

Portland General Electric

Smart Battery Pilot Manual

Version 1

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Information in this document is accurate at the time of publication but is subject to change without notice. The most accurate list of qualifying manufacturer equipment is located online at the Smart Battery pilot - Residential Offering | PGE (portlandgeneral.com)

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Table of Contents

Contents

1	Overview		
	1.1	How does this program support PGE's goals?	5
2			
	2.1	Eligibility	5
	2.2	How does a Peak Time Event work?	
	2.3	Enrollment Process	6
	2.4	Nomination Levels and Bill Credits	7
	2.5	Credit Payment	8
	2.6	Suggested Battery Settings	8
	2.7	Battery Operation in a Power Outage	
	2.8	Participation in Other PGE Programs	9
	2.9	Utilized Software	9
	2.10	Unenrolling	.10
	2.11	Future State	
3	Batter	ies 101	.10
	3.1	PGE's Requirements for Customer-Owned Batteries	.11
	3.2	Installing a Battery	.13

1 Overview

PGE's Smart Battery pilot was launched in 2020 to incentivize customers to install customerowned batteries by providing credits for participating in Peak Time Events. Enrolled customerowned batteries create a virtual power plant that can be operated by PGE individually or combined to serve the grid on the hottest or coldest days. PGE can charge your battery to store energy when a lot of renewable energy is being produced or discharge your battery when renewable energy is needed on the grid. Events are typically called 10 to 15 times per year. This offering is part of PGE's larger flexible load portfolio—a community approach to using more clean energy resources, helping to keep energy reliable and supporting Oregon's clean energy future. The pilot is governed by PGE's Tariff for Schedule 14 – Residential Battery Energy Storage Pilot.

A summary of the pilot is in the table below:

Tariff	PGE Schedule 14		
Incentive for participating	\$1.70 bill credit per kWh discharged per event*		
Approximate number of events	10-15 per year		
Timing of events	Typically on the coldest or hottest days of the year. Mornings 6-9 AM or 7-10 AM (typically morning events are only in the winter), or early evenings 4-7 PM or 5-8 PM.		
Event duration	Typically 3 hours, but can be shorter.		
Event notification	PGE typically provides about 24 hours' notice before events as best practice but is not required to.		
Types of events	Three-hour demand response events are most often being dispatched; however, PGE may test other services that batteries are capable of, such as frequency support and contingency reserve. Customers will be notified prior to any new testing being performed.		
Battery ownership	Customer-owned (leased or purchased)		
Battery qualification	Eligible battery manufacturers are limited to SolarEdge, Tesla, Enphase, FranklinWH, Duracell, Eguana, Sonnen, and Generac.		
Review and approval process	All battery systems must be reviewed and approved through the interconnection process.		
Enrollment cost with PGE	None		
Battery dispatch software	Virtual Peaker		
Pilot expiration	July 31, 2025		

^{*} Those receiving upfront rebates for their battery in 2024 are not eligible for bill credits.

1.1 How does this program support PGE's goals?

Customers' battery systems enable PGE to create a "virtual power plant" that is an important step towards a clean energy future with more renewable energy. Our goal is to create a virtual power plant made up of customer-owned batteries that can contribute up to 9.5 megawatt hours of energy to our grid.

As the sun sets and customers return home to turn on their heat and run appliances, PGE can continue to use the renewable solar energy by discharging the batteries.

Customers may choose to install a battery without having solar. In this case, the battery can be charged from the grid during off-peak hours when energy is produced from cleaner sources and discharged at peak times to help offset high demand.

2 Smart Battery In-Depth

Have a question not answered here? Send us an email at smartbattery@pgn.com and we'll get back to you.

2.1 Eligibility

The Smart Battery pilot is available to all residential customers served by PGE. Participants must have an installed battery storage system that is part of the qualifying product list (QPL). At the time of this guide's publication, the batteries on the QPL are: SolarEdge, Tesla, Enphase, FranklinWH, Duracell, Eguana, Sonnen, and Generac. Please see the pilot webpage for the most up to date list as PGE strives to include as many brands as possible. Smart Battery pilot - Residential Offering | PGE (portlandgeneral.com).

Residential customers with a battery not on the QPL are encouraged to consider <u>PGE's Peak Time Rebates</u> program. Customers can earn rewards when they use their battery to power their home and reduce grid energy usage during times when energy demand is highest. A customer may not participate in both Peak Time Rebates and Smart Battery at the same premise.

The requirements to be considered on the QPL are that devices are UL listed, commercially available in Oregon, and dispatchable by the software PGE uses to schedule Peak Time Events.

2.2 How does a Peak Time Event work?

PGE will schedule times for your battery to provide stored energy to your home or to the grid. This is typically on the hottest or coldest days of the year when energy usage is highest and there is strain on the grid.

When PGE has scheduled a Peak Time Event, you will receive a notification before the event is initiated. This notice is typically 24 hours ahead of an event but may be only a few hours. Participants will be notified by an email or a text message.

You always have the ability to opt-out of a Peak Time Event by clicking a link within the email notification or by overriding PGE's signal using your battery controls.

Each Peak Time Event typically consists of three separate signals to participating customer batteries. The first signal requests that the battery fully charge in preparation for the event. The battery will only respond to this if it is not already full and if grid charging is enabled in the customer's settings.

The second signal is the most important one, the Peak Time Event itself. The battery will discharge power to your home—and for some customers, back onto the grid—at the amount of power the customer told PGE they would like to



provide. The circumstances under whether a battery will provide power to just your home or back to the grid are multi-faceted. Some batteries are prohibited by PGE for exporting power for safety reasons, to protect the electrical infrastructure outside your home from being overloaded. For batteries that are allowed to send power back to the grid, this will only occur if the battery is dispatching more energy than the home is using at the time. The benefit to the program is the same whether the battery offsets some or all of your home's usage or whether power goes back onto the grid.

The third and final signal sent to your battery will be a request to re-charge after the event to fill it back up. Much like the pre-charge, this will only occur if your battery is configured to allow for grid charging. If your device does not allow for grid charging, your battery will fill back up with solar energy.

PGE will always do our best to send signals for grid charging when energy is at off-peak pricing for those that are on rate schedules with varied costs according to the time of day.

2.3 Enrollment Process

Customers can enroll in PGE's Battery pilot at any point in time after receiving permission to operate their battery system.

1. **Complete the enrollment form:** Applicants whose system is fully installed and with permission to operate may enroll in the Smart Battery pilot. PGE uses a third-party software called Virtual Peaker to manage the pilot. A link to the enrollment form may have been sent out by PGE when we see that your battery is eligible to participate, and the form can also be found on the Smart Battery pilot webpage: Smart Battery pilot - Residential Offering | PGE (portlandgeneral.com)

a. The enrollment form will ask for the customer's name, address, contact information, and battery inverter serial number.

IMPORTANT: The battery inverter serial number is required to sign-up and must be correct for successful program enrollment. Guidance for where to find this number can be found at <u>Locating Your Energy Storage System Device Information (virtual-peaker.com)</u>

- b. Customers must agree to the terms and conditions; see <u>Appendix A: Terms and Conditions</u>.
- 2. **Receive confirmation email:** Applicants will receive an automated confirmation email letting them know the form was received and what the next steps are.
- 3. **Pilot team approves enrollment:** The Smart Battery team will review and approve the application. At this point, a customer is considered enrolled, and the software will establish a digital connection with your battery. This process can take up to six weeks. If any issues occur during the enrollment process (for example the serial number is incorrect) the Smart Battery team will contact the customer and work to resolve the issue.
- 4. **Confirmation of Export Status:** Once the Smart Battery team has approved an application, they confirm how much energy (if any) from the battery may be exported back to the grid during Peak Time Events.
- 5. **Battery online:** Once the connection to the battery is established the Smart Battery team will email the participant to let them know the battery is now online and ready for events. If the battery is approved to export, the email will include advice to update the battery settings to allow for export. In some instances, the battery team may schedule a short test event if needed to confirm correct configuration and digital responsiveness.
- 6. Start participating in events and earning credits!

2.4 Nomination Levels and Bill Credits

Customers can select what percentage of their battery's capacity they wish to have dispatched during a Peak Time Event. The maximum allowed nomination is 80% of a battery's capacity. For simplification, PGE has broken down the categories customers may choose to 80%, 50%, or 30%.

This nomination can be changed at any time by emailing the Smart Battery inbox, smartbattery@portlandgeneral.com. Changes to nomination levels may take up to two business days to process.

Bill credits are \$1.70 per kWh actually provided from the battery during a Peak Time Event. The customer nomination will determine how much energy PGE requests be sent to the customer's house during each event; however, the actual performance of the battery (and therefore the earned bill credit) may vary depending on the starting state of charge, any communication issues, and whether the battery may export back to the grid or only offset home usage.

For example, if a customer owns a Tesla Powerwall with an energy storage system capacity of 13.5 kWh, then they can earn up to the following bill credits during each Peak Time Event:

	Max Capacity Available (kWh)	Capacity & Credit	Total Credit ¹
Maximum (80%)	10.8	10.8 x \$1.70	\$18.36
Balanced (50%)	6.75	6.75 x \$1.70	\$11.47
Moderate (30%)	4.05	4.05 x \$1.70	\$6.88

2.5 Credit Payment

Bill credits for events are calculated and processed in the week after the event. Credits are then applied to the customer's bill. If an event occurs near the end of a billing cycle, the credits may not appear until two bills after the event.

Credits are like cash and can offset even basic rate charges. Credits in excess of bills or not applied to bills can also be redeemed for a check upon customer request.

2.6 Suggested Battery Settings

The battery system's local settings will override any signals PGE sends to the battery, keeping the customer always in control. Customers are allowed to select their own battery settings and adjust them at any point; however, some manufacturers require contacting their support services to change certain settings.

For the most successful participation in the pilot, the following are three recommended battery settings. For questions about adjusting battery settings, see the manufacturer's webpage or contact their customer service.

- 1. **Minimum reserve setting:** The battery system's minimum reserve is the point at which the battery will stop discharging to save power in case of an outage. This should be at or below the nomination to PGE to ensure customers can participate at the full amount of their nomination. For example, for a nomination of 80% of a battery's capacity, the minimum reserve setting should be set to 20%. If the minimum reserve setting is higher than the nomination, the battery will not provide the full nomination. PGE recommends a minimum reserve setting of **no lower** than 20%.
- 2. **Grid charging:** To ensure batteries have enough capacity to participate in events, PGE sends signals to batteries to charge during off-peak hours before the event. Batteries need to be set to allow grid charging to respond to this signal. PGE also sends signals to batteries after events to restore the battery's capacity for customer resilience. This also requires grid charging to be enabled.

¹ This Total Credit is the hypothetical maximum credit. The actual credit is based on the amount of energy delivered during the event. The batteries state of charge, communication settings, and export status may affect the battery's performance.

3. **Export energy:** Some customers are allowed to export energy from their battery back onto the grid. This requires room on the transformer to allow this capacity and is determined during the Interconnection department's review of pilot participants. If, and only if, directed by PGE to enable energy export from the battery, this setting should be adjusted for maximum participation. When energy export is enabled, the battery will first power the home's load, then send any additional power up to the nominated amount back onto the grid. This allows the customer to receive the most credit as they are providing the most power possible.

2.7 Battery Operation in a Power Outage

In the event of a power outage, your battery will automatically provide power to your home and will ignore any signals from PGE. PGE also monitors severe weather very closely, and in the event severe weather is predicted that may be more likely to cause outages, we will not call a Peak Time Event using batteries. Because not all power outages are able to be anticipated (such as in the event of a car hitting an electrical pole), the pilot will not allow customers to provide more than 80% of their battery's nameplate capacity. This ensures that in the unlikely event there is a power outage directly after a Peak Time Event, there will still be some energy left over.

2.8 Participation in Other PGE Programs

Smart Battery pilot participants may not be enrolled in Peak Time Rebates. Both the Smart Battery pilot and Peak Time Rebates reward customers for energy during the same Peak Time Events. Because Smart Battery pilot has a higher reward for the energy, \$1.70 per kWh compared to \$1 per kWh, customers who were enrolled in Peak Time Rebates are unenrolled upon enrollment into Smart Battery pilot.

Customers may participate in other PGE programs while participating in the pilot. Participating in Time of Day rates with a battery is encouraged as it optimizes clean energy on a daily basis.

2.9 Utilized Software

Customers participating in PGE's Smart Battery pilot allow PGE to interact with and operate their battery through cloud-based software. PGE has selected Virtual Peaker as our cloud-based software. Virtual Peaker holds relationships with the approved battery and inverter manufacturers that allows them to establish communication with these devices. PGE is then able to send signals to the batteries to either charge or dispatch energy via a load management system.

Virtual Peaker also allows a real-time view of the battery's performance, which is useful in tracking performance and identifying issues. Any issues detected with a battery have a ticket opened with Virtual Peaker who then investigates the issue. If Virtual Peaker is unable to resolve the issue themselves, they open a ticket with the battery manufacturer. The Smart Battery team is kept up to date of these statuses and works with Virtual Peaker and the customer as necessary to resolve any issues.

2.10 Unenrolling

To unenroll in PGE's Smart Battery pilot, customers must email smartbattery@portlandgeneral.com. Customers who did not receive an upfront rebate may unenroll at any time.

For participants who received an upfront rebate from PGE, the customer may be required to repay the unamortized portion of the rebate if the customer voluntarily unenrolls prior to the end of the pilot, if they reduce 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.

2.11 Future State

The Smart Battery pilot is scheduled to run until July 31st, 2025. PGE is working to develop a program to transition to after the expiration of the pilot.

In addition to providing capacity during Peak Time Events, the Smart Battery pilot and future program may look to explore additional grid services. Batteries may be tested and utilized for their ability to provide frequency support and contingency reserve.

3 Batteries 101

Electricity typically needs to be consumed at the exact same time it is produced. This means that if solar panels are producing more electricity in the middle of the day, or if wind turbines are generating energy in the middle of the night, it must be used at that time, which may not line up with times of high electricity usage. Batteries that can store renewable energy to be used at peak times of electricity use will be necessary to reduce and eventually eliminate electricity produced by fossil fuel. Batteries range from very large batteries on the electrical grid to smaller ones installed in homes and businesses.

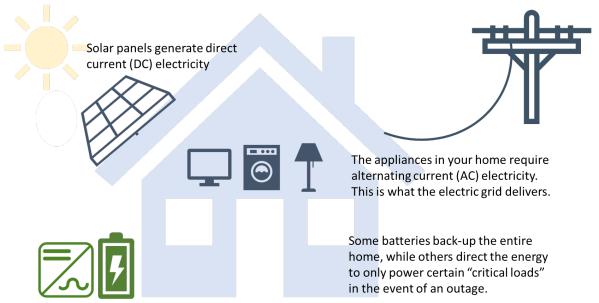
Batteries can provide a few different values to those installing them.

- 1. **Resilience:** Solar panels do not work in a power outage without a battery present. Installing a battery can allow your home to continue to use the energy produced by your solar panels even if there is a power outage.
- 2. **Environmental:** Batteries can support environmental goals, such as utilizing more of your produced solar energy and shifting energy usage away from times when grid electricity is more carbon intensive.
- 3. **Bill savings:** For people on a time-variable rate, a battery can charge with solar power when rates are low and then power your home when rates are higher to minimize your electricity bill.

When looking at whether to purchase a battery, there are two numbers you'll see referenced: the amount of kilowatts (abbreviated kW) and the kilowatt hours (kWh). Kilowatts is the amount of **power** the battery can put out at one time, while kWh is the total amount of **energy** the battery can provide before it is empty. So, a 5 kW, 15 kWh battery can provide a maximum of 5 kW at any

one time for three hours, for a total of 15 kWh of energy. Your installer can help you understand the right size battery for you based on your goals for what you'd like to be backed up during a power outage and for how long.

The graphic below shows the primary components of a battery energy storage system.



A battery system consists of two major components-the battery cells that store the electricity and the inverter that converts DC electricity from solar and the battery into AC electricity that your home can use.

3.1 PGE's Requirements for Customer-Owned Batteries

The information in this section is subject to change and is for reference only. For the current requirements visit PGE's <u>Electric Service & Construction Requirements</u> and click on the Current Electric Service Requirements book.

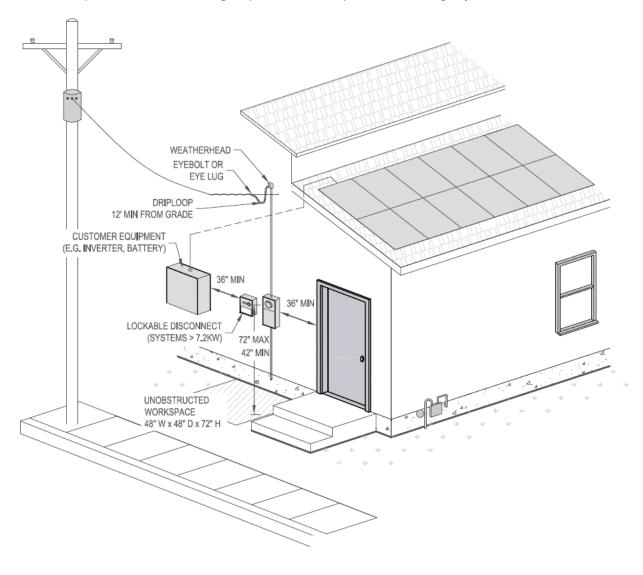
The information provided below is current as of January 2024.

PGE customers interested in adding energy storage systems (such as batteries) may do so to offset their energy use or serve as a backup energy system. Customer-owned storage may not discharge to PGE unless approved by PGE.

Customers interested in installing a storage-only system or a storage plus renewable system (like a battery-plus-solar system) must submit an interconnection application in using the PowerClerk portal to ensure the safety and reliability of PGE equipment and personnel (this is typically done by the installation professional).

Standalone storage is not a qualifying renewable for the net metering program; however, applications for storage systems 25 kW and smaller are reviewed by the Interconnection team's Net Metering Coordinators. More information on net metering can be found <a href="https://example.com/here-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-net/metering-ne

- Residential customers may install a storage system 25 kW and smaller. Systems greater than 25 kW are not allowed on residential services.
- Storage systems greater than 7.2 kW require a lockable disconnect switch with a visible open located within 10 feet of the meter.
- Storage plus renewable systems greater than 7.2 kW also require a lockable disconnect switch with a visible open located within 10 feet of the meter.
- Customers are responsible for labeling generation equipment such as solar. The label must be red and contain the following text in white letters that are 3/8-inch high: "WARNING: Customer-owned generation. Two sources may be present."
- A written agreement with PGE and proof of a passed municipal electrical inspection is required before PGE will give permission to operate the storage system.



3.2 Installing a Battery

If you are interested in purchasing a new battery, please consider the following steps.

- 1. **Do your research:** What are your goals from installing a battery? Do you want to increase the environmental impact of your solar? Keep your electricity bill as low as possible? Have back-up power during outages? If you want back-up power, think about what appliances are important to work during an outage and which you can do without until the power comes back. Clean Energy Group is a national non-profit group that has made available answers to commonly asked questions to help start your research.
- 2. Consult with a reputable battery installer: We recommend hiring a qualified contractor to design and build your system and assist with the interconnection process. PGE does not partner directly with solar or battery contractors, but the Energy Trust of Oregon maintains a list of vetted trade ally installers and can help connect you with an installer who can provide a bid. Request Analysis and Bid: PGE Smart Battery Pilot Energy Trust of Oregon. PGE does not require use of an Energy Trust trade ally; however, they are the only ones who can provide Energy Trust incentives.
- 3. Even when reaching out to an Energy Trust solar trade ally contractor, we recommend that you research contractors online and read reviews of them, get at least three bids, and ask contractors for examples of their past work.
- 4. **Receive bids, design your system:** Your trade ally installer will help you understand what type of battery will be most compatible for your project, your budget, and your project goals. Be sure to mention that you are interested in joining the Smart Battery pilot so that a battery from an approved manufacturer is used and the installer can take into account PGE's suggested battery settings (see Section 2.6). Design considerations will include whether you are installing whole-home back-up power or separating out certain home functions that are most important to have back-up power, which may necessitate a "critical loads panel."
- 5. **Apply and receive approval for interconnection:** All battery storage systems must be reviewed by PGE's Interconnection department to ensure electrical system safety and the highest levels of quality. Your battery installer should handle this entire process on your behalf. Interconnection will review the proposed system and communicate approval or any required changes. After approval is granted, installation of the project can begin.
- 6. **Installation of your project:** Now for the exciting part! Construction may begin after PGE approves the interconnection application. This will involve the physical installation and securing of your new battery and inverter, wiring into your solar and replacing or reconfiguring your electrical panel. Your installer may use sub-contractors for some of these elements. Your installer should handle all the proper permits and inspections.
- 7. **Receive Permission to operate:** Once the battery system is fully installed and all inspections have been finalized, the system will be granted "permission to operate." At this point, you may enroll in the Smart Battery pilot if desired and start using your battery!

Appendix A Terms and Conditions

*This copy is included as a courtesy only and is subject to change, the current version will always be on the enrollment form.

TARIFF: The PGE Smart Battery Pilot ("Pilot") is governed by and Participant agrees to abide by all terms of PGE's Tariff Schedule 14 (the "Tariff") and these Terms and Conditions (the Tariff and these Terms and Conditions are collectively referred to herein as the "Agreement").

REPRESENTATIVES: PGE may hire third parties to act on PGE's behalf to support Pilot activities ("Representatives"). Representatives will not be permitted to use personally identifiable information except for the purpose of providing their specific services, and they are not permitted to disclose, transfer or sell personally identifiable information.

ELIGIBILITY: Participant's property must have PGE electric service. Participant will maintain and pay for reliable WiFi service so the appliance manufacturer and PGE may collect data from Participant's appliance and remotely operate Participant's appliance. Participant is enrolling in the Pilot on a voluntary basis. Participant consents to PGE, its Representatives, and the appliance manufacturer communicating with and sending commands to Participant's appliance to implement and operate the Pilots.

PARTICIPANT RESPONSIBILITIES: The Participant assumes the risk of any loss or damage in connection with installation of the connected appliance or this Pilot. Participant is solely responsible for any service or repair to Participant's appliance, and the installation, operation, use or maintenance. PGE and its Representatives make no representation, express or implied, regarding the design, sizing, installation, construction, reliability, functionality, efficiency, performance, operation, maintenance, or use of any equipment or systems analyzed.

ENDORSEMENT: PGE does not endorse any particular manufacturer, contractor, or product. PGE is not performing or supervising any work.

SAFETY AND BUILDING CODES: Participant agrees to ensure compliance with federal, state, and local building and environmental codes for the installation of connected appliances.

PROPERTY RIGHTS: Participant must have proper authority to participate in the Pilot at the designated property. If Participant moves to a different residence, they will be removed from the Pilot. **CONTACTING PARTICIPANT:** Participant consents to the appliance manufacturer providing data related to Participant's appliance to PGE. Participant gives PGE and its Representatives express permission to contact Participant using the information Participant has provided during Pilot

enrollment. PGE or its Representative may send Participant emails, text/SMS, and other notifications related to the Pilot, including notifications about enrollment status and Pilot-related adjustments to appliance settings. PGE or its Representative may send Participant emails related to the fulfillment of incentives. PGE or its Representative may contact Participant for survey participation and project feedback. If PGE or its Representative cannot collect the required information, Participant may not be eligible to participate in the Pilot.

COLLECTED INFORMATION; INFORMATION USE: Participant agrees that PGE or its Representative may collect certain information from Participant'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), Participant name, email address, service address, PGE account number, appliance serial number, activation date, runtime data, setpoints, state of charge, and related details. PGE will use the information (a) to operate,

administer, market, evaluate, analyze, change, or improve the Pilot and its utility service; (b) 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; and (c) to understand and evaluate Participant habits and to inform the development and creation of utility Pilots and load planning. PGE may also use and publish information regarding Participant's participation in the Pilot and use of the appliance as long as the information is presented in an anonymized format. PGE will collect the information Participant provides on the Pilot application and any surveys or other Pilot evaluations that Participant choose to complete and submit during participation in the Pilot. Collected information will be retained by PGE for an indefinite amount of time.

LIMITATION OF LIABILITY: Participant assumes the risk of any loss or damage(s) that Participant may suffer in connection with the Pilot. PGE and its Representatives shall have no responsibility for the discovery, presence, handling or disposal of, or exposure of persons to hazardous materials of any kind in connection with Participant's site or property. PGE AND ITS REPRESENTATIVES' LIABILITY IS LIMITED TO THE AMOUNT OF ANY INCENTIVE OWED FOR PARTICIPANT'S PARTICIPATION IN THE PILOT. IN NO EVENT WILL THE APPLIANCE MANUFACTURER, PGE, OR ITS REPRESENTATIVES BE LIABLE, PURSUANT TO THIS ENROLLMENT AGREEMENT, TO PARTICIPANT OR ANY THIRD PARTY FOR ANY OTHER DAMAGES, WHETHER CHARACTERIZED AS GENERAL, SPECIAL, DIRECT, INDIRECT, PUNITIVE, CONSEQUENTIAL, OR OTHERWISE, OR FOR ANY FAILURE OF PERFORMANCE RELATED HERETO HOWSOEVER CAUSED. TO THE FULLEST EXTENT PERMITTED BY LAW, THE TOTAL CUMULATIVE LIABILITY OF THE APPLIANCE MANUFACTURER, PGE, OR ITS REPRESENTATIVES TO ANY PARTY UNDER THIS AGREEMENT OR THE PILOT FOR ALL CLAIMS, LOSSES, DAMAGES, AND EXPENSES, WHETHER BASED IN CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY, OR OTHERWISE, SHALL BE LIMITED TO AN AMOUNT EQUAL TO ONE HUNDRED DOLLARS (US\$100.00). Additionally, Participant hereby indemnifies against, and holds PGE and its Representatives harmless from any and all losses, liabilities, damages, claims, suits, actions, judgments, assessments, costs, and expenses, including by not limited to any interest, penalties, or attorney's fees arising out of Participant's participation in the Pilot.

TERMINATION: PGE reserves the right to revise or terminate this Pilot at any time. PGE may terminate Participant's participation if Participant fails to meet their obligations under this Agreement or the Pilot documentation. Determination of eligibility for this Pilot and any incentives rests solely with PGE. Not all applicants will qualify.

PILOT CHANGES: The Agreement may be altered, changed, modified, or assigned by PGE at any time with or without notice to Participant. Incentives available under the Pilot may be changed, modified, substituted, replaced, ceased, or terminated at any time at PGE's sole discretion with or without notice to Participant. Participant's continued participation in the Pilot constitutes Participant's acceptance of any and all such changes, replacements, assignments, or terminations. In the event that the incentive amount changes during the course of the Pilot, the application electronic timestamp will be used to determine equipment eligibility and incentive amount.

ADDITIONAL INFORMATION: The Pilot shall be exclusively governed by and construed in accordance with the laws of the state of Oregon, without regard to any conflicts of law rules thereof. This Agreement, along with the applicable Tariff, Pilot application, any exhibits, or attachments affixed hereto, constitutes the entire agreement between PGE and Participant regarding this Pilot.

Find more detailed information about the Smart Battery Pilot.



PGE Corporate Headquarters
121 S.W. Salmon Street | Portland, Oregon 97204 portlandgeneral.com