



**Portland General Electric**  
121 SW Salmon Street · Portland, Ore. 97204

June 19, 2020

***Via Electronic Filing***

Public Utility Commission of Oregon  
Attention: Filing Center  
201 High Street, S.E., Suite 100  
P. O. Box 1088  
Salem, OR 97308-1088

**Re: UM 1708 PGE's Reauthorization Application for Deferral of Expenses Associated with Two Residential Demand Response Pilots**

Enclosed for filing is Portland General Electric Company's (PGE) Application for Reauthorization of Deferral Expenses Associated with Two Residential Demand Response Pilots, with an effective date of June 23, 2020.

PGE received authorization to defer expenses through Commission Order No. 19-313. A notice regarding this reauthorization application has been provided to the parties on the UM 1708 and the UE 335 service lists.

Thank you for your assistance in this matter. If you have any questions or require further information, please call me at (503) 464-7805.

Please direct all formal correspondence, questions, or requests to the following e-mail address [pge.opuc.filings@pgn.com](mailto:pge.opuc.filings@pgn.com).

Sincerely,

*/s/ Jaki Ferchland*  
Jaki Ferchland  
Manager, Revenue Requirement

Enclosure  
cc: Service Lists: UM 1708 and UE 335

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON**

**UM 1708**

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 Reauthorization of 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 approval for the continuance of the deferral for two residential demand response (DR) pilots: the Pricing and Behavioral Response pilot (Flex Pricing or Flex) and the Direct Load Control Thermostat pilot (DLCT). PGE seeks reauthorization to defer costs effective June 23, 2020 through June 22, 2021. PGE also requests that this deferral continue to be subject to an automatic adjustment clause so that costs can be recovered through PGE Schedule 135, Demand Response Cost Recovery Mechanism, per the conditions stated in Public Utility Commission of Oregon (Commission or OPUC) Order No. 18-381.

**Background**

In alignment with the State of Oregon and Commission policies and requirements, PGE has developed Flex and DLCT to help address decarbonization goals, assist customers in managing their energy consumption and total energy costs, and enhance operational performance and efficiency. PGE's two residential DR pilots not only comply with Oregon's policy direction, but also support PGE's decarbonization and performance imperatives.

In 2016 Flex Pricing 1.0 began a pilot, testing 12 pricing design options, all aimed at reducing residential peak demand during summer and winter months. The Flex 1.0 pilot tested combinations of peak-time rebates with time-of-use pricing. In 2019, PGE transitioned to FLEX 2.0.

The DLCT pilot has been testing enabling technology and PGE’s ability to achieve automated load control among residential customers. The DLCT pilot began as a “bring-your-own-thermostat” (BYOT) and was limited to thermostats from a single manufacturer. The pilot then expanded to allow thermostats from additional manufacturers. In 2018, PGE expanded the DLCT pilot to provide direct installation of residential thermostats. This aspect is focused on residential customers with ducted heat pumps and electric forced air furnaces due to their high DR capacity value.

The Commission approved PGE’s initial deferral application via Order No. 15-203, and annually thereafter. PGE seeks reauthorization for deferral of incremental expenses associated with the two pilots for the period beginning June 23, 2020. PGE is focused on the work required to transition these pilots into programs which includes ensuring performance and costs are predictable and stabilized

Direct Load Control Thermostats

**(1) Bring Your Own Thermostat Channel**

For the BYOT option, customers with a qualifying thermostat and HVAC system receive a \$25 sign-up incentive and an on-going incentive for each season in which they participate in 50% of the event hours per season. The incentive structure is as follows:

HVAC System Type	Summer Incentive	Winter Incentive
Ducted Heat Pump	\$25	\$25
Central Air Conditioning	\$25	N/A
Electric Force Air Furnace	N/A	\$25
Electric Force Air Furnace w/AC	\$25	\$25

## **(2) Direct Installation Channel**

For the direct installation option, PGE installs, through a third-party vendor, thermostats for our residential customers for free (if electrically heated) or a highly reduced cost (if air conditioning only). This “up-front” incentive is in lieu of the seasonal incentives those customers would receive under the BYOT option. Customers who select the direct installation option agree to participate in the DLCT pilot for 5 years or repay a prorated portion of the thermostat’s installed cost should they unenroll from the pilot. Due to the Governor’s Stay Home Order in response to COVID-19, PGE temporarily suspended the direct installation option (starting on March 17, 2020 and continuing until Orders are lifted and it is safe to enter customers’ homes) and is modifying this option to allow for guided virtual installations using a virtual platform.

## **(2) Current Performance**

As of the end of 2019, the enrollment for the DLCT pilot was 21,035 customers, and we project this to increase to approximately 26,200 customers by year end 2020. Enrollment mix by heating and cooling type is as follows:

<b>HVAC System Type</b>	<b>Percent of Total Enrollment</b>
Ducted Heat Pump	22%
Central Air Conditioning	73%
Electric Force Air Furnace	5%
Electric Force Air Furnace w/AC	1%

For the summer 2019 event season, the DLCT pilot provided an average demand savings of approximately 15.8 MW per event-hour<sup>1</sup>.

---

<sup>1</sup> Direct Install Smart Thermostat Demand Response Pilot Program Draft Evaluation Report, April 27, 2020, Cadmus and Bring-Your-Own Smart Thermostat Demand Response Pilot Program Draft Evaluation Report, April 27, 2020, Cadmus

### **(3) Current Challenges**

Current forecasts include analysis of impacts from COVID-19 including temporary suspension of direct installation and general economic downturn. In addition, Google Nest has discontinued its contract with PGE as a Demand Response Management System (DRMS) provider (responsible for dispatching the demand response event and controlling the thermostats) for Nest Thermostats. Customers wishing to remain in the PGE's DLCT program were required to accept new terms and conditions from Google Nest as part of the necessary move to a new DRMS. This may result in a loss of customers and impact 2020 results.

### **(4) Pilot to Program Steps**

PGE continues to develop the DLCT pilot into a program by integrating program evaluation recommendations into the overall pilot design including; engaging and re-educating customers about how the pilot works to better support participation (reduce event level overrides), and refining customer recruitment as better data about household heating and cooling equipment becomes available. Additionally, the pilot is continuing to reduce costs by increasing operational efficiency, automating manual processes, and continuing to negotiate costs with vendors as the volume of thermostats in the program increases.

## Flex Pricing

In 2016, PGE introduced the Flex 1.0 Residential Pricing Pilot which tested 12 pricing scenarios, aimed at reducing residential peak demand during summer (June–September) and winter (November – March) months. These scenarios featured three time-of-use (TOU) rates, three peak time rebate (PTR) incentive levels, behavioral demand response (BDR) options, four hybrid DR treatments (TOU pricing in combination with PTR or BDR), plus opt-out (automatically enrolled) and opt-in (choose to enroll) design options. The options offered a range of on-peak/off-peak hours and rates as well as differing PTR incentive levels.

In June 2018, Cadmus completed its evaluation of Flex 1.0 and confirmed that PGE can obtain customer demand savings through pricing and behavior-based DR programs to manage its system peak demand while delivering a positive customer experience. Based on those findings, PGE worked with the OPUC Staff and stakeholders to develop the Flex 2.0 “Residential Pricing Program” which included a TOU+PTR offering as well as a PTR-only option, based on scenarios which achieved high levels of customer satisfaction and load shift in the Flex 1.0 Pilot. The goals for Flex 2.0 are as follows:

- Design and deploy a large-scale DR offering that equitably and cost-effectively contributes a substantial DR amount to our Integrated Resource Plan goals.
- Provide easy-to-engage-in DR offerings that serve as gateways for adoption of DLC offerings such as Smart Thermostat.<sup>2</sup>

---

<sup>2</sup> PGE Advise No. 19-03, February 8, 2019.

In February 2019, PGE updated Schedule 7 and proposed a new TOU+PTR and PTR-only offering as part of the Flex 2.0 Residential Pricing Pilot (Advice filing No. 19-03). Staff response to the PTR-only offering was positive. However, they expressed concerns that proposed TOU rate design (with higher off-peak evening hours than the existing Schedule 7 TOU rate) would negatively impact Electric Vehicle owner adoption. Based on that feedback, PGE removed the Flex 2.0 TOU rate design from the Schedule 7 filing, electing to work with Staff to modify the rate design to address that concern. In March 2019, Commission approved the revised Advice filing, granting permission for PGE to move forward with the PTR-only Pilot with the expectation that PGE would follow with a new proposal for a TOU+PTR offering.

The first stage of Flex 2.0 was the launch of a PTR-only pilot in April 2019. The vast majority of PGE's residential customer base is eligible to participate in this voluntary pilot, and 77,000 residential customers have chosen to enroll as of May 2020, exceeding our Year 1 enrollment goal of 55,000 customers. Additionally, approximately 13,400 customers were enrolled through an "opt-out" model in PTR as part of PGE's DR Testbed Pilot. PTR provides educational energy saving tips and rewards customers for shifting their energy use during 3-4 hour "event" periods when energy costs are higher or when demand is high. Customers earn \$1.00 for every kWh they shift during an event, and the rebate appears as a credit on their next monthly bill. There is no "penalty" should a customer use more than expected energy during an event, making PTR a no-risk, "win-only" offering for our customers. As mentioned above, PGE is continuing TOU redesign and research efforts and is finalizing an updated proposal for Staff consideration.

### **Lessons Learned – How PGE is Maturing Flex 2.0**

PGE continues to develop and refine the PTR pilot and hopes to transition it to program status in the coming years. Flex 2.0 is expected to be our broadest most inclusive offering, providing a

significant portion of our flexible load offering portfolio. Summer 2019 provided several key learnings that have been used to evolve and improve PTR for summer 2020.

- **Baseline Improvements:** Using an ensemble baseline approach for summer 2019, in which customers were assigned one of four baseline methods based on customer-specific criteria, proved difficult to explain and yielded inconsistent results between events. To improve that experience, PGE tested a 5-in-10 baseline for the winter season as it was more easily explainable to customers and helped to address measured performance and rebate issues customers were having with the prior baseline. For summer 2020, PGE has refined the baseline and is testing a 10-in-10 approach with weather adjustment. Based on load analysis and evaluation findings, we expect this baseline model will deliver the precision, repeatability, and explicability required by the Pilot and to improve customer experience.
- **Customer Event Notifications.** In Flex 1.0 we were able to notify the small demonstration group of participants both the day ahead of and the day of the event and notify multiple members of the household. Given the size of Flex 2.0, we needed a more advanced system for day-of-event notification, which we were not able to implement for summer 2019. While PGE is still working to identify a technology solution for enrolling multiple customers in the same household and for dispatching same-day text messages, we plan to introduce same-day email notifications in summer 2020 and expect this will increase participation and overall load shift.
- **Customer Experience.** Customers asked for more specific savings tips to help them identify specific actions they could take to reduce energy and earn rebates during an event. PGE is delivering data-driven savings tips for our customers in the summer 2020 season to help each customer achieve their maximum savings potential.



- **Recruitment.** We have engaged our data science vendor, Trove, to complete an in-depth analysis and segment our customers into micro-personas to help us better understand why and how customers participate in PTR. We used this analysis to refine our recruitment and enrollment strategy, encouraging customers who can provide the highest DR value to enroll in the program.
- **Vendor performance.** One additional area that affected event performance was errors in issuing event notices by our communication dispatch vendor, Oracle, early in the summer 2019 season. Oracle has assured PGE that they have put the proper measures in place to avoid such errors going forward and will provide event-by-event metrics.

Our second summer season, summer 2020 will help us to assess the value of these improvements and keep Staff informed through our quarterly Flexible Load Advisory Group (FLAG) meetings.

### **OAR 860-027-0300 Requirements**

#### **I. The following is provided pursuant to OAR 860-027-0300(3):**

##### **a. Description of utility expenses for which deferred accounting is requested.**

Pursuant to ORS 757.259(2)(e), PGE seeks continued reauthorization for deferred accounting treatment of the incremental costs associated with the two residential DR pilots: Flex Pricing and DLCT. PGE requests reauthorization for the effective period June 23, 2020 through June 22, 2021.

##### **b. Reasons for deferral**

See Background above. In addition, the two residential DR pilots will help PGE meet its goal to acquire 77 MW of winter demand response capacity and 69 MW of summer demand response capacity as specified by Commission Order No. 17-386 (Docket No. LC 66). The granting of this reauthorization will minimize the frequency of rate changes and/or match appropriately the costs borne by and benefits received by customers.

PGE received its most recent approval of reauthorization through Commission Order No. 19-313 for the deferral period beginning June 23, 2019 through June 22, 2020. PGE is filing for this reauthorization for the period beginning June 23, 2020 through June 22, 2021. PGE also proposes that the Flex Pricing and DLCT deferral remain subject to an automatic adjustment clause so that costs can continue to be recovered through PGE Schedule 135, Demand Response Cost Recovery Mechanism, in accordance with the conditions stated in Order No. 19-313.

c. Proposed accounting for recording amounts deferred.

PGE proposes to continue 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 reauthorization of the two residential DR pilots and the deferred accounting treatment for their costs, PGE would discontinue the pilots. The costs in this re-authorization request do not include capital costs.

d. Estimate of amounts to be recorded for the next 12 months.

PGE estimates the total incremental costs of the two residential DR pilots to be approximately \$6.4 million in 2020 as listed in Table 1, below.

**Table 1**  
**2020 Cost per Pilot**

<b>Pilot</b>	<b>2020 Estimate</b>
Flex Pricing	\$3,142,000
DLCT	\$3,268,316
<b>Totals</b>	<b>\$6,410,316</b>

e. Notice

A copy of the notice of application for reauthorization of the deferred accounting treatment and a list of persons served with this Notice are provided as Attachment A.

**II. The following is provided pursuant to OAR 860-027-0300(4).**

a. Description of deferred account entries.

Please see Sections I (a), (b), and (c) above.

b. The reason for continuing the deferred accounting.

Please see Section I (b) above. PGE seeks to continue to defer incremental expenses associated with the two residential DR pilots pursuant to Commission Order Nos. 15-203, 16-292, 17-244, 18-381, and 19-313 as described above. Without reauthorization this deferral will expire on June 22, 2020.

**III. Summary of filing conditions**

a. Earnings review.

Cost recovery of the two DR pilots will be subject to an automatic adjustment clause rate schedule and would not be subject to an earnings test under ORS 757.259.

b. Prudence review.

In accordance with Commission Order No. 19-131, no less than 90 days prior to filing to adjust tariff prices, PGE will submit combined reports on the pilots, which will provide third-party evaluations, cost summaries, estimated curtailment impacts, and results of customer satisfaction surveys for Commission Staff to review.

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 (i.e., Schedule 135 cost recovery).

e. Three percent test (ORS 757.259 (6)).

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

**IV. PGE Contacts**

The authorized addresses to receive notices and communications in respect to this application are:

Douglas C. Tingey  
Associate General Counsel  
Portland General Electric  
1 WTC1301  
121 SW Salmon Street  
Portland, OR 97204  
Phone: 503.464.8926  
E-mail: [doug.tingey@pgn.com](mailto:doug.tingey@pgn.com)

PGE-OPUC Filings  
Rates & Regulatory Affairs  
Portland General Electric  
1 WTC 0306  
121 SW Salmon Street  
Portland, OR 97204  
Phone: 503.464.7805  
E-mail: [pge.opuc.filings@pgn.com](mailto:pge.opuc.filings@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, Sr. Regulatory Consultant, Regulatory Affairs  
E-mail: [Alex.Tooman@pgn.com](mailto:Alex.Tooman@pgn.com)

**V. Conclusion**

For the reasons stated above, PGE requests permission to continue to defer for later ratemaking treatment the expenses associated with the two residential DR pilots, effective June 23, 2020 through June 22, 2021.

DATED this 19<sup>th</sup> day of June 2020.

*/s/ Jaki Ferchland*  
Jaki Ferchland  
Manager, Revenue Requirement  
Portland General Electric Company  
121 SW Salmon Street, 1WTC0306  
Portland, OR 97204  
Telephone: 503.464.7805  
E-Mail: [pge.opuc.filings@pgn.com](mailto:pge.opuc.filings@pgn.com).

**UM 1708**

**Attachment A**

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

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON  
UM 1708**

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 Reauthorization of Deferral of Expenses Associated with Two Residential Demand Response Pilots**

On June 19, 2020, Portland General Electric Company (“PGE”) filed an Application for Reauthorization of Deferral of Expenses Associated with Two Residential Demand Response Pilots with the Public Utility Commission of Oregon (“Commission” or “OPUC”).

Approval of PGE’s reauthorization application as proposed will support the use of an automatic adjustment clause rate schedule, which will provide for changes in rates reflecting incremental costs associated with the pilot.

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 July 22, 2020.

Dated: June 19, 2020.

*/s/ Jaki Ferchland*  
Jaki Ferchland  
Manager, Revenue Requirement  
Portland General Electric Company  
121 SW Salmon Street, 1WTC0306  
Portland, OR 97204  
Telephone: 503.464.7805  
E-Mail: pge.opuc.filings@pge.com

## Certificate of Service

I hereby certify that I have this day caused the foregoing **Notice of Application for Reauthorization of Deferral of Expenses Associated with Two Residential Demand Response Pilots** to be served by electronic mail to those parties whose e-mail addresses appear on the attached service list for OPUC Dockets No. UE 335 and UM 1708.

Dated at Portland, Oregon, this 19<sup>th</sup> day of June 2020.

*/s/ Jaki Ferchland*

Jaki Ferchland  
Manager, Revenue Requirement  
Portland General Electric Company  
121 SW Salmon Street, 1WTC0306  
Portland, OR 97204  
Telephone: 503-464-7805  
E-Mail: pge.opuc.filings@pge.com



**SERVICE LIST**  
**OPUC DOCKET NO. UE 335**

**ALBERTSONS**

BRIAN BETHKE  
11555 DUBLIN CANYON ROAD

CHRIS ISHIZU  
ALBERTSONS COMPANIES, INC.

GEORGE WAIDELICH  
ALBERTSONS COMPANIES' INC.

250 PARKCENTER BLVD  
BOISE ID 83706  
brian.bethke@albertsons.com

250 PARKCENTER BLVD  
BOISE ID 83706  
chris.ishizu@albertsons.com

11555 DUBLIN CANYON ROAD  
PLEASANTON OR 94588  
george.waidelich@albertsons.com

**AWEC UE 335**

BRADLEY MULLINS (C)  
MOUNTAIN WEST ANALYTICS

TYLER C PEPPE (C)  
DAVISON VAN CLEVE, PC

ROBERT SWEETIN (C)  
DAVISON VAN CLEVE, P.C.

1750 SW HARBOR WAY STE 450  
PORTLAND OR 97201  
brmullins@mwanalytics.com

1750 SW HARBOR WAY STE 450  
PORTLAND OR 97201  
tcp@dvclaw.com

185 E. RENO AVE, SUITE B8C  
LAS VEGAS NV 89119  
rds@dvclaw.com

**CALPINE SOLUTIONS**

GREGORY M. ADAMS (C)  
RICHARDSON ADAMS, PLLC

GREG BASS  
CALPINE ENERGY SOLUTIONS, LLC

KEVIN HIGGINS (C)  
ENERGY STRATEGIES LLC

PO BOX 7218  
BOISE ID 83702  
greg@richardsonadams.com

401 WEST A ST, STE 500  
SAN DIEGO CA 92101  
greg.bass@calpinesolutions.com

215 STATE ST - STE 200  
SALT LAKE CITY UT 84111-2322  
khiggins@energystrat.com

**FRED MEYER**

KURT J BOEHM (C)  
BOEHM KURTZ & LOWRY

JODY KYLER COHN (C)  
BOEHM, KURTZ & LOWRY

36 E SEVENTH ST - STE 1510  
CINCINNATI OH 45202  
kboehm@bkllawfirm.com

36 E SEVENTH ST STE 1510  
CINCINNATI OH 45202  
jkylercohn@bkllawfirm.com

**NIPPC**

ROBERT D KAHN  
NORTHWEST & INTERMOUNTAIN POWER  
PRODUCERS COALITION

IRION A SANGER (C)  
SANGER LAW PC

SPENCER GRAY  
NIPPC

PO BOX 504  
MERCER ISLAND WA 98040  
[rkahn@nippc.org](mailto:rkahn@nippc.org)

1117 SE 53RD AVE  
PORTLAND OR 97215  
irion@sanger-law.com

sgray@nippc.org

JONI L SLIGER  
SANGER LAW PC

1041 SE 58TH PL  
PORTLAND OR 97215  
joni@sanger-law.com

**OREGON CITIZENS UTILITY BOARD**

OREGON CITIZENS' UTILITY BOARD

610 SW BROADWAY, STE 400  
PORTLAND OR 97205  
dockets@oregoncub.org

MICHAEL GOETZ (C)  
OREGON CITIZENS' UTILITY BOARD

610 SW BROADWAY STE 400  
PORTLAND OR 97205  
mike@oregoncub.org

ROBERT JENKS (C)  
OREGON CITIZENS' UTILITY BOARD

610 SW BROADWAY, STE 400  
PORTLAND OR 97205  
bob@oregoncub.org

**PACIFICORP**

PACIFICORP, DBA PACIFIC POWER

825 NE MULTNOMAH ST, STE 2000  
PORTLAND OR 97232  
oregondockets@pacificorp.com

MATTHEW MCVEE  
PACIFICORP

825 NE MULTNOMAH  
PORTLAND OR 97232  
matthew.mcvee@pacificorp.com

**PORTLAND GENERAL ELECTRIC**

PGE RATES & REGULATORY AFFAIRS

PORTLAND GENERAL ELECTRIC COMPANY  
121 SW SALMON STREET, 1WTC0306  
PORTLAND OR 97204  
pge.opuc.filings@pgn.com

JAKI FERCHLAND  
PORTLAND GENERAL ELECTRIC

121 SW SALMON ST. 1WTC0306  
PORTLAND OR 97204  
jacquelyn.ferchland@pgn.com

DOUGLAS C TINGEY (C)  
PORTLAND GENERAL ELECTRIC

121 SW SALMON 1WTC1301  
PORTLAND OR 97204  
doug.tingey@pgn.com

**SBUA**

JAMES BIRKELUND  
SMALL BUSINESS UTILITY ADVOCATES

548 MARKET ST STE 11200  
SAN FRANCISCO CA 94104  
james@utilityadvocates.org

DIANE HENKELS (C)  
CLEANTECH LAW PARTNERS PC

420 SW WASHINGTON ST STE 400  
PORTLAND OR 97204  
dhenkels@actionnet.net

**STAFF**

STEPHANIE S ANDRUS (C)  
PUC STAFF--DEPARTMENT OF JUSTICE

BUSINESS ACTIVITIES SECTION  
1162 COURT ST NE  
SALEM OR 97301-4096  
stephanie.andrus@state.or.us

MARIANNE GARDNER (C)  
PUBLIC UTILITY COMMISSION OF OREGON

PO BOX 1088  
SALEM OR 97308-1088  
marianne.gardner@state.or.us

SOMMER MOSER (C)  
PUC STAFF - DEPARTMENT OF JUSTICE

1162 COURT ST NE  
SALEM OR 97301  
sommer.moser@doj.state.or.us

**WALMART**

VICKI M BALDWIN (C)  
PARSONS BEHLE & LATIMER

201 S MAIN ST STE 1800  
SALT LAKE CITY UT 84111  
vbaldwin@parsonsbehle.com

STEVE W CHRISS (C)  
WAL-MART STORES, INC.

2001 SE 10TH ST  
BENTONVILLE AR 72716-0550  
stephen.chriss@wal-mart.com

**SERVICE LIST**  
**OPUC DOCKET NO. UM 1708**

CITIZENS' UTILITY BOARD OF OREGON

610 SW BROADWAY, STE 400  
PORTLAND OR 97205  
dockets@oregoncub.org

STEPHANIE S ANDRUS (C)  
PUC STAFF--DEPARTMENT OF JUSTICE

BUSINESS ACTIVITIES SECTION  
1162 COURT ST NE  
SALEM OR 97301-4096  
stephanie.andrus@state.or.us

ROBERT JENKS (C)  
CITIZENS' UTILITY BOARD OF OREGON

610 SW BROADWAY, STE 400  
PORTLAND OR 97205  
bob@oregoncub.org

MITCH MOORE (C)  
PUBLIC UTILITY COMMISSION OF OREGON

PO BOX 1088  
SALEM OR 97308-1088  
mitch.moore@state.or.us

NICK SAYEN (C)  
PUBLIC UTILITY COMMISSION OF OREGON

PO BOX 1088  
SALEM OR 97308-1088  
nick.sayen@state.or.us

DOUGLAS C TINGEY  
PORTLAND GENERAL ELECTRIC

121 SW SALMON, 1WTC1301  
PORTLAND OR 97204  
doug.tingey@pgn.com

JAY TINKER  
PORTLAND GENERAL ELECTRIC

121 SW SALMON ST 1WTC-0306  
PORTLAND OR 97204  
pge.opuc.filings@pgn.com

ALEX TOOMAN  
PORTLAND GENERAL ELECTRIC

121 SW SALMON ST - 1WTC-0306  
PORTLAND OR 97204  
alex.tooman@pgn.com