
**SENATE COMMITTEE ON ENERGY, UTILITIES AND
COMMUNICATIONS**
Senator Ben Hueso, Chair
2021 - 2022 Regular

Bill No: SB 204 **Hearing Date:** 3/15/2021
Author: Dodd
Version: 3/3/2021 As Amended
Urgency: No **Fiscal:** Yes
Consultant: Nidia Bautista

SUBJECT: Electricity: demand response

DIGEST: This bill proposes to codify an existing reliability and emergency demand response program, known as the Base Interruptible Program (BIP). The bill would establish specified incentive requirements and conditions for the continued use of the program.

ANALYSIS:

Existing law:

- 1) Establishes the California Public Utilities Commission (CPUC) with regulatory authority over public utilities, including electrical corporations. (California Constitution Article XII)
- 2) Requires each load-serving entity (LSE), defined as including electrical corporations (IOU), electric service providers (ESP), and community choice aggregators (CCA), to maintain physical generating capacity and electrical demand response (DR) adequate to meet its electrical demand requirements. (Public Utilities Code § 380)
- 3) Requires the CPUC to establish rules for how and when backup generation may be used within a DR program and to establish reporting and data collection requirements to verify compliance with those rules. (Public Utilities Commission § 380.5)
- 4) Pursuant to existing law, the CPUC has authorized the state's three largest IOUs to offer reliability-based DR programs, including the BIP, which is available to qualifying nonresidential customers of an IOU.

This bill:

- 1) Requires that the BIP be available to qualifying customers regardless of the LSE that is that customer's supplier of electricity.
- 2) Requires that the minimum incentive levels for program participation be those applicable within the service territory of each IOU during 2018, adjusted for inflation using a price index determined by the CPUC to be appropriate.
- 3) Authorizes the CPUC to approve increased incentive levels for program participation if the CPUC determines that those increased incentives are reasonably necessary to ensure continued participation by eligible customers, within the upper limits established by the CPUC, and are sufficient to ensure continued delivery of resource adequacy and expected ratepayer benefits.
- 4) Authorizes the CPUC to approve decreased incentive levels if the CPUC determines that those decreased incentives are reasonably necessary to ensure continued expected ratepayer benefits, within lower limits established by the CPUC, and are sufficient to ensure continued participation by eligible customers.
- 5) Because this bill would require actions by those LSEs that are CCAs, this bill would impose a state-mandated local program.
- 6) Requires the CPUC, except as provided, to implement a pilot economic DR program, to be administered by the large IOUs, in which base interruptible program participants may elect to participate, to operate for a three-year period, as specified.

Background

Demand response (DR). Demand response is defined as changes in electricity use by customers from their normal consumption pattern in response to changes in the price of electricity, financial incentives to reduce consumption, changes in wholesale market prices, or changes in electric grid conditions. DR programs take two forms: DR is a way for customers to help California manage its electricity demand. DR is customers changing their electricity usage (typically reducing use or shifting use to other times in the day) at certain times in response to economic incentives, price signals, or other conditions. Future DR may involve customers increasing their electricity usage when the grid has too much electricity generation from renewable resources like the wind or sun. Effective DR programs provide California ratepayers with various economic and environmental benefits. These

benefits include: avoiding the construction of new powerplants, avoiding the purchase of high-priced energy, providing greater reliability to the grid, which helps prevent blackouts, and avoiding the consumption of fossil fuels which can damage the environment.

DR programs have existed in different forms for many years and are considered a first-choice resource in the loading order along with energy efficiency but that priority is not necessarily reflected in the IOU portfolios. Currently, DR programs are administered by California's three regulated IOUs: Pacific Gas & Electric (PG&E), Southern California Edison (SCE), and San Diego Gas & Electric (SDG&E). Independent commercial entities known as 'aggregators' or 'Demand Response Providers' may also approach customers to offer DR services. Residential, commercial, agricultural and industrial customers can all participate in DR programs and receive incentives for their participation. The CPUC reviews the DR programs on a regular basis (every five years); the most recent decisions were on the 2018-2022 DR portfolios and budgets, D. 17-12-003, and on remaining application issues for the 2018-2022 DR portfolios, D. 18-11-029. The CPUC also sets resource adequacy requirements and refines the resource adequacy program every year; D. 20-06-031 is the most recent resource adequacy decision that addressed the topic of DR counting, with D. 19-06-026 being the previous decision.

Base-interruptible Program (BIP). BIP is a reliability emergency DR program for non-residential customers who can provide a minimum load reduction of 100 kilowatts (KW). BIP is offered by the three large electric IOUs – PG&E, SCE, and SDG&E. Most BIP participants are commercial and industrial customers involved in agriculture, mining/quarrying, and manufacturing. BIP may be called upon anytime of the year, 24 hours a day, including weekends under certain grid emergency conditions. BIP can be triggered by the California Independent System Operator (CAISO) or by local system emergencies. Participating customers receive a monthly capacity credit in exchange for a commitment to reduce energy consumption to their Firm Service Level (FSL). The FSL represents the customer's minimal operational requirements (15 or 30-minute notice of emergency events that could last up to six hours). During an event, if the customer deviates from the pre-committed load reduction amount, the customer is assessed a penalty of \$6,000/MWh they under-deliver. According to the CPUC, the IOU BIP portfolio currently has over 1,800 service accounts and 805 megawatts (MW) of estimated capacity for August 2021.

August 2020 rotating outages. On August 14 and 15, 2020, the CAISO was forced to institute rotating electricity outages in California in the midst of a West-wide extreme heat wave. Following these emergency events, Governor Gavin Newsom

requested the CAISO, CPUC, and California Energy Commission (CEC) report on the root causes of the events leading to the August outages. The rotating outages occurred after the period of gross peak demand, during the “net demand peak,” which is the peak demand net of solar and wind generation resources. While there were multiple factors that led to the outages, for the purposes of this bill, BIP participants were called upon to shed load under an emergency triggered by the CAISO. BIP participants shed nearly 800 MWs of load, roughly 80 percent of their participating loads. This load shed helped buffer the impacts of the rotating outages. However, such an emergency is (and should be) rarely called.

Nonetheless, the performance of the BIP program depends on the view of whether it should be performing at 100 percent, or if an eighty percent performance is sufficient. From the perspective of a grid operator, a resource that counts towards resource adequacy, may only be triggered during an emergency, and is provided monthly capacity payments, the glass may be half empty with any performance below 100 percent. The CPUC is currently looking at emergency actions that can be taken to prepare for the summer of 2021 (R. 20-11-003). The CPUC has proposed increasing the incentive levels for BIP for summer 2021 given the concerns for potential emergency events in the near-term.

Need for amendments. While it seems likely that BIP will be needed in the near-term as a reliability resource, the long-term conditions of the procurement portfolio and conditions on the grid may require less reliance on BIP. As a result, it would be important to preserve the CPUC’s ability to adjust the program accordingly, by authorizing the CPUC to both increase and decrease incentives, as needed. Additionally, there is a need for minor technical amendments to reflect the current eligibility of both commercial and industrial customers. *The author and committee may wish to amend this bill to clarify the need to allow the CPUC to make incentive adjustments, as needed, after the minimum level is reset in 2023 and if the BIP is categorized to a load-modifying DR resource. Additionally, the author and committee may wish to make minor technical amendments to ensure qualifying commercial and industrial customers continue to be eligible to participate in the program.*

Prior/Related Legislation

SB 1414 (Wolk, Chapter 627, Statutes of 2014) required utilities and regulators to include demand response (DR) in resource adequacy plans, as specified.

FISCAL EFFECT: Appropriation: No Fiscal Com.: Yes Local: Yes

SUPPORT:

California Large Energy Consumers Association (Sponsor)
350 Silicon Valley
California Efficiency + Demand Management Council
California Manufacturers and Technology Association
Elders Climate Action, NorCal Chapter
Elders Climate Action, SoCal Chapter

OPPOSITION:

The Utility Reform Network

ARGUMENTS IN SUPPORT: According to the author:

The BIP’s performance during the August and September events proves its importance and benefit to the residents of the state. It makes sense to ensure the BIP is available as a necessary demand response resource for emergencies and implement an economic demand response program to help balance the grid and reduce demand under normal conditions. Increasing demand response will be cheaper, and more efficient than over-procuring generating resources, storage, and balancing services to guard against any contingency, conceivable or not.

As sponsors of this bill, CLECA states:

SB 204 ensures that the BIP is available for grid emergencies by placing the program in statute and ensuring that it continues to provide resource adequacy value, ratepayer benefits, and furthers the state’s goals for reducing greenhouse gas emissions.

ARGUMENTS IN OPPOSITION: The Utility Reform Network (TURN) expresses an “opposed, unless amended” position on the bill. TURN recommends a modification to the bill in case the categorization of the BIP is changed by the CPUC to a “load-modifying demand response.” Specifically, TURN expresses concern that such a shift should warrant a change in the incentive compensation. TURN states that BIP customers are paid a capacity incentive each month, citing payments by PG&E to its BIP customers of \$8,000 each month for each promised megawatt (MW) of load reduction, resulting in a discount of nearly \$100,000 on the BIP customer’s annual electric bill. TURN argues that such compensation, paid by other ratepayers, is not warranted if the resource would only be load-modifying DR which does not include a promise to perform.