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June 10, 2015

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Public Utility Commission of Oregon
3930 Fairview Industrial Drive, SE
PO Box 1088
Salem, OR 97308-1088

Attn: Filing Center

Re: **UM 1708 PGE's Response to Staff's Recommended Modifications to the Two Residential Demand Response Pilots**

Based on discussions with the Commission Staff, PGE submits the attached response to recommended modifications to the two demand response pilots.

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

Sincerely,

Alex Tooman

Alex Tooman
Project Manager, Regulatory Affairs

AT/sp

encls.
cc: Service List: UM 1708
Jason Klotz, OPUC

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UM 1708 - PGE's Response in Agreement to Staff's Recommended Modifications to the Two Demand Response Pilots

Immediate Program Modifications:

1. Submit new baseline methodologies for both summer and winter seasons to Staff for approval.

   The industry best practice is to use a weather adjusted customer-level regression model for demand response (DR) programs baseline. [1] The challenge for this method is the computational requirements to perform these calculations on a scale of many thousands of customers for day-after notification. This is the reasoning behind most residential and C&I programs using an X of Y format. PGE chose the highest 5 of 10 with a day of adjustment in the period to representing weather condition changes. The period is the 2 hour period ending 4 hours before the event. This enables PGE to be consistent with prior DR programs' baselines, shows little error compared to other methods, and is easily explainable to customers.

   Now that PGE has narrowed down the list of vendors being considered for the pricing pilot and determined that those being considered can perform weather-adjusted, consumer-level regression model calculations, we agree to switch to a customer-level regression baseline adjusted for weather. Given the lack of definitive literature on this subject, PGE will work with the OPUC Staff to define the residential baseline, if the individual consumer regression model is not acceptable.

   In all cases, PGE will use data from the pilot to determine the best baseline for a mature program as part of the evaluation process.

2. Modify the calculation of incentive to eliminate use of the "derate" to reduce the incentive. Alternatively, provide staff sufficient information to establish reasonable basis for use of derate factor in calculating incentive. Also, agree to not otherwise use a de-rate factor in the pilot program without establishing sufficient basis for use of derate factor.

   PGE recognizes that rigorous researched derate values are not available at this time and we agree to use an un-derated avoided cost for the incentive in the pilot.

   PGE is currently working with Brattle, the authors of the cited study, to deliver an update to the prior Demand Response Potential Study. The new study will address derate factors based on the emerging working in California and other regions. These derate factors will be available when the study is completed in August 2015.

[1] See the following study for a comprehensive comparison explicitly for residential peak time rebate programs: George, S., et al. (2013). 2012 San Diego Gas & Electric Peak Time Rebate Baseline Evaluation. http://www.calmac.org/publications/SDGE_PTR_Baseline_Evaluation_Report_-_Final.pdf.

A key issue related to this is the treatment of incentives in cost-effectiveness calculations. The program restriction such as notification times, performance uncertainty, and total hour availability means a DR program is not equal to a Frame F SCCT, which can be turned on in minutes and is highly reliable. If the full incentive is treated as a cost for total resource cost calculations, the program will not be cost effective without a derate to the avoided cost.

3. Establish a minimum number of events that will be called during each season for both the Pricing and DLCT Pilot Programs.

   PGE agrees to call at least 6 events per season to ensure adequate data will be collected from the pilot.

4. Submit a statement of how PGE will define PTR successful event participation.

   PGE will determine a successful PTR event as one where the population's event participation is 85% or higher for the length of events. Customer actual participation will be compared to their baselines for savings over the course of the events. PGE expects to see aggregate peak savings similar to or at a higher rate than the Flex Price^{SM} critical peak pricing pilot.

   As Staff noted, event timing and duration can be cycled to provide predictable demand response for the system. Cycling strategies will be explored in both the DLCT and Pricing pilots.

End of calendar year requirements:

5. Begin a stakeholder process to develop a cost effectiveness methodology for demand response.

   PGE agrees to begin a stakeholder discussion on determining the cost effectiveness of DR programs. We will work with the OPUC Staff to determine the best timeframe, participants, and resources.

6. Update Commission Staff on the functionality of their new CIS system before the system has become fully operational and difficult or impossible to change to support broader adoption of residential demand response pilots

   PGE agrees to update the OPUC Staff on the functionality of the new CIS system in relation to DR Pilots.

At time of program evaluation report to Staff the outcome of PGE's efforts to:

7. Explore cycling of customer load in PGE's direct load control pilot.

   PGE will explore cycling of customer load as part of the DLCT pilot and evaluation.

8. Track customer event fatigue in the current pilots to collect information that will prove useful in determining optimal event duration.

   PGE will track event fatigue in pilot participants to better understand both their fatigue and how to best optimize event performance.

9. Explore enabling technologies that can be or will be interoperable with PGE CIS and AMI systems.

   PGE agrees to continue exploring enabling technologies which are or can be made interoperable with PGE systems to deliver DR.