



# Oregon

Tina Kotek, Governor

**Public Utility Commission**

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February 7, 2023



BY EMAIL  
PORTLAND GENERAL ELECTRIC  
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RE: Advice No. 22-43

At the public meeting on February 7, 2023, the Commission adopted Staff's recommendation in this matter docketed as ADV 1470. The Staff Report and a receipted copy of the sheets in your advice filing are attached.

Nolan Moser  
Chief Administrative Law Judge  
Public Utility Commission of Oregon  
(503) 378-3098

**PUBLIC UTILITY COMMISSION OF OREGON  
STAFF REPORT  
PUBLIC MEETING DATE: February 7, 2023**

**REGULAR**  **CONSENT**  **EFFECTIVE DATE** May 15, 2023

**DATE:** January 30, 2023

**TO:** Oregon Public Utility Commission

**FROM:** Eric Shierman

**THROUGH:** Bryan Conway, JP Batmale, and Sarah Hall **SIGNED**

**SUBJECT:** PORTLAND GENERAL ELECTRIC:  
(Docket No. ADV 1470/Advice No. 22-43)  
Updates to Schedules 14 and 7 for residential battery energy storage pilot and residential service.

**STAFF RECOMMENDATION:**

Approve Portland General Electric's Advice No. 22-43.

**DISCUSSION:**

Issue

Whether the Public Utility Commission of Oregon (Commission) should approve Portland General Electric's (PGE or the Company) modifications to the incentives for the Residential Battery Energy Storage Pilot in Schedule 14 and remove a condition of residential storage participation in the Peak Time Rewards Program in Schedule 7.

Applicable Rule or Law

Under ORS 757.205(1):

Every public utility shall file with the Public Utility Commission, within a time to be fixed by the commission, schedules which shall be open to public inspection, showing all rates, tolls and charges which it has established and which are in force at the time for any service performed by it within the state, or for any service in connection therewith or performed by any public utility controlled or operated by it.

The Commission may approve tariff changes if they are deemed to be fair, just, and reasonable pursuant to ORS 757.210. Tariff revisions may be made by filing revised sheets with the information required under the Commission's administrative rules, including OAR 860-022-0025. OAR 860-022-0025(2) specifically requires that each energy utility changing existing tariffs or schedules must include in its filing a statement plainly indicating the increase, decrease, or other change made with the filing, the number of customers affected by the proposed change, and the resulting change in annual revenue, and the reasons or grounds relied upon in support of the proposed change.

ORS 757.220 and OAR 860-022-0015 require filings that propose any change in rates, tolls, charges, rules, or regulations be filed with the Commission at least 30 days before the effective date of the change. Tariff filings to be effective on less than 30 days following notice of the change may be authorized with a waiver of less than statutory notice pursuant to ORS 757.220 and OAR 860-022-0020.

## Analysis

### *Background*

On August 13, 2018, the Commission issued Order No. 18-290 in UM 1856, adopting a partial stipulation.<sup>1</sup> This agreement outlined an agreed-upon approach to the development by PGE of five energy storage projects: a residential pilot comprised of numerous behind-the-meter installations at customer residences, an installation at the Coffee Creek substation, a mid-feeder installation at the Baldock solar facility, an installation at the Port Westward generation facility, and a microgrid pilot comprised of two to five new microgrid installations.

PGE's Smart Battery Pilot (Pilot) was first launched in 2020 through UM 1856. The Company's initial plan for the residential battery energy storage pilot was to sign up to 525 residential customers to provide four megawatts of combined capacity after three years. PGE is not on track to meet that goal. PGE has not been able to sign up customers at a rate of 175 per year. After two years, the Pilot has 118 participants.

### *Proposed Changes*

PGE seeks to move the incentive design of this Pilot from a fixed payment to an incentive based on performance. The current incentives are:

- \$20 or \$40 per month
- Up-front rebate of \$3,000 for:
  - Smart Grid Testbed customers

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<sup>1</sup> See Docket No. UM 1856, OPUC, Order No. 18-290, May 22, 2018, p 1.

- Income-qualified customers participating in Energy Trust of Oregon's Solar Within Reach program

PGE proposes to change the Pilot's incentives to reward more performance. PGE seeks to replace the monthly incentives with a per kWh per event payment of \$1.70. Customers will be asked to nominate a maximum amount of energy on an event-by-event basis. PGE seeks to replace the fixed up-front rebate with a rebate paying \$405 per kWh of nominated capacity.

In addition to changing the way these incentives are paid, PGE is also effectively increasing the size of the payout. The Company is using the unspent funds from the remaining budget to increase the overall generosity of the incentives to attract more participation.

The total compensation for program participants is highest for customers in the Smart Grid Test Bed (SGTB). This is because increasing the density of distributed storage in the test bed is a priority for the up-front rebate. PGE will be focused on the SALMON test bed. The Company states: "Project SALMON seeks to achieve a high density of DERs and Flexible Load resources on a discrete section of the grid, with energy storage and solar smart inverters playing a critical role. Successful roll-out of this initiative would allow PGE to leverage resources for multiple purposes, co-optimizing the Smart Battery Pilot and Project SALMON across shared goals."<sup>2</sup>

PGE also seeks to remove a special condition in Schedule 7 for participation in the Peak Time Rebates program (PTR) among customers participating in the Company's Smart Grid Test Best (SGTB). Residential customers that bring battery energy storage to participation in PTR must have the customer's battery directly dispatchable by PGE. PGE has found this to be an unnecessary barrier, given the supply constraints. PGE would rather see more battery storage products eligible for PTR and for customers that prefer to control their own devices to also be given an opportunity to participate in PTR.

PGE filed Advice No. 22-43 on December 12, 2022, which proposes changes intended to increase the supply of acquired residential battery storage, with an effective date of February 8, 2023. On January 18, 2023, PGE filed a supplemental tariff sheet to move the effective date out to May 15, 2023. The Company explained to Staff the reason for the new effective date is to provide a transition time to communicate the change to customers currently participating in the Pilot.

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<sup>2</sup> See Docket No. ADV 1470, PGE, Advice No. 22-43, December 12, 2022, Attachment A, p 7.

### *Stakeholder Feedback*

PGE presented these changes to Staff on October 10, 2022, and then to stakeholders at the October 21, 2022, Flexible Load Advisory Stakeholder (FLASH) workshop. Staff is not aware of any stakeholder opposition to these changes.

### *Staff Review*

Staff finds these changes reasonable for the purposes of the Pilot's level of development. For existing customers, the new incentive structure might increase the supply of capacity beyond Pilot participants meeting the minimum requirements to receive their monthly incentive. Supply curves being upward sloping, the higher incentives may be reasonably expected to attract more customers than a lower payment otherwise would. Though PGE finds the cause of the slower uptake to be due "chiefly to macroeconomic factors such as the COVID-19 pandemic and resultant supply chain issues," PGE has a reasonable expectation that more distributed storage exists in the Company's service territory.<sup>3</sup> These other customers may require more compensation to join PGE's virtual power plant.

### Conclusion

Staff recommends the Commission approve PGE's proposed changes to Schedules 7 and 14. The changes are reasonably expected to increase residential storage participation in this Pilot and PTR from the level of distributed energy storage that would otherwise be acquired, and PGE will remain within the cost-limit of the Pilot budget that the Commission has approved.

### **PROPOSED COMMISSION MOTION:**

Approve Portland General Electric's Advice No. 22-43.

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<sup>3</sup> See Docket No. ADV 1570, PGE, Advice No. 22-43, December 12, 2022, p 2.

**SCHEDULE 7 (Continued)**

ENERGY PRICE PLANS: DEFAULT PLAN (Continued)

Special Conditions Related to Peak Time Rebate Options (Continued)

3. The PTR incentive may be provided in an on-bill credit on the Customer's next monthly billing statement or by check at the next billing statement after the event season ends.
4. Customers enrolled in Schedule 5 Direct Load Control are not eligible to participate in PTR on this schedule.
5. The Company will defer and seek recovery of all PTR costs not otherwise included in rates.

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TIME-OF-USE PORTFOLIO OPTION (WHOLE PREMISES OR ELECTRIC VEHICLE CHARGING) (Enrollment is necessary)

This option provides TOU pricing for transmission and related services, distribution and energy\*.

**Monthly Rate**

<u>Basic Charge</u>		
Single-Family Home	\$11.00	
Multi-Family Home	\$8.00	
<u>On-Peak Charge</u>		
Transmission and Related Services	32.800	¢ per kWh
Distribution	1.800	¢ per kWh
Energy	15.500	¢ per kWh
<u>Mid-Peak Charge</u>		
Transmission and Related Services	11.900	¢ per kWh
Distribution	0.520	¢ per kWh
Energy	5.315	¢ per kWh
<u>Off-Peak Charge</u>		
Transmission and Related Services	7.430	¢ per kWh
Distribution	0.280	¢ per kWh
Energy	2.700	¢ per kWh
Over 1,000 kWh block adjustment**	4.450	¢ per kWh
	0.360	¢ per kWh

\* See Schedule 100 for applicable adjustments.

\*\* Not applicable to separately metered Electric Vehicle (EV) TOU option.

**SCHEDULE 14  
RESIDENTIAL BATTERY ENERGY STORAGE PILOT**

**PURPOSE**

This residential battery energy storage pilot will evaluate the ability of residential batteries to deliver services in support of PGE's electrical system. The battery energy storage pilot offers incentives to allow the Company to manage the charging and discharging of customer batteries with the option for a customer override. The pilot is expected to be conducted from August 1, 2020 through July 31, 2025.

**AVAILABLE**

In all territory served by the Company.

**APPLICABLE**

This program is applicable to Residential (Schedule 7) Customers that own a qualifying battery<sup>1</sup> and elect to enroll and participate in the pilot. Customers will remain on Schedule 7 and will be eligible for the incentives described in this schedule. The pilot is optional and limited to a total of 9,480 kWh enrolled energy storage.

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**ELIGIBILITY**

Customers must submit an interconnection application which must be approved by PGE, purchase or already own a qualifying battery, proceed with installation, and apply for acceptance into the pilot.

**ENROLLMENT**

Customers will be allowed to enroll in this pilot until the pilot reaches its maximum enrollment of 9,480 kWh of enrolled energy storage. Unless this pilot is otherwise terminated, participating Customers will be enrolled for the entire pilot term.

(C)

**INCENTIVES**

Basic Offering

Available to customers who have a qualifying battery and allow PGE to manage the charging and discharging of such equipment for the benefit of PGE's electric system. A customer shall receive \$1.70 per kWh that is dispatched by PGE. A customer shall inform PGE when they enroll in the program the maximum kWh PGE may dispatch from their device during an event. A customer may change their maximum nomination by contacting PGE in writing, allowing a minimum of three business days for the change to take effect.

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1. A list of approved qualifying battery storage systems for this pilot is available on [PortlandGeneral.com](http://PortlandGeneral.com)

**SCHEDULE 14 (Continued)**

INCENTIVES (Continued)

Test Bed Rebate

1. Available only to customers who are participating in PGE's SALMON initiative or the Reeds Crossing Solarize campaign, both as defined on PGE's website regarding the "Smart Battery Pilot"; who purchase a new qualifying battery, and allow PGE to manage the charging and discharging of such equipment for the benefit of PGE's electric system. (D)  
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2. PGE shall provide a rebate for the new purchase and installation of a qualifying battery storage system. The new purchase rebate is limited to 960 kWh of nominated energy storage. The rebate amount shall be \$405 per kWh of energy storage nominated to PGE to be directly dispatchable by PGE. (C)  
(C)
3. The rebate level will be reserved for a customer for nine months from when the pilot application is approved to when the battery storage system is operable by PGE and enrolled in this pilot. If the battery storage system does not begin communications with PGE within nine months of pilot application approval, the customer's reserved rebate will be released. When communications are established the customer may receive the incentive, if still available. (T)  
(C)
4. A customer receiving a Test Bed Rebate is not eligible to also receive the Basic Offering. (N)
5. The Test Bed Rebate is based on the maximum kWh a customer elects to make available to PGE during a peak event dispatch (referred to as the "nomination.") The nomination may not exceed 80% of the customer's gross energy storage capacity. (N)
6. A customer may change their maximum nomination by contacting PGE in writing, allowing a minimum of three business days for the change to take effect. However, reducing the nomination may result in customer partial repayment of the rebate. (N)
7. A developer or builder is eligible to receive the rebate if purchase and installation of a qualified battery storage system occurred prior to occupancy by a residential customer and enroll the battery in the Pilot. (T)

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**SCHEDULE 14 (Continued)**

Income Qualified Rebate

1. Available to customers receiving incentives from the Energy Trust of Oregon's Solar Within Reach program that purchase a new qualifying battery storage system and allow PGE to operate such equipment for the benefit of PGE's electric system.
2. In addition to the Basic Offering, PGE shall provide a rebate of \$5,000 for the new purchase and installation of a qualified battery storage system. The rebate is limited to the first 25 customers.

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**SPECIAL CONDITIONS**

1. Participants are responsible for any equipment, installation, and associated costs of the battery storage system, including any upgrades identified in the PGE interconnection process and ensuring all installation complies with all applicable building code requirements.
2. The participant will retain ownership of the battery storage system and is responsible for all maintenance, replacement, and disposal costs.
3. In the event of non-payment of electricity bill charges or disconnection for non-payment, for Electricity Service rendered, PGE will discontinue credit payments and battery storage system operation until the participant is current on all past-due balances. The participant will be removed from the pilot if basic service electricity charges are not current after two consecutive months.
4. The participant is required to maintain reliable communications with the battery storage system. If communications to the battery storage system are not restored in a timely manner PGE may discontinue paying the monthly incentive until communications are reestablished, or PGE may remove the customer from the pilot.
5. A participant that only receives the Basic Offering and did not receive a Test Bed or Income Qualified rebate may disenroll from the pilot at any time, upon which PGE will cease payments.
6. If the participant has received a rebate, the customer may be required to repay the unamortized portion of the rebate in the event that the customer voluntarily disenrolls prior to the end of the pilot, reduces their dispatch nomination, or if the battery storage system is removed from the pilot due to lapses in communications. This is defined as the proportion of the months left until the end of the pilot divided by the months the customer has participated in the pilot.
7. Participants must agree to the contractual terms laid out in the Residential Battery Energy Storage Pilot agreement.

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**SCHEDULE 14 (Concluded)**

SPECIAL CONDITIONS (Continued)

- 8. PGE will never discharge the battery storage system below 20% of capacity or below the manufacturer's warranty recommendation, whichever is higher. (D) (T)(M) (M)
- 9. The participant may override PGE's control up to ten times per calendar year for a period of 24 hours per time. (T)
- 10. During times of severe weather, defined as any time PGE has placed emergency operators on Standby status, PGE will allow the battery storage system to fully charge. (T)
- 11. In the event of a power outage, the customer will have full use of the battery storage system until grid service is restored. Power outages are not considered a customer override. (T)
- 12. Customers enrolled in Solar Payment Option may not participate in this Pilot offering. (T)
- 13. A customer may not participate in both Peak Time Rebates as outlined in Schedule 7 and this Pilot offering. (N) (N) (D)

**TERM**

This pilot began on August 1, 2020 and ends on July 31, 2025