



Oregon

Kate Brown, Governor

Public Utility Commission

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January 12, 2021



By Email

Portland General Electric Company

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RE: Advice No. 20-45

At the public meeting on January 12, 2021, the Commission adopted Staff's recommendation in this matter docketed as ADV 1216. The Staff Report and a receipted copy of the sheets in your advice filing are attached.

Nolan Moser

Chief Administrative Law Judge

Public Utility Commission of Oregon

(503) 378-3098

**PUBLIC UTILITY COMMISSION OF OREGON
STAFF REPORT
PUBLIC MEETING DATE: January 12, 2021**

REGULAR CONSENT EFFECTIVE DATE January 13, 2021

DATE: January 4, 2021

TO: Public Utility Commission

FROM: Kacia Brockman

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

SUBJECT: PORTLAND GENERAL ELECTRIC:
(Docket No. ADV 1216/Advice No. 20-45)
Adds ductless heat pump control demonstration to Nonresidential Direct Load Control Pilot, Schedule 25.

STAFF RECOMMENDATION:

Approve Portland General Electric Company's (PGE or Company) request to add a limited demonstration of ductless heat pump control to its Nonresidential Direct Load Control Pilot, Schedule 25.

DISCUSSION:

Issue

Whether the Commission should approve PGE's request to add incentives for direct load control of ductless heat pumps for nonresidential customers located inside PGE's Smart Grid Testbed (Testbed).

Applicable Law

Under ORS 757.205(1):

Every public utility shall file with the Public Utility Commission, within a time to be fixed by the commission, schedules which shall be open to public inspection, showing all rates, tolls and charges which it has established and which are in force at the time for any service performed by it within the state, or for any

service in connection therewith or performed by any public utility controlled or operated by it.

The Commission may approve tariff changes if they are deemed to be fair, just, and reasonable. ORS 757.210. Tariff revisions may be made by filing revised sheets with the information required under the Commission's administrative rules, including OAR 860-022-0025. OAR 860-022-0025(2) specifically requires that each energy utility changing existing tariffs or schedules must include in its filing a statement plainly indicating the increase, decrease, or other change made with the filing, the number of customers affected by the proposed change and the resulting change in annual revenue; and the reasons or grounds relied upon in support of the proposed change.

Filings that propose any change in rates, tolls, charges, rules, or regulations must be filed with the Commission at least 30 days before the effective date of the change. ORS 757.220; OAR 860-022-0015. Tariff filings to be effective on less than 30 days following notice of the change may be authorized with a waiver of less than statutory notice pursuant to ORS 757.220 and OAR 860-022-0020.

Analysis

Background

PGE's Nonresidential Direct Load Control pilot (Pilot) is defined in the operational tariff Schedule 25. PGE markets the Pilot as part of Energy Partner, a suite of demand response options for nonresidential customers. Schedule 25 describes incentives available to nonresidential customers who give PGE direct load control of their *ducted* heat pumps controlled by smart thermostats. On December 7, 2020, PGE filed Advice No. 20-45, which modifies Schedule 25 to add a limited demonstration of direct load control of nonresidential *ductless* heat pumps controlled by smart thermostats (Demonstration).¹

The Demonstration will be limited to 100 smart thermostats installed in nonresidential customer facilities that use ductless heat pumps and are located within the geographic boundaries of the Testbed.² The Demonstration will offer customer incentives of one or more free smart thermostats to be installed by the customer and \$20 for each summer and winter event season in which the customer is eligible to participate.³

¹ While the Pilot and Demonstration primarily target heat pumps, the existing and proposed incentives under Schedule 25 are available for other ducted and ductless electric heating and air conditioning systems, as well.

² The Testbed includes customers served by three of PGE's substations located in North Portland, Milwaukie, and Hillsboro.

³ Customers with heat pumps participate in both summer and winter seasons; air conditioning systems in summer only; heating systems in winter only.

The Demonstration will leverage the efforts of two existing PGE initiatives within the Testbed. First, PGE will recruit participation in the ductless heat pump control Demonstration using leads generated during its door-to-door outreach for the ducted heat pump control Pilot. PGE is using the Testbed to test different marketing channels for the Pilot, including direct outreach via door-to-door sales. During the initial round of sales visits in 2020, PGE identified at least 45 small business customers in the Testbed that use ductless heat pumps and are not eligible to participate in Pilot. Second, the nonresidential Demonstration will use the same Flair Puck smart thermostats and Virtual Peaker demand response management system already selected and integrated for a similar demonstration of direct load control of ductless heat pumps controlled by smart thermostats for residential customers in the Testbed.⁴

Leveraging these existing efforts limits the cost of the proposed Demonstration to the cost of the thermostats and the incentives paid, or approximately \$20,000. This amount is covered by the existing Testbed budget and deferral, which includes funding for delivering the Energy Partner demand response offerings to nonresidential customers within the Testbed.⁵

PGE presented the concept for the Demonstration to the Demand Response Review Committee at its quarterly meeting on December 4, 2020, and heard no objections or concerns. Staff discussed the Demonstration further with PGE prior to PGE's advice filing.

Staff review of filing

Staff reviewed PGE Advice No. 20-45 and affirms that the proposed revisions to Schedule 25 are limited to the addition of the Demonstration. The proposed Schedule 25 revisions are not expected to increase, decrease, otherwise change existing rates, or impact revenues. Costs are included in the existing Testbed budget and deferred in Docket No. UM 1976 for later ratemaking treatment.

Conclusion

The proposed Demonstration will allow PGE to maximize its existing Energy Partner outreach within the Testbed by offering an incentive with which to engage small business customers using ductless heat pumps that otherwise are not eligible to

⁴ On September 30, 2020, the Commission approved the addition of a residential ductless heat pump controls demonstration to Schedule 13. See Docket No. ADV 1178, PGE Advice No. 20-23.

⁵ The Testbed budget Operating Costs include costs associated with delivering PGE's system-wide demand response offerings in high concentration within the Testbed. See Docket No. UM 1976, Application for Deferral of Expenses Associated with PGE's Demand Response Testbed Pilot, filed November 3, 2020, p.6.

participate in the Energy Partner program. This small business customer engagement may inform future nonresidential pilot design. Additionally, the Demonstration may inform PGE about the potential impact of nonresidential ductless heat pump controls as it dispatches them along with the nonresidential ducted heat pumps and residential ductless heat pumps during summer and winter event seasons.

Staff finds that these potential benefits outweigh the very small cost of the proposed Demonstration. While PGE did not present a detailed research and evaluation plan that Staff would normally expect with a demonstration proposal, Staff recognizes and appreciates that the Demonstration is more of an opportunistic proposal to maximize PGE's existing efforts within the Testbed than a new strategic initiative. Staff supports the Demonstration as a low cost, low effort way to engage and learn from small business customers.

PROPOSED COMMISSION MOTION:

Approve PGE's request to add a limited demonstration of ductless heat pump control to its Nonresidential Direct Load Control Pilot, Schedule 25.

SCHEDULE 25 (Continued)

DEFINITIONS (Continued)

Non-Ducted HVAC System Thermostat Demonstration – A demonstration within the smart grid test bed that meets Special Conditions 8 through 10. Demonstrations are limited in scope and will not interfere with the operations of the Nonresidential DLC Pilot.

(N)
|
(N)

Summer Event Season – Includes the successive calendar months June through September.

Winter Event Season – Includes the successive calendar months November through February.

Qualified Thermostat – Thermostats that are Company-approved have been integrated with Company's demand response management system for event calling.

AVAILABLE

In all territory served by the Company.

APPLICABLE

To qualifying Nonresidential Customers served under Schedules 32, 38, 47, 49, 75, 83, 85, 89, and 90. The Company will limit participation to 3,800 Qualified Thermostats. Nonresidential Customers will remain on their base schedule and will be eligible for the incentives described in this schedule.

ELIGIBILITY

Eligible Nonresidential Customers must have a Network Meter. Nonresidential Customers must have a Qualified Thermostat connected to the internet and the heating or cooling system at their expense, except as provided in the Incentives section of this schedule. To participate in the Winter Event Season, the Nonresidential Customer must have a Ducted Heat Pump or Electric Forced Air Heating. To participate in the Summer Event Season, the Nonresidential Customer must have Central Air Conditioning or a Ducted Heat Pump.

DIRECT LOAD CONTROL EVENT

Direct Load Control Events occur for one to five hours. The Company may call two events per day but will not exceed five cumulative hours for the day. During Direct Load Control Events the Customer may allow the Company to control their thermostat for the duration of the event. The Customer has the option not to participate by overriding via the thermostat. The Company initiates Direct Load Control Events with Event Notification. The Company will call Direct Load Control Events only during the Event Seasons. Direct Load Control Events will not be called on weekends or Holidays. Reasons for calling events may include, but are not limited to: energy load forecasted to be in the top 1% of annual load hours, forecasted temperature above 90 or below 32, expected high generation heat rates and market power prices, and/or forecasted low or transitioning wind generation. The Company will call no more than 150 event hours per Event Season.

Received

Advice No. 20-45
Issued December 7, 2020
James F. Lobdell, Senior Vice President

Filing Center
DEC 07 2020

Effective for service
on and after January 13, 2021

SCHEDULE 25 (Concluded)

SPECIAL CONDITIONS (Continued)

7. PGE has the right to remove a Customer from the pilot when good cause is shown including, but not limited to, for poor customer responsiveness, consistent customer non-participation in called events, or issues with customer equipment that impact customer's participation.
8. PGE will administer a Non-Ducted HVAC System Thermostat Demonstration within the Smart Grid Test Bed for Nonresidential Customers who have a non-ducted, electric HVAC systems, which are compatible with the Flair Puck. Eligible Customers must:
 - a. be aligned with rates schedules defined in Applicable section;
 - b. be located within the Smart Grid Testbed boundary located on PGE's webpage regarding the "Smart Grid Testbed";
 - c. have the ability to connect Flair Puck to Internet at own expense;
 - d. and have a Networked Meter.
9. Non-Ducted Thermostat Demonstration events will follow the same requirements outlined in the Direct Control Load Event section, however;
 - a. Customers do not need meet the minimum number of hours to be eligible for an incentive;
 - b. Customers with ductless heat pumps (DHP) or package terminal heat pumps (PTHP) are eligible for both winter and summer seasons; \$20 per season;
 - c. Customers with electric heating or cooling only equipment are eligible for either the winter or summer season incentive; \$20 per season;
 - d. Customers participating in the demonstration may be eligible for Nonresidential DLC Pilot incentives.
10. The Non-Ducted Thermostat Demonstration will be capped at 100 units and is separate from the Schedule 25 cap of 3,800 thermostats.

(N)

TERM

This pilot term is December 1, 2017 through May 31, 2022.

(N)

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