

WASHINGTON IRRIGATION DEMAND RESPONSE

This document includes the following sections:

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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 maximum time between a Participating Customer receiving a notice from the Program Administrator or Pacific Power and the beginning of the Dispatch Event. "Hour ahead" shall mean 60 minutes. "Day ahead" shall mean 24 hours.

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.

Incentive: Payments of money or bill credits made by Program Administrator or Pacific Power to a Participating Customer for participation in a demand response offer. Incentives are specific to Dispatch Notification the Participating Customer elects for the season.

Load Available for Curtailment: average of all interval kilowatt measurements from installed switches (or meters in the case of pumps meeting the Criteria) across all Available Dispatch Hours across all Dispatch Days in the Dispatch Period which do not include a Dispatch Event.

Maximum Dispatch Hours: The maximum amount of time Pacific Power may dispatch its demand response control system annually.

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 Pacific Power they don't want to be included in an upcoming event. Opt-Out notification must be received prior to the beginning of the event.

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

Participation Factor: equals (i) the number of Dispatch Events in which Participating Customer performed, divided by (ii) the number of Dispatch Events during the Dispatch Period. Non-performance during a Dispatch Event is considered to occur when Participating Customer either (i) informs Program Administrator of non-participation in a specific Dispatch Event, or (ii) does not reduce pump demand to zero (0) kilowatts for the duration of the Dispatch Event.

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

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

PROGRAM DESCRIPTION

The Irrigation Demand Response Program is a program offered by Pacific Power that provides Incentives to Participating Customers in exchange for granting Pacific Power the right to curtail Participating Customers' irrigation loads at certain times within the Dispatch Parameters and during the Dispatch Period. Pacific Power contracts with the Program Administrator to deliver the Irrigation 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 a summer energy or curtailment or regulation reserve product depending on the notification option selected.

1) Participation

Eligible Customer and relevant load 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 sign a standard agreement with the Program Administrator to initiate participation. The agreement is perpetual (unless terminated by either party) and does not need to be re-signed at the start of each year.

2) Incentives

Incentives are available on a \$/kilowatt (kW) per year basis and vary by Dispatch Notification. Using data from the installed switches, Loads Available for Curtailment (kW) during the hours and days of each week of the Dispatch Period will be multiplied by the Incentive rate depending on the notification option selected. Loads opted out are removed from the Loads Available for Curtailment and reduce the Incentive payment to the Participating Customer. Incentives are paid after the end of the season by check or if requested a bill credit. Participating Customers receive Incentives based on the availability of load reduction, regardless of whether Pacific Power calls upon a load reduction during a Dispatch Event.

3) Dispatch Notification and Events

Participating Customers may select from three different Dispatch Notification options—22.5 minute-ahead, hour-ahead or day-ahead notices—which define the time between when the customer is notified of an event and when the event starts. Participating Customers notify the Program Administrator with their preferred notification channel(s) for Dispatch Events and may select more than one, i.e., text and a phone call. Dispatch Events called with 22.5 minute-ahead notice are focused on providing the utility with regulating reserves. Dispatch Events called with an hour-ahead notice are focused primarily on providing additional curtailment capacity for the utility. Dispatch Events called with a day-ahead notice are focused primarily on providing additional energy or an energy price mitigation tool for the utility. The value of the curtailed load to the utility system depends on the time between the notification and the start of the event. Available Incentives reflect the variability in the utility value.

4) Equipment Operation

Control occurs through a Pacific Power-provided switch (communicating via cellular signals) on the pump motor controller. Individual switches communicate with the software platform provided and installed by the Program Administrator which also provides secure access to Pacific Power to initiate Dispatch Events. Unless activated during an event, the switches do not affect normal control of the irrigation equipment, but they do convey information about the connected load back to the customer and Pacific Power.

5) Opt Outs

To provide Participating Customers with some operational certainty around the impacts of the demand response program on their operations, there are limits on hours in a day, the total number of events within a season, and total hours in a season when the loads may be curtailed. Recognizing that unforeseen operational issue may arise, Participating Customers on an hour ahead or day ahead notification may a) opt out a site or pump(s) controlled by a switch for future events or b) opt out a site once the Dispatch Notification has been sent by the Program Administrator. Opt-Out requests must be received before an event starts. In order maximize the load available for control and minimize program costs, loads that are available for control are 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 Pacific Power 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.

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

PARTICIPATION REQUIREMENTS AND PROCEDURES

Table 1 – Dispatch Parameters and Incentives

Dispatch Parameters and Incentives	Description
Eligible Customer	<ul style="list-style-type: none"> • Customers receiving electric service from Pacific Power in Washington on Schedules 40
Criteria	<ul style="list-style-type: none"> • Single pumps \geq 25 HP running at least 200 hours in the Dispatch Period • Single pumps larger than 500 HP running at least 200 hours in the Dispatch Period with service voltages higher than 480V may be controlled manually at the sole discretion of the Program Administrator • Meters serving pumps may participate in only demand response or time of use pilot(s). They may not participate in both.
Dispatch Period	Week including June 1 through week including September 15.
Targeted Areas	All areas served by Pacific Power in Washington
Dispatch Days	All days during Dispatch Period
Available Dispatch Hours	12:00 p.m. to 10:00 p.m. Pacific Time on all Dispatch Days
Maximum Dispatch Hours	52 hours per year
Maximum Dispatch Events	20 events per year.
Dispatch Duration	Up to 4 hours
Dispatch Notification	Day ahead, hour ahead and 22.5 minute ahead
Incentive	<ul style="list-style-type: none"> • Day ahead Dispatch Notification is paid at \$18/kW per year • Hour ahead Dispatch Notification is paid at \$30/kW per year • 22.5 minute ahead Dispatch Notification is paid at \$45/kW per year

	The available Incentive per site is calculated at the end of the irrigation season and paid to each Participating Customer by either a check or (if requested) a bill credit in the Fall. Incentives will be determined by multiplying the Load Available for Curtailment (kW) a customer can reliably shut-off by the Incentive rate, adjusted for Opt-Outs.
Opt-Out	Participating Customers on an hour ahead or day ahead notification may Opt-Out of Dispatch Event(s). Opting out will lower the Participation Factor below 100% and be used to reduce Incentive payments by the same percentage. . Repeated opt outs may result in removal of the site from the program.

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.