

**PUBLIC UTILITY COMMISSION OF OREGON
STAFF REPORT
PUBLIC MEETING DATE: April 4, 2023**

REGULAR **CONSENT** **EFFECTIVE DATE** April 5, 2023

DATE: March 27, 2023

TO: Public Utility Commission

FROM: Anna Kim

THROUGH: Bryan Conway, JP Batmale, and Sarah Hall **SIGNED**

SUBJECT: OREGON PUBLIC UTILITY COMMISSION STAFF:
(Docket No. UM 1696)
Adjusting the spending cap for Energy Trust of Oregon pilots.

STAFF RECOMMENDATION:

Adopt Staff's recommendation to set the spending cap for a pilot program at \$1.5 million before Energy Trust of Oregon (Energy Trust) must request a cost-effectiveness exception for the program.

DISCUSSION:

Issue

Whether the Commission should adopt Staff's recommendation to set the spending cap for pilots before Energy Trust requires exception approval.

Applicable Law

Order No. 94-590 in Docket No. 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. The exceptions listed in the Order 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.
- 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.¹

The Commission directs certain funds collected under ORS 757.054 and ORS 757.612 to be paid to a nongovernmental entity to make expenditures consistent with these statutory requirements as further detailed in its grant agreement. Under the Commission's grant agreement with Energy Trust, Energy Trust's conservation programs "will be designed to be cost-effective and will be independently evaluated on a regular basis. This guideline should not, however, restrict investment in pilot projects, educational programs, demonstrations, or similar endeavors." Energy Trust adopts an annual calendar year budget and provides detailed information to the Commission, as outlined in the grant agreement.

In Order No. 15-029, the Commission clarified its understanding of a pilot project for purposes of Energy Trust's programs:

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.

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 this test since its inception to guide what measures can be offered by Energy Trust programs. Orders entered in Docket No. UM 551 also allow 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.

- 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 acquiring additional energy savings.

In Order No. 15-029, the Commission also set a cost cap of \$500,000 for a pilot, above which Energy Trust must seek a cost-effectiveness exception for the program.

Analysis

On March 23, 2023, Energy Trust submitted to Staff a request to increase the cost cap for pilots, above which Energy Trust must seek cost-effectiveness exceptions for its pilots. The current cost cap is \$500,000 for the total budget of a pilot. Energy Trust proposes raising the cost cap for pilots from \$500,000 to \$1,200,000. Energy Trust is seeking an increase to have more flexibility to design and implement pilots quickly.

Energy Trust is making this request because the value of the number has eroded over time due to inflation while there are increasing needs to innovate and test new strategies. Energy Trust is preparing to undertake new research projects where the cost cap is a consideration when deciding whether to propose a pilot, and what components to include in any given pilot. Future research that may be affected by this consideration include a hybrid heating pilot, a non-ducted heat pump pilot, and program delivery pilots in partnership with community-based organizations.

Energy Trust makes the following arguments:

- Added flexibility will help Energy Trust more rapidly identify and design new strategies that will help meet the state's clean energy goals.
- Based on inflation alone, \$500,000 in 2015 dollars is now approximately \$644,000. This has eroded the value of the initial cap over eight years. At the same time, Energy Trust's budget for the OPUC grant has increased from \$170 million to \$220 million.
- Over the past eight years, Energy Trust has sought to reach new customers through different marketing and program delivery models, working with a wider range of organizations and innovating to design programs that have greater reach. Despite notable progress, there is ongoing need to test new strategies while trying to attract new community-based partners. Having a larger cap will make it easier to attract more funding partners as there will be less uncertainty and less wait.

- The current cap discourages Energy Trust from pursuing certain types of research that may be valuable to ratepayers. Energy Trust takes the cost limit into account when identifying potential research projects. While it is possible to request an exception for a larger pilot, such as the recent exception for a no-cost ductless heat pump pilot,² Energy Trust rarely undertakes larger ideas because of the additional work required to prepare for and undergo a major measure exception request. In order to fit within the \$500,000 cap, Energy Trust may reduce the number of research questions to pursue in a pilot, limit the geography of the research, or otherwise restrict the scope.
- Energy Trust is limited in what pilots it can design jointly with other organizations, particularly community-based organizations because potential partners need assurance up front that funding is available before beginning work on co-creating a pilot. The current cap has not been enough funding to secure partners on research Energy Trust is considering.

Example of Need: Hybrid Heating Pilot

Energy Trust points out that the hybrid heating pilot provides an example of a pilot that would be impacted by the cap. The hybrid heating pilot requires funding at a larger scale to proceed. Energy Trust is planning to work with all five funding utilities and anticipates a \$1.2 M budget to fund the pilot. This budget is required in order to implement the pilot with a sufficient sample to understand how this technology works across an array of housing and heating situations. With the current spending cap, Energy Trust can come to the Commission with a request for a cost-effectiveness exception before proceeding with this research.

With Energy Trust's request to increase the cost cap, Energy Trust has recognized a need for more internal controls on pilots, particularly in the Residential Program. Energy Trust built a model of the Residential Program to provide sensitivity analysis on cost-effectiveness impacts to the program. Energy Trust plans to build similar tools for the other programs.

Staff's Analysis

In this section, Staff addresses whether the cap should be raised, the appropriate spending cap, and whether adequate controls are in place.

Should the spending cap be raised?

Staff believes the spending cap should be raised. The initial cap was set in 2015 and has not been adjusted for inflation or otherwise modified to support Energy Trust's ability to act upon the Commission's priorities. The cap should be increased to reflect

² Order No. 22-024.

increased costs and to provide Energy Trust more flexibility to test strategies that will help meet the state’s clean energy goals. These strategies include new ways to reach customers that were less likely to participate in the past, in order to access the savings opportunities with those customers. Ongoing research is necessary to improve upon and maximize ratepayer benefits from energy efficiency investments.

Energy Trust provided the following table comparing annual budgets with pilot spending:

Table 1: Comparison of Energy Trust budget and pilot spending.

Year	Total OPUC Grant Budget	Annual Pilot Spending	Percent of Total Budget
2021	\$207,000,000	\$ 380,234	0.18%
2022	\$215,000,000	\$ 804,220	0.37%
2023	\$219,700,000	\$ 1,779,880	0.81%

The table illustrates the increasing need to conduct more research through pilots at higher cost. Annual spending includes the no-cost ductless heat pump pilot and anticipated spending on a dual fuel heat pump pilot. Other spending anticipated so far in 2023 includes additional work on heat pumps and research in partnership with Portland General Electric related to smart thermostats.

What is the appropriate spending cap?

Staff proposes that the total spending cap for a pilot before seeking Commission approval be set at \$1.5 million. Staff believes this number will be sufficient to encourage Energy Trust to explore new areas of research that did not fit under the existing cap, particularly when working with community-based organizations and nonprofits where it is important to secure funding up front before designing a pilot.

Staff understands that this new cost cap may become outdated over time. Staff will review this cap in the context of Energy Trust’s upcoming 2025-2029 Strategic Plan.

Are adequate controls in place?

Staff believes that, with a combination of existing processes and new proposals by Energy Trust and Staff, adequate controls are in place. To apply the criteria in Order No. 15-029 for pilot programs, Energy Trust refined internal controls through the evaluation team with robust and extensive processes to address the different types of pilots that the organization runs. Energy Trust would continue to come to the Commission to request that the program receive a cost-effectiveness exception for any pilot with a budget that would exceed \$1.5 million. Energy Trust would also build out

benefit-cost program models for all programs to assess the impact of pilots on program cost-effectiveness.

Staff will continue to monitor and discuss pilot activities with Energy Trust through regular meetings with Energy Trust's managers of Programs and Planning and Evaluation. Pilots are also discussed through the Evaluation Committee which Staff participates in.

Staff proposes further formalizing reporting on pilots. Staff suggests that the pilot budget is identified specifically in the annual budget, and that Energy Trust report on pilot spending in the annual report.

While Energy Trust currently spends less than one percent on pilots, there are more opportunities to study and test ideas that will help with rapid deployment of energy efficiency in support of meeting the state's clean energy goals in the future. Staff has confidence that Energy Trust's strict internal controls for all pilot proposals will curb unjustified spending and Staff will also continue engaging with Energy Trust on this topic in the annual budget process and in the development of the 2025-2029 Strategic Plan.

Conclusion

Staff's recommendation for a strategy to oversee and set the spending cap before which Energy Trust must request explicit Commission approval on a pilot is:

- Per-pilot spending cap of \$1.5 million. Pilots with a budget above this amount must be cost-effective or receive approval from the Commission for an exception;
- Report pilot spending in the annual report. Identify total pilot spending in draft and final budget.

PROPOSED COMMISSION MOTION:

Adopt Staff's recommendation to set the spending cap for a pilot program at \$1.5 million before Energy Trust must request a cost-effectiveness exception.