

October 3, 2014

Email / US Mail puc.filingcenter@state.or.us

Public Utility Commission of Oregon Attn: OPUC Filing Center 3930 Fairview Industrial Drive SE P. O. Box 1088 Salem, OR 97308-1088

Re: UM \_\_\_\_ PGE's Application for Deferral of Expenses Associated with Two Residential Demand Response Pilots

Enclosed for filing are the original and five copies of Portland General Electric Company's Application for Deferral of Expenses Associated with Two Residential Demand Response Pilots.

A Notice of Application regarding the filing of this application has been mailed to those parties who have not waived paper service on the UE 283 service list.

If you have any questions or require further information, please call me at (503) 464-7580 or Alex Tooman at (503) 464-7623. Please direct all formal correspondence, questions, or requests to the following e-mail address pge.opuc.filings@pgn.com.

Sincerely,

Patrick G. Hager

Manager, Regulatory Affairs

PGH/sp

encls.

cc: Service Lists: UE 283

#### BEFORE THE PUBLIC UTILITY COMMISSION

#### OF OREGON

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In the Matter of the Application of Portland General Electric Company for an Order Approving the Deferral of Expenses Associated with two Residential Demand Response Pilots

Application for Deferral of Expenses Associated with Two Residential Demand **Response Pilots** 

Pursuant to ORS 757.259 and OAR 860-027-0300, Portland General Electric Company ("PGE") hereby requests authorization to defer for later rate-making treatment costs associated with two residential demand response (DR) pilots. PGE requests authorization to defer incremental costs associated with developing and operating the pilots in 2015. We request this deferral to be effective beginning January 1, 2015 and will seek amortization of the deferred amounts in a future Commission proceeding. Because the pilots are projected to run for two years, PGE will seek reauthorization to defer costs incurred during 2016 and 2017. In support of this application PGE states:

- 1. PGE is a public utility in the state of Oregon and its rates, services and accounting practices are subject to the regulation of the Oregon Public Utility Commission ("Commission").
- 2. This application is filed pursuant to ORS 757.259, which allows the Commission, upon application, to authorize deferral of certain items for later incorporation in rates.
- 3. Communications regarding this application should be addressed to:

Jay Tinker Rates & Regulatory Affairs Portland General Electric. 1 WTC0702 121 SW Salmon Street Portland, Oregon 97204 Phone: 503.464.7857

E-mail: pge.opuc.filings@pgn.com

Douglas C. Tingey Assistant General Counsel Portland General Electric, 1 WTC1301 121 SW Salmon Street Portland, Oregon 97204

Phone: 503.464.8926

E-mail: Doug.Tingey@pgn.com

In addition to the names and addresses above the following are to received notices and

communications via the e-mail service list:

Alex Tooman, Project Manager, Regulatory Affairs

E-mail: <u>Alex.Tooman@pgn.com</u>

I. OAR 860-027-0300(3) Requirements

The following is provided pursuant to OAR 860-027-0300(3).

(a) Background

In June 2011, PGE completed its Advanced Metering Infrastructure (AMI) project, as approved

by Commission Order No. 08-245. This included meter deployment, network installation, and

Information Technology (IT) process improvements. The AMI project consisted of new solid-state

electronic meters and a fixed two-way communications system that allows for the automated collection

of metering data and for sending signals to the meter. This system reduced operating costs, improved

service, and provides a platform for additional demand-side management programs. As part of the

Proposed AMI Conditions, PGE developed a Residential Critical Peak Pricing (CPP) Pilot (Schedule

12) program that was effective from November 2011 through October 2013.

As directed by the Commission in Order No. 09-395, PGE filed two reports based on the

evaluation of the CPP Pilot. In the Conclusions and Recommendations of the final CPP report (filed

May 30, 2014), PGE stated that it would "Evaluate and propose additional pilot alternatives that could

help PGE develop a CPP program" (at page 6). The primary lessons learned from the CPP pilot and

how PGE proposes to address them with the pricing pilot are provided in Table 1, below:

Table 1
CPP Lessons Learned and Current Approach

CPP Lessons Learned	Pricing Pilot Solutions			
Rate and time structure complex and difficult to understand.	Create several simpler rate designs to test with customers. Test Peak Time Rebate versus CPP (i.e., carrot vs. stick).			
More effective communication before and during the pilot is essential.	Work with vendor to provide quick, relevant feedback to customers on their savings. Provide ongoing education on how customers can save money/energy on the program.			
Screening for increased load during event months prior to pilot solicitation may help to determine the probability that a customer will be successful in this rate.	Perform market research on residential load profiles in order to target customer who could benefit and shave the most peak load.			

PGE has identified and researched two residential pilots that will best inform development of future demand response programs. The pricing pilot will provide a comparison to CPP and will address the lessons learned from that pilot. The direct load control thermostat pilot will test enabling technology and PGE's ability to achieve automated load control among residential customers. Both pilots are intended to begin operations in the second or third quarter of 2015 and run for two years. We describe the two pilots in more detail below and provide their timelines in Attachment A.

#### 1. Pricing Pilot

The Pricing Pilot will offer a series of pricing alternatives to help PGE explore the following issues based on the types of residential customer load shape profiles:

- What peak reduction can peak time rebate (PTR) programs deliver?
- How does peak reduction compare between PTR and CPP?
- What is the effect of education alone on behavior?
- Will optimized time of use (TOU) rates change load shape?

PGE is currently performing customer research and evaluating different TOU rate plans based on customer load profiles and cost of service. Conceptually, the pilot's TOU rates could have different On-, Mid-, and Off-Peak periods, which can vary by season. In addition, the TOU rates would have

PTR and non-PTR versions. PGE would also maintain control groups to provide comparable baseline data, both with and without additional customer education on DR and energy conservation. Finally, we believe the TOU rate plans can be applied to the existing Schedule 12 without significant programming.<sup>1</sup>

We plan to complete the research by year-end 2014 and finalize the rate plans in January 2015. In January, we also plan to issue a request for proposals to identify the third-party provider<sup>2</sup> who will be responsible for:

- Customer enrollment
- Alert notification to customers of PTR events
- Calculation of PTR savings
- Notification to customers of PTR savings
- Sending customer checks for PTR savings

Given the limited number of contractors in the market currently providing these types of services, we believe that PGE can select a vendor and complete contract negotiations by the end of the first quarter 2015. Assuming Commission approval of the pilot, PGE will implement the pilot during the second quarter of 2015, which entails setting up the appropriate systems, establishing applicable web pages, and developing marketing materials to solicit customer participation. PGE will then recruit customers during July and August 2015 and begin pilot operations in September/October 2015.

<sup>&</sup>lt;sup>1</sup> In PGE's previous two general rate cases (UE 262, PGE Exhibit 900 and UE 283, PGE Exhibit 1000), PGE discussed its Customer Engagement Transformation (CET) program, which involves numerous initiatives that focus on process improvements, business strategies, operational efficiencies, employee development, and replacement of PGE's Customer Information System (CIS) and Meter Data Management System. The CIS replacement project is expected to be complete in 2017.

<sup>&</sup>lt;sup>2</sup> Because PGE does not currently have the systems and infrastructure in place to perform these particular activities, it is more cost effective to employ a third-party provider that has fully established these capabilities and has economies of scale.

Because PTR events will be weather based, the effective peak times will begin in December 2015. Winter months are defined as December-February and summer months as July-September. The pilot is projected to operate for two years, ending on September 30, 2017.

We plan to contract with a separate third-party provider to conduct two evaluations that will encompass both DR pilots. The first evaluation will be performed after the summer 2016 season and will be completed by April 2017. The second evaluation will occur after the final summer season and will be available by April 2018 (see Attachment A for a summary timeline).

# 2. Direct Load Control Thermostat (DLCT) Pilot

The DLCT pilot will involve existing, internet-connected (i.e., programmable and communicating) thermostats that can respond to a demand response signal from PGE to reduce load. Because the pilot will only target customers who already have the particular devices in their homes, PGE will not have to buy and install the enabling technology. Instead, PGE will establish communications through the device manufacturer and the information technology tasks will be limited to providing a method for PGE to track participating customers, provide interval data, and provide network/security access to the device manufacturer's dispatch portal. When established, PGE envisions that curtailment events could be called up to 40 hours per summer or winter season, with one hour advance notification to customers, similar to PGE's current automated demand response pilot with larger non-residential customers. The events are expected to last from one to five hours and allow for limited override by the customer (i.e., not more than two times per season).

PGE is currently negotiating with a connected thermostat manufacturer to perform the following activities for the pilot:

- Customer enrollment
- Alert notification to customers of load control events
- Adjustment of connected thermostats to derive load curtailment

#### • Provision of details on customer override activities

We plan to finish negotiations by year end 2014. Assuming Commission approval of the pilot, PGE will then implement the pilot during the first quarter of 2015. Because the thermostat manufacturer already has a functioning system in place to interface with utilities and communicate with the connected thermostats, there is less implementation work required. Instead, implementation will entail setting up file transfer capabilities, establishing websites, and developing marketing materials to solicit customer participation. PGE will solicit customer participation during the second quarter of 2015, and as noted above, this will be limited to customers who already own the connected thermostats. Finally, we expect that the pilot will begin operations in July 2015 and end at the same time as the pricing pilot, i.e., September 30, 2017.

#### (b) Reasons for Deferral

Pursuant to ORS 757.259(2)(e), for the reasons discussed above, PGE seeks deferred accounting treatment of the expenses associated with the two residential DR pilots. The granting of this application will minimize the frequency of rate changes and match appropriately the costs borne by and benefits received by customers. Approving the application will not authorize a change in rates, but will permit the Commission to consider allowing such deferred amounts in rates in a subsequent proceeding.

### (c) Proposed Accounting

PGE proposes to record the deferred amounts as a regulatory asset in FERC account 182.3, Other Regulatory Assets, with a credit to FERC account 456, Other Revenue. In the absence of Commission approval of the two residential DR pilots and of deferred accounting treatment for their costs, PGE would not proceed with the pilots at this time.

#### (d) Estimate of Amounts

PGE estimates the incremental costs of the two residential DR pilots to be approximately

## \$4.0 million as listed in the following table (\$000).

Table 3
Cost per Pilot by Year (\$000)

Pilot	2015	2016	2017	Totals
Pricing Pilot	\$ 1,595	\$ 735	\$ 240	\$ 2,570
DLCT Pilot	\$ 955	\$ 412	\$ 75	\$ 1,442
Totals	\$ 2,550	\$ 1,147	\$ 315	\$ 4,012

#### (e) Notice

A copy of the notice of application for deferred accounting treatment and a list of persons served with the notice are attached to the Application as Attachment B.

# II. Summary of Filing Conditions<sup>3</sup>

#### (a) Earnings Review

Cost recovery for the two residential DR pilots will be subject to an earnings review in accordance with ORS 757.259(5).

#### (b) Prudence Review

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. The Commission Staff can also review applicable cost details during the pilots' operations (i.e., deferral phase) and/or the proceeding to authorize amortization.

## (c) Sharing

All prudently incurred costs are to be recoverable by PGE with no sharing mechanism.

#### (d) Rate Spread/Rate Design

The rate spread/rate design will be determined during the proceeding to authorize amortization of the pilots' deferred costs.

#### (e) Three Percent Test

The amortization of the pilots' deferred costs will be subject to the three percent test in

<sup>&</sup>lt;sup>3</sup> Per agreement with the Commission Staff on January 24, 2012.

accordance with ORS 757.259(7) and (8), which limits aggregated deferral amortizations during a 12-month period to no more than three percent of the utility's gross revenues for the preceding year.

#### III. Conclusion

For the reasons stated above, PGE requests permission to defer the expenses associated with the two residential DR pilots.

DATED this 3 nd

day of October, 2014.

Patrick G. Hager

Manager, Regulatory Affairs

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# Attachment A

**Pilot Timelines** 

# **Attachment B**

Notice of Application for Deferral of the Expenses Associated with the Two Residential Demand Response Pilots

# BEFORE THE PUBLIC UTILITY COMMISSION OF OREGON

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In the Matter of the Application of Portland General Electric Company for an Order Approving the Deferral of Expenses Associated with two Residential Demand Response Pilots Notice of Application for Deferral of Expenses Associated with Two Residential Demand Response Pilots

On October 3, 2014, Portland General Electric Company ("PGE") filed an application with the Oregon Public Utility Commission (the "Commission") for an Order authorizing deferral of expenses associated with the Two Residential Demand Response Pilots.

Approval of PGE's Application will not authorize a change in PGE's rates, but will permit the Commission to consider allowing such deferred amounts in rates in a subsequent proceeding.

Persons who wish to obtain a copy of PGE's application will be able to access it on the OPUC website.

Any person who wishes to submit written comments to the Commission on PGE's application must do so no later than November 3, 2014.

Dated: October \_\_\_\_\_\_\_\_, 2014

Patrick G. Hager

Manager, Regulatory Affairs

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# Projected timelines for Two Demand Response Pilots Assumed Commission approval by December 31, 2014

2014 2015 2016 2017 2018
Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun

# **Pricing Pilot**

Customer research
Set Rate Plans
Issue RFP for 3rd-party provider
Establish provider and complete contract
Implement pilot - systems, web pages, mktg mat'ls
Recruit customers

Operate pilot - tariffs effective

# **Direct Load Control Thermostat Pilot**

Establish provider and complete contract Implement pilot - systems, web pages, mktg mat'ls Recruit customers

Operate pilot - tariffs effective

## Joint Evaluations

Preliminary evaluation
Final evaluation



## CERTIFICATE OF SERVICE

I hereby certify that I have this day caused the foregoing Notice of Application for Deferral of Expenses Associated with the Two Residential Demand Response Pilots to be served by Electronic Mail to those parties whose e-mail addresses appear on the attached service list, and by First Class US Mail, postage prepaid and properly addressed, upon those parties on the attached service list for OPUC Docket No. UE 283.

Patrick G. Hager

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## SERVICE LIST OPUC DOCKET # UE 283

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