ITEM NO. CA7

PUBLIC UTILITY COMMISSION OF OREGON
STAFF REPORT
PUBLIC MEETING DATE: October 24, 2017

REGULAR ____ CONSENT X EFFECTIVE DATE January 1, 2018 (Deferral Authorization)

DATE: **October 10, 2017**

TO: Public Utility Commission

FROM: Jason R. Salmi Klotz JK

THROUGH: Jason Eisdorfer, JP Batmale, and John Crider JBB for JE JBB JC

SUBJECT: PORTLAND GENERAL ELECTRIC: (UM 1514(7)) Application for Reauthorization of Deferral of Incremental Costs Associated with Non-Residential Demand Response and request for approval of program modifications.

STAFF RECOMMENDATION:

1) Approve pilot program modifications proposed by PGE with requirements for additional revisions and reports recommended by Staff.

2) Portland General Electric's (PGE or Company) application for reauthorization to defer, with interest, the incremental costs associated with the Automated Demand Response Pilot (ADR Pilot), be approved for the 12-month period beginning January 1, 2018.

3) Approve Portland General Electric Company's proposal to implement Non-Residential Demand Response Pilots to replace the current Auto-Demand Response pilot and PGE's Schedule 77, Firm Load Reduction Program.

DISCUSSION:

Issue

Whether the Commission should approve PGE's request for reauthorization to defer, with interest, the incremental costs associated with the Automated Demand Response Pilot, for later recovery in rates.

Additionally, whether to approve PGE's request for approval to implement the Non-Residential DR Pilots to replace the current ADR pilot and PGE's Schedule 77, Firm Load Reduction Program. The revised program proposal becomes two related programs to be formalized through the subsequent submittal of Schedule 25, Nonresidential Direct Load Control Pilot and Schedule 26, Non-residential Demand Response Pilots.

The projected estimated costs PGE seeks for deferral over three years of the pilot programs is roughly $10,793,407. PGE has submitted a cost effectiveness analysis of the program over its anticipated 5 year life showing a total resource cost of 1.03.

<u>Applicable Rule</u>

The deferral of incremental ADR costs and recovery through an automatic adjustment clause (Schedule 135) were initially authorized by Commission Order No. 11-182, as part of a two-year pilot program PGE submitted its deferral application on September 21, 2017, pursuant to ORS 757.259 and OAR 860-027-0300. ORS 757.259 provides the Commission with authority to authorize the deferral of utility revenues and expenses for later Inclusion in rates. OAR 860-027-0300 are the Commission's rule governing the use of deferred accounting by energy and large telecommunications utilities. Previous approval of this deferral was most recently granted by Order No. 17-105.

<u>Analysis</u>

Background:
The deferral of incremental ADR costs and recovery through an automatic adjustment clause (Schedule 135) were initially authorized by Commission Order No. 11-182, as part of a two-year pilot program. The Commission has authorized PGE to defer the incremental ADR costs each year since 2011. PGE seeks reauthorization to defer incremental costs associated with the ADR Program and the new Pilot timeline for the period January 1, 2018 through December 31, 2018.

Reason for Proposal of Program Revision and Deferral
Normally, Staff would review a request to modify a pilot program separately from a requested cost deferral. However, time was of the essence in this case as PGE needed the approval of the program revisions prior to the demand response season beginning in November 1. PGE was unable to submit a program revision request sooner due to the fact that EnerNoc, the entity previously under contract to administer the program, abruptly left the Pacific Northwest market this summer. To keep current customers enrolled, for program continuity, and to forgo possible additional marketing costs to re-

engage current participants, PGE needed approval of the program revision in time to implement the changes before the next winter demand response season. Given the Commission's public meeting calendar PGE needed to submit the deferral request along with program revisions. Staff has analyzed the proposed revisions and met with PGE Staff to assure Staff fully understood the implication of the requested programmatic revisions.

Description of Amounts:
Pursuant to ORS 757.259(2)(e), PGE seeks renewal of deferred accounting treatment for the incremental costs associated with the ADR pilot. The approval of the Application will also enable the continued use of an automatic adjustment clause rate schedule which will provide for recovery of the incremental costs associated with the ADR through tariff Schedule 135.

Reasons for Deferral:
Pursuant to ORS 757.259(2)(e), PGE seeks to continue deferred accounting treatment for the incremental costs associated with the ADR (initially authorized by the Commission through Order No. 11-182 on June 1, 2011). The granting of this reauthorization application will minimize the frequency of rate changes and match appropriately the costs borne by, and benefits received by, customers.

Proposed Accounting:
PGE proposes to record the deferred costs in FERC account 182.3 (Regulatory Assets), with the offsetting credit recorded to FERC account 131 (Cash).

Estimate of Amounts:
PGE estimates the amounts to be deferred in 2018 to be approximately $2,345,271. Prior deferral amounts varied from $3M a year during the first two years of the program to recently an estimated $1.4M in 2017 due in large part to lower than expected program participation. PGE has been able to demonstrate a cost effectiveness score of 1.03 with the revised program structure. The requested $2.34M seems in line with the expected participation increase as well as the additional costs of operating the program internal to PGE.

Information Related to Future Amortization:

- Earnings review-An earnings review does not apply to an automatic adjustment clause, pursuant to ORS 757.259(5). If the pilot program is deemed successful, PGE proposes to have costs of the ADR program flow through PGE's Annual Power Cost Update (Schedule 125) and Power Cost Adjustment Mechanism (PCAM) (Schedule 126) for the year 2019, and be subject to the earnings review contained within the PCAM.

- Prudence Review-A prudence review should include a verification that deferred amounts are incremental, and verification of the accounting methodology used to determine the final amortization balance.

- Sharing - If the ADR is deemed successful, then the proposal is for subsequent costs to flow through PGE's Annual Power Cost Update (Schedule 125) and Power Cost Adjustment Mechanism (PCAM) (Schedule 126). The PCAM is subject to the dead bands and sharing percentages as specified by Commission Order Nos. 07-015 and 10-478.

- Rate Spread/Design - Per Commission Order No. 11-517, tariff Schedule 135 will allocate the costs of the ADR on the basis of an equal percent of forecast generation revenues.

- 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 (exceptions at ORS 757.259(7) and (8)) 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. Because PGE is an electric utility, ORS 757.259(8) allows the Commission to consider up to a six percent limit.

First ADR Pilot Period:
PGE selected a third-party provider based on a combination of good credit, bidding summer and winter events, better technology, and a stronger marketing plan. The provider began its program marketing on September 1, 2011, but failed to meet the initial capacity milestone of 5 MW for the first winter season. The provider then began to experience financial difficulties and failed to meet additional terms of its agreement for the ADR pilot. On April 30, 2012, PGE terminated its contract with the provider.

New Proposed ADR Pilot Period:
As discussed in PGE's report submitted with the second ADR evaluation on April 28, 2016, the pilot in its current form has fallen short of its nomination goal of 25 MW, with 11 MW nominated for the winter of 2016-2017. Additionally, PGE's contract with EnerNOC, the program's third-party provider has expired. In addition, PGE's EnerNOC informed PGE earlier this year that they were leaving the Pacific Northwest market and that as of September 30, 2017, they would be terminating their contract to provide the aggregator demand response (DR) services under the ADR pilot.

Program Revisions for 2017 - 2020:

PGE has taken this opportunity to review the existing ADR pilot along with Schedule 77 and revised them so as to create two pilots able to meet PGE's goals of greater than 27 MW of peak load reduction by 2021 across all nonresidential segments and products.

The new pilots are based upon the results of the Energy Partner evaluations conducted by Itron (provided previously under Docket No. UM 1514), market research from Hansa customer interviews, focus groups, and Navigant report. Across that research, some common themes emerged:

- No one offer will suffice for all customers. Thus, PGE needs to provide a variety of offerings.
- There needs to be more flexibility in programs:
    - Important segments of our customer base (particularly in the commercial sector) are underserved;
    - There are opportunities for additional demand response from direct access customers who are not eligible for this program; and
    - Offerings need to better address customer business needs.

PGE believes that conducting these revisions to its ADR pilot program including a commercial sector component, memorialized in a subsequent filing of Schedule 25 and Schedule 26, will enable the pilot to be successful and will help PGE meet the capacity deficient identified in their 2016 IRP as well as making progress toward meeting their demand response acquisition goals.

Staff agrees that the alterations made to the ADR program to better leverage the prospects of industrial demand response and explore the demand response capacity available in the commercial sector are reasonable and structured such that success can reasonably be expected.

In contrast to the previous ADR program, the proposed pilots will be administered directly by PGE to its customers, with support from a program implementer and a technology integrator/demand response management system (DRMS) provider. Staff has come to understand through discussion with PGE technical and project management staff the DRMS investment made here will augment this program, should success materialize, and be utilized for additional demand response programs. Additionally, the provider of the DRMS technology is the same company constructing the DRMS for PGE's smart water heater pilot program.

Because PGE will now be administering the program, it gives PGE and its implementer the ability to better bundle and/or cross-market the program with other offerings, such as energy efficiency, renewables, storage, and dispatchable standby generation.

The new program design and its accompanying tariffs will open up new opportunities to expand the market. Existing and new customers that were previously averse to the long availability windows (10 hours under EnerNOC) and/or short notification window (10 minutes previously) will be able to have increased capacity commitments under less onerous conditions. Small and medium-sized businesses will be able to participate through either a turnkey thermostat offering or through the curtailable tariff with the flexibility that meets their needs. Campuses, a historically underserved market segment, will be able to aggregate their meters to participate without having to incur significant up-front costs across numerous smaller sites.

Program Evaluations:
PGE will submit two pilot evaluations to the Commission and stakeholders:

- The first evaluation will be submitted during the third quarter of 2019, after the first three operating seasons. This will allow for adequate time and events to provide meaningful results.
- A final evaluation will be submitted in the second quarter of 2021, after the next three operating seasons and the planned end of the pilots.

The evaluations will include various metrics on customer participation, demand response capacity, and data gaps that emerge from the program. In order to ensure that we have results to evaluate, even during seasons with mild weather or minimal need for DR curtailment, PGE will call a minimum of one event per agreement year. PGE will call a minimum of one event per agreement year.

Recommended Revisions and Reporting Requirements:
Staff recommends the following revisions to the program and recommends the utility submit the following updates to Commission Staff:

Updates required before submittal of Schedules 25 and 26 for Commission approval:

- In order to be successful Staff expects PGE's program outreach, marketing and contracting efforts with customers will include much more detailed information about how the program operates particularly around event call, event durations, incentive and participation requirements. To this end Staff requests PGE submit draft copies of the marketing material and customer engagement protocols to be used by PGE and its program implementers.

- A detailed discussion of the baseline methodology to be used in the program, and thorough discussion elucidating how PGE defines and will use "the last typical operational days" in their baseline calculation methodology, complete with demonstrative examples.

Updates required subsequent to program roll-out:

- PGE must keep on file, and be ready to submit copies of, all contracts signed by participating customers;
- Each quarter PGE will submit to Staff an informational filing containing a spreadsheet of each participating customers nominated load and event performance. PGE may redact identifying information if necessary or file as confidential.

Updates required within one year of program approval:

- Staff suspects that PGE may be overly conservative in the application of their de-rate factor when calculating program cost effectiveness and believe that such a conservative approach may be hindering PGE's willingness to invest in resources to bring about additional demand response program proposals. While clear direction on calculating demand response has not been given to PGE it is important that PGE, the Commission, and stakeholders continue to iterate until such time as the Commission has the capacity to comprehensively address demand response cost effectiveness. Therefore, Staff recommends PGE do run their loss of load probability, Renewable Energy Capacity Planning (RECAP), model with the demand response parameters. In response to the Commission Order in this docket, in order to more accurately identify a directly applicable de-rate factor, PGE should submit a timeline for the recommended modeling run. If PGE finds that the modeling run cannot take place within one year's time, PGE must submit an informational filing to the Commission delineating in detail an alternative methodology for calculating the de-rate factor.
- Staff would like to open an exploratory discussion with PGE about the feasibility and possible design of a Critical Peak Pricing Program for large industrial customers. Staff currently believes that rate design is a more elegant and cost effective approach to demand response and ultimately would like to see more customers transitioned to dynamic rates as our collective understanding and experience with demand response evolves.

Relation to the Demand Response Test Bed:
In Docket LC 66, PGE's 2016 Integrated Resource Plan this Commission approved the Staff's proposal for the creation of a Demand Response Test Bed. While discussions with PGE and Staff and the formation of the Demand Response Review Committee have, at this early date, not taken place, Staff does not envision these

programs proposed here to be formally Test Bed pilots. Depending on the placement of PGE's Test Bed or Beds customers participating in the programs proposed here may be present and thus factor into any high penetration or saturation scenarios and thus inform performance, programmatic and saturation studies. However, because we have yet to detail the Demand Response Test Bed with PGE and others, Staff does not view these programs as currently or explicitly part of the Test Bed. One of the reasons for the development of Demand Response Test Bed was to accelerate PGE's pilot to program timeline and PGE's demand response resource acquisition. At present Staff believes the pilot period contemplated for these two programs is reasonable and can reasonably envision successful transfer to a full program after the pilot period.

<u>Conclusion</u>

The rationale for this deferral is still valid, and the Company's application meets the requirements of ORS 757.259 and OAR 860-027-0300. For these reasons, Staff recommends PGE's application be approved. Staff also recommends the Commission adopt Staff's recommendations regarding additional program revisions and reporting requirements found herein.

PROPOSED COMMISSION MOTION:

Recommend that Portland General Electric's (PGE or Company) application for reauthorization to defer, with interest, the incremental costs associated with the Automated Demand Response Pilot (ADR Pilot), be approved for the 12-month period beginning January 1, 2017.

Recommend approval of Portland General Electric Company's proposal to implement Non-Residential Demand Response Pilots to replace the current Auto-Demand Response pilot and PGE's Schedule 77, Firm Load Reduction Program.

Approve program pilot program proposed by PGE with requirements for additional revision and reports recommended by Staff.