BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA



Order Instituting Rulemaking to Develop an Electricity Integrated Resource Planning Framework and to Coordinate and Refine Long-Term Procurement Planning Requirements.

Rulemaking 16-02-007 (Filed February 11, 2016)

OPENING COMMENTS OF THE CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES ON THE PROPOSED DECISION REQUIRING ELECTRIC SYSTEM RELIABILITY PROCUREMENT FOR 2021-2023

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For: CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES

Dated: October 2, 2019

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The Center for Energy Efficiency and Renewable Technologies respectfully submits these Opening Comments on the Proposed Decision Requiring Electric System Reliability Procurement for 2021-2023, mailed in the Integrated Resource Planning (IRP) proceeding, Rulemaking (R.) 16-02-007), on September 12, 2019. These Opening Comments are timely filed and served pursuant to Rule 14.3 of the Commission's Rules of Practice and Procedure and the instructions accompanying the Proposed Decision.

I. THE PROPOSED DECISION APPROPRIATELY ORDERS PROCUREMENT OF NEW CAPACITY RESOURCES, BUT MUST BE MODIFIED IN ORDER TO ACHIEVE THE STATED OBJECTIVES.

To be clear, CEERT firmly supports the urgent need for procurement of *new* resource adequacy (RA) resources and supports the procurement quantity (2500 MW), location (Southern California Edison (SCE) Transmission Access Charge (TAC) Area), and timing (60% by 2021, 80% in 2022, and 100% in 2023) adopted in the Proposed Decision. In addition to the reasons articulated in the Proposed Decision, several other factors bolster the case for immediate procurement of new RA resources. First, given the State policy objectives for electrification of transportation and building space conditioning, the likelihood of significant electrical load growth in the coming decade is very high. Second, the recent history of Aliso Canyon and

significant protracted reductions in gas supply due to systemic corrosion in gas transmission lines to the Los Angeles Basin from the Arizona border ensures the likelihood of sharply higher burner tip gas prices in Southern California even if supplies are returned to service that are sufficient to meet peak day demands. Finally, given the advanced age and brittle condition of the reactor vessels at Diablo Canyon and the very poor economics of its continued operation, there is significant risk that either or both units will be permanently retired before the license expiration in 2024/2025.

All of these factors combine to increase the near term need for *new* RA resources and significantly shift the risk profile towards accelerated procurement of capacity resources that do not rely on the Southern California Gas Company (SoCalGas) transportation/storage system or continued operation of once-through cooling (OTC) units. The Proposed Decision states:

"Procurement of the exact 'right' amount of system power is never possible, and requires a balancing act of reasonableness. Too few system resources could lead to actual shortages or and/or market manipulation opportunities for owners of system resources. This leads to the risk of additional ratepayer costs. On the other hand, too much system capacity represents unnecessary ratepayer costs as well. Our job is to weigh these tradeoffs and find a reasonable path forward to achieve an appropriate balance of risks and ratepayer costs."

CEERT strongly believes that the "balance of risks and ratepayer costs" favors immediate procurement of *new* resources in the quantity and location and on the schedule outlined in the Proposed Decision. CEERT notes that the Proposed Decision generally modifies the term "resource need" with the word "new" when discussing need² and makes clear that the 2500 MW is to be "incremental" to existing resources that currently provide system RA. Given these conditions, there is virtually no "risk" of over-procurement.³ The 2500 MW quantity represents roughly 5% of the total system RA demand. Any procurement

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¹ Proposed Decision, at p. 14.

² See, e.g., Proposed Decision, at pp.7, 13, 19-22, and 28.

³ Proposed Decision, at p. 14.

of new RA resources in this range will simply allow the remaining OTC plants to retire gracefully without significant net impact on ratepayer costs. A careful review of capacity needs in the next IRP cycle is highly likely to result in defining a need for yet more new non-fossil capacity resources and allow subsequent retirement of more obsolete, high cost, high GHG emitting gas resources. Nevertheless, there are modifications required in the Proposed Decision to ensure that new resources are procured to replace system reliability capacity, as discussed below.

II. THE PROPOSED DECISION SHOULD BE MODIFIED TO ENSURE THAT NEW RESOURCES ARE PROCURED TO REPLACE CAPACITY REQUIRED FOR SYSTEM

RELIABILITY BUT SUPPLIED BY OTC UNITS RETIRING IN DECEMER 2020

The Proposed Decision discusses at length the situation surrounding the impending retirement of OTC units in December 2020. While the Proposed Decision recognizes the environmental and, in many cases, environmental justice issues with continued operation of these units past their retirement date, it fails to take sufficient steps to ensure that any extension of the operating permits for these units necessary to ensure system reliability are for the minimum quantity and time required to bring replacement units on line. It even fails to acknowledge that this situation is an "own goal" given the failure of the Commission to bring enough new resources on-line to deal with retirement dates that has been known for at least nine years. There is absolutely no reason to include these units in any "least regrets" procurement.

The reasons for retiring these plants as soon as possible and expected are many. In addition to the issue of marine damages due to the once through cooling, these units are long past their cost-effective service life. They are the highest heat rate units in service with long start up time, high minimum load and have a well above average forced outage rate. The Proposed

Decision notes that their capacity factor is below 10%. These factors are precisely the reason for this occasional "last resort" use.

CEERT notes that the once through cooling pumps remain in operation any time the units are not in cold standby even if they are only designated for future dispatch in the day ahead market or idling at minimum load causing curtailment of more efficient, less polluting resources. CEERT recognizes that their last resort operation to avoid loss of load is at least defensible, but they should only be included in this procurement if the new resources to replace them are procured through this "least regrets" solicitation *and* those new resources cannot be constructed in the timeframe required.

The current mechanisms under the California Independent System Operator (CAISO) tariff to prevent their retirement through the Capacity Procurement Mechanism (CPM) or Reliability Must-Run (RMR) designation are more than sufficient to deal with the reliability issues. If the OTC plants are allowed to compete in the solicitation, no rational owner would contract for their service below the forward running cost of the unit – precisely the soft offer cap price. This backstop procurement would then be, by definition, the least cost procurement. Allowing them to bid into this solicitation will not save any ratepayer money versus backstop procurement, and allowing them to be part of the 2500 MW of incremental resources simply ensures that they operate too much for too long and create the "cliff" yet again in 2024 coincident with the scheduled retirement of Diablo Canyon.

The Commission, after apologizing for its inaction, is correct in putting the State Water Resources Control Board on notice that there is a possibility that some of the OTC units may deserve a slight extension of the permit deadline, but that extension must be for the minimum quantity for the minimum time and there must be a firm plan to replace them as soon as

possible. This situation already exists with Ormand Beach that operates today only because the Commission has yet to approve construction of new non-fossil resources procured by SCE and authorized seven years ago in the predecessor proceeding to the IRP. There is no way that these OTC resources can be considered "incremental" in the context of this Proposed Decision.

III.

HYBRID PREFERRED GENERATION RESOURCES, BOTH BTM AND IFOM, PLUS DEMAND RESPONSE COUPLED WITH SHORT TERM STORAGE, MUST BE FAIRLY VALUED AS INCREMENTAL RESOUCES AS PART OF A "LEAST REGRETS" STRATEGY

The Proposed Decision also discusses at some length the efficacy of hybrid preferred resources, both aggregated behind the meter (BTM) and in front of the meter wholesale projects (IFOM) including demand response (DR) lubricated with storage as viable incremental resources whose characteristics make them superior in the long term. CEERT understands the reason that the Commission declines to create a fixed set aside for these emerging resources that actually comprise the majority of new resources under development today. The reason that only minor quantities have been procured in the past is not because they are unreliable or not cost effective, but that the Commission has not dealt with the issue of how to count their capacity value for forward RA showing purposes. Thus, they currently have essentially no RA value, and that revenue stream is not available to support their development.

CEERT understands that this issue is not straightforward especially when considering the nearly infinite variety of configurations these resources can take, the variation in value they have at different places on the system, whether they are being used for local or system capacity, and the "square peg in the round hole" that they represent to the CAISO dispatch algorithm and financial settlement process. In R.17-09-020 (RA), both the CAISO and SCE proposed interim rules that ensure a balance between reliable operation and fair compensation, and suggested that

"durable" Net Qualifying Capacity (NQC) values be established after some real world experience. These interim protocols should be applied to this solicitation. It is critical that this issue be "durably" resolved before the next wave of capacity need in 2024, and "practicing" with a limited quantity of real projects under contract between willing buyer and willing seller is the only way this process can be accomplished efficiently.

IV. THE PROPOSED COST ALLOCATION CREATES PERVERSE INCENTIVES

CEERT rarely becomes involved in pure cost allocation issues, leaving resolution to the parties of interest. However, in this case, the mechanism outlined in the Proposed Decision creates a perverse incentive between SCE and the load-serving entities (LSEs) in its TAC area. The Commission rightly points out that this procurement is for the benefit of all customers in the TAC area, and, indeed, in the entire state regardless of which LSE procures the capacity when used for system RA. Therefore, all ratepayers should pay a fair share. CEERT agrees.

However, the Proposed Decision's cost allocation is only one-way. If SCE procures the capacity, it will be allowed to allocate a portion of the cost to customers of other LSEs, but, if the LSEs acquire the capacity, SCE's bundled customers who benefit from that other LSE's purchase are not charged. CEERT understands that the details of this issue will be settled in other Commission proceedings regardless, but this Proposed Decision should not prejudice the resolution. If the other LSEs, whether Direct Access Providers or Community Choice Aggregators, have the opportunity to procure capacity greater than their requirement under the Proposed Decision at a price below what they believe they will be allocated by SCE's

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⁴ See, SCE "RA Counting for Hybrid Resources, Sept 5-6, 2019, CPUC RA Working Group Meeting" and CAISO "Hybrid Resources RA Counting" Chris Devon, CPUC Workshop, Sept 6, 2019.

procurement, or in furtherance of their own business model objectives, they should be free to do so and reduce their cost allocation accordingly.

Similarly, SCE should not be *required* to procure capacity that has already been procured by the other LSEs. All ratepayers will benefit. The solicitations can be held as is and the details worked out in the SCE Advice Letters that follow.

V. CONCLUSION

CEERT respectfully requests that the Commission modify the Proposed Decision as detailed above. Those recommendations are further embodied in CEERT's Proposed Findings of Fact, Conclusions of Law, and Ordering Paragraphs in Appendix A hereto.

Respectfully submitted,

October 2, 2019

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FOR: CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES

APPENDIX A

CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES' PROPOSED FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDERING PARAGRAPHS FOR THE PROPOSED DECISION OF ADMINISTRATIVE LAW JUDGE FITCH

The Center for Energy Efficiency and Renewable Technologies (CEERT) proposes the following modifications to the Findings of Fact, Conclusions of Law, and Ordering Paragraphs of the Proposed Decision Requiring Electric System Reliability Procurement for 2021-2023, mailed in R.16-02-007 (IRP) on September 12, 2019 (Proposed Decision).

Please note the following:

- A page citation to the Proposed Decision is provided in brackets for each Finding of Fact, Conclusion of Law, or Ordering Paragraphs for which a modification is proposed.
- Added language is indicated by bold type; removed language is indicated by bold strikethrough.
- A new or added Finding of Fact, Conclusion of Law, or Ordering Paragraph is labeled as "NEW" in **bold**, <u>underscored</u> capital letters.

PROPOSED FINDINGS OF FACT:

6. [47] Additional electric capacity resources are necessary to ensure integration of large volumes of renewable energy being procured by LSEs.

- 9. [48] The resource adequacy rulemaking (R.17-09-020) is currently addressing issues related to development of a central buyer for local resource adequacy capacity, as well as clarification and modification of rules related to the counting of imported capacity for resource adequacy purposes. In addition, R.17-09-020 should adopt, at least on an interim basis, a methodology to count hybrid generation and demand-side resources coupled with storage for purposes of establishing a Net Qualifying Capacity (NQC) for these resources.
- 10. [48] Approximately 3,750 MW of capacity from OTC units is currently scheduled to retire by December 31, 2020 and could be available for a compliance date extension from the Water Board, in order to serve as a **bridge** backstop for procurement by the California

Independent System Operator (CAISO) utilizing existing authority to allow time for new clean resources procured by this "least regrets" solicitation to come online.

- 12. [48] The capacity factors of the OTC units with current retirement dates of December 31, 2020 are all under 10 percent for the past several years, which means that the use of sea water for cooling is minimal compared to their historic usage.
- 14. [48] California's system peak is moving later in the day and later in the year, which does not coincide with the value provided by solar resources unless those solar resources are coupled with storage, though they have been the resource of choice to date for most LSEs to meet their RPS and clean energy needs.
- 16. [49] In addition to **potential** extension of 2,500 to 3,750 MW of OTC capacity **procured through backstop procurement authority by the CAISO**, **another** 2,500 MW of incremental system resource adequacy and renewable integration resources will be needed by Summer 2021, as a "least regrets" amount necessary to ensure system reliability.
- 17. [49] The need for system resource adequacy and renewable integration resources begins in 2021 and will extend through at least 2023. It is likely that additional resources will be required shortly thereafter, as detailed in the next IRP cycle that is already underway.

PROPOSED CONCLUSION OF LAW:

- 2. [50] The issues of development of a central buyer mechanism for resource adequacy capacity and rules related to the counting of imported capacity for resource adequacy purposes, as well as RA counting rules for hybrid generation and demand-side resources, should continue to be addressed in R.17-09-020.
- 4. [51] The Commission should recommend to the SACCWIS and the Water Board that OTC compliance deadline extensions be granted for at least 2,500 MW and up to 3,750 MW of capacity for up to at least three years if procured by backstop procurement by the CAISO using existing authority, as a bridge strategy to allow new capacity procured through a "least regrets" procurement to come online.
- 5. [51] The Commission should address the need for system peak capacity given the shift of the peak to later in the day and later in the year, which makes the contribution of solar resources **without storage** less valuable and the need for other renewable integration resources more acute.

- 15. [52] The Commission should **not** distinguish, in its incremental procurement requirement identified herein, between existing and new resources.
- 17. [53] SCE should be required to conduct **an all-source a** solicitation in a nondiscriminatory manner, with resources delivering the same attributes being valued in the same manner. SCE should be required to show its bid comparison metrics to the Commission to justify its requested procurement.
- 20. [53] The Commission should not set a specific capacity target for hybrid resources, but should allow them to count toward the procurement requirements in this decision **as determined** by interim NQC protocols to be adopted in R.17-09-020.
- 21. [53] The Commission should require that the incremental system resources adequacy and renewable integration resources required to be procured by this decision come online at least 60 percent by August 1, 2021, 80 percent by August 1, 2022, and 100 percent by August 1, 2023.
- NEW. The Commission should adopt NQC counting rules for hybrid generation (both behind-the-meter and in front of the meter) and demand-side coupled with storage on at least an interim basis to be used in this solicitation.

PROPOSED ORDERING PARAGRAPHS:

- 1. [55] The Commission recommends that the State Water Resources Control Board extend the once-thru-cooling compliance deadlines for up to three years of any at least 2,500 megawatts (MW) and up to 3,750 MW of capacity, of units with current compliance deadlines of December 31, 2020, that are procured by the CAISO using existing backstop procurement protocols in order to allow time for new clean electricity capacity to come online under this "least regrets" procurement.
- 2. [55] The following load-serving entities shall procure at least the amount of capacity in megawatts (MW) **of non-OTC resources** qualifying as system resource adequacy and for purposes of renewable integration as defined in Public Utilities Code Section 454.51, with at least 60 percent delivered by August 1, 2021, 80 percent by August 1, 2022, and 100 percent by August 1, 2023:

- a. Southern California Edison Company, 1,745 MW less the sum of quantities procured in excess of the following volumes by other LSEs in its transmission service area;
 - b. Southern California Edison Direct Access (aggregated), 355 MW;
 - c. Apple Valley Choice Energy, 7 MW;
 - d. Clean Power Alliance of Southern California, 357 MW;
 - e. Lancaster Clean Energy, 17 MW;
 - f. Pico Rivera Innovative Municipal Energy, 5 MW;
 - g. Rancho Mirage Energy Authority, 9 MW; and
 - h. San Jacinto Power, 5 MW.

Quantities procured by LSEs greater than these amounts will reduce the procurement requirement of SCE accordingly.

- 4. [55] The system resource adequacy procurement allocated to community choice aggregators in Ordering Paragraph 2 c-h of this decision shall be considered their opportunity to self-provide renewable integration resources as described in Section 454.51(d) of the Public Utilities Code.
- 6. [56] Southern California Edison Company (SCE) shall conduct an all-source solicitation to procure its obligation given in Ordering Paragraph 2a above and shall consider **non-OTC** existing as well as new resources, demand-side resources, combined heat and power, and storage, as long as all **such** resources are shown to be incremental to the baseline identified in Ordering Paragraph 5 above. SCE shall utilize the Demand Response Auction Mechanism contract as a starting point for negotiations with any demand response resources that bid into its solicitation **and shall allow storage resources to be coupled with these resources to fulfill requirements for response time and duration**.