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SEIA, CCSA, TURN, PCE Comments on 2024 Integrated Energy Policy Report Update (2024 IEPR Update)

Additional submitted attachment is included below.

November 21, 2024

California Energy Commission
Docket Number 24-IEPR-03
715 P Street
Sacramento, CA 95814

Re: Docket No. 24-IEPR-03: 2024 Integrated Energy Policy Report Update (2024 IEPR Update)

The Solar Energy Industries Association, the Coalition of Community Solar Access, Peninsula Clean Energy and The Utility Reform Network (collectively the "Joint Commenters") appreciate the opportunity to provide written comments on the electricity demand forecast load modifiers which will be reflected in the California Energy Commission's ("CEC") 2024 Integrated Energy Policy Report ("IEPR") Update. Specifically, we are responding to Vice Chair Gunda's request at the November 7, 2024 workshop for stakeholder feedback on studying community solar (i.e., distributed solar + storage resources) as a load modifier.[1] We are encouraged by the Vice Chair's comments at the workshop and the Commission's attention to this critical issue.

The Joint Commenters submit that it is critical that the CEC begin to establish a framework for consideration of distributed solar + storage resources as load modifiers. The current draft 2024 IEPR forecast shows significant decline in behind-the-meter ("BTM") distributed generation ("DG") compared to the 2023 forecast, creating a resource gap which must be filled if California is to serve its growing electricity demand while also meeting its SB 100 goals. Distributed solar + storage assets, *if afforded load modifier status*, can help the state to fill this gap. Moreover, the CEC should recognize that these distributed solar + storage assets are one of the few viable approaches to retiring some of the state's most polluting natural gas plants which are often located in disadvantaged communities but are being retained to ensure local reliability. Thus, these resources could help solve what is otherwise intractable environmental justice issue. Counting these assets as load modifiers will not significantly differ from the CEC's current practices but could have significant real world implications.

[1] Workshop on Draft Load Modifier Electricity Demand Forecast Results, Docket No. 24-IEPR-03 (November 7, 2024), Audio Transcript Recording available at recording starting at minute 59.

The reality is that BTM DG may not continue to increase at historic rates, principally due to new policies adopted by the California Public Utilities Commission ("CPUC"), including a move from Net Energy Metering to the Net Billing Tariff which alters the economics (i.e., payback period) of installing rooftop solar. While previous IEPRs projected BTM DG growth at 1.3 to 2.0 GW/yr, the current draft 2024 IEPR anticipates near-term growth of ~1.0 GW/yr resulting in a reduction of 6.4 GW to 9.5 GW BTM PV capacity by 2040 relative to the 2023 IEPR.[2]

The CEC's own analysis thus evidences the need for additional capacity to come online in an efficient manner to fill the resource gap created by reduced BTM PV installations and increased electricity demand. Distributed solar + storage resources can provide this source of much needed capacity in what is a tight Resource Adequacy ("RA") market. However, affording these assets load modifying status is critical to ensuring that they come online. Such status is necessary because the only alternative path to capacity accreditation is to achieve "deliverability" through the California Independent System Operator's ("CAISO") cluster study process. This process generally takes a minimum of three years and, as a result, is not financially sustainable for smaller DG projects. It is also by no means a path to guaranteed deliverability as only "leftover" transmission capacity is allocated to distributed projects.[3] Moreover, these projects will not be developed with storage unless they are adequately compensated for the dispatchable capacity they provide the system. Absent load modifier status, load serving entities ("LSEs") will not be permitted to count that capacity against their RA requirements and compensate the projects in kind. The LSEs will have to make up the deficit in the RA market. Thus, the CEC should capture all reasonably available and economic load modifiers because the alternative is buying RA capacity at historically high prices.

Moreover, the CEC should be aware that the CAISO has already weighed in on the issue of whether distributed solar + storage assets can be load modifiers. Specifically, in a proceeding before the California Public Utilities Commission ("CPUC") addressing distributed solar + storage resources, the CAISO stated that such resources could be considered load modifiers if they "consistently, coincidently, and systematically contribute towards meeting or reducing LSEs' shares of coincident demand."[4] These criteria are readily met by projects that include storage. The production profiles of distributed solar + storage resources are predictable and will be coincident with peak demand. The charging and dispatching operations of these facilities will consistently follow the guidelines of a governing tariff or program rules, unconstrained by the particulars of any on-site load. Thus, the load modifying attributes of the resource are assured

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[2] Behind the Meter Distributed Generation Forecast Results (November 7, 2024), available at https://efiling.energy.ca.gov/GetDocument.aspx?tn=259933&DocumentContentId=96137, p. 21.

[3] https://www.caiso.com/documents/2023-2024deliverabilityfordistributedgenerationstudyresultsreport.pdf

[4] Comments of the California Independent System Operator Corporation, A. 22-05-022 (November 27, 2023) available at https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M521/K262/521262325.PDF, p, 2.

with a tariff or program that encourages well-defined dispatch (by way of financial incentives), and the associated net load reductions on the distribution system, during the hours and times that set peak demand. Moreover, there is no question that these resources will offset load. Power flows to the nearest load – and, to minimize the costs and times to interconnect, these projects will naturally seek to locate in areas with sufficient load to absorb system output.

Finally, the Joint Commenters note that modeling distributed solar + storage resources as load modifiers does not vary conceptually from the CEC's current practice of modeling other distributed energy resources as load modifiers. California has more than 2 million BTM PV systems that collectively supply about 10% of the state's electricity. About 650 of these BTM PV systems are over 1 MW in size; i.e. similar in size to the distributed solar + storage systems at issue here.[5] Typically, BTM PV systems export about one-half of their power to the local distribution system, where these exports serve other nearby loads in the same way that exports from front-of-the-meter ("FTM") distributed solar + storage systems serve nearby loads – the exports flow to the nearest load. These exports from BTM PV are treated as load modifiers. As a matter of physics, whether a small generator is located BTM or FTM makes no difference in the impacts of their exported power on the distribution system. As another example, the CEC treats as load modifiers the solar systems developed under the Renewable Energy Self-Generation – Bill Credit Transfer ("RES-BCT") program. In this program, a RES-BCT customer can interconnect a FTM solar system (the Generating Account) to the distribution system, and export all of its power, with the exports credited to other electric loads of the RES-BCT customer (the Benefitting Accounts) that are located remotely, on other distribution circuits of the serving utility. In terms of impacts to modify loads on the distribution system, there is no difference in the operation of a RES-BCT system compared to a distributed solar + storage installation. All of the exports from a RES-BCT Generating Account are treated as load modifiers. Distributed solar + storage resources should be afforded the same treatment.

At a minimum, the CEC should take this opportunity to begin to study the system impact of increased levels of distributed solar + storage assets and the role these resources can play as load modifiers. The CEC should move quickly to complete this study and consider adopting load modifier treatment in the 2025 IEPR. Prompt resolution of this issue would allow for accelerated deployment of FTM DERs that can meet both near-term and long-term resource planning objectives at least cost. Moreover, successful implementation of the community renewables energy program currently being developed at the CPUC, which is intended to bring distributed solar + storage resources online to serve low income communities, necessitates timely consideration of such resources as load modifiers.

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[5] Based on data from the CPUC's DGStats website. Also see CPUC A. 22-05-022 *et al*., Exhibit CCSA-07 (Smithwood), p. 18, available at https://docs.cpuc.ca.gov/PublishedDocs/SupDoc/A2205022;A2205023;A2205024/5981/507387962.pdf

Respectfully,

/s/ Stephanie Doyle

California Director
Solar Energy Industries Association

/s/ Derek Chernow

Western Regional Director
Coalition for Community Solar Access

/s/ Doug Karpa

Managing Counsel, Regulatory Policy
Peninsula Clean Energy

/s/ Mattthew Freedman

Staff Attorney
The Utility Reform Network