

**PUBLIC UTILITY COMMISSION OF OREGON
STAFF REPORT
PUBLIC MEETING DATE: January 28, 2015**

REGULAR _____ CONSENT X EFFECTIVE DATE _____ N/A _____

DATE: January 16, 2015

TO: Public Utility Commission

FROM: *aa for JF*
Juliet Johnson and Jason Klotz *JK*

THROUGH: Jason Eisdorfer and Aster Adams *EA*

SUBJECT: ENERGY TRUST OF OREGON: (Docket No. UM 1696) Follow-up items related to electric energy efficiency exceptions.

STAFF RECOMMENDATION:

Commission support Staff's recommendation to provide exceptions to cost effectiveness guidelines for multifamily ceiling/attic insulation and multifamily floor insulation for electrically heated homes and to approve Energy Trust of Oregon (Energy Trust)'s proposal regarding pilot projects.

DISCUSSION:

Issue Summary

On July 22, 2014, the Oregon Public Utility Commission (Commission) issued its Order No. 14-266 in Docket No. UM 1696 (UM 1696). In Order No. 14-266, the Commission approved certain electric energy efficiency cost effectiveness exception requests made by Energy Trust while not approving others. The Commission asked Energy Trust to come back to the Commission and file new exception requests for multifamily ceiling/attic insulation, single family duct insulation, and multifamily floor insulation following resolution of Docket No. UM 1622 (UM 1622).

On December 31, 2014, Energy Trust filed follow-up cost effectiveness exception requests for those electric efficiency items it was asked to revisit following resolution of UM 1622. In addition, Energy Trust responded to a request by the Commissioners made at the July 22, 2014, public meeting regarding allowing pilots to move forward without applying for specific exceptions. In its December 31, 2014 filing, Energy Trust proposes a cost threshold for pilots, above which exceptions would need to be sought by the Commission, but below which they could proceed without exceptions, based on the current language in UM 551, Order No. 94-590.

ORDER No. 94-590

Energy Trust follows Commission guidelines for cost effectiveness established primarily in Order No. 94-590 in Docket No. UM 551 (UM 551). As such, Energy Trust has been directed to only offer incentives to efficiency projects which pass both the Utility Cost Test (UCT) and Total Resource Cost Test (TRC) effectiveness tests. Measures which do not pass the tests may be included in the programs if they meet the following additional conditions specified in Section 13 of UM 551.

- 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
- 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

Analysis and Recommendations

The three measures for which the Commission asked Energy Trust to resubmit cost effectiveness exception requests following resolution of UM 1622 were:

- Multifamily ceiling/attic insulation
- Single family duct insulation
- Multifamily floor insulation

Table 1 shows the electric and gas UCT and TRC Benefit Cost Ratio (BCR) for each of these measures. Table 1 also shows, for each gas measure, the exception decision made by the Commission in UM 1622. Table 1 also shows Energy Trust's proposed exception treatment for the electric measures being addressed in this filing.

Table 1. Measure cost effectiveness by heating fuel

Measure Name	Electric					Gas				
	2013 Savings (kWh)	% 2013 program savings	UCT BCR	TRC BCR	Proposed Exception Criteria	2013 Savings (therms)	% 2013 program savings	UCT BCR	TRC BCR	Exception Status from UM 1622
Multi-family ceiling/attic insulation	31,956	0.09%	1.8	0.5	UM 551 exception criteria A	205	0.01%	1.2	0.4	UM 551 exception criteria A
Single Family Duct Insulation	32,877	0.09%	5.1	0.9	No exception being sought	4,293	0.41%	1.0	0.2	no exception, discontinue April 30, 2015
Multi-family floor insulation	23,316	0.06%	2.5	0.5	UM 551 exception criteria A	92	0.01%	1.1	0.3	no exception, discontinue April 30, 2015

Multifamily ceiling/attic insulation

Of the three measures listed in Table 1, in UM 1622 only multifamily ceiling/attic insulation for gas heated homes qualified for a cost effectiveness exception. Approval was based on acknowledgement of significant non energy benefits and consistency with single family ceiling insulation for gas heated homes, which also received an exception. The TRC BCR for gas multifamily ceiling insulation was 0.4 and the UCT BCR was 1.2.

Energy Trust is requesting an exception for multifamily ceiling/attic insulation for electrically heated homes. The TRC BCR for this measure is 0.5 and the UCT BCR is 1.8. Staff supports this exception request because of the significant non energy benefits associated with insulation measures and for consistency with single family electrically heated homes. Staff suggests approval be based on UM 551 exception criteria A – *The measures produces significant non-quantifiable non energy benefits*, and C – *The measure is needed for consistency with other DSM programs in the region*.

Single family duct insulation

With a TRC BCR of 0.2 and a UCT BCR of 1.0, single family duct insulation for gas heated homes did not receive a UM 551 exception as part of UM 1622. Energy Trust is not requesting an exception for single family duct insulation for electrically heated homes even though the TRC BCR is 0.9 and the UCT BCR for this measure is 5.1.

Energy Trust indicated to Staff that the reason an exception is not being sought for this measure is that it is a tiny portion of the program and to maintain it for just electric is not a very efficient use of Energy Trust's program management and delivery time. Energy Trust indicated it would rather spend time and resources on other more cost effective and productive measures. Staff supports the Commission not approving a cost effectiveness exception for single family duct sealing for electrically heated homes. Consistent with gas, Staff recommends the Commission require the measure be discontinued by April 30, 2015.¹²

Multifamily floor insulation

The Commission did not grant an exception for multifamily floor insulation for gas heated homes in UM 1622. The TRC BCR for this measure was 0.3 and the UCT BCR was 1.1. The TRC BCR for multifamily floor insulation for electrically-heated homes is 0.5 and the UCT BCR is 2.5. Energy Trust is requesting an exception for multifamily floor insulation based on the TRC BCR being higher than for gas and because of significant non energy benefits. Energy Trust indicates that the majority of multifamily projects are electrically heated and although insulation may be a small percentage of savings, having these insulation measures leads to a range of consumer benefits. Staff supports this exception request for gas multifamily floor insulation based on UM 551 criteria A – *The measure produces significant non energy benefits.*

Pilot projects

Although Order No. 14-266 in UM 1696 does not specifically mention pilots, at the public meeting on July 22, 2014, when the Commission was considering UM 1696, the Commissioners discussed pilots relative to cost effectiveness exceptions. Upon reviewing the tapes from the public meeting, Staff noted the following "friendly amendment" items agreed to verbally by the Commissioners (discussion starts in Audio 2 at about 21:45):

- 1) There should be blanket exceptions for technology pilots. Energy Trust should not have to come in for approval of pilots.³ The Commission clarified that behavioral programs are also technology pilots.

¹ Order No. 14-332, corrected in Order No. 14-343, in UM 1622 states that the Commission is allowing non-excepted measures to continue through April 30, 2015.

² UM 1622 stated the Commission was willing to consider the idea of an incentive cap. If an incentive cap is proposed and approved by the Commission, this and other non-excepted measures could be allowed to continue beyond April 30, 2015 as part of an approved incentive cap.

³ This is due to pilots being explicitly excepted in UM 551 criteria F which states - *The measure or package of measures is included in a pilot or research project intended to be offered to a limited number of customers.*

- 2) Each year Energy Trust should report to the Commission on its pilots: How is it going? What is being learned? What needs to happen next? This does not need to be a formal presentation. It can be something submitted in writing.

Staff and Energy Trust subsequently discussed the issue and agreed that a dollar threshold should be established above which Energy Trust would be required to obtain exceptions for non-cost effective pilots. Staff and Energy Trust also agreed that a clear definition of what constitutes a pilot should be established.

Energy Trust offered the following definition of a pilot:

A pilot is a test of a new program approach, communication strategy, energy management technique or technology that meets the following criteria:

- 1) *It is in some way experimental. Energy Trust may have theories about specific issues related to cost, performance or market delivery, and needs more certainty before operating at full scale.*
- 2) *Energy Trust needs specific information to support decisions about further action.*
- 3) *It is financially and technically feasible to answer questions through field experimentation and evaluation.*
- 4) *Ultimately, the test is important to Energy Trust's success.*

Staff supports the definition proposed, with one modification to item 4), which Staff proposes should read:

- 4) *Ultimately, the test is important to Energy Trust's ~~success~~ acquiring additional energy savings.*

Energy Trust notes that at times specific measures defined within a pilot do not meet the Commission's cost effectiveness guidelines or cost effectiveness is highly uncertain because one or more key variables impacting cost effectiveness is the main question being tested. Often one purpose of a pilot is to determine potential cost effectiveness. Through UM 1696 the Commission noted there should be blanket exceptions with some cost boundaries for pilots such that Energy Trust would not have to request approvals for each one.

Energy Trust proposes setting a per pilot cost threshold of \$500,000, above which cost effectiveness exceptions must be sought. Staff supports this dollar threshold as long as all pilots, no matter the cost, are included in regular status reporting to the Commission.

In summary, Staff recommends the Commission provide cost effectiveness exceptions for multifamily ceiling/attic insulation and multifamily floor insulation in electrically heated structures. Staff also recommends the Commission approve a dollar threshold of \$500,000, above which Energy Trust must seek exceptions for pilots that do not meet the Commission's cost effectiveness guidelines or where cost effectiveness is highly uncertain. Energy Trust should report annually to the Commission on all pilots

PROPOSED COMMISSION MOTION:

Grant cost effectiveness exceptions for multifamily ceiling/attic and floor insulation for electrically heated structures and support a cost threshold of \$500,000 for pilots, above which Energy Trust must seek cost effectiveness exceptions. Require Energy Trust to report annually to the Commission on all pilots.