

# Demand Response

Demand Response (DR) is a way MCE non-residential customers can do their part to collectively reduce system demand during critical peak time periods – preventing blackouts, protecting system reliability, and earning a performance-based savings on their electricity bills.

Various DR programs are available to MCE customers, with their own incentive systems and sometimes penalties for non-performance. MCE is also in the process of developing its own DR program, tailored to best suit the needs of its customers. When determining which DR program is a good fit for your building or facility, customers should consider the following key program features:

**Eligibility Requirements:** Many DR programs require that participating facilities are enrolled in specific rate schedules, meet minimum or maximum electric load requirements, or are capable of curtailing a targeted amount or percentage of demand. Additionally, some programs necessitate the use of specific equipment including SmartMeters, interval meters capable being read remotely, programmable energy management equipment, access to the internet, or cellular phones capable of receiving text notifications.

**Load Reduction Targets:** Different programs employ various ways of assessing load reduction goals and/or hourly maximum demand limits – known as Firm Service Levels (FSLs) -- for each customer. These target levels are assessed using a customer's baseline energy usage over a specified time period previous to the event day, and sometimes incorporate day-of-event adjustments based on the energy usage immediately previous to a curtailment event. Additionally, load reduction targets and FSLs can be set for the duration of a curtailment season, a full year or even set for each individual curtailment event through a bidding process.

**Curtailment Event Types:** Curtailment events can be called on a day-before or day-of basis -- or even at as little as 15 minutes' notice, depending on the DR program. Events are called in response to curtailment triggers such as CAISO emergency alerts or forecasts of high system load, specific forecasted temperature thresholds, or warnings of system capacity inadequacy or other event triggers outlined on an individual program basis. Limits on the frequency and duration of curtailment events also vary by program.

**Incentives** vary widely from program to program and can range from financial incentives like capacity payments based on load reduction committed and energy payments based on savings achieved, to non-financial ones like exemption from rotating outages. Many programs also include financial penalties for failing to meet curtailment commitments.

# Demand Response Programs for MCE Customers

## Base Interruptible Program (BIP)

An advanced demand-response program aimed at very large commercial and industrial users, BIP provides customers substantial monthly bill credits but has short notice given before event periods. Non-performance in these events can result in large penalty charges for usage.

- Participants must be on a demand-metered time-of-use rate schedule, have an average monthly demand of >100kW, and be able to curtail >15% of their average monthly load or >100kW, whichever is greater
- An interval meter that can be read remotely is required for enrollment in BIP; as is internet access and a working email address
- 30 minutes' advance notice is given prior to a curtailment event. Event triggers include: a CAISO Stage 2 emergency, a publicly issued warning notice of an imminent CAISO Stage 1 emergency, forecasted CAISO system conditions, or local system needs as determined by PG&E
- Curtailment events are limited to four hours per event, one event per day, 10 events per month, and 120 total hours per year
- Your monthly bill credit is applied even on months where no curtailment event is called, and ranges from \$8.00/kW to \$9.00/kW depending on your Potential Load Reduction (PLR)
- In the summer, your PLR is the difference between your average on-peak demand and your firm service level (FSL); in the winter, your PLR is the difference between your average partial-peak demand and your FSL
- A charge of \$6/kWh will be assessed when you fail to reduce your load to, or below, your FSL during the entire duration of a curtailment request
- Once enrolled, you may adjust your FSL or discontinue participation once each year during the month of November
- You may choose to enroll in BIP either directly with PG&E or with a third-party Aggregator
- For more information or to enroll in BIP, please visit <http://www.pge.com/mybusiness/energysavingsrebates/demandresponse/baseinterruptible/>

## Demand Bidding Program (DBP)

This program allows you to submit load reduction bids on an hourly basis for any curtailment event and carries no financial penalty for failing to deliver as bid for any or all hours of an event.

- DBP requires that your facility be on an electric demand time-of-use rate schedule, have been billed a maximum demand of 50 kW or greater during any one of the past 12 months, and be able to reduce demand by at least 10 kW for two consecutive hours or more during an event
- Participants must have a SmartMeter or interval meter that can be read remotely and is capable of recording usage in 15-minute or shorter intervals
- An internet connection and email address, along with cellular phone service capable of receiving text messages, is required in order to receive program notifications; internet access is also necessary to submit DBP bids
- Day-ahead notice is given, by 12 noon, prior to a curtailment event in response to the following triggers: a CAISO alert (any stage), a CAISO load forecast exceeding 43,000 MW, a temperature

forecast that exceeds the temperature threshold for the customer's assigned LoadZone, or inadequate system capacity or generation resources as determined by PG&E -- PG&E also reserves the right not to call a DBP event when these triggers occur

- Incentive rate is \$0.50/kW per hour and payment credits are applied to your bill within three months after the event
- Incentive payments for load reductions begin upon achieving 50% of bid amount and are capped at 150% for each hour of the event
- The option of enrolling through an Aggregated Group is closed to new program participants
- For more information or to enroll in DBP, please visit <http://www.pge.com/mybusiness/energysavingsrebates/demandresponse/dbp/>

## Optional Binding Mandatory Curtailment (OBMC) Plan

In return for being exempted from rotating outages, OBMC participants submit a plan each year that is designed to achieve a 15% load reduction on the entire electric circuit load of their facility.

- If you are the only customer on your circuit, standard interval metering may be sufficient for you to participate in the program, for multi-customer circuits, substation-level metering is required -- program participants will pay the cost of any additional required metering equipment
- PG&E will facilitate communications between customers on a shared electric circuit for the purposes of participating in this program.
- An email address and text messaging device is required for receiving OBMC notices of event times and the load reduction target (5% – 15%)
- An event may be called with 15 minutes' notification on any day (holidays and weekends included) without limitations to frequency of duration
- As an incentive, your participation in OBMC exempts you from rotating outages
- It is required that you submit a load-reduction plan each year and are capable of reducing your circuit's demand 15% below the baseline demand on your circuit
- Baseline is calculated using your circuit's electric load data from the 10 days prior to an event (excluding weekends, holidays and event days); you also have an once-annual option to elect a "day-of adjustment" to the baseline that incorporates your energy usage on the morning of the event
- There is a \$6/kWh penalty for failing to achieve your target reduction during an event
- You will be terminated from the plan for failure to reduce load a second time during a one-year period, and participation is denied for a period of 5 years after termination
- For more information on OBMC, please visit <http://www.pge.com/mybusiness/energysavingsrebates/demandresponse/obmcp/>

## Aggregator Managed Portfolio (AMP)

AMP is managed by one of 5 aggregators – each of whom is responsible for designing their individual program, enrolling and supporting customers, and performing event notifications. Program details, including incentives vary depending on the aggregator, but the following should be applicable to all participants in AMP:

- Participants must be on a commercial, industrial, or agricultural rate schedule; customers who are on full standby are not eligible for AMP

- You must have an interval meter or SmartMeter
- AMP curtailment events may be called from May 1<sup>st</sup> through October 31<sup>st</sup>, may last from 4 to 6 hours, but will not exceed 80 hours in a year; up to two test events lasting at least 2 hours may also be called
- Events may be called on a day-of or day-ahead basis depending on the program offerings of individual aggregators, and the curtailment window is from 11:00 AM – 7:00 PM on weekdays (excluding holidays)
- For more information about AMP and for a list of qualified aggregators, visit <http://www.pge.com/mybusiness/energysavingsrebates/demandresponse/amp/>

## Capacity Bidding Program (CBP)

Like AMP, Capacity Bidding Program is an aggregator-managed program that offers day-ahead or day-of notification of events and whose program features, including incentives, are determined by each participating aggregator. The following general guidelines are present across all aggregation programs:

- To be eligible for CBP, you must be on a commercial, industrial, or agricultural rate schedule, and not be on full standby
- You must have an interval meter or SmartMeter
- Events may be called on a day-of or day-ahead basis in accordance with the notification options provided by individual aggregators
- The curtailment season runs from May 1<sup>st</sup> through October 31<sup>st</sup>, and events must take place on non-holiday weekdays and are limited to one event per day between the hours of 11:00 AM and 7:00 PM, and a cap the frequency of events at 30 event hours per operating month
- Up to two test events may be called per calendar year
- For more information about CBP and for a list of aggregators, visit <http://www.pge.com/mybusiness/energysavingsrebates/demandresponse/cbp/>

# Unavailable Demand Response Programs with MCE

## Peak Day Pricing (PDP)

Peak Day Pricing offers business customers the chance to receive discounts on electricity rates during the summer months (May through October) for some-or-all of their load. During a PDP Event, failure to reduce usage below the set PDP threshold results in significant penalty rates. PDP customers are notified of events on a day-ahead basis; these events are limited to between 9 and 15 per year and are scheduled between 2 and 6 PM.

## SmartRate

SmartRate has program features similar to Peak Day Pricing, but is designed for residential customers. SmartRate gives participants a discount of approximately 3¢ per kWh on their June through September usage as well as a year-round 1¢ per kWh savings on all Tier 3 and Tier 4 usage. However, SmartRate customers also pay a surcharge of 60¢ per kWh between the hours of 2 and 7 PM on SmartDays. Between 9 and 15 PG&E Smart days will be called, on a day-ahead basis, each May through October.

## Scheduled Load Reduction Program (SLRP)

SLRP allows qualified participants to pre-schedule between one and three 4-hour curtailment events, preselect their committed load reduction and earn \$0.10/kWh per month (June through September) for their actual energy reductions. Committed load reductions are determined against a baseline determined by your facility's previous 10 weekdays' load history, and must be at least 15% of average monthly demand or 100 kW, whichever is greater.

# Dual Participation

It is possible to be enrolled concurrently in two DR programs, thereby maximizing energy savings and incentive rewards.

For a more in-depth explanation on dual participation and to view a list of compatible program pairings, please review the Dual Participation Factsheet on the PG&E website: [http://www.pge.com/includes/docs/pdfs/mybusiness/energysavingsrebates/demandresponse/baseinterruptable/DR\\_DualParticipation.pdf](http://www.pge.com/includes/docs/pdfs/mybusiness/energysavingsrebates/demandresponse/baseinterruptable/DR_DualParticipation.pdf).

Please note that the Peak Day Pricing (PDP) program is not available to MCE customers.

# Technology Upgrade Incentives

Financial incentives and technical assistance are available to MCE customers who are interested in technological upgrades in the form of energy management and thermal energy storage systems.

The [Automated Demand Response \(ADR\) Program](#) allows customers who enroll in a qualifying Demand Response program for at least 3 years to offset the cost of installing energy management equipment capable of executing pre-programmed DR measures in response to event notification signals from PG&E (Automated), or which can be manually initiated after receiving a conventional event notification (Semi-automated).

The [Permanent Load Shift – Thermal Energy Storage \(PLS-TES\) program](#) incentives can be used to offset the initial investment cost of a Thermal Energy Storage chiller system that will allow you to pre-cool your facility during lower cost off-peak hours – helping reduce load during high priced summer peak hours.

To learn more about ADR and PLS-TES, please visit:

<http://www.pge.com/mybusiness/energysavingsrebates/demandresponse/adrp/> and <http://www.pge.com/mybusiness/energysavingsrebates/demandresponse/incentives/permanentloadshift/>

