FILED
04/08/19
04:59 PM

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 SOLAR ENERGY INDUSTRIES ASSOCIATION ON THE PROPOSED DECISION OF ADMINISTRATIVE LAW JUDGE FITCH

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Dated: April 8, 2019

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In accordance with Rule 14.3 of the Rules of Practice and Procedure of the California Public Utilities Commission ("Commission"), the Solar Energy Industries Association (SEIA)[1] provides the following initial comments on the Proposed Decision of Administrative Law Judge Fitch (hereafter, the "PD" or "Draft Order"), issued in this proceeding on March 20, 2019. This important PD recommends a Preferred System Portfolio ("PSP") for Commission adoption in this initial cycle of Integrated Resource Planning ("IRP"), and sets the stage for the future procurement of new renewable and clean energy resources and for future cycles of resource planning in California.

I. INTRODUCTION

SEIA congratulates the Commission and its staff for the perseverance, diligence, and hard work that have been required to approach the completion, for the first time, of the complex, multi-stage integrated resource planning process required by Senate Bill 350. This process has involved the review and synthesis of the individual IRPs of a growing number of disparate load-

[1] The comments contained in this filing represent the position of the Solar Energy Industries Association as an organization, but not necessarily the views of any particular member with respect to any issue.

serving entities ("LSEs") in complex and rapidly-changing circumstances. In most respects SEIA supports the PD, although we do have specific concerns with how the PD views the resource adequacy ("RA") value of solar resources and with the stated scope of the next resource planning steps anticipated in the PD. The principal intent of our comments is to assist the Commission to improve the IRP process in future cycles.

II. SELECTION OF THE PREFERRED SYSTEM PORTFOLIO

SEIA appreciates the PD's concern that the Hybrid Conforming Portfolio ("HCP") does not meet the state's 2030 carbon emission reduction and Renewable Portfolio Standard ("RPS") goals, and we note that the modeling work of the California Independent System Operator ("CAISO") uncovered reliability concerns with the HCP.[2] As a result, it is reasonable that the PD adopts as the PSP a modified and updated version of the Reference System Plan that both meets the state's ambitious emission reduction and RPS goals and appears reliable.

III. OPENING A NEW PROCUREMENT TRACK

SEIA supports the PD's proposal to open a procurement track that focuses on long-term commitments for resources that will contribute to renewable integration. SEIA agrees that this should examine the role of existing gas-fired resources, as well as how the state's renewable portfolio should evolve to meet integration needs and assure reliability. In particular, SEIA agrees with the important list of issues in the PD (pages 136-137) that need to be resolved as soon as possible on who will undertake this procurement and who will pay for it. If the near-term market for renewable generation in California is to be robust and competitive, it is of paramount importance to have, as buyers, multiple creditworthy LSEs that operate under a state

[2] See PD, at pp. 92-93 and Table 2, p. 105, also the comments of the CAISO on the staff's proposed PSP, filed January 31, 2019 in this docket, at pp. 1-5.

resource planning paradigm that provides them with a clear and certain picture of their future resource needs.

The PD proposes a new procurement phase which focuses, in part, on "near-term resources with load following and hourly or intra-hour renewable integration capabilities."[3] To this end, SEIA urges the Commission to recognize that new solar and solar-plus-storage resources can provide significant load-following and integration services, and will be able to provide far greater flexibility than solar projects built in the past. Tapping this emerging flexibility may require new and innovative arrangements for how solar and solar plus storage projects operate and are compensated, but the feasibility for solar and solar plus storage projects to provide these services economically is rapidly being developed and demonstrated:

- Energy and Environmental Economics (E3) recently published a study modeling a southeastern U.S. utility under scenarios with high penetrations of solar. This work demonstrates that solar's value can be maximized if utility-scale solar is operated in the most flexible manner possible, including allowing the solar resources the headroom to provide upwardly flexible ancillary services.[4] The Commission and the CAISO should undertake a similar study in California for the next IRP cycle.

- In California on the CAISO grid, utility-scale solar projects have demonstrated the technical capability to provide a broad range of ancillary services, including upward regulation and load following, provided the necessary control systems are in place to operate the plants to provide those services.[5]

Accordingly, SEIA urges the Commission to continue to encourage innovation; going forward, Commission staff and the CAISO should not to model renewable technologies under old paradigms for how they operate. We note that this has been a significant limitation of the

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[3] See PD, at p. 137.

[4] Energy and Environmental Economics, *Investigating the Economic Value of Flexible Solar Power Plant Operation* (October 2018), at pp 4, 33-35. Available at https://www.ethree.com/wp-content/uploads/2018/10/Investigating-the-Economic-Value-of-Flexible-Solar-Power-Plant-Operation.pdf.

[5] CAISO / First Solar / NREL, *Demonstration of Essential Reliability Services by a 300-MW Solar Photovoltaic Power Plant* (March 2017). Available at https://www.nrel.gov/docs/fy17osti/67799.pdf.

RESOLVE model; to date, the IRP modeling using RESOLVE has not treated solar plus storage as a separate candidate resource, even though this pairing allows the storage component to qualify for the 30% federal investment tax credit, significantly lowering the cost of storage. This significant benefit of reducing the cost of storage is not available to other renewable technologies.

In this vein, SEIA is very concerned with the PD's apparent statements, on pages 117-118, that wind and geothermal are "higher value" resources than solar for resource adequacy (RA) purposes, such that in formulating the PSP the staff allocated scarce firm transmission capacity to wind and geothermal, presumably in preference to solar. Again, the relative capacity value of resources is an empirical question that will depend on many factors: (1) how the solar is operated, (2) the type of solar array (fixed or tracking), (3) the local reliability area where it is located, (4) whether it is paired with storage, and, of course, (5) the cost of the resource. The PD should be modified to make clear that the PSP is not prescribing how scarce firm transmission resources should be allocated in the future. In addition, the Commission should not assume that substantial amounts of "Energy-only" (EO) solar resources can be developed commercially in California, because the substantial curtailment risks with EO resources may not allow them to be financially viable for the developer or acceptable to an LSE who must meet both RA and RPS requirements. As discussed further below, given the significant amounts of EO resources in the PSP, the Commission and the CAISO should prioritize an examination of whether there are in-state transmission constraints to the renewable deployment that will need to be addressed in order to meet the 2030 goals.

IV. PORTFOLIOS FOR TRANSMISSION PLANNING

The PD proposes to send two versions of the PSP to the CAISO for use in the CAISO's

next transmission plan. SEIA notes that the significant amounts of EO resources in the PSP strongly suggest that in-state transmission expansions to provide firm access to new renewables should be studied in conjunction with Policy Sensitivity #1, the case that focuses on in-state renewable development. The PD also would forward to the CAISO for study Policy Sensitivity #2, a case with new transmission to bring incremental wind resources to California. SEIA does not oppose this case, but this sensitivity should examine more than just new lines that access wind resources. There are low-cost solar resources throughout the West; recently, record low solar contract prices have been reported in Idaho, Nevada, and Arizona.[6] California will benefit the most from competition among all types of renewable resources to serve the state, and thus any new transmission lines to California that are supported by California regulators or LSEs should be able to access a diverse range of renewable resources. In addition, SEIA cautions the Commission that there are substantial siting and economic hurdles to building major new regional transmission lines. At the same time, the accelerating closures of major coal plants in the West[7] may free up existing transmission capacity. Exploring this possibility should be prioritized before studying major new transmission lines that are time-consuming to site and expensive to build.

V. CONCLUSION

SEIA appreciates the Commission's consideration of these opening comments, and will continue to be actively involved in this proceeding and its successors.

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[6] See "Idaho Power claims one of lowest-priced solar deals at 2.2 cents/kWh" (*Utility Dive*, April 4, 2019), also reporting the low-cost solar contracts of NV Energy and the Central Arizona Project, available at https://www.utilitydive.com/news/idaho-power-claims-one-of-lowest-priced-solar-deals-at-22-centskwh/551984/.

[7] See "Utilities Speed Up Closure of Coal-Fired Power Plants" (*Wall Street Journal*, January 9, 2019), available at https://www.wsj.com/articles/utilities-speed-up-closure-of-coal-fired-power-plants-11547035201. Also, "Coal plant closings double in Trump's 2nd year despite 'end of war on coal'" (S&P Global Market Intelligence, November 28, 2019), esp. the map of U.S. coal plant closures, available at https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/48671375.

Respectfully submitted,

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Dated: April 8, 2019

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