

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA
ENERGY DIVISION

AGENDA ID # 16485
RESOLUTION E-4918
May 31, 2018

R E S O L U T I O N

Resolution E-4918. Pacific Gas and Electric's, Southern California Edison's and San Diego Gas & Electric's proposals to modify their Capacity Bidding Programs per Resolution E-4819.

PROPOSED OUTCOME:

- Adopts Pacific Gas and Electric's (PG&E), Southern California Edison's (SCE) and San Diego Gas & Electric's (SDG&E) (the IOUs) Capacity Bidding Program (CBP) price trigger based on their 2015 -16 energy price analyses models. Adopts the IOUs' proposal to eliminate the parallel heat rate trigger of 15,000 Btu/kWh.

SAFETY CONSIDERATIONS:

- There is no impact on safety for the tariff changes proposed

ESTIMATED COST:

- There is no cost impact for ratepayers. Potential savings to ratepayers may materialize by dispatching the CBP in accordance with a price trigger only.

By Advice Letters (AL) PG&E 5193-E, SCE AL 3713-E and SDG&E AL 3157-E, filed on December 1, 2017.

SUMMARY

This Resolution approves, with modifications, proposals by Pacific Gas and Electric (PG&E), Southern California Edison (SCE) and San Diego Gas & Electric (SDG&E) (collectively the IOUs) for their Capacity Bidding Program (CBP). Specifically, this Resolution adopts an updated price trigger for the Day-Ahead option of the program based on 2015-16 price data, authorizes SCE to implement

seasonal price triggers, eliminates the program's parallel heat rate trigger and makes additional changes.

BACKGROUND

The Capacity Bidding Program is a Demand Response (DR) program for commercial, industrial, agricultural and residential¹ customers to enroll, through third-party aggregators, or self-aggregation. It offers day-ahead (DA) and day of (DO) options with several event duration products. While PG&E's and SDG&E's programs operate from May through October, SCE's program operates all year long. The programs provide capacity payments based on the load reductions committed for each month, if dispatched or not, and additional energy payments for load reductions during events.

The CBP's dispatch triggers vary slightly between the IOUs, however the main triggers for all IOUs has been: 1) a market award or dispatch instruction from the California Independent System Operator (CAISO) for a Proxy Demand Resource (PDR) bid, and 2) the utility's procurement stack is expected to require the dispatch of electric generation facilities with a heat rate of 15,000 BTU/kWh or greater. The later trigger is discretionary if the utility forecasts that resources may be adequate.

The Commission authorized the addition of a price trigger, in parallel with the heat rate trigger, to CBP in Decision (D.) 16-06-029, but also ordered the IOUs to collectively create a methodology for the price trigger and submit that methodology via Tier 3 ALs². In the ALs, the IOUs presented an opportunity cost methodology to target the 5 highest-value events per month.. The Commission approved the ALs through Resolution E-4819.

Resolution E-4819 also ordered the IOUs to file ALs to: 1) update the 2017 price triggers approved in the resolution, using CAISO market price data from January

¹ Residential customers may participate in PG&E's CBP program, while SCE and SDG&E have been ordered to propose pilots for a residential option in their 2020 mid-cycle update (D.17-12-003, OP's 22 and 23).

² PG&E AL 4887-E, SCE AL 3444-E, and SDG&E AL 2936-E were filed on August 1, 2016

1, 2015 through December 31, 2016, 2) analyze the opportunity cost methodology versus SCE's first five dispatch methodology for situations where the five monthly events were exceeded in 2017, and 3) analyze the operation of the program's price triggers in terms of hours of dispatch in comparison to the program's monthly hours of maximum operation, as well as other factors that influence frequency of dispatch or justify why they should remain as is.

SCE was further ordered to include an analysis of separate price triggers for the peak and non-peak seasons, and recommendation justifying whether to modify or maintain its approach of the same price trigger for all seasons.

The IOUs complied with the resolution by filing the subject advice letters of this resolution on December 1, 2017.

NOTICE

Notice of ALs PG&E 5193-E, SCE 3713-E and SDG&E 3157-E was made by publication in the Commission's Daily Calendar. PG&E, SCE and SDG&E state that a copy of the Advice Letter was mailed and distributed in accordance with Section 4 of General Order 96-B.

PROTESTS

ALs PG&E 5193-E, SCE 3713-E and SDG&E 3157-E- were timely protested by the Office of Ratepayer Advocates (ORA) on December 21, 2017. SDG&E responded to ORA's protest on December 28, 2017, while PG&E and SCE responded on December 29, 2017.

The following is a summary of the major issues raised in ORA's protest applying to all three IOUs:

Updated Price Triggers

In their advice letters, the IOUs provide variations of price triggers: one calculated with 2015 and 2016 price data as directed in Resolution E-4819, and another calculated using 2015, 2016 and 2017 CAISO market price data. The specific price triggers are:

CBP Day-Ahead Price Trigger	PG&E	SCE	SDG&E
Price Trigger Set by Reso. E-4819	Both \$70/MWh and 15,000 BTU/kWh must be met	Both \$65/MWh and 15,000 BTU/kWh must be met	Both \$75/MWh and 15,000 BTU/kWh must be met
Price Trigger Using 2015-2016 Data	\$70/MWh (May-Oct) Eliminates 15,000 BTU/kWh heat rate trigger	\$75/MWh (May - Oct) \$65/MWh (Nov - Apr) ³ Eliminates 15,000 BTU/kWh heat rate trigger	\$66/MWh (May-Oct) Eliminates 15,000 BTU/kWh heat rate trigger
Price Trigger Proposed by IOUs (includes 2017 Data)	\$85/MWh (May-Oct) Eliminates 15,000 BTU/kWh heat rate trigger	\$80/MWh (May - Oct) \$65/MWh (Nov - Apr) Eliminates 15,000 BTU/kWh heat rate trigger	\$100/MWh (May - Oct) Eliminates 15,000 BTU/kWh heat rate trigger

CBP Day-Of Price Trigger	PG&E	SCE	SDG&E
Price Trigger Set by Reso. E-4819	Both \$70/MWh and 15,000 BTU/kWh must be met	Both \$160/MWh and 15,000 BTU/kWh must be met	Both \$140/MWh and 15,000 BTU/kWh must be met
Price Trigger	Proposes to	SCE conducted	\$95/MWh (11-7

³ SCE's AL provides no specific price trigger recommendation using the 2015-16 data. Per SCE's reply to ORA protest, SCE states that if the trigger is based only on 2015-16 data, the prices are \$75/MWh (May - Oct) \$65/MWh (Nov - Apr)³

Using 2015-2016 Data	eliminate “Day Of” option	the required analysis, but recommends no change to the Day-Of price trigger due to difficulties in bidding the program into CAISO’s real time market.	PM) \$110/MWh (1-9 PM) Eliminates 15,000 BTU/kWh heat rate trigger
Price Trigger Proposed by IOUs (includes 2017 Data)	Proposes to eliminate “Day Of” option (will file a supplemental AL if Commission requires a Day-Of option)	\$160/MWh Eliminates 15,000 BTU/kWh heat rate trigger	\$95/MWh (11-7 PM) \$110/MWh (1-9 PM) Eliminates 15,000 BTU/kWh heat rate trigger

ORA recommends rejection of the price triggers proposed by all IOUs because they are based on calculations that include 2017 data when the day-ahead market prices were exceptionally high. ORA argues that use of the 2017 data results in price triggers that are set too high, meaning that the program is unlikely to be dispatched when there is economic value in using it. ORA cites Resolution E-4819, where the Commission noted that the main purpose of the parallel price trigger is to use CBP when it has highest value. Lastly ORA notes that Resolution E-4819 specifically instructed the IOUs to use data from January 1, 2015 through December 31, 2016 for their price trigger calculation updates. Hence the use of 2017 data by the IOUs does not comply with the Commission’s directions.

SCE responded that while the 2017 market prices were higher than the proceeding years, 2017 data reflects future years more accurately than 2015-16 data because of the advent of more renewable resources coming on the system. SDG&E and PG&E state that it is not unreasonable to use more recent data to determine the price trigger.

Elimination of the 15,000 Btu/kWh heat rate trigger

ORA supports the elimination of the 15,000 kWh heat rate trigger by all IOUs because of today's low gas prices, which had smaller influences on the energy price of the day-ahead market.

Short-Term Opportunity Cost Methodology

ORA supports the continued use of short-term opportunity cost methodology to ensure that CBP is dispatched for the highest priced events.

DISCUSSION

Energy Division has reviewed the instant ALs and ORA's protests to each IOU's AL, which were identical. Energy Division has also analyzed the ALs with regard to their compliance with Resolution E-4819.

Updated Price Trigger: Day-Ahead Option

There are many factors that affect market prices, and hence while it is possible that 2017 is a predictor of future years, as the IOU assert, it is also possible that it was unusual. PG&E notes that 2017 was "markedly different from prior years: the frequency, duration, and magnitudes of heat waves this year (2017) was notable, as reflected in higher CAISO day-ahead market prices over prior years."⁴ We do not have the data or the analyses to make a determination in this resolution as to whether 2017 is a predictor of future years or an exceptional year. ORA is concerned that if the 2017 data is used, the IOUs' proposed price trigger is set too high. We agree with ORA. As we stated in Resolution E-4819, a price trigger that is set too high may result in no events even when there is economic value in the CAISO market from dispatching the program.⁵ Therefore the IOUs price trigger for the Day-Ahead CBP program should be based on the 2015-16 data. Those triggers are:

- PG&E: \$70/MWh (May-Oct)
- SCE: \$75/MWh (May - Oct) and \$65/MWh (Nov - Apr)

⁴ PG&E AL 5193-E, pg. 3.

⁵ Resolution E-4819, pg. 9.

- SDG&E: \$66/MWh (May-Oct)

In the 2020 mid-cycle review of their 2018-22 portfolios, the IOUs may provide an analysis (using recent market price data) to demonstrate if the CBP price trigger should be updated.

Updated Price Trigger: Day-Of Option

PG&E's advice letter does not propose a price trigger for the Day-Of option, noting that in A.17-01-012 (PG&E's 2018-22 Demand Response Portfolio proceeding), PG&E proposed to eliminate the Day-Of option for the program. In D.17-12-003, the Commission approved PG&E's request to eliminate the Day-Of option

SCE proposes to retain the current \$160 /MWh for its Day-Of Option. SCE notes that due to the structure of this program, it is difficult to bid it into CAISO's real-time market. SCE proposed price trigger for this option is approved.

SDG&E proposed price trigger of \$95 per MWh is the same using the 2015-16 data and the 2017 data. SDG&E's proposed price trigger for this option is approved.

Short-Term Opportunity Cost Methodology

PG&E and SDG&E use an opportunity cost methodology to determine what the highest value events would be in a month, such that they not exceed the maximum number of events. SCE on the other hand, ceases to bid CBP into the market after 5 events have occurred in a given month. Based on their analysis of the program in 2017, all three IOUs support the use of the short-term opportunity cost methodology. We approve its use for all three IOUs and note that this is a helpful tool to operate the program if the price trigger is set too low.

Elimination of the 15,000 Btu/kWh heat rate trigger

The elimination of the 15,000 Btu/kWh Heat Rate trigger (for both Day-Ahead and Day-Of) was not a protested issue. We agree with the IOUs' proposal to eliminate the heat rate trigger of 15,000 Btu/kWh for economic dispatch, because, as PG&E explained, the heat rate trigger is based on implied heat rates,

calculated using gas prices.⁶ Currently gas prices are lower and thus fluctuations in gas prices have less influence on market conditions.

For SDG&E, we have already found SDG&E's dispatch of a CBP based only on a price trigger to be reasonable.⁷

SCE's proposal for Seasonal Price Triggers

SCE was directed in Resolution E-4819 to provide an analysis of separate price triggers for the peak (summer) and non-peak (winter) seasons of the program. SCE's analysis, not surprisingly, shows generally higher average energy prices in the summer season in all its sub-LAPs. SCE recommends that the CBP program have separate price triggers for the summer and winter seasons. We agree with this change and approve it.

COMMENTS

Public Utilities Code section 311(g)(1) provides that this resolution must be served on all parties and subject to at least 30 days public review and comment prior to a vote of the Commission. Section 311(g)(2) provides that this 30-day period may be reduced or waived upon the stipulation of all parties in the proceeding.

The 30-day comment period for the draft of this resolution was neither waived nor reduced. Accordingly, this draft resolution was mailed to parties for comments, and will be placed on the Commission's agenda no earlier than 30 days from today.

FINDINGS

1. Resolution E-4819 directed PG&E, SCE and SDG&E (IOUs) to file Advice Letters to analyze energy prices from January 1, 2015 to December 31, 2016

⁶ PG&E AL 5193-E, footnote 10.

⁷ D.17-12-003, Finding of Fact 79

- and propose updates to their price triggers for dispatching their Capacity Bidding Programs (CBP) in 2018 accordingly.
2. The IOUs' revised price trigger for the Day-Ahead CBP option should be based on the 2015-16 data.
 3. The IOUs' price triggers for the Day-Ahead CBP option should be:
 - PG&E: \$70/MWh (May-Oct)
 - SCE: \$75/MWh (May - Oct) and \$65/MWh (Nov - Apr)
 - SDG&E: \$66/MWh (May-Oct)
 4. SCE's and SDG&E's price trigger proposals for the Day-Of CBP options should be approved.
 5. The short-term opportunity cost model used by PG&E and SDG&E to narrow down the highest value events in a month where there would be more than five events under the annual price trigger is a reasonable approach. PG&E and SDG&E should continue to use the short-term opportunity cost model and SCE should implement it.
 6. The parallel 15,000 Btu/kWh heat rate trigger criteria should be eliminated from the CBP program.
 7. SCE's proposal for seasonal price triggers is reasonable.

THEREFORE IT IS ORDERED THAT:

1. PG&E Advice Letter 5193-E, SCE Advice Letter 3713-E and SDG&E Advice Letter 3157-E are approved with modifications as discussed in this resolution.
2. The IOUs may propose updates to the CBP price triggers using updated market data in the 2020 mid-cycle review.
3. The 15,000 Btu/kWh parallel heat rate trigger criteria shall be eliminated.
4. Within 10 days from of the effective date of this resolution, PG&E, SCE and SDG&E shall submit supplemental Advice Letters that incorporate the modifications described in Findings 2 through 7 into their CBP tariffs. The protest period for these supplemental advice letters is shortened to 7 calendar days.

This Resolution is effective today.

DRAFT

Resolution E-4918

May 31, 2018

PG&E AL 5193-E, SCE AL 3713-E, SDG&E AL 3157-E/wmb

I certify that the foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on May 31, 2018; the following Commissioners voting favorably thereon:

ALICE STEBBINS
Executive Director