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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)

REPLY COMMENTS OF THE AMERICAN WIND ENERGY ASSOCIATION CALIFORNIA CAUCUS ON THE ADMINISTRATIVE LAW JUDGE'S RULING SEEKING COMMENT ON PROPOSED REFERENCE SYSTEM PORTFOLIO AND RELATED POLICY ACTIONS

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The American Wind Energy Association of California ("AWEA-California") respectfully offers these reply comments on Administrative Law Judge Julie A. Fitch's November 6, 2019 *Ruling Seeking Comment on Proposed Reference System Portfolio and Related Policy Actions* ("Ruling").

I. DISCUSSION

AWEA-California supports the Commission's efforts to capture a variety of potential scenarios and account for several variables in order to plan for achievement of an affordable, reliable, and renewable electricity system in 2030 and 2045. Our replies to opening comments on the 2019-2020 Reference System Plan focus on the following areas:

1. The Commission should rely on stringent GHG reduction targets to facilitate long-term planning
2. The Commission should consider procedural improvements in both the modeling and the intersection between the IRP and the CAISO's Transmission Planning Process (TPP).
3. Utility-scale wind, solar, and storage can all play a role in the optimal portfolio out to 2030 and 2045, however geographic and technological diversity will minimize costs if planning is conducted well in advance.

AWEA-California believes that Staff and the Commission have compiled valuable information that – if combined with some modified and improved assumptions – can provide a

much needed basis for action to address climate change in California and the West. We offer the following points in response to parties' opening comments.

1. **The Commission should rely on a more stringent GHG reduction target to facilitate long-term planning.**

Several parties called for more stringent GHG reduction targets in order to initiate procurement at the scale necessary to achieve longer-term greenhouse gas emission reduction requirements, and to support the transition to building and transportation electrification.[1] AWEA-California strongly agrees with the Environmental Defense Fund in its statement that "the Commission should recognize that reference system plans are not going to be adopted for the electric system as we know it today, but as a corner stone for the electric grid California will need in the next twenty years.2 EDF continues that "planning for the longest possible time horizon has multiple benefits 1) it gives California additional time to build out new infrastructure; 2) it gives ratepayers additional time to spread out costs of new procurement 3) the "downside" of this pathway is an accelerated procurement of needed resources. As stated above, the need to reduce GHG emissions from the electric sector is a matter of when, not if. The Commission is at risk of not meeting its goals if it stays on the 46MMT and mutes a procurement signal; this signal will not be muted under the 30 MMT scenario." [3]

Similarly, CEERT states that it is crucial to adopt the 30 MMT case, noting "A key takeaway from the 2045 Framing Study is that "[r]esource build under a more ambitious 2030 target (30 MMT) is more in line with 2045 scenarios." Further, CEERT cautions against getting into another capacity crunch like the one that is in place now and requests that the Commission authorize additional procurement immediately."[4] AWEA-California believes that more stringent planning targets will allow for more methodical and appropriately-paced development of new renewable generation and associated clean energy infrastructure, and will protect the state from

[1] Parties calling for lower GHG targets included CEJA and Sierra Club, Environmental Defense Fund, Southern California Edison, CEERT, Vote Solar, SEIA, and LSA, and NRDC.

[2] Comments of the Environmental Defense Fund on ALJ's Ruling Seeking Comment on Proposed RSP and Related Policy Actions, pp 1-2

[3] Ibid, p.2.

[4] Opening comments of the Center for Energy Efficiency and Renewable Technologies on Administrative Law Judge's ruling seeking comment on Proposed Reference System Portfolio and Related Policy Actions.

needing to make impulsive and expensive policy decisions in the future. Southern California Edison succinctly argues that "SCE disagrees with Commission staff's statement that "[a] deeper electric sector GHG target by 2030 may be too aggressive in the near term." Staff's 2045 Framing Study shows that all three scenarios indicate the GHG glide path to reach California's 2045 decarbonization goals will necessitate a much more stringent GHG goal in 2030.[5]

2. The Commission should consider procedural improvements in both the modeling and the intersection between the IRP and the CAISO's Transmission Planning Process (TPP).

a. Procedural improvements related to the Transmission Planning Process

SCE recommends that either a new 38 MMT scenario modeled by Commission staff with new parameters (lower GHG planning target and higher electrification/efficiency) or SCE's 38 MMT Scenario be used as the reliability and policy-driven base cases for the next CAISO TPP. Such cases reflect a prudent portfolio that puts the electric sector on a more appropriate path for the state to achieve its environmental goals.

This is more in line with AWEA-California's belief that long-lead-time resources and lower GHG emission targets should be considered in the next iteration of the TPP in order to facilitate planning.

CAISO noted that "the 46 MMT alternate case is insufficient to serve as the base case in the TPP".[6] They suggest slowing the process down to figure out how to create reliable portfolios that can be studied in the TPP. AWEA-California believes additional information is necessary and that procedural reforms are necessary to create meaningful IRP / TPP integration.

CEERT suggests suspending the IRP proceeding in favor of a series of En Banc meetings and workshops among agencies and parties to discuss "elements of a robust, transparent and collaborative integrated planning process."[7] AWEA-California is concerned that any suspension of the IRP could further delay decisive action to improve reliability or toward achievement of our GHG reductions. AWEA-California does not view the IRP process as a perfect process, and appreciates CEERT's suggested improvements, however we do see value in moving the process

[5] Southern California Edison Company's (U 338-E) Opening Comments On Administrative Law Judge's Ruling Seeking Comment On Proposed Reference System Portfolio And Related Policy Actions. p. 14

[6] CAISO Opening Comments, p. 5

[7] CEERT Opening Comments, p. 1.

forward on the current track, with modest modifications, in the interest of advancing the acutely critical procurement needed to meet our 2030 GHG targets.

b. Imports and 2,000 MW of perfect capacity

Several parties noted modeling inconsistencies and challenges associated with the import limit and the implications on the need for 2,000 MW of 'generic effective capacity.'[8] SCE notes that modeling inconsistencies between RESOLVE and SERVM, such as the 5,000 MW import limit, likely contributed to the 46 MMT Alternate Scenario portfolio not being reliable from a 1-in-10 LOLE perspective, requiring staff to add 2,000 MW of "generic effective capacity" into SERVM. AWEA-California agrees and reiterates our concern from opening comments that misaligned assumptions regarding Import Capacity during peak conditions and in other times of the year appear to hamstring the selection of low-cost, high capacity factor wind resources located in neighboring balancing authorities and result in a RESOLVE portfolio that is not adequate to meet system needs. There is a need to align the import assumptions to a consistent value the Commission believes will be available to meet California's needs in all hours of the year.

c. Candidate resources and the need for a suite of complementary clean energy resources

CalCCA notes, appropriately, that "The next decade of California's renewable transition can be achieved through a similar process, as suggested by the wide range of regulatory and industry planning indicating that high solar and storage penetration are feasible, reliable, and cost-effective, particularly when paired with complementary resources such as OOS and offshore wind."[9] AWEA-California agrees with CalCCA: the Commission should not focus on selecting one resource over another, but on ensuring that all zero-carbon generation resources can complement one another to achieve greater reliability and ratepayer benefits.

NRDC states that it is encouraged by OSW and OOS sensitivities, noting the potential cost reductions of offshore wind with increasing commercial deployment, and states that "The Commission, through this IRP process, should make recommendations on potential offshore wind

[8] Parties noting modeling challenges associated with inconsistent import limits included Southern California Edison, CalCCA, and CAISO.

[9] Opening Comments of CalCCA, p. 27.

and OOS wind projects that the clean energy industry could explore." AWEA-California agrees that this type of diversity remains worthy of continued and increased consideration.

d. Diablo replacement

Several parties note that Diablo replacement has not been fully considered and analyzed. CEJA and Sierra Club stated "California law requires the Commission to take steps to ensure that GHG emissions do not increase due to the retirement of the Diablo Canyon plant. This analysis has not occurred."[10] CalCCA states "Staff's selection of generic capacity in the form of a zero-emission peaking facility does not give sufficient insight into the kinds of resource solutions that will occur in 2026 following the retirement of Diablo Canyon. As noted by Staff, this gap could realistically be met by several resource types—firm imports, battery storage, renewable resources, demand-side management, or thermal generation. It is important that the Commission identify specific resources so that the CAISO's Transmission Planning Process can ensure that the needed transmission can be added to ensure that the resources and energy can be used. The CAISO emphasized this in its ex parte notice filed November 27, 2019."[11]

As noted in opening comments, AWEA-California agrees with other parties that offshore wind should be a viable candidate for replacement of Diablo Canyon. In opening comments, AWEA-California recommended that the Commission run sensitivities where transmission capacity is available to offshore wind. Specifically, we recommended a sensitivity analyzing 3-4 GW of available capacity in 2025 and 2026 (with minimal new transmission build-out) for Central Coast offshore wind following the retirement of Diablo Canyon. A second sensitivity should evaluate the addition of 1,600 MW of new transmission that could enable build out of the Humboldt Bay wind energy area.

e. Environmental screens

Defenders of Wildlife suggests expanding the models to include environmental screens to regional land-based renewables as well as the marine environment for offshore wind.[12] While AWEA-California supports responsible development of renewable energy projects and is

[10] CEJA and Sierra Club, p. 19.

[11] CalCCA Opening Comments, p. 25

[12] Opening comments of the Defenders of Wildlife to ALJ Ruling Seeking Comment on Proposed RSP and Related Policy Actions, pp. 1-2.

engaged in myriad discussions around appropriate siting and permitting, we do not believe that the IRP is the appropriate forum for such decisions. The IRP is a modeling exercise designed to look at various development areas and does not include the appropriate level of environmental data, input from all of the appropriate agencies, or stakeholder participation to provide the necessary information or review. We believe that such environmental considerations are better explored in other venues and look forward to working with Defenders and other parties in those processes.

3. Utility-scale wind, solar, and storage can all play a role in the optimal portfolio out to 2030 and 2045, however geographic and technological diversity will minimize costs if planning is conducted well in advance.

a. Energy Only assumptions

In Opening Comments responding to Question 20, the Public Advocates Office argues against the Energy Only ("EO") studies, arguing that "[a]llowing increased curtailment in the RSP (and, eventually, the PSP and TPP) would discourage LSEs from adopting approaches that align with the CAISO's solutions and could encourage the construction of generation and transmission facilities that are not economically efficient."[13] It is also important to recognize that the assumption that Energy Only projects will actually be procured is at odds with the historic procurement practices of LSEs. AWEA-CA is not aware of any solicitations for new resources where Energy Only resources would be able to effectively compete. This is because LSEs seek to maximize both the RPS and RA value of their procurement, and as such, the resources that win PPAs have always had Full Capacity Deliverability Status. So long as this procurement practice continues, the identification of energy only resources will be at odds with the actual procurement practices of LSEs and the RSP will not adequately reflect what LSEs will include in their individual plans. For this reason, AWEA-CA does not support the inclusion of Energy-Only sensitivities in the RSP.

b. Regional wind and new transmission

CalCCA supports modeling of 3 GW new transmission for OOS as a default assumption, and notes that increasing amounts of OOS wind are selected under more stringent GHG-

[13] Opening Comment of Public Advocates Office, pp. 22-24.

reduction scenarios, suggesting that OOS wind needs to be a part of future portfolios.[14] SDG&E suggests that the Commission adopt two adjustments to the 46 MMT Alternate Case: (1) retain as much of the existing gas fleet as possible; and (2) include OOS wind in the resource mix.[15] SDG&E's suggestion illustrates the value of regional wind as a low-cost diversity component, though AWEA-California notes that utility-scale wind provides this complementary low-cost generation without additional emissions of GHG or criteria air pollutants.

TURN's opening comments highlighted the simple though thorny assumptions around unspecified imports, noting that CARB's default emission factor is both out-of-date and based on too narrow of a geographic region. [16] AWEA-California agrees that the Commission should work to develop a more realistic emissions factor for inputs but suggests doing so with other California and western energy agencies, as many states are currently planning for the transition to 100% clean energy and will need to rely on coordinated information and – at times – common resources to achieve west-wide GHG reduction and renewable energy requirements. AWEA-California again points to the Western Flexibility study, which demonstrates the need for improved regional coordination.

c. Offshore wind

Several parties advocate for consideration of a suite of clean energy resources, including EDF, CalCCA, SCE, and others. CalCCA notes that at least two CCAs have begun to explore offshore wind opportunities, and therefore "suggests examining the integration of these resources in the 2026 and 2030 scenarios."[17] Finally, "EDF's internal modelling indicates that we should consider a portfolio of options for deeper decarbonization, including but not limited to: carbon capture usage and storage, long duration storage, greater reliance on out of state imports, expansion of offshore wind, and usage of low carbon fuels such as hydrogen or biomethane in existing natural gas fired electric generators."[18] AWEA-California agrees but suggests that the only way to assess the optimal mix of such resources is to study them in an unbiased and unconstrained manner.

[14] Opening Comments of CalCCA, p. 34
[15] SDG&E Opening Comments, P. 9.
[16] Opening Comments of TURN, pp. 6-7.
[17] Opening Comments of CalCCA, p. 34.
[18] Comments of EDF, pp. 2-3.

II. CONCLUSION

AWEA-California appreciates the hard work of the Energy Division Staff and Commission in this important proceeding and looks forward to continued refinements and expanded considerations as we move through the 2019-2020 IRP Cycle.

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Respectfully submitted,

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