

**PUBLIC UTILITY COMMISSION OF OREGON  
STAFF REPORT  
PUBLIC MEETING DATE: May 22, 2018**

REGULAR \_\_\_\_\_ CONSENT  EFFECTIVE DATE Upon Approval

**DATE:** May 4, 2018

**TO:** Public Utility Commission

**FROM:** Paul Rossow <sup>PR</sup>

**THROUGH:** Jason Eisdorfer and JP Batmale <sup>JE JPB</sup>

**SUBJECT:** Energy Trust of Oregon: (Docket No. UM 1696) Extension of Cost Effectiveness for New Homes Electric Measures.

**STAFF RECOMMENDATION:**

Grant a one-year extension of cost-effectiveness for Energy Trust of Oregon's (Energy Trust) Energy Performance Score (EPS) New Homes Measure.

**DISCUSSION:**Issue

Whether the Commission should grant a one-year extension of cost-effectiveness to the EPS New Homes Measure while Energy Trust continues to gather field data to determine cost-effectiveness.

Applicable Law

Order No. 94-590 in UM 551 establishes guidelines for cost effectiveness of energy efficiency measures. Section 13 of the Order details seven conditions under which exceptions to Oregon's two cost effectiveness tests may be granted by the Commission.<sup>1</sup> The conditions are as follows:

- a) The measure produces significant non-quantifiable non energy benefits. In this case, the incentive payment should be set at no greater than the cost effective limit (defined as present value of avoided costs plus 10 percent) less the perceived value of bill savings, e.g., two years of bill savings.
- b) Inclusion of the measure will increase market acceptance and is expected to lead to reduced cost of the measure.

<sup>1</sup> The cost effectiveness test required under Order No. 94-590 is the Total Resource Cost Test (TRC). Energy Trust has used this test since its inception to guide what measures can be offered by Energy Trust programs. Under UM 551, the Commission also allows for the use of other cost effectiveness tests. Energy Trust uses the Utility Cost Test (UCT) to set the maximum allowable incentive amount that can be offered to participants.

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- 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 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.

The current process to consider cost-effectiveness exceptions was reaffirmed in UM 1622 and is as follows<sup>2</sup>:

- For minor exception requests, where the size and scope are limited, Energy Trust provides details to PUC Staff who review and if appropriate, provide approval through an email. A copy of the email is kept on file by the PUC Staff.
- For major exception requests, Energy Trust provides an official filing and requests an exception. PUC Staff opens a docket, solicits comments from parties, and then makes formal recommendations to the Commission at a public meeting. Commissioners then make a decision on the exception request at the public meeting.

The threshold by which Staff can consider minor exceptions was officially established in UM 1696.<sup>3</sup> These orders codified a previous working arrangement in UM 1622 whereby Staff could consider measure level cost-effectiveness exceptions under the following circumstances:

- The measure's TRC score is below 1 and above 0.8;
- The measure's savings do not comprise more than 5 percent of a program's annual savings; and,
- The measure's cost does not represent more than 5 percent of the program's annual budget.

If a measure does not meet all of the minor exception criteria, the request must go through the Commission's major exception request process.

In addition to measure level analysis, Staff must also considers the cumulative impact of measures with exceptions on Energy Trust's overall performance. Energy Trust must files an annual report detailing the percent of savings from measures with exceptions and lists all of them.

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<sup>2</sup> See UM 1622, Order No. 14-332.

<sup>3</sup> See UM 1696, Order Numbers 17-395 and 17-457, these Orders officially establish the parameters for a minor exception.

## Analysis

### *Background*

On November 8, 2017 the Commission issued Order No. 17-457 that granted Energy Trust a one-year cost-effectiveness extension to the Pathway 1 measure of the EPS New Homes program.

The EPS New Homes program is based on modeled performance of new homes above applicable Oregon building codes. Builders have the flexibility to pursue combinations of measures. The program provides examples of measure combinations, called pathways. These yield tiered improvements over code. These pathways are designed to represent likely scenarios and serve as a proxy to screen the program for savings and cost effectiveness.

For 2018 the pathways were redesigned in consideration of the new Oregon Residential Specialty Code (ORSC). The new code increased minimum efficiency of air source heat pumps and furnaces, which necessitated the program to specify very high efficient equipment to maintain savings. The code also specified 100 percent efficient lighting, which eliminated all the lighting savings from the offering.

The four redesigned pathways have energy efficiency ranging from 10-40 percent better than the recently updated code. Each of the four pathways were modeled with alternative sets of gas and electric space and water heating equipment. In total 16 specific combinations were created for new homes in 2018.

The pathways become progressively more demanding as the numbering increases, requiring higher modeled efficiency and more costly technology. Pathway 1 is the least demanding, acting as an entry point for builders that are new to the program. Pathway 4 serves as an aspirational target to encourage builders to continue to aggressively improve their building practices.

With the recent updates to ORSC and ongoing reductions to avoided cost values. EPS Homes pathway 1 was no longer cost-effective. There were six measures within this pathway that had a TRC score around 0.6; below the minor exception threshold of a 0.8 TRC score. Staff found that all six measures qualified for an exception based on Docket No. UM 551 criteria 13, C & D.<sup>4</sup> Based on this Staff recommended that and that pathway 1 receive a one year exception with the TRC to be reevaluated during the 2019 budgeting process. Staff felt that if the feedback determined that the TRC was not projected to rise above 0.6 by 2019 then the EPS New Homes pathway 1 should be removed at that time.

Staff cannot unilaterally grant an extension due to the measure's TRC remaining below 0.8. At this TRC level the additional one-year extension contemplated in this memo is considered a major exception requiring Commission approval.

### *Reason for Staff Granting an Additional One-Year Extension for Pathway 1 Measures*

In March 2018, Energy Trust brought to Staff's attention a mismatch between program performance feedback and the one-year extension for pathway 1. Specifically, Energy Trust would not receive program performance data until February 2019. This is three months after the

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<sup>4</sup> See UM 551, Order 94-590, Section 13 states: "C. The measure is included for consistency with other DSM programs in the region." And, "D. Inclusion of the measure helps to increase participation in a cost-effective program."

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one-year extension of cost-effectiveness expires. In effect, Energy Trust and Staff would be making a decision to retain or remove a program not based on any objective data or analysis. While Energy Trust has removed measures from program offerings in the middle of the year, Staff believes this would be disruptive for the Residential Sector's EPS New Homes Program.

The overarching goal of the New Homes program is to increase the industry's technical capacity to apply and influence the market acceptance of energy-saving approaches. As more builders adopt the technologies and building practices found in the EPS New Homes Program the building code in Oregon advances more quickly. Since 2014 the number of EPS homes has steadily risen, both in terms of market share and the total number of homes impacted by the program.

Year	EPS Market Share	# of EPS Homes
2014	34%	2,171
2015	35%	2,521
2016	36%	3,323
2017	37%	3,400

An abrupt change to a complicated measure – such as removing the entry level pathway to the EPS New Homes program – could create a negative repercussion on the overall participation in a program that is both technically difficult to adopt and also requires a sizeable, upfront investment by the customer.

### Conclusion

Staff finds that granting an additional one-year extension of cost-effectiveness to the measures found in pathway 1 of the EPS New Homes Program is warranted and in the best interest of the Program and ratepayers. Staff and Energy Trust will revisit the results of this year's EPS New Homes Program activities around February 2019 and determine whether or not pathway 1 should be removed from the offering for the 2020 program year.

### **PROPOSED COMMISSION MOTION:**

Grant a one-year extension of cost-effectiveness for Energy Trust of Oregon's (Energy Trust) Energy Performance Score (EPS) New Homes Measure.

UM 1696 One-year extension of cost-effectiveness for EPS New Homes