



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

June 16, 2023

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

**RE: Advice No. 23-11, Schedule 4, Multifamily Residential Demand Response  
Water Heater Pilot Update**

Portland General Electric Company (PGE) submits this filing pursuant to Oregon Revised Statutes (ORS) 757.205 and 757.210, Oregon Administrative Rule (OAR) 860-022-0025, and Commission Order 22-129 for filing proposed tariff sheets associated with Tariff P.U.C. No. 18 with a requested effective date of **August 1, 2023**:

Thirty Fifth Revision of Sheet No. 1-1  
Fourth Revision of Sheet No. 4-1  
Fifth Revision of Sheet No. 4-2  
First Revision of Sheet No. 4-5

PGE is updating the Multifamily Residential Demand Response Water Heater Pilot to close the pilot to new enrollments and extend the pilot period for an additional two years to July 31, 2025, while the pilot undergoes redesign. This will allow PGE to continue to study existing participants and utilize the existing demand response capacity. PGE anticipates this extension will allow enough time for the market to respond to CTA-2045 code anticipated to go into effect Summer 2023, increasing availability of CTA-2045 enabled water-heaters so PGE can resume installations. CTA-2045 technology will increase the connectivity of the water heaters, making them a more robust demand response asset. Prior to the launch of the redesign, PGE will engage with OPUC Staff and stakeholders.

To satisfy the requirements of OAR 860-022-0025(2), PGE provides the following responses:

The tariff change will not increase, decrease, or otherwise change rates.

A courtesy redline is attached.

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Response Water Heater Pilot Update  
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Please direct any questions regarding this filing to Casey Manley at [casey.manley@pgn.com](mailto:casey.manley@pgn.com). Please direct all formal correspondence and requests to the following email address [pge.opuc filings@pgn.com](mailto:pge.opuc filings@pgn.com)

Sincerely,

*\s\ Robert Macfarlane*

Robert Macfarlane  
Manager, Pricing and Tariffs

**PORTLAND GENERAL ELECTRIC COMPANY  
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**SCHEDULE 4  
MULTIFAMILY RESIDENTIAL DEMAND RESPONSE WATER HEATER PILOT  
NO NEW SERVICE**

(C)

**PURPOSE**

The Multifamily Residential Demand Response Water Heater Pilot is a demand response option for eligible Multifamily Properties. The objectives of the Multifamily Residential Demand Response Water Heater Pilot are:

- To quantify the energy consumption that can be shifted to different times from:
  - Water heaters equipped with a communication interface that supports Direct Load Control Events, or
  - Water heaters retrofitted with a control switch in the power supply to the tank
- To inform further the program design for a water heater demand response program;
- To determine an appropriate incentive level for Multifamily Property Owners and Residential Customers who choose to participate in a demand response program for water heaters;
- To integrate and test different technologies; and
- To implement different demand response dispatch strategies.

**DEFINITIONS**

Customer Override – The ability for the Residential Customer to temporarily suspend Direct Load Control for a period of 24 hours.

Direct Load Control – The means for a utility to remotely control an appliance. In terms of this pilot, direct load control allows the Company to control when the water heater uses electricity to heat water.

Direct Load Control Event – A period in which the Company will provide Direct Load Control.

Conventional Electric Resistance Water Heater – Multifamily Property Owners' existing electric resistant water heaters will be retrofitted to be demand response enabled. Water heaters that require replacement will be replaced with smart electric resistance water heaters with the approval of the Multifamily Property Owners.

Heat Pump Water Heater – Models compatible with the Company's available hardware, software, and communication technology that can engage in direct load control events.

**AVAILABLE**

In all territory served by the Company where the Company's demand response communication networks are available.

## **SCHEDULE 4 (Continued)**

### **APPLICABLE**

Subject to selection by the Company, Multifamily Property Owners may participate in the pilot. Residential Customers in multifamily residences (MFRs) will be the primary target of the pilot. In cases of rental properties, the pilot will be structured as an opt-out program, meaning Residential Customers will be automatically enrolled in the pilot if their Multifamily Property Owners enrolls in the pilot and the Residential Customer must withdraw from the program if they do not want to participate.

Residential Customers will be given notice about this pilot at the time of installation of the communication interface or at the start of their service. The Company will provide Residential Customers with information that they will be automatically enrolled in the pilot if they do not opt out. The notice will also provide the Residential Customer the contact information and instructions on how to opt out of the pilot at the time of installation or at the start of their service. If a Residential Customer chooses to opt out of this pilot, the installed communication interface and any other installed Company equipment will remain on the water heater. A Residential Customer that has elected to opt out will be removed from the dispatch of direct load control events. As new Residential Customers move into a participating MFR. The Company will be aware of a new Residential Customer based on customer data from the Company's Customer Information System (CIS). The number of eligible Residential Customers to participate in the pilot is 18,000 customer households. Residential Customers will remain on Schedule 7 and will be eligible for the incentives described in this schedule.

### **ELIGIBILITY**

For MFRs, the Company will initially select large complexes, negotiating with Multifamily Property Owners or their property manager for the installation of retrofit devices as well as new demand response enabled water heaters. At the Company's discretion, the Company will select qualifying properties based on number of apartments, size of apartments, occupancy, and size of existing water heater.

### **DIRECT LOAD CONTROL EVENT**

During the pilot there will be no limitation on the hours of Direct Load Control Events. This pilot will offer the ability for the Residential Customer to override a direct load control event, under the terms listed in Special Condition 4 of this pilot.

### **ENROLLMENT**

Enrollment in this pilot will close to new participants after July 31, 2023. Unless this pilot is otherwise terminated, current MFRs and participating Residential Customers will remain enrolled in the pilot.

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**SCHEDULE 4 (Concluded)**

**DATA COLLECTION**

In consideration for being allowed to participate in the Pilot, Multifamily Property Owners and Residential Customers agree that the Company or its representative may collect certain information from Multifamily Property Owners and Residential Customer's participation in the Pilot and use such information as described herein. Such information may include, but is not limited to, general energy usage and associated account and billing data (such information includes, but is not limited to, consumption and billing data, billing records, billing history, meter usage data, and rate information), name, email address, service address, account number, appliance serial number, activation date, runtime data, set-points, application and survey information. This data will be retained by the Company and its representatives for an indefinite amount of time. Multifamily Property Owners and Residential Customer agree that the Company and its Pilot representatives may use the information obtained through Pilot participation (a) to operate, administer, market, evaluate, analyze, change or improve the Pilot or utility services, (b) for the Company to prepare and present general, aggregated or anonymized results and information about the Pilot to third parties, including governmental entities such as the electricity system regulatory bodies, (c) for the Company to understand and evaluate participant habits and to inform the development and creation of utility programs and load planning, and (d) to inform Multifamily Property Owners and their property managers of irregularities associated with a given water heater. The Company and its Pilot representatives and agents will not use the data collected in the Pilot except as provided herein and will not otherwise disclose, transfer or sell this data.

**TERM**

The duration of this pilot is through July 31, 2025.

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**SCHEDULE 4**  
**MULTIFAMILY RESIDENTIAL DEMAND RESPONSE WATER HEATER PILOT**  
**NO NEW SERVICE**

**PURPOSE**

The Multifamily Residential Demand Response Water Heater Pilot is a demand response option for eligible Multifamily Properties. The objectives of the Multifamily Residential Demand Response Water Heater Pilot are:

- To quantify the energy consumption that can be shifted to different times from:
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  - Water heaters retrofitted with a control switch in the power supply to the tank
- To inform further the program design for a water heater demand response program;
- To determine an appropriate incentive level for Multifamily Property Owners and Residential Customers who choose to participate in a demand response program for water heaters;
- To integrate and test different technologies; and
- To implement different demand response dispatch strategies.

**DEFINITIONS**

Customer Override – The ability for the Residential Customer to temporarily suspend Direct Load Control for a period of 24 hours.

Direct Load Control – The means for a utility to remotely control an appliance. In terms of this pilot, direct load control allows the Company to control when the water heater uses electricity to heat water.

Direct Load Control Event – A period in which the Company will provide Direct Load Control.

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Heat Pump Water Heater – Models compatible with the Company's available hardware, software, and communication technology that can engage in direct load control events.

**AVAILABLE**

In all territory served by the Company where the Company's demand response communication networks are available.

## SCHEDULE 4 (Continued)

### APPLICABLE

Subject to selection by the Company, Multifamily Property Owners may participate in the pilot. Residential Customers in multifamily residences (MFRs) will be the primary target of the pilot. In cases of rental properties, the pilot will be structured as an opt-out program, meaning Residential Customers will be automatically enrolled in the pilot if their Multifamily Property Owners enrolls in the pilot and the Residential Customer must withdraw from the program if they do not want to participate.

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### ELIGIBILITY

For MFRs, the Company will initially select large complexes, negotiating with Multifamily Property Owners or their property manager for the installation of retrofit devices as well as new demand response enabled water heaters. At the Company's discretion, the Company will select qualifying properties based on number of apartments, size of apartments, occupancy, and size of existing water heater.

### DIRECT LOAD CONTROL EVENT

During the pilot there will be no limitation on the hours of Direct Load Control Events. This pilot will offer the ability for the Residential Customer to override a direct load control event, under the terms listed in Special Condition 4 of this pilot.

### ENROLLMENT

~~The MFR enrollment period will be through July 31, 2023. Enrollment in this pilot will close to new participants after July 31, 2023. PGE will enroll MFRs by contracting with the Multifamily Property Owners or their property manager.~~ Unless this pilot is otherwise terminated, current MFRs and participating Residential Customers will be remain enrolled in the pilot. for the entire pilot term.



**SCHEDULE 4 (Concluded)**

**DATA COLLECTION**

In consideration for being allowed to participate in the Pilot, Multifamily Property Owners and Residential Customers agree that the Company or its representative may collect certain information from Multifamily Property Owners and Residential Customer's participation in the Pilot and use such information as described herein. Such information may include, but is not limited to, general energy usage and associated account and billing data (such information includes, but is not limited to, consumption and billing data, billing records, billing history, meter usage data, and rate information), name, email address, service address, account number, appliance serial number, activation date, runtime data, set-points, application and survey information. This data will be retained by the Company and its representatives for an indefinite amount of time. Multifamily Property Owners and Residential Customer agree that the Company and its Pilot representatives may use the information obtained through Pilot participation (a) to operate, administer, market, evaluate, analyze, change or improve the Pilot or utility services, (b) for the Company to prepare and present general, aggregated or anonymized results and information about the Pilot to third parties, including governmental entities such as the electricity system regulatory bodies, (c) for the Company to understand and evaluate participant habits and to inform the development and creation of utility programs and load planning, and (d) to inform Multifamily Property Owners and their property managers of irregularities associated with a given water heater. The Company and its Pilot representatives and agents will not use the data collected in the Pilot except as provided herein and will not otherwise disclose, transfer or sell this data.

**TERM**

The duration of this pilot is through July 31, 202~~5~~<sup>3</sup>.