR 2.0 - DW - Any Zone - Gas	690.38	532.80	\$133,583.03	\$2,968.51	\$25,978.96	1.0	0.6
7	NEEM+ - SW - Any Zone - Gas	696.89	407.60	\$134,493.79	\$2,988.75	\$20,337.40	1.0	0.6
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9	ENERGY STAR 2.0 - SW - Any Zone - Gas Only	0.00	387.88	\$102,411.27	\$2,386.05	\$17,533.48	1.0	0.6
10	ENERGY STAR 2.0 - DW - Any Zone - Gas Only	0.00	532.80	\$133,583.03	\$3,080.62	\$24,084.22	1.0	0.7
11	NEEM+ - SW - Any Zone - Gas Only	0.00	407.60	\$134,493.79	\$3,101.92	\$18,424.82	1.0	0.6
12	NEEM+ - DW - Any Zone - Gas Only	0.00	561.06	\$175,430.78	\$4,011.64	\$25,361.52	1.0	0.6

A significant factor which could influence the TRC/UCT is the adoption of new HUD code in 2026. Therefore, we are requesting a three-year exception to ensure that our next measure update aligns with our corresponding New Manufactured Homes measures, the new HUD code and updates to both ENERGY STAR and NEEM specifications.

Is there a potential for additional value through complementary funds in the future?

The program design includes a co-funding option and most homes are able to utilize co-funding that typically comes from OHCS. This funding varies each year but has historically come in the form of a direct fund to demolish an existing home, a direct grant to fund the purchase of a new home and/or a forgivable loan to help secure the funds for a home. Some customers are not able to access these funds and Energy Trust believes that we should still be able to serve these customers. For example, the funds may be limited to customers that are within a cooperative park, part of a non-profit organization or privately owned property. These funding requirements have unintentionally left out some Tribal communities, who are still in need of funding for the replacement of their homes.

The majority of Manufactured Homes Early Replacement projects rely on co-funding to achieve completion. From 2023-2024, 82 of 88 (93%) completed projects were co-funded, primarily by Oregon Housing & Community Services. Across these projects, the average co-funding amount was \$153,760 which composed an average of 84% of total project costs. Co-funded projects will be tracked for future cost effectiveness analysis

Discussion

Does granting or denying an exception significantly impact specific groups? Particularly DEI priority customers?

Many manufactured homeowners are experiencing low-to-moderate incomes as well as living in classifiably rural areas, and therefore have a higher prevalence of attributes targeted by Energy Trust's DEI initiative if compared to owners of site-built homes. The availability of this incentive positions rural and low-to-moderate income customers to purchase an energy-efficient manufactured home when they otherwise would not have been able to select an upgraded model. It also provides the funding needed to motivate a customer to make the purchase of a new home when they would have otherwise stayed in their existing home.

The success of this offer is tied to co-funding and the approval or denial of this exception will have an impact on OHCS manufactured homes offer. In addition, park owners and several community groups have a vested interest in seeing this offer continue to be able to support more housing replacements for their residents.

Would approving or denying an exception be of particular interest to utilities?

Manufactured homes are prevalent in all five Energy Trust funding utilities but due to the rural geography and wildfire risk of southern Oregon, Avista and PacifiCorp have a higher prevalence of manufactured home replacement. The longevity of this offer is of particular interest to these two utilities and the customers they serve.

What opportunities have stakeholders had to share their thoughts and concerns? This is of particular interest if it is likely stakeholders will have an opinion.

At Energy Trust's September 11, 2024, Conservation Advisory Committee (CAC) meeting, Energy Trust discussed plans to pursue a measure exception for this measure for 2025-2027. No one was opposed to this.

In the measure exception request in 2021, there were seven organizations that expressed support for moving this pilot to a permanent offer. These organizations were the following: Earth Advantage, Rep. Pam Marsh, Portland General Electric (PGE), Citizens Utility Board (CUB), OHCS, Community and Shelter Assistance of Oregon (CASA), and Network for Oregon Affordable Housing (NOAH)⁵.

In the measure exception request in 2020, there were ten organizations that provided comments. There were eight organizations that expressed support and they were the following: St. Vincent de Paul of Lane County, Jason Sweely, Rep. Pam Marsh, Craft3, Northwest Energy Coalition (NWECC), NOAH, CASA, and Neighborworks Umpqua. Then, there were two organizations which were neutral: Cascade Natural Gas and PGE⁶.

Do we want to monitor activities in some way during the exception time period?

⁵ OPUC UM 1696, Order No. 21-312: <https://apps.puc.state.or.us/orders/2021ords/21-312.pdf>

⁶ OPUC UM 1696, Order No. 20-158: <https://apps.puc.state.or.us/orders/2020ords/20-158.pdf>

Programs will monitor the uptake of these non-cost-effective pathways to ensure this does not exceed 5% of approved incentives or savings threshold during the exception time period.

History:

Energy Trust was granted a major exception from the Oregon Public Utility Commission on April 27, 2020, per Order No. 20-158 to continue to fund this pilot program. OPUC staff granted an exception from cost effectiveness requirements based on Criteria A, B, F, & G. This exception was granted through December 31, 2021, and was approved a budget of \$500,000. OPUC staff also recommended that Energy Trust hold four stakeholder workshops during this time.

Energy Trust was granted a major exception from the Oregon Public Utility Commission on September 22, 2021, per Order No. 21-312. OPUC staff granted the exceptions from cost effectiveness requirements based on Criteria A, B, and G. This exception was granted for three years and with a total incentive cap of \$5 million. The program did not exceed the budget cap within the current exception period and has paid a total of \$1,136,000 through August 2024.