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

Order Instituting Rulemaking to Revisit Net
Energy Metering Tariffs Pursuant to Decision
D.16-01-044, and to Address Other Issues
Related to Net Energy Metering.

R.20-08-020

**REPLY BRIEF OF THE
CALIFORNIA WIND ENERGY ASSOCIATION**

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***On behalf of the California Wind
Energy Association***

September 14, 2021

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I. INTRODUCTION

Pursuant to Rule 13.11 of the Rules of Practice and Procedure, the California Wind Energy Association (“CalWEA”) respectfully submits this reply brief responding to the August 31, 2021, Opening Briefs of the California Solar and Storage Association (“CalSSA”) and Sierra Club.

CalWEA’s testimony demonstrated that high levels of rooftop solar require approximately the same amount of utility-scale renewables and substantially more storage capacity, compared to a 50 percent reduction in rooftop solar levels.¹ No party, including CalSSA and Sierra Club, which were the only ones to address the testimony,² has in any way impeached CalWEA’s testimony. CalWEA’s testimony undercuts all parties’ assumptions otherwise, which are the basis for various related arguments, including arguments that rooftop solar will reduce the need for transmission and land. Further, CalSSA relies on misrepresentations of CalWEA’s testimony to make its case. Sierra Club provides no record evidence to support its claim that high levels of rooftop solar are necessary to retire aging gas facilities in local capacity areas.

¹ CalWEA Opening Brief at pp. 4-5.

² The Small Business Utility Advocates’ Opening Brief, at p. 9, acknowledges CalWEA’s evidence without comment.

II. ARGUMENT

A. CalSSA Fails to Demonstrate that High Levels of Rooftop Solar Will Reduce Transmission Needs and Associated Costs

CalSSA presents hand-waving arguments about the need for costly transmission infrastructure related to utility-scale renewables, all of which rest on its false assumption that high levels of rooftop solar will substantially reduce the need for utility-scale renewable energy and associated transmission requirements. The criticality of this flawed assumption to CalSSA's and other parties' similar arguments is why CalSSA fails to specifically address, let alone impeach, the SB 100 RESOLVE modeling results in CalWEA's testimony, which demonstrated that high levels of rooftop solar require approximately the same utility-scale renewable energy capacity and substantially more storage capacity, compared to a 50 percent reduction in rooftop solar levels.³

For example, even accepting CalSSA's arguments that the "pro-transmission parties" favor "increased grid infrastructure"⁴ and that the Joint Agency SB 100 report "barely begins to describe the amount of transmission that will be needed,"⁵ does not change CalWEA's finding that higher levels of customer-side solar resources require more utility-scale resources overall and likely more transmission infrastructure as a result. Whatever the cost of the transmission associated with these utility-scale resources, the need for these resources will only increase with high levels of customer-side resources.

CalSSA's other hyperbolic and unsubstantiated arguments regarding the "decades of delay" associated with siting transmission lines and developing utility-scale resources⁶ can similarly be disregarded, because, to the extent these challenges exist, they would likely increase under a resource portfolio that includes high levels of rooftop solar. Further, there would be fewer resources to address these challenges due to the excessive and unjustified resources that would be devoted to supporting rooftop solar, which would also "threaten the basic affordability of utility service for many customers"⁷ and "hamper[] California's ability to achieve its clean

³ *Ibid.*

⁴ CalSSA opening brief at p. 4.

⁵ *Id.* at p. 43.

⁶ *Id.* at p. 5.

⁷ TURN opening brief at pp. 1-2.

energy goals in a cost-effective manner by making electrification of transportation and buildings less economic for non-NEM customers.”⁸

B. CalSSA Does Not Offer an Honest Assessment of Dr. Shirmohammadi’s Testimony on Behalf of CalWEA

We have explained above that an incorrect assumption -- that rooftop solar reduces the need for utility-scale resources -- underlies most of CalSSA’s arguments. While CalSSA’s arguments should be rejected based upon that fundamental flaw, without the need to discern the veracity of the arguments that rest on that flaw, the Commission should be clear that CalSSA’s arguments contain numerous mischaracterizations of Dr. Shirmohammadi’s testimony on behalf of CalWEA and other CalWEA documents entered into the record by CalSSA.

For example, CalSSA mischaracterizes CalWEA comments on the draft SB 100 Report as stating that the draft SB 100 report insufficiently studied transmission needs.⁹ In fact, CalWEA’s SB 100 comments are critical not of the draft report’s estimated transmission needs generally, or for wind resources, but of the draft report’s failure to sketch out what near-term actions must be taken to achieve offshore wind deployment.¹⁰ CalSSA’s characterization of other parties’ comments on the draft SB 100 report appear to be similarly mischaracterized.

Similarly, CalSSA makes up out of whole cloth its assertion that “CalWEA’s witness admitted a number of the shortcomings to each of these inputs [to the SB 100 Report’s transmission modeling] on the stand.”¹¹ Taking CalSSA’s three false assertions in turn:

- “First, the [Generator Interconnection and Deliverability Allocation Procedures (“GIDAP”)] includes a high volume of projects that will never be built, some of which have been in the queue for 10-15 years, undermining its credibility as a source to rely on for transmission upgrades.”¹² In fact, CalWEA’s witness said no such thing. Dr. Shirmohammadi stated that “The fact that [the CAISO] use[s] this information doesn’t mean that they are just getting all the upgrades that come out of the GIDAP process and

⁸ NRDC opening brief at p. 3; also see Public Advocates Office opening brief at pp. 35-40.

⁹ CalSSA Opening brief at p. 44-45, citing Exh. CSA-28 at 6.

¹⁰ CSA-28 at 6.

¹¹ CalSSA opening brief at p. 45.

¹² *Ibid.* Footnote omitted.

basically use them as upgrades that would happen in real life. CAISO uses that inform[ation] as a guide, especially in calculating a unit cost of upgrades and such.”¹³

- “Second, the CAISO Transmission Plan only has a 10-year planning horizon, meaning one key source for the needed transmission upgrades to meet SB 100’s 2040 goals did not look past 2030.”¹⁴ In response to a question by CalSSA’s attorney, Dr. Shirmohammadi acknowledged that the CAISO’s Transmission Plan has a 10-year planning horizon, but CalSSA’s attorney did not ask the witness whether or not that planning horizon poses a problem in terms of how it was used in the SB 100 modeling process, let alone receive an answer suggesting that there is a problem.¹⁵
- Third, CalSSA faults the SB 100 RESOLVE model for using a simplified version of the CAISO transmission system and for not analyzing transmission costs on a project-specific basis and cites Dr. Shirmohammadi’s acknowledgements of basic facts somehow as an admission that the model is mis-estimating costs.¹⁶ Dr. Shirmohammadi’s testimony, however, stated that “the transmission cost estimates are a reasonable, high-level approximation of transmission costs associated with renewable energy development in each of the zones.”¹⁷ Dr. Shirmohammadi acknowledged the need for further studies in the CAISO’s transmission planning process and stated that further study could lead to actual costs that are either higher or lower than estimated in this report, and that changes to the CAISO’s method of assessing the deliverability of renewable resources could dramatically lower transmission requirements to deliver renewable energy from many renewable energy zones.¹⁸

C. Sierra Club Fails to Substantiate its Arguments Regarding Gas Plant Retirements

Sierra Club asserts without evidence that “[f]ailure to achieve rooftop solar deployment levels in IRP modeling and in the SB 100 Joint Agency Report means more development

¹³ August 5, 2021, transcript at p. 1486, lines 15-27.

¹⁴ CalSSA opening brief at pp. 45-46. Footnote omitted.

¹⁵ August 5, 2021, transcript at p. 1493.

¹⁶ CalSSA opening brief at p. 46, citing August 5 transcript at p. 1493. Note, however, that the relevant portion of the transcript, relating to the RESOLVE model, seems to be on p. 1494.

¹⁷ CWA-01 at p. 4, lines 21-23.

¹⁸ CWA-01 at p. 4, lines 24-25, and p. 5 at lines 1-7.

pressure on California’s open spaces, working lands, and sensitive habitats,”¹⁹ and fails to impugn CalWEA’s testimony showing that, in fact, high levels of rooftop solar require more utility-scale resources than would half as much rooftop solar.

Instead, Sierra Club diverts attention to a tangential issue, asserting the high level of rooftop solar included in the Joint Agency SB 100 Report is necessary to retire aging gas facilities in local capacity areas, which raises equity concerns. Sierra Club also asserts that retaining additional gas generation to meet resource adequacy needs is “antithetical to the state’s climate and equity objectives.”²⁰ There is no record evidence to support these assertions.

The thin reed on which Sierra Club rests its claim that high levels of rooftop solar are necessary to retire gas facilities in local capacity areas is a quoted remark made by a CAISO representative that distributed solar “actually sharpens our peak demand window and the post-solar window and it increases the opportunity for storage to be a major player... in helping with local capacity.”²¹ There is a long leap between “helping with local capacity” and “retiring gas plants” in highly constrained local capacity areas. Sierra Club provides no evidence that high levels of rooftop solar will enable the retirement of gas plants in local capacity areas. In coming to such a conclusion, the Commission, in coordination with the CAISO, would need to consider numerous issues, including whether sufficient storage can be sited in the local capacity area with full capacity deliverability status, whether distributed solar could charge the storage generation capacity sufficiently to enable gas-plant retirements while maintaining reliability, and whether transmission upgrades to relieve the local capacity constraint are required.²² None of those issues have been considered in this proceeding.

Sierra Club gratuitously charges that CalWEA seeks to “deprive California of a critical tool to enable the retirement of gas-fired generation in disadvantaged communities in local capacity areas” by advocating lower levels of rooftop solar. In fact, CalWEA has championed policies that would enable retirement of local gas-fired facilities.²³

¹⁹ Sierra Club opening brief at p. 25.

²⁰ *Id.* at p. 26. Footnote omitted.

²¹ *Id.* at p. 28. Footnote omitted.

²² To the extent that gas-fired capacity is necessary to maintain reliability, relieving local capacity constraints would enable existing gas facilities from outside the local area to serve that need.

²³ For example, CalWEA has advocated that the Commission provide the CAISO with a resource portfolio that reduces gas-fired capacity in local capacity areas to enable the CAISO to plan for gas-plant retirements in its Transmission Planning Process (see, e.g., CalWEA’s November 10, 2020, comments in

Finally, regarding Sierra Club’s statement that retaining additional gas generation to meet resource adequacy needs is “antithetical to the state’s climate and equity objectives,” CalWEA notes that these objectives are affected primarily by the amount of energy generation from gas plants, not from the capacity itself. As CalWEA noted in its testimony, the gas capacity that remains to ensure reliability with lower levels of rooftop solar is operated very rarely, keeping the emission level the same as in the SB-100 Core Scenario.²⁴

III. CONCLUSION

CalWEA has shown why the Commission should reject any arguments that rest on the false assumption that high levels of rooftop solar will reduce the need for utility-scale resources and related transmission and land. The opposite is true: high levels of customer-side solar would not only be far more costly but would increase the need for utility-scale resources. CalWEA therefore respectfully urges the Commission to adopt a successor tariff consistent with the Joint Recommendations that were made by a broad and diverse group of parties to restore equity across customers and to meet the requirements of state law.

Respectfully submitted,

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R.20-05-003); and CalWEA has advocated reforms to the CAISO’s deliverability methodology that would facilitate the siting of storage in local capacity areas (see, e.g., CalWEA’s September 1, 2021, testimony in R.20-11-003).

²⁴ CWA-01 at p. 9, lines 14-15.

VERIFICATION

I, Nancy Rader, am the Executive Director of the California Wind Energy Association. I am authorized to make this Verification on its behalf. I declare under penalty of perjury that the statements in the foregoing copy of “Reply Brief of the California Wind Energy Association” are true of my own knowledge, except as to the matters which are therein stated on information and belief, and as to those matters I believe them to be true.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on September 14, 2021, at Berkeley, California.

/s/ Nancy Rader
Nancy Rader
Executive Director
California Wind Energy Association