



## Staff Report Item 10

**TO:** East Bay Community Energy Board of Directors

**FROM:** JP Ross, Sr. Director of Local Development, Electrification and Innovation

**SUBJECT:** Demand Response Program (Action Item)

**DATE:** April 17, 2019

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### **Recommendation**

Approve the proposed Demand Response program, called PDP-EBCE to be offered to up to 100 A10(Small Commercial)/E19 (Large Commercial/Industrial)/E20 (Largest Commercial/Industrial) customers as a way to encourage continued demand response in exchange for a bill credit on par with current the PG&E PDP program

### **Background on Demand Response and Peak Day Pricing**

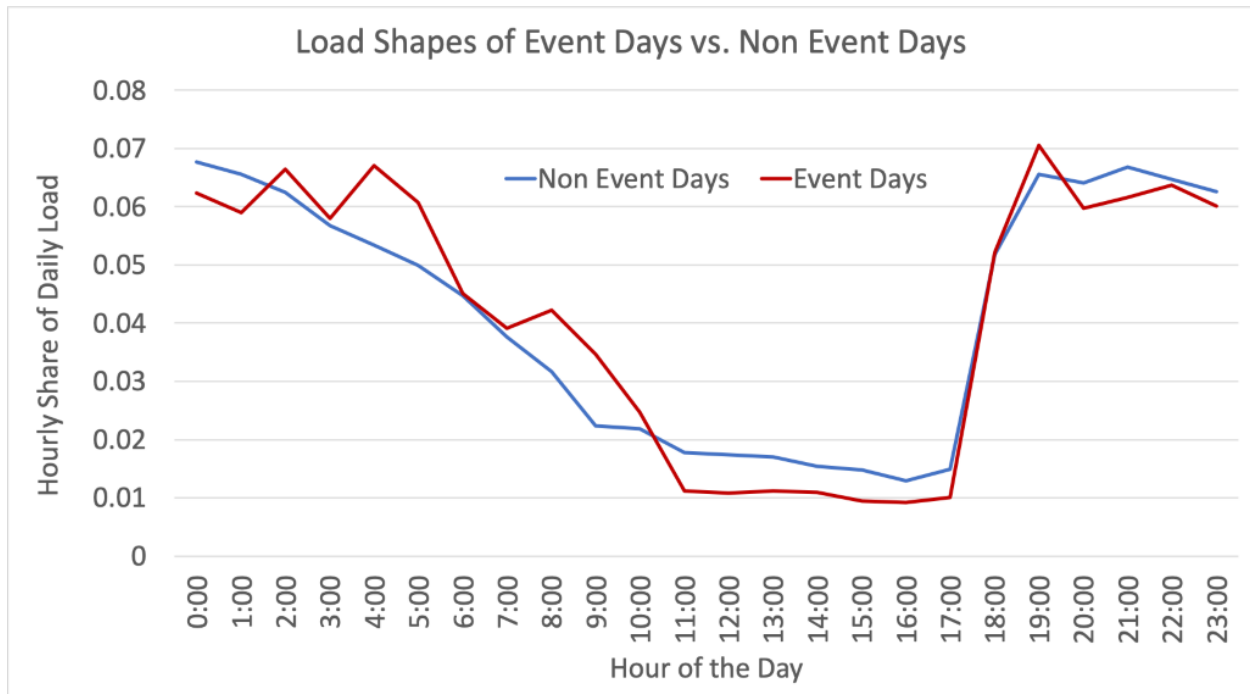
Demand response programs provide incentives to customers to encourage them to reduce their demand during critical peak periods. Demand response helps California manage its peak electricity demand, avoids the need for peaking power plants, reduces the cost of energy during certain hours, prevents pollution from peaking power plants, and increases the reliability of the grid. PG&E offers demand response programs to its residential and commercial customers. In addition, there are third-party providers in California who aggregate demand response.

Peak Day Pricing (PDP) is a demand response program offered by PG&E to non-residential customers. PDP is a default but optional rate component that provides participants a discount over regular electricity rates throughout the summer (May 1 to October 31). However, PG&E may designate up to 15 summer days as 'Event Days', during which customers will incur a surcharge between 2pm and 6pm. Event Days are declared based on weather conditions. Customers are notified one day ahead of Event Days and are encouraged to shift or reduce their load from 2pm to 6pm the next day to avoid surcharges and help alleviate peak demand.

Unlike most other Demand Response programs, CCA customers are currently not eligible to participate in PG&E's PDP program. EBCE proposes to conduct a program demand response that would be built much like PG&E's PDP program and provide customers an opportunity to lower their costs in exchange for providing a demand response benefit to California in general, and to EBCE in particular.

EBCE offered a demand response pilot in Summer 2018 and program results were reviewed at the [January 16, 2019 Board Meeting](#). Overall the program was a success, with many lessons

learned about our customers and how to maximize the benefit of future demand response programs. EBCE paid out \$100,817.30 in credits. The hourly load response of participating customers is shown below.



### The Proposal

After reviewing historical customer data, discussing PDP with key customer accounts, and analyzing the impact of PDP on customer bills, EBCE staff proposes to offer a demand response program to all commercial customers with demand charges, to encourage them to continue to provide demand response in exchange for a similar discount/surcharge rate structure as PDP. The specifics are as follows:

- **Eligible Customers:** all service points on A10, E19 or E20 rate schedules that are serviced by EBCE.
- **Duration of the Program:** May 1, 2019 to October 31, 2019

**Proposed Discounts & Surcharges:** The discounts and surcharges are delineated in **Table 1** and **Table 2** below. The billing adjustments shown are identical to the ones offered by PG&E.

Table 1: For E19 and E20 customers, the charges and credits are as follows:

| Rate Schedule | Event Surcharge (\$ /kWh) | Peak kW Credit (\$/kW) | Part Peak kW Credit (\$/kW) |
|---------------|---------------------------|------------------------|-----------------------------|
|               |                           |                        |                             |

|      |       |        |        |
|------|-------|--------|--------|
| E19P | \$1.2 | \$5.66 | \$1.38 |
| E19S | \$1.2 | \$5.82 | \$1.44 |
| E19T | \$1.2 | \$4.20 | \$1.05 |
| E20P | \$1.2 | \$6.22 | \$1.47 |
| E20S | \$1.2 | \$5.69 | \$1.40 |
| E20T | \$1.2 | \$5.95 | \$1.42 |

Table 2: For A10 customers, the charges and credits are as follows:

|  | Secondary Voltage | Primary Voltage | Transmission Voltage |
|--|-------------------|-----------------|----------------------|
| Event Charge (\$ per kWh)  | \$0.90            | \$0.90          | \$0.90               |
| Monthly Demand Credit Maximum Summer (\$ per kW)                             | -\$3.61           | -\$3.14         | -\$2.46              |
| Energy Credit (applies to Peak, Part-peak, and Off-Peak Summer) (\$ per kWh) | -\$0.00261        | -\$0.0038       | -\$0.00733           |

- **Event Day Notification:** EBCE staff will monitor CAISO pricing with NCPA to determine when market pricing will peak for EBCE and relay notification via email or phone call to the customers when an Event Day is declared, the day before the event. EBCE plans to call all 15 allowed event days during the 2019 summer season.
- **Credit Calculation and Payment:** At the end of the PDP Season, EBCE will calculate the discounts and surcharges for each customer enrolled in the program. If the sum of all credits and surcharges is in the customer's favor, EBCE will issue a credit to the customer. If the sum of all credits and surcharges is not in the customer's favor, the customer will not receive any bill adjustments.
- **Customer Notification:** EBCE staff will send all qualified A10, E19 and E20 customer a separate notice informing them of the opportunity to enroll in the program.

As stated above, in the event that the customer has a net loss from participating in the program (i.e. event day surcharges exceed credits), EBCE staff recommends that no charge be levied against the customer. This is essentially a form of bill protection, ensuring that the customer does not risk being penalized for participating in this program. PG&E offers a similar bill protection to PDP customers during their first year of enrollment.

## Analysis

In the 2018 Pilot Program EBCE offered the PDP-EBCE program to over 1,500 customers. Eight service points ended up enrolling in the program. There is substantial room to improve enrollment in the program and increase Demand Response of EBCEs customers. Therefore, EBCE plans to open program to smaller commercial customers on the A10 rate.

EBCE has analyzed all service points for the variability of load to determine which customers have the ability to adjust load during peak pricing hours. Analysis indicates that approximately 300 EBCE customers have flexibility in their load during event hours and would be good targets for the EBCE-PDP program. EBCE will develop specific outreach for those customers identified to increase enrollment. City and government that could benefit from the PDP-EBCE program will be directly contacted and encouraged to enroll.

Based on this analysis and the participation levels in the 2018 pilot program it is not expected that the 2019 program will have significantly higher cost.

## Financial and Other Impacts

The 2018 Demand Response pilot had a program cost of \$100k. EBCE expects to increase program participation with planned outreach activities. However, program participation is not expected to increase dramatically based on last year's participation of 8 service points and the analysis of customers with variable load during event periods.

The 2019 program will be closely coordinated with EBCE procurement staff and NCPA in order to maximize savings to EBCE by lowering costs during high priced periods. The program can generate several benefits:

- **Customer Retention** - By offering customers this option, EBCE can remain competitive with PG&E by providing the full range of credits available. Anecdotal evidence indicates that this can help customers elect to remain with EBCE service, and even opt-up to the premium product offering. This program is more important for EBCE to offer with the increased opportunity for Direct Access for our large customers.
- **Demand Response Benefit** - By Partnering with NCPA and monitoring the CAISO market costs EBCE will continue to develop Demand Response efforts that can:
  - Lower load during peak hours - which are typically more expensive hours - resulting in potentially lower procurement costs to EBCE;
  - Decreased need for power generation from peaking power plants, which can result in less emissions; and,
  - Increased grid reliability.
- **Direct Experience in Demand Response Programs** - The will continue to generate valuable staff experience in implementing a demand response program. This will facilitate the future roll out of other programs that are more specifically tailored to the needs of Alameda County and EBCE.

## Conclusion

This proposed program will enable EBCE staff to offer medium and large commercial customers an option equivalent to PG&E's PDP program. This will allow those customers to benefit from the same types of bill credits available to them under PG&E service, allowing EBCE to remain competitive. By coordinating with our procurement team, the PDP-EBCE will build off the lessons learned in the 2018 Demand Response pilot to increase participation levels and maximize the benefit to EBCE in the form of lower procurement costs.

### Attachment:

- A. Resolution to Approving the Demand Response Pilot

RESOLUTION No. 2019 -

A RESOLUTION OF THE BOARD OF DIRECTORS  
OF THE EAST BAY COMMUNITY ENERGY AUTHORITY  
APPROVING A PILOT DEMAND RESPONSE PROGRAM

THE BOARD OF DIRECTORS OF THE EAST BAY COMMUNITY ENERGY AUTHORITY DOES HEREBY FIND, RESOLVE AND ORDER AS FOLLOWS:

Section 1. The East Bay Community Energy Authority (“EBCE”) was formed on December 1, 2016, under the Joint Exercise of Power Act, California Government Code sections 6500 *et seq.*, among the County of Alameda, and the Cities of Albany, Berkeley, Dublin, Emeryville, Fremont, Hayward, Livermore, Piedmont, Oakland, San Leandro, and Union City to study, promote, develop, conduct, operate, and manage energy and energy-related climate change programs in all of the member jurisdictions.

Section 2. Demand response programs provide incentives to customers to encourage them to reduce their demand during critical peak periods. Peak day pricing (“PDP”) is a demand response program offered by PGE to non-residential customers. The PG&E program offers participants a discount over regular electricity rates throughout the summer (May 1 to October 31). EBCE customers are not eligible to participate in PG&E’s PDP program. EBCE offered a Demand Response program in 2018.

Section 3. EBCE proposes to continue offering a demand response program, called PDP-EBCE, similar to PG&E’s PDP program. The PDP-EBCE will provide customers an opportunity to lower their usage during critical peak hours, reducing their summer energy costs, allowing EBCE to understand how to better manage the peak electricity demand, avoid reliance on peaking power plants, and increase the reliability of the grid.

Section 4. The Board of Directors hereby approves the proposed Demand Response Pilot program to be offered to up to 100 A10/E19/E20 customers in the summer of 2019, in order to encourage continued demand response in exchange for a bill credit on par with current PG&E programs.

ADOPTED AND APPROVED this 17<sup>th</sup> day of April, 2019.

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Scott Haggerty, Chair

ATTEST:

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Stephanie Cabrera, Clerk of the Board