

Pacific Gas and Electric Company

# EV Charge Network Load Management Plan



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## Load Management Plan Overview

EV Charge Network program participants who choose to implement their own pricing (Custom Pricing), such as free charging or a flat fee, must participate in the EV Charge Network Load Management Plan. The Load Management Plan utilizes a PG&E Demand Response (DR) pilot program, and as a part of this program participants will be asked to shift the amount of EV charging at their site on certain occasions (called “events”) to support the grid. Sometimes PG&E will ask participants to increase EV charging at their site, such as times when there is significant generation of renewable energy like solar. Other times, PG&E will ask participants to decrease EV charging at their site, such as times when there is high demand for electricity. If Load Management Plan participants respond to the events, they will be eligible to receive an incentive payment on their PG&E bill.

## Events

### **Load Management Plan events will be called during the following times:**

- Events to increase EV charging: 8 am to 1 pm
- Events to decrease EV charging: 4 pm to 9 pm

Events will typically last 1-2 hours within the above timeframes, though could last longer for load decrease events. Both types of events can be called year-round depending on grid conditions.

By approximately 5 pm on the day before an event, Load Management Plan participants will be notified of the type of event (increase or decrease EV charging) and the time of the event. Each site’s vendor will receive the signal for the event and communicate the event information to site hosts and drivers.

## Strategies

During the event, participants can enact load management strategies to respond to the event objective. Participants can work with their EV Service Provider (EVSP) vendor to determine a strategy to participate in the events, or they can implement their own tactics. Participants will need to document on their Rates and Pricing Selection Form the load management tactics that they plan to use to meet the event goals.

Some load management tactics may include:

- Sending communications (e.g. emails or text messages) to employees or residents to encourage charging at certain times;
- Adjusting the pricing for drivers during the event (e.g. increasing the price of charging during load reduction events, or decreasing the price of charging during load increase events);

- Requiring advance scheduling of charging sessions on event days;
- Utilizing strategies that the site's EVSP can implement, such as an overall power reduction to the set of chargers during load decrease events; or
- Any other strategy that the participant would like to try to influence charging behavior when an event occurs.

## Incentive

Load Management Plan participants are eligible for an incentive payment if the EV charging load at their site responds to the event goals. The incentive payment will be awarded to the participant as a credit on their PG&E bill on a quarterly basis.

In order to calculate the incentive payment, the site's event performance will be determined by comparing the usage during an event hour to the site's average usage on recent, non-event days. The performance for each event type will be averaged for the entire month. If the average monthly performance for a site is at least 20 percent of the site's total EV charging capacity, then the participant will be eligible for an incentive payment of \$10 per kilowatt (\$5/kW in each direction) multiplied by the monthly average performance, computed independently for load increase and load decrease.

Please review the Frequently Asked Questions in this guide for a more detailed example of the incentive calculation.

There is no penalty if the site's monthly performance does not earn the incentive payment.

## Enrollment

If you are a participant in the EV Charge Network program and plan to select Custom Pricing, please follow these steps to enroll in the Load Management Plan:

1. Discuss load management strategies with your EVSP, and determine what strategy you will use to shift EV charging according to the events.
2. Complete the Rates and Pricing Selection Form, detailing your custom pricing structure and the load management strategies that will be implemented to meet the event goals, and submit it to your PG&E project manager.
3. Review and complete the DR pilot enrollment and data authorization form at the end of this guide.
4. Email the completed DR pilot enrollment form to [EVChargeNetwork@pge.com](mailto:EVChargeNetwork@pge.com) with the subject line "Load Management Plan Enrollment".

# Frequently Asked Questions

## Why do I need to participate in the Load Management Plan?

Program participants choosing a custom pricing option, such as free charging or a flat fee, must participate in the Load Management Plan to ensure that their custom pricing does not negatively impact the grid. The Load Management Plan will occasionally ask participants to adjust the EV charging at their site to support the grid.

## What does participation in the Load Management Plan mean for me?

Participants will be requested to shift the EV charging at their site on certain occasions (called “events”) to support the grid. Sometimes PG&E will ask participants to increase EV charging at their site, such as times when there is significant generation of renewable energy. Other times PG&E will ask participants to decrease EV charging at their site, such as times when the grid is experiencing peak demand. Participants will be eligible to earn an incentive payment for their performance in the events.

## When will Load Management Plan events occur?

Load Management Plan events will be called during the following times:

- Events to increase EV charging: 8 am to 1 pm
- Events to decrease EV charging: 4 pm to 9 pm

Events will typically last 1-2 hours within the above timeframes, though could last longer for load decrease events.

## How will I be notified of events?

The event signal will be sent by 5 pm the day before an event via Open ADR 2.0b to each site’s vendor. The event signal will notify the vendor of the type of the event (increase or decrease EV charging) and the time of the event. The vendor will pass on the event information to the program participant.

## How often will events occur?

Events are called based on grid conditions and electricity market prices. As such, there is no specific rule for how often events will be called. If PG&E determines that events are being called too often or too little, PG&E may adjust its trigger conditions to impact the frequency of events. In addition, PG&E may call events due to simulated market signals.

## How do I adjust EV charging at my site to meet events?

Participants can work with their vendor to determine a strategy to participate in the events, or they can implement their own tactics. Some load management tactics may include:

- Sending communications (e.g. emails or text messages) to drivers to encourage charging at certain times;
- Adjusting the pricing for drivers during the event (e.g. increasing the price of charging during load reduction events, or decreasing the price of charging during load increase events);
- Requiring advance scheduling of charging sessions on event days;
- Utilizing strategies that the site's vendor can implement, such as an overall power reduction to the set of chargers during load decrease events;
- Or any other strategy that the participant would like to try to influence charging behavior when an event occurs.

Participants will need to notify their PG&E Project Manager of the load management tactics that they plan to use to meet the event goals.

### **How do I enroll in the Load Management Plan?**

1. Discuss load management strategies with your EVSP, and determine what strategy you will use to shift EV charging according to the events.
2. Complete the Rates and Pricing Selection Form, detailing your custom pricing structure and the load management strategies that will be implemented to meet the event goals, and submit it to your PG&E project manager.
3. Review and complete the DR pilot enrollment and data authorization form at the end of this guide.
4. Email the completed DR pilot enrollment form to [EVChargeNetwork@pge.com](mailto:EVChargeNetwork@pge.com) with the subject line "Load Management Plan Enrollment".

### **How will my site's performance in the event be evaluated?**

The load increase or load decrease in each event will be evaluated using a baseline methodology similar to the California Independent System Operator (CAISO) baseline for Proxy Demand Resources. The baseline is the average of the most recent 10 similar non-event days. The increase or decrease amount for each event hour is calculated as the EV charging load during the event relative to the baseline. The increase or decrease amount is compared to the site's total capacity of EV charging to determine a performance ratio for the event.

Monthly performance is calculated as the average of performance in all event hours during the month.

### **Is there an incentive for responding to the events?**

If the average monthly performance for a site is at least 20 percent of the site's total EV charging capacity, then the participant will be eligible for an incentive payment of \$10 per kilowatt (\$5/kW in each direction) multiplied by the monthly average performance, computed independently for load increase and load decrease. The incentive payment will be awarded to the participant as a credit on their PG&E bill on a quarterly basis.

For example, if your site typically responds to the events by increasing or decreasing the charging load by 3 cars (or approximately 21 kW) compared to your average usage, that would result in a monthly incentive of \$210 (21 kW \* \$5/kW for increase events + 21 kW \* \$5/kW for decrease events). Since the incentive will be distributed quarterly, that would be \$630 for three months of events. The incentive is issued quarterly as a credit on your PG&E bill.

### Is there an example of the incentive calculation?

Suppose a site has 10 charging ports at 7 kW each, for a total capacity of 70 kW of EV charging. Two events are called during the month, one increase and one decrease.

The increase event is from 10 am to 11 am, during which the site typically uses 21 kW of EV charging from the “baseline” data, which is approximately 3 cars charging. During the event, EV charging load is increased to 56 kW (or approximately 8 cars charging). The hourly performance ratio is  $(56 \text{ kW} - 21 \text{ kW}) / 70 \text{ kW} = 50\%$ . Since there was only one load increase hour that month, the monthly average hourly performance for load increase is also 50%.

The monthly incentive payment for the increase event is:

$$(\$5 \text{ per kW}) * (70 \text{ kW}) * 50\% = \$175$$

The decrease event is from 5 pm to 7 pm, during which the site typically uses 35 kW the first hour (5 cars) and 42 kW the second hour (7 cars). During the event, EV charging load is decreased to 14 kW the first hour (2 cars) and 7 kW the second hour (one car).

The hourly performance ratios are:

$$\text{Hour 1: } (35 \text{ kW} - 14 \text{ kW}) / 70 \text{ kW} = 30\%,$$

$$\text{Hour 2: } (42 \text{ kW} - 7 \text{ kW}) / 70 \text{ kW} = 50\%.$$

The monthly average hourly performance for the decrease events is:

$$(30\% + 50\%) / 2 = 40\%$$

The monthly incentive payment for the decrease events is:

$$(\$5 \text{ per kW}) * (70 \text{ kW}) * 40\% = \$140$$

The total monthly incentive payment is  $\$175 + \$140 = \$315$ .

### Is there a penalty if I do not meet the event goals?

Participation in the Load Management Plan is a requirement for program participants who choose to use Custom Pricing. There is no financial penalty if performance is insufficient; however, participants will not receive the incentive payment. PG&E reserves the right to switch program participants to Pass-Through Pricing if they are consistently failing to participate in the Load Management Plan.

## Why do I need to enroll in the Excess Supply Pilot?

The Excess Supply Pilot is one of PG&E's existing demand response programs. PG&E is leveraging this pilot as the mechanism to call events in the EVCN Load Management Plan.

Each site's vendor will be enrolled as the direct participant in the pilot. Program participants will need to submit the pilot enrollment and data authorization form to PG&E to complete the enrollment in the pilot. PG&E will manage the coordination between the demand response pilot and the Load Management Plan.

## How were the event hours selected?

The event hours (load increase: 8 am to 1 pm; load decrease: 4 pm to 9 pm) are established based on historic and forecast market prices, and excess supply forecasts. In addition, the load increase period was established to limit the number of hours overlapping with PG&E's typical peak demand period in the summer.

## Will the load increase events increase my electric bill?

The effect on your bill will depend on charging behavior at your site, during event days and non-event days. However, typically, EV charging that occurs during a load increase event is shifted from another part of the day. In this case, the vehicle's charging session would have occurred either way.

## I'm on rate A-10, which has a demand charge. Do the load increase events affect the demand charge on my electric bill?

The demand charge is calculated based on the maximum monthly demand (kW) that your site's chargers experience at one time. Most sites will likely reach their maximum demand at other times during the month, so the demand charge may not be impacted by the event. It is important to be aware of the charger usage throughout the month and keep the demand charge in mind when determining your load management tactics.



**AUTHORIZATION TO DISCLOSE CUSTOMER INFORMATION TO  
A THIRD-PARTY AGGREGATOR FOR PARTICIPATION IN PG&E'S  
SUPPLY SIDE II AND EXCESS SUPPLY DEMAND RESPONSE PILOTS**

**IMPORTANT INFORMATION FOR CUSTOMERS AND THIRD-PARTY AGGREGATORS – BE SURE  
TO READ FIRST  
THIS IS A LEGALLY BINDING CONTRACT – READ IT CAREFULLY**

The purpose of this form is to allow a customer (Customer) to authorize PG&E and its Agent, Olivine, Inc., (Agent) to disclose certain Customer-related data, as described below, to a third-party aggregator (Aggregator) solely for the purpose of participation in PG&E's Supply Side II Pilot (SSP II) and/or Excess Supply Pilot (XSP) in accordance with the rules of the XSP/SSP II programs and pursuant to California Public Utilities Commission (CPUC) Decision (D.) 16-06-029.

In addition, by signing this agreement, Aggregator and Customer understand that Customer gives the Aggregator the authority to represent and act on behalf of the Customer solely for purposes pertaining to the SSP II and/or XSP programs for the Customer's Service Agreement[s] attached to this agreement. Such authority is subject to the rules of the SSP II / XSP programs and pursuant to D.16-06-029.

Customer understands that once Customer authorizes Aggregator to access Customer's personal information, Customer is responsible for ensuring that the Aggregator safeguards the personal information from further disclosure without Customer consent.

I, (Customer),

\_\_\_\_\_  
Name of Customer According to PG&E Records

Contact First Name	Contact Last Name	Title (if applicable)
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Mailing Address	City	State	Postal Code
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Email Address	Phone Number
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do hereby authorize the following third party:

\_\_\_\_\_  
Name of Aggregator

Contact First Name	Contact Last Name	Title (if applicable)
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Mailing Address	City	State	Postal Code
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Email Address	Phone Number
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to receive access to information for the following electric Service Agreement:

Service Address	Service City	Service Agreement ID
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*(For more Service Agreements, please list additional Service Agreements on a separate sheet and attach it to this form.)*

- A. This authorization provides authority to the Aggregator to request and receive from PG&E and its Agent the following information for the Service Agreement(s) specified in this form for the period of time specified in Section D:
  - 1. Customer Account information, including service address; rate schedule; Service Agreement; service voltage; meter number and type; location of the Service Agreement on the CAISO grid



- (including sub LAP and pNode); and the identity of Meter Data Management Agent, Meter Service Provider, and Load Serving Entity (LSE),
2. Up to 1 year of historical electric meter interval data,
  3. Unique identifier number to track Service Agreement in the California Independent System Operator (CAISO) Demand Response System for its DR Services (to be provided to your LSE),
  4. PG&E demand response program(s), tariff schedule(s), and tariff options in which the Service Agreement(s) are currently enrolled and the estimated date of when the customer may be eligible to participate in the SSP II and/or XSP programs without any contractual or program obligations under the terms and conditions of the tariff that may result in financial or tariff implications such as, but are not limited to, losing bill protection or incentive payments, return of received incentives, and/or penalties,
  5. Ongoing access to electric meter interval data, as it is available,
  6. Certain calculated data, calculated by PG&E or its Agent, as required for participation in the SSP II / XSP programs. This calculated data includes Aggregator's resource-level baseline and performance settlement-quality meter data (SQMD), which is an aggregation of data from all customers participating through the Aggregator.
- B. Customer understands that PG&E and its Agent will provide the information outlined in Section A for the Service Agreement(s) included in this agreement to the Aggregator solely for the purposes of,
- Validation of eligibility for participation in the SSP II and/or XSP programs,
  - Bidding into the California Independent System Operator (CAISO) wholesale energy market,
  - Calculation of customer baseline and performance data,
  - Calculation of any payments payable to and penalties chargeable to Customer under the SSP II / XSP programs.
- C. Customer understands that PG&E and its Agent will provide to the California Independent System Operator (CAISO) the following information outlined in Section A for the Service Agreement(s) included in this agreement, as required by the CAISO:
1. Customer Account information,
  2. Unique identifier number to track Service Agreement in the CAISO Demand Response System,
  3. Ongoing access to electric meter interval data, as it is available,
  4. Aggregator's resource-level SQMD, calculated by PG&E or its Agent, as required for participation in the SSP II / XSP programs.
- D. Customer authorizes the release of Customer data, as specified in this agreement for the Service Agreement(s) specified in this form for the duration of Customer's participation in the SSP II and/or XSP programs. In all cases, the Authorization for a Service Agreement will be automatically revoked if (1) PG&E determines that the Service Agreement is not eligible to participate in the SSP II and/or XSP programs, (2) the Service Agreement is no longer participating in the SSP II and/or XSP programs, (3) the Service Agreement is closed, (4) authorization is revoked by Customer, or (5) the SSP II and/or XSP programs are terminated, whichever occurs soonest.
- Customer understands that PG&E or its Agent may transmit data to the Aggregator even after the authorization has been revoked. These post-authorization data transfers will be limited to initial and updated data for the time period during which this authorization was valid. These post authorization data transfers allow the Aggregator to settle invoices with the CAISO for the period when Customer Service Agreements were active in the SSP II and/or XSP programs.
- E. Customer authorizes PG&E and its Agent to provide the information outlined in Section A, as necessary, via the following methods:
1. SSP II / XSP web-based system provided by PG&E's Agent
  2. PG&E's ShareMyData platform
  3. Secured email or electronic format via a secured data transmission platform.
- F. Customer acknowledges that Aggregator is not PG&E's agent for any purpose. PG&E or its Agent shall not be liable to the Customer for any damages resulting from any acts, omissions, or representations made by Aggregator in connection with Aggregator's solicitation of Customer or with the Aggregator's performance of any of its functions in the SSP II / XSP programs. PG&E or its Agent shall not be liable to Customer for any damages caused to the Customer by any failure by Aggregator to comply with PG&E's tariffs or for any damages caused by Aggregator's failure to perform any commitment to the Customer. Neither PG&E nor its Agent are involved in any transactions with the Customer related to the SSP II / XSP programs, nor are PG&E or its Agent a party to any agreement between Customer and Aggregator for participation in the SSP II / XSP programs. This expressly includes any impact to Customer's electricity bill resulting from an event dispatch from the Aggregator as part of the SSP II / XSP programs.



