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**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE
STATE OF CALIFORNIA**

Application of Pacific Gas and Electric Company
(U39-E) for Approval of Demand Response
Programs, Pilots and Budgets for Program Years
2018-2022.

Application 17-01-012

And Related Matters.

Application 17-01-018
Application 17-01-019

**SOUTHERN CALIFORNIA EDISON COMPANY'S (U 338-E) RESPONSE TO
ADMINISTRATIVE LAW JUDGE'S RULING DIRECTING RESPONSES TO
QUESTIONS AND FILING OF PREVIOUS DEMAND RESPONSE BASELINE
DEVELOPMENT AND IMPLEMENTATION COSTS**

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Dated: **April 24, 2019**

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STATE OF CALIFORNIA**

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**SOUTHERN CALIFORNIA EDISON COMPANY’S (U 338-E) RESPONSE TO
ADMINISTRATIVE LAW JUDGE’S RULING DIRECTING RESPONSES TO
QUESTIONS AND FILING OF PREVIOUS DEMAND RESPONSE BASELINE
DEVELOPMENT AND IMPLEMENTATION COSTS**

Pursuant to Administrative Law Judge (ALJ) Hymes’ Ruling Directing Responses to Questions and Filing of Previous Demand Response Baseline Development and Implementation Costs (Ruling), dated April 8, 2019, Southern California Edison Company (SCE) respectfully submits the following response to the questions presented in the Ruling.

I.

DISCUSSION

Question 1:

Through the 2018 demand response season, the wholesale baseline used by the CAISO was a 10-in-10 w/ Day of Adjustment with a 20 percent cap. The FERC recently-adopted wholesale settlement methods include: a) a day matching customer load 10-in-10 baseline with a 20 percent cap; b) a weather matching baseline with a 40 percent cap; and c) the use of control groups. The effective date of these new methods was November 2018. As noted in the Utilities presentation, these three options will begin to be used by the CAISO for settlement purposes for customers bidding demand response into the wholesale through the demand response auction mechanism.

- a. Explain whether you agree with the Utilities that the interaction between these new wholesale baseline methods and the current retail baseline creates issues for calculating performance.*
- b. Explain whether the Commission should adopt or limit adoption of these methods for settlement purposes in the Auction Mechanism.*

SCE agrees that using a wholesale baseline different from the retail baseline can cause problems for calculating resource performance, as described in the workshop presentation. With the exception of the meter generator output (MGO) baseline,¹ SCE does not have a strong preference for *which* approved baseline the resource uses to settle with the CAISO, provided that 1) SCE is informed of which baseline is used, and 2) the demand response provider shares information sufficient to verify its calculations to SCE. Therefore, SCE does not propose that the Commission limit adoption of any of the CAISO-approved baselines at this time, although SCE encourages the Commission, if it intends to allow use of these baselines, to affirmatively state their approval for demand response resources to avoid confusion. At this time, SCE has not implemented technology solutions to operationally support the new baselines and likely will not be able to do so until after 2021, as SCE is currently in the process of replacing its billing system, allowing only limited changes to the system during this process.

¹ SCE does not support the use of the MGO baseline being adopted in this proceeding, as described in its response to Question 2.

For the Demand Response Auction Mechanism (DRAM), considering that it is currently a Resource Adequacy product, with third parties' direct participation in the wholesale market, the Sellers should be allowed to use any CAISO approved baseline to measure delivered performance. In fact, this approach is already allowed under the current DRAM *pro forma* contract, where test and dispatch options under Demonstrated Capacity rely on performance as measured by the approved CAISO baselines.

Question 2:

A meter generator output is a performance evaluation method, used when a generation asset is located behind the resource's revenue meter, in which the demand reduction value is based on the output of the generation asset. In its presentation, the Utilities contend that there may be consequences resulting from introducing this method.

- a. Explain whether the Commission should address the issue in this proceeding or another proceeding.*
- b. What should be the timing for determining solutions to the issues related to the meter generator output?*

Consideration of the MGO baseline, and decision of whether to use it for demand response resources, should not be considered in the demand response proceeding. The reason for this is that MGO offers several potential meter configuration options that may raise significant policy questions, as described in the Utilities' workshop presentation. One question that would be raised by using MGO is whether individual distributed energy resources that are sub-metered should be allowed to register, provide demand response services, and settle at the device level, rather than the premise (facility) level as is currently the case. In addition, SCE agrees with PG&E's analysis that "[T]he CAISO's adopted MGO methodology raises new, complex issues which require much more factual investigation and identification of metering, data collection and management, system needs, standards, participant roles and responsibilities..."²

² PG&E's Prehearing Conference Statement and Responses to ALJ Questions, filed January 3, 2019, p. 4.

Due to the cost involved in metering individual DERs, the MGO baseline is most likely to be used by energy storage providers with battery installations at large facilities, with limitations pursuant to the CAISO tariff, including that each load control group must consist of one baseline and that if the baseline is changed it must be done with advance notice.³ Determination of the suitability of the MGO for retail DR programs will likely raise significant technical and/or policy issues. If the Commission decides to consider use of the MGO baseline in the DR proceeding, it should take enough time to consider the positions of all stakeholders as well as operational and policy implications. That is, SCE does not expect that the issue can be properly resolved in time for a July 2019 decision, and SCE does not advocate rushing to meet this timeframe.

Question 3:

The Utilities contend that retail energy baseline influences retail capacity payment in the Capacity Bidding Program.

- a. Explain whether you agree with the Utilities.***
- b. Explain whether the Commission should revise the current energy retail baseline and what the revisions should entail.***
- c. If a revision is necessary, what timeline should the Commission adopt for developing and approving any such revision and why?***

SCE agrees that the retail energy baseline informs the capacity payment in the Capacity Bidding Program. Delivered capacity is calculated by summing the average of hourly energy delivery for each Sub-Load Aggregation Point (Sub-LAP) in which a specific aggregator has nominated capacity. The load reduction for participating accounts is calculated using the 10-in-10 baseline with an optional $\pm 40\%$ day-of adjustment (DoA).

³ See CAISO Request for Performance Evaluation Methodology Form, available at <http://www.caiso.com/Documents/PerformanceMethodologyForm-CoverPage.docx> and CAISO Performance Evaluation Methodology Approval Request Attachment: Meter Generator Output, available at <http://www.caiso.com/Documents/PerformanceMethodologyForm-MeterGeneratorOutput.docx>.

SCE's CBP retail baseline is the most like the non-residential day-matching wholesale 10-in-10 baseline, as it has a comparable structure with the exception of the following:

- DoA difference: 40% for retail vs. 20% for wholesale.
- Individual customers must opt-in to receive the 40% DoA for CBP while a 20% DoA is automatically applied to all customers at the wholesale resource level.
- Retail performances are calculated at the individual customer level vs. the resource aggregate level for wholesale.

Other CAISO baseline options such as weather matching and control groups that were approved in ESDER 2 will require that we determine the benefit of those baselines for CBP. SCE is generally supportive of customer choice but allowing for multiple baselines would require costly system changes and increased work to manage baseline selections for uncertain benefit. In addition, given the current CAISO requirements that the control groups must consist of at least 150 customers that are not dispatched during an event, it is not clear that it is even possible to implement the control group baselines at the individual service account level for retail baseline calculations.

If a revision is necessary to revise the retail baseline, SCE proposes that time be allowed to evaluate implementation and operational issues first. Some issues that were raised in SCE's Pre-Hearing Conference Statement on Baselines⁴ included whether each customer has a choice of baseline to use to measure their performance or it is chosen by the Utility or Aggregator. If each customer has a choice of which baseline to use, SCE will need to group together customers using the same baseline to create a resource, as the CAISO calculates baselines at the resource level. This could result in significant market integration complexities and result in "islanded" DR megawatts that do not meet the minimum resource size for market integration due to CAISO requirements to group customers into resources by baseline, DR program, sub-LAP, and load serving entity.⁵ In addition, customer baseline choices could constantly change, requiring re-

⁴ SCE's Pre-Hearing Conference Statement, filed January 3, 2019, at pg. 2.

⁵ Removal of the single LSE requirement is pending approval for fall 2019 implementation of the CAISO's ESDER 3 process.

registration of the resources into the CAISO market, which increases workload for SCE and compounds challenges for retail and wholesale settlement calculations due to shifting of locations within a resource. The timeline will also be dependent on which baselines are approved for CBP, whether baseline choices are determined at the aggregate or disaggregate customer level, and the time required to implement changes to SCE's systems and operations for multiple baselines of varying complexities. SCE is currently in the process of transitioning its billing system to a new platform, meaning that it will likely not be able to implement new baselines in its systems until after 2021.

For the reasons above, the Utilities should not be required to use the same baseline at the retail and wholesale level, regardless of what decisions are made in this proceeding about the retail baselines. The Utilities should maintain flexibility to use the wholesale baseline that makes the most sense for each resource, considering the CAISO requirements, integration complexities, and market value.

Question 4:

With respect to baselines for retail demand response programs, are there any other reasons the Commission should consider revising the current 10-in-10 baseline? What should any such revision entail and what timeline should the Commission adopt for developing and approving the revision?

CBP is SCE's only tariffed demand response program that utilizes a 10-in-10 baseline and the Commission should fully determine the benefits to revising and/or allowing multiple baselines prior to ordering any revisions or adopting new baselines. Although parties identified certain technical and policy issues that may arise from this effort in their pre-hearing conference statements, opportunity should be given for additional issues to be identified and discussed through a robust process, including a stakeholder working group. SCE recommends that it continue to have the flexibility to use a separate wholesale baseline based on what makes sense from a market participation perspective.

Cost Information for Implementing Demand Response Baselines:

Pursuant to Ordering Paragraph 2 of the Ruling, SCE presents the costs it incurred for a) developing and implementing the 10-in-10 baseline adopted by the Commission in Decision (D.) 09-08-027, and b) revising the 10-in-10 baseline as required in D.12-04-045. SCE's expenditures consisted almost exclusively of technology costs for developing and implementing the baselines into its billing system. SCE incurred much higher costs for implementing the 10-in-10 baseline for its Demand Bidding Program (DBP) than for implementing the CBP baseline because DBP baselines were calculated through a system that provided functionality beyond just settlement, and changing the baseline required fully upgrading this complex system. On the other hand, costs to make the CBP baseline changes were lower because the changes were made in a system that required only the settlement functionality to be enhanced. In addition, the CBP baseline costs were split between SCE, PG&E, and SDG&E due to the similarities of their respective CBP programs and because all three Utilities used the same third-party system for settlement. SCE expects that, depending on the final scope of the changes, costs for implementing new retail baselines would be on the order of the historical Demand Bidding Program changes presented in Table 1, although it has not conducted an analysis at this time.

Table 1
SCE Expenditures for Implementing Demand Response Baselines

Commission Decision	Baseline	Cost
D.09-08-027	Demand Bidding Program 10-in-10 baseline	\$679,728
D.09-08-027	Capacity Bidding Program 10-in-10 baseline with 20% DoA	\$20,000
D.12-04-045	Capacity Bidding Program 10-in-10 baseline with 40% DoA	\$9,000
Total		\$708,728

II.

CONCLUSION

SCE appreciates the Commission's consideration of these matters and the opportunity to provide this response.

Respectfully submitted,

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