

## WASHINGTON RESIDENTIAL DEMAND RESPONSE

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### DEFINITIONS

**Available Dispatch Hours:** Daily timeframe within which Pacific Power may dispatch its demand response control system.

**Criteria:** Additional requirements for participation beyond being an Eligible Customer. Criteria are set forth in Table 1 below.

**Dispatch Days:** The days upon which Pacific Power may or may not dispatch its demand response control system.

**Dispatch Duration:** The duration of time that demand response events may be dispatched for.

**Dispatch Event:** The period during which Participating Customers' electrical loads are shut off or controlled to minimize electrical consumption.

**Dispatch Parameters:** The criteria within which Pacific Power may dispatch its load control system.

**Dispatch Notification:** The approximate time between a Participating Customer receiving a notice from the Program Administrator or Pacific Power and the beginning of the Dispatch Event. Participating Customers shall receive no less than this amount of notification (in minutes) for Dispatch Events. "Real Time" shall mean no time between notice and beginning of event. \*\*

**Dispatch Period:** The calendar year timeframe within which Pacific Power may dispatch its demand response control system.

**Eligible Customer:** Any party who has applied for, been accepted, and receives electric service at the real property, or is the electricity user at the real property.

**Equipment Type:** The type of electric using equipment a Participating Customer enrolls in the program. \*\*

**Incentive:** Payments of gift cards (e-gift cards), money, or bill credits made by Program Administrator or Company to a Participating Customer for participation in a demand response offer. Incentives are specific to Equipment Type the Participating Customer elects for the season. \*\*

**Maximum Dispatch Events:** The maximum number of events Pacific Power may utilize in dispatching its demand response control system annually.

**Opt-Out:** The process whereby a Participating Customer notifies the Program Administrator

and/or the Company they do not want to be included in an upcoming event or adjusts their thermostat set point to interrupt an event. For water heaters, the customer may opt-out of the program using the app to place the device into bypass mode or by contacting the Program Administrator at any time but will not receive a per event opt-out option.\*\*

**Participating Customers:** Eligible Customers who meet the Criteria and agree to participate in the Residential Demand Response Program.

**Program Administrator:** A third-party entity selected by Pacific Power to engage with Eligible Customers about the residential demand response program, contract with Participating Customers on behalf of Pacific Power and provide the systems to control Participating Customers loads during certain times.

**Targeted Area:** One or more geographic area within Pacific Power's Washington service area that may have additional demand response requirements and/or value. Targeted Areas may be used by the Program Administrator to do one or more of the following: focus marketing, differentiate participation requirements and/or Incentives.

**Targeted Customers:** Eligible Customers with electrical equipment or energy use patterns that make them a preferred Participating Customer. These customers may be the focus of targeted enrollment or marketing efforts.\*

\* Definition is unique to the residential and commercial and industrial program.

\*\* Definition is unique to the residential program.

All other definitions are the same as the definitions used in the Irrigation Load Control and commercial and industrial program.

## PROGRAM DESCRIPTION

The Residential Demand Response Program is a program offered by Pacific Power that provides Incentives to Participating Customers with specified equipment types enrolled in the program in exchange for granting Pacific Power the right to curtail Participating Customers' loads at certain times within the Dispatch Parameters and during the Dispatch Period. The program may utilize another name for marketing purposes. Pacific Power contracts with the Program Administrator to deliver the Residential Demand Response Program; the Program Administrator will oversee the enrollment of Participating Customers, deliver Dispatch Notifications, and call Dispatch Events on behalf of Pacific Power. The ability to curtail these loads provides Pacific Power with capacity, curtailment, and reserve grid services.

### 1) Participation

Eligible Customer and relevant Criteria are included in the table in this document. Eligible Customers who meet the Criteria and agree to participate are Participating Customers. Participating Customers will be required to enroll equipment using an on-line platform provided by the Program Administrator to initiate participation. For multifamily properties with individual Pacific Power accounts the water heater enrollment will be an opt in at lease signing and be completed upon move in through an on-line platform provided by the Program Administrator. For multifamily properties where the property owner or manager is the Pacific

Power account holder all the water heaters in the building will be enrolled by the program administrator using their software systems. Enrollment is perpetual (unless terminated by either party) and does not need to be repeated each year. Participating customers may enroll one or more specific equipment types in the program.

## **2) Incentives**

Incentives are available on a \$/equipment unit (thermostat or water heater) per year basis. Incentives will be made available one time for enrolling a piece of equipment in the program in addition to an annual incentive for continued program and event participation. Incentives are paid by e-gift card, check, or electronic funds transfer, or a bill credit. The form of the payment will be posted on the website. One-time incentives for enrollment will be paid within 60 days of a complete and verified enrollment. Annual incentives for participation will be paid in advance within 60 days of initial successful enrollment and every 12 months thereafter. Participation incentives paid in advance will not be “clawed back” if the tenant moves out before 12 months have elapsed. Multifamily property owner incentives may be paid in a more or less frequent cadence to align with new move in enrollments and aggregation of incentives into fewer payments.

## **3) Dispatch Notification and Events**

Participating Customers who enroll their thermostat will receive event notifications in the App associated with their equipment. Participating Customers who enroll a water heater will have access to the status of their water heater including power draw status and historical energy usage via the App associated with their equipment. Dispatch Events for thermostats are called with 20 minute-ahead notice and are focused primarily on providing capacity and curtailment for the utility. Dispatch Events for water heaters are called in Real Time with no notice and provide capacity and reserve grid services for the utility.

## **4) Equipment Operation**

Event communication and control occurs through a Program Administrator-provided, two-way communications device (communicating via Wi-Fi) installed at the customer site on the water heater or through a thermostat manufacturer’s aggregation software communicating with the Program Administrator’s software. Communication between the device at the customer site and the aggregation software occurs through the Wi-Fi system provided by the customer. Unless activated during an event, the devices or aggregation software do not affect normal control of equipment, but they do convey information about the connected load back to the Program Administrator and Pacific Power.

## **5) Opt-Outs**

To provide Participating Customers with some operational certainty around the impacts of the demand response program on their comfort, there are limits on hours in a day, the total number of events, and total hours when the loads may be curtailed. Recognizing that unforeseen operational issues may arise, Participating Customers in the water heater offer may opt out of the offer by calling or emailing the Program Administrator or by setting their device to bypass mode in the App if their water heater is enrolled. Participating Customers

will not receive an individual event opt-out option for water heater events. Participating Customers may opt out of a Dispatch Event by adjusting the temperature set point on their thermostat. In order to maximize the impact of the grid services and to minimize program costs, equipment that is consistently available for control is strongly preferred. Loads that are opted out or unavailable on a regular basis may be removed from the program at the sole discretion of the Program Administrator.

**6) Quality Assurance, Change Process and Reporting**

Quality assurance review and techniques may be utilized during the delivery of the program. Periodic program impact and process evaluations will be conducted by a third-party working for Pacific Power. Pacific Power will regularly review program performance, quality assurance and evaluation findings, and cost effectiveness results in combination with current Company resource planning results to evaluate potential program changes. Program changes may include changes to information in this document and will follow the process outlined in current version of Washington Schedule 106.

Reports on program performance are provided to the Washington Utilities and Transportation Commission annually.

**PARTICIPATION REQUIREMENTS AND PROCEDURES**

**Table 1 – Dispatch Parameters and Incentives**

<b>Dispatch Parameters and Incentives</b>	<b>Description</b>
Eligible Customer	<ul style="list-style-type: none"> <li>All residential customers on Residential Schedules 16, 17, 18 and 19.</li> <li>Master metered multifamily buildings served on General Service Schedules 24, 36 and 48.</li> </ul>
Criteria	<ul style="list-style-type: none"> <li>Tank electric resistance water heater in good condition. Single phase up to 240V, 5500W.</li> <li>Heat pump water heaters in good condition with CTA-2045 port.</li> <li>Central air conditioning, heat pump or electric forced air furnace.</li> <li>Wi-Fi.</li> <li>Enrollment of equipment at residences participating in the time of use pilot (Schedule 19) is limited to 200 pieces of equipment in total through the end of 2025.</li> </ul>
Targeted Customer	<ul style="list-style-type: none"> <li>Water heating - multi-family</li> <li>Thermostats - single family and multi-family</li> </ul>
Dispatch Period	January 1 through Dec 31

Targeted Areas	All areas within Company's Washington's service area
Dispatch Days	Water Heaters <ul style="list-style-type: none"> <li>• Sunday – Saturday</li> </ul> Thermostats <ul style="list-style-type: none"> <li>• Monday – Friday</li> </ul>
Available Dispatch Hours	Water Heaters <ul style="list-style-type: none"> <li>• All hours</li> </ul> Thermostats <ul style="list-style-type: none"> <li>• 12:00 PM – 9 PM</li> </ul>
Maximum Dispatch Events	Water Heaters <ul style="list-style-type: none"> <li>• One per day</li> <li>• Two per week</li> </ul> Thermostats <ul style="list-style-type: none"> <li>• One per day</li> <li>• Three per week</li> <li>• Thirty per year</li> </ul>
Dispatch Duration	Water Heaters <ul style="list-style-type: none"> <li>• Up to 2 hours</li> </ul> Thermostats <ul style="list-style-type: none"> <li>• Up to 4 hours</li> </ul>

Dispatch Notification	Water heaters - Real Time (or None). Thermostats - 20 minutes
Incentive	Water heaters – single family <ul style="list-style-type: none"> <li>• Enrollment (one time) - \$25</li> <li>• On-going participation (annual) - \$25</li> </ul> Water heaters – multi-family separate meter <ul style="list-style-type: none"> <li>• Enrollment (one time – in advance) - \$25 (\$5 to property owner/manager, \$20 to tenant)</li> <li>• Ongoing participation by existing tenant (annual – in advance) - \$25 paid to tenant</li> <li>• New tenant (annual participation - in advance). \$5 to property owner/manager, \$20 to tenant</li> </ul> Water heaters – master meter <ul style="list-style-type: none"> <li>• Enrollment (one time – in advance) \$25 paid to owner/manager</li> <li>• Ongoing participation (annual – in advance) -\$25 paid to owner/manager</li> </ul> Thermostats – single family & multi-family

	<p>(paid in advance to account holder)</p> <ul style="list-style-type: none"><li>• Enrollment (one time) - \$50</li><li>• On-going participation (annual) - \$25</li></ul>
Opt-Out	<p>Water heaters:</p> <ul style="list-style-type: none"><li>• Participating Customers may opt out of the program at any time by contacting the Program Administrator or by setting their device to bypass mode in the App.</li></ul> <p>Thermostats:</p> <ul style="list-style-type: none"><li>• Participating Customers may opt out of a Dispatch Event by adjusting the set point on an enrolled thermostat when an event is in progress.</li></ul> <p>Repeat opt outs may result in removal of the equipment from the program.</p>

### ADDITIONAL CONDITIONS

**System Emergency Dispatch:** In the event of a system emergency, Pacific Power may, at its discretion, expand the Dispatch Parameters beyond the parameters listed. Emergency events may be used to satisfy requirements of the North American Electric Reliability Corporation standard BAL-002-WECC-2 for Contingency Reserve Obligation and may be deployed when the utility is experiencing a qualifying event as defined by the Western Power Pool.