

**PUBLIC UTILITY COMMISSION OF OREGON  
STAFF REPORT  
PUBLIC MEETING DATE: September 7, 2021**

REGULAR  CONSENT  EFFECTIVE DATE June 23, 2021

**DATE:** August 30, 2021

**TO:** Public Utility Commission

**FROM:** Mitchell Moore and Kacia Brockman

**THROUGH:** Bryan Conway, John Crider, and Matt Muldoon **SIGNED**

**SUBJECT:** PORTLAND GENERAL ELECTRIC:  
(Docket No. UM 1708(6))  
Requests reauthorization for deferred accounting related to two Residential Demand Response Pilots.

**STAFF RECOMMENDATION:**

Staff recommends that the Commission approve Portland General Electric's (PGE or Company) application for reauthorization of deferred accounting for costs related to two Residential Demand Response Pilots (Pilots) for the twelve-month period beginning June 23, 2021, subject to the conditions as outlined in this report's conclusion.

**DISCUSSION:**

Issue

Whether the Commission should approve PGE's request for reauthorization of deferred accounting for costs related to two Residential Demand Response Pilots for the twelve-month period beginning June 23, 2021.

Applicable Law

PGE submitted its filing pursuant to ORS 757.259 and OAR 860-027-0300 and Commission Order No. 15-203. ORS 757.259 authorizes the Commission to allow utilities to defer expenses or revenues for later amortization into rates to appropriately match ratepayer costs and benefits or to minimize the need for rate changes. OAR 860-027-0300 specifies several requirements related to deferred accounting applications as well requests to amortize the deferred amounts. The Commission

previously approved PGE's original request for deferral of the incremental costs associated with these two pilots in its Order No. 15-203, and it was most recently reauthorized in Order No. 20-480.

## Analysis

### *Background*

PGE implemented two residential demand response pilots that the Company believes will best inform development of future demand response (DR) programs to be utilized as dispatchable resources during system peak loads as well as ease the integration of renewable energy sources. PGE began operating the two pilots in the third quarter of 2015.

The goal of the pilots through 2021 is to help PGE achieve at least 77 megawatts of demand response in the winter months and 69 MW in the summer months, while working to reach demand response high case targets of 162 MW (summer) and 191 MW (winter).<sup>1</sup>

### *FLEX 2.0*

The first pilot is the Pricing and Behavioral Response Pilot, known as FLEX. The first stage of this pilot, referred to as FLEX 1.0, began by testing 12 pricing design options, all aimed at reducing residential peak demand during summer and winter months. This stage concluded in 2018.

After an independent evaluation of the first stage, PGE proposed moving forward by developing FLEX 2.0 as an opt-in scalable demand response pilot with appropriate Time-of-Use (TOU) prices and Peak Time Rebate (PTR). In response to Staff concern about the TOU rate design discouraging participation by electric vehicle owner, PGE eliminated the TOU rate and moved forward with a PTR-only offering that pays a rebate to customers that reduce their electricity consumption during winter and summer peak demand events.

PGE received Commission approval in April 2019 to update Schedule 7 to include PTR-only FLEX 2.0 pricing in Advice No. 19-03. As of May 2021, over 103,000 residential customers had opted into the FLEX 2.0 PTR offering. At the July 2021 Demand Response Advisory Group (DRAG) meeting, PGE reported PTR load shift of 11.4 MW in summer and 11.9 MW in winter.

While the pilot performance continues to improve, the Company also reported several challenges faced by PTR over the last year. Wildfires in 2020 and the ice storm in

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<sup>1</sup> Order No. 17-386, p. 9.

February 2021 forced early ends to enrollment campaigns and seasons during which PGE could call PTR events. The heat wave in June 2021 resulted in lower than expected load shift during events.

PGE described strategies to mitigate these setbacks that include a promotional blitz, updating the PTR baseline model to address extreme temperature, allowing events on weekends and Mondays, and improving event notification success by transitioning from a vendor to an in-house solution. This latter solution is expected to result in cost savings, which will improve cost-effectiveness. PTR cost-effectiveness based on the total resource cost test is currently 0.7. The second-year PTR evaluation is due late summer 2021.

In May 2021, PGE released new opt-in TOU pricing.<sup>2</sup> The new pricing includes a 4.7 peak-to-off-peak price ratio that provides strong price signals for customers to shift their usage away from the peak. PGE will launch a TOU webpage, allow online enrollment, and begin a targeted marketing campaign in summer 2021. The Company included \$0.64M in the FLEX 2.0 pricing deferral amount for these TOU activities.

#### *Direct Load Control Thermostats*

The second residential DR pilot in this deferral filing is the Direct Load Control Thermostat (DLCT) pilot. This pilot tests enabling thermostat technology to achieve automated load control among residential customers. The pilot began in November 2015 as a "Bring Your Own Thermostat" (BYOT) that was initially limited to the Google Nest thermostat and later expanded to additional manufacturers. In 2018, PGE expanded the pilot from BYOT to include direct installation of thermostats for eligible residential customers.

At the July 2021 DRAG meeting, PGE reported that the DLCT pilot has over 30,000 participants and is delivering 28.4 MW of capacity in summer and 7.8 MW in winter. In November 2020, PGE launched the online PGE Marketplace, which allows customers to enroll in the DLCT pilot as a BYOT customer at the time they purchase a qualifying smart thermostat. The purchase price is reduced by the Energy Trust of Oregon thermostat incentive and the BYOT enrollment incentive.

The program faced several challenges in the last year, including suspension of direct thermostat installations due to COVID-19, the suspension of the Energy Trust thermostat incentive after July 2021, and extreme weather events during which PGE decided not to call events in order to reduce impact to customers. PGE reported developments to the DLCT pilot that include improving customer engagement and education, testing day-ahead notification, refining customer recruitment based on better

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<sup>2</sup> See Docket No. ADV 1194, PGE Advice No. 20-34.

insight into a home's heating and cooling equipment, and implementing intelligent demand response control strategies to reduce event overrides. The DLCT pilot's cost-effectiveness based on the total resource cost test is currently 0.9. The next DLCT pilot evaluation is due in September 2021.

*Proposed Accounting:*

PGE proposes to continue recording the deferred costs as a regulatory asset in FERC account 182.3, with a credit to FERC Account 456, Other Revenue.

*Estimated Deferrals in Authorization Period*

**Cost per Pilot**

<b>Pilot</b>	<b>2021 Estimate</b>
FLEX Pricing – PTR and TOU	\$3.94 million
DLCT	\$2.68 million
<b>Total</b>	<b>\$6.63 million</b>

*Information Related to Future Amortization*

- Earnings Review – ORS 757.259(5) exempts amounts collected through an automatic adjustment clause from being subject to an earnings test.
- Prudence Review – No less than 90 days prior to filing to adjust tariff rates, PGE will submit two combined reports on the pilots, which will provide third-party evaluations, cost summaries, estimated curtailments, and results of customer satisfaction surveys.
- Sharing – Staff anticipates that there will be no sharing between PGE and its customers for this deferral.
- Rate Spread/Design – Rate spread/rate design is determined according to the terms set out in Schedule 135.
- Three Percent Test (ORS 757.259(6)) – The three percent test measures the annual overall average effect on customer rates resulting from deferral amortizations. The three percent test limits the aggregated deferral amortizations during a 12-month period to no more than three percent of the utility's gross revenues for the preceding year.

### Conclusion

While this application for deferred accounting sees increased estimated costs in 2021, the costs appear appropriate given the increased complexity of the pilots and the forecasted participant growth. Staff concludes the DR Pilots are important to the development of future demand response programs and that granting reauthorization of the deferral will minimize frequency of rate changes and appropriately match the costs borne, and benefits received, by PGE customers.

Staff concludes that the Company's application for reauthorization of deferred accounting for costs related to two Residential Demand Response Pilots is consistent with ORS 757.259 and should be approved, subject to the following conditions:

PGE must:

1. At least annually, and not less than 90 days prior to the filing to adjust schedule 135 tariff rates, submit program costs (including forecasted program costs) to Staff for review of prudence.
2. No less than 90 days prior to filing to adjust tariff rates, hold at least one workshop to present pilot costs, findings, and any design updates. This requirement may be met by presentation at a quarterly Demand Response Advisory Group (DRAG) meeting.
3. No less than 90 days prior to filing to adjust tariff rates, submit two combined reports on the pilots, which will provide third-party evaluations, cost summaries, estimated curtailments, and results of customer satisfaction surveys.

### **PROPOSED COMMISSION MOTION:**

Approve PGE's application for reauthorization of deferred accounting for costs related to two Residential Demand Response Pilots for the twelve-month period beginning June 23, 2021, subject to Staff's Conditions as outlined in this report's conclusion.