

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



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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)

**COMMENTS OF THE AMERICAN WIND ENERGY ASSOCIATION CALIFORNIA  
CAUCUS ON THE ADMINISTRATIVE LAW JUDGE'S PROPOSED DECISION ON  
THE 2019-2020 ELECTRIC RESOURCE PORTFOLIOS TO INFORM  
INTEGRATED RESOURCE PLANS AND TRANSMISSION PLANNING**

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**SUBJECT INDEX**

INTRODUCTION AND SUMMARY OF RECOMMENDATIONS ..... 1

DISCUSSION..... 3

1. A 46 MMT Target Risks Not Satisfying the Statutory Requirements of Section 454.52(a)(1)(A) of the Public Utilities Code. .... 3

2. The CPUC Should Revise Its Direction for the 2020-21 Transmission Planning Process to Better Inform the Value and Availability of Regional and Offshore Wind Resources Within the 2030 Planning Horizon. .... 4

3. Since the IRP process is an iterative process, the Proposed Decision should provide direction to the Energy Division Staff to Improve the Ability of Resolve to Select a Diverse Set of Candidate Resources Consistent with Public Utilities Code Section 454.51 to identify a “Diverse and Balanced Portfolio.” ..... 5

CONCLUSION..... 7

AWEA-CA RECOMMENDED CHANGES TO FINDINGS OF FACT AND CONCLUSIONS OF LAW ..... i

**TABLE OF AUTHORITIES**

STATUTES

Senate Bill 100 (de León, 2018) ..... 2, 3

Senate Bill 350 (de León, 2015) ..... 2, 3, 7

Cal Pub. Util. Code Sec. 454.52(a)(1)(A)..... 2, 4

Cal Pub. Util. Code Sec. 454.52(a)..... 3

OTHER AUTHORITIES

Cal. P.U.C. Dec. No. 19-04-040 ..... 2, 3, 5

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In accordance with Rule 14.3 of the California Public Utilities Commission’s (“Commission”) Rules of Practice and Procedure, the American Wind Energy Association of California<sup>1</sup> (AWEA-California) respectfully offers these comments on Administrative Law Judge Julie A. Fitch’s February 21, 2020 *Proposed Decision on 2019-2020 Electric Resource Portfolios To Inform Integrated Resource Plans and Transmission Planning* (“PD”).

**INTRODUCTION AND SUMMARY OF RECOMMENDATIONS**

The adoption of a Reference System Plan (“RSP”) involves crucial, macro policy decisions that will directly affect the achievement of the SB 350 and SB 100 emission targets. The RSP is arguably the most important step in the IRP because it directly informs LSE IRP planning efforts, which will in turn affect reliability, affordability and the ability of the state to

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<sup>1</sup> AWEA-California represents much of the utility-scale renewable energy industry in California. AWEA-California members develop onshore wind resources, offshore wind resources, standalone solar and solar paired with battery storage. Participating companies strive to develop and deliver utility scale renewable energy projects that provide the most value to ratepayers and support the State’s efforts to develop a diverse portfolio of clean capacity that addresses Renewable Portfolios Standard (RPS) needs, meet greenhouse gas (GHG) reduction targets, and contribute to resource adequacy (RA) needs.

reach the emission targets on time. LSEs' increasingly disaggregated planning and procurement decisions will set the course for long term GHG targets, and the RSP is what directly informs all of the LSEs' plans. It is therefore crucial for the Commission to ensure it is sending signals to LSEs that will facilitate the statutory requirements of SB 350. As explained herein, the planning assumptions set forth in the Proposed Decision are demonstrably inadequate to meet the state's GHG goals and inconsistent with applicable law. The selection of the 46 MMT target will not fulfill the statutory requirement for a 2030 GHG emission reduction target nor the recent amendments to Section 454.52 of the Public Utilities Code to integrate the statutory requirements of SB 100.<sup>2</sup>

In addition to explaining the need to adopt a lower target, these comments provide targeted recommendations related to transmission planning and the need to build on the policy sensitivities called for in the last PSP decision, D.19-04-040. The CPUC should work with CAISO to better understand the supply curve of regional wind resources. The Commission should also undertake transmission studies that can inform new analysis of offshore wind candidate resources and their availability before 2030. Recognizing that the TPP and IRP are interdependent, iterative processes, AWEA-CA's recommended transmission changes will better inform the Commission's future analysis of a diverse array of resource build out scenarios that provide LSEs with meaningful options to plan for a diverse array of resources in their supply portfolios. By planning for diversity early in the process, the Commission will best ensure that the State minimizes risks associated with the timely achievement of an affordable, reliable and zero-GHG future.

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<sup>2</sup> Cal Pub. Util. Code Sec. 454.52(a)(1)(A).

## DISCUSSION

### **1. A 46 MMT Target Risks Not Satisfying the Statutory Requirements of Section 454.52(a)(1)(A) of the Public Utilities Code.**

The selection of a GHG target is arguably the most important policy decision the Commission must make in the IRP process. SB 350 requires the California Air Resources Board (“ARB”) to adopt GHG emissions target in coordination with the Commission and the Energy Commission. In 2018, the ARB adopted a total range of 53 – 30 MMT for the entire electricity sector (both IOUs and publicly owned utilities). Like the 2017-18 IRP Cycle, the 2019-20 RSP Proposed Decision would adopt a 46 MMT target for the CPUC jurisdictional LSEs. 46 MMT is at the upper end of the ARB adopted range.

The Commission selected a 46 MMT target in the 2017-18 RSP. Months later, the LSE portfolios submitted pursuant to that RSP did not collectively achieve the 46MMT target, let alone the lower ranges of the ARB’s target range.<sup>3</sup> In retrospect, the 2017-18 IRP did not lead to the achievement of Section 454.52(a) of the Public Utilities Code (i.e., requiring IRPs to be consistent with a 40% below 1990 emissions levels by 2030). That Code section has since been amended to reflect the SB 100 target (i.e., a 60% RPS by 2030). AWEA-CA is concerned that the repeated selection of a metric ton target that is at the top end of the ARB’s adopted GHG range will lead to similar collective IRP deficiencies in meeting the GHG targets as the last cycle. This is especially concerning in light of the fact that one of the laws that played a critical role in the ARB’s 2018 target range has since changed in a way that suggests the 2018 target range needs to be updated.

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<sup>3</sup> Cal. P.U.C. Dec. No. 19-04-040, p. 2.

The RSP target will inform LSE procurement plans and the CAISO planning in the TPP. The 2020-21 TPP will utilize the study results driven by the 2020 RSP and in doing so, set the parameters for future transmission assumptions in future RSPs and Preferred System Plans (“PSPs”). Simply put, the adoption of this RSP is much more than an interim step in a larger process. In and of itself, this RSP, will set the course for longer term LSE planning and transmission planning. Undertaking these longer-range planning efforts now in a way that establishes the right trajectory of capacity expansion will very likely determine whether the State achieves its 2045 GHG targets.

The CPUC should revisit its selection of a 46 MMT target and ask whether the stool will stand when the Commission is faced with the selection of a PSP that is compiled from plans that do not collectively achieve Section 454.52(a)(1)(A) of the Public Utilities Code.

**2. The CPUC Should Revise Its Direction for the 2020-21 Transmission Planning Process to Better Inform the Value and Availability of Regional and Offshore Wind Resources Within the 2030 Planning Horizon.**

AWEA-CA commends the Commission and Energy Division staff for leading an open modeling development process that is markedly improved in relation to previous iterations. The model is increasingly able to study certain diversity benefits in the future electricity grid, but further refinement is still needed. AWEA-CA looks forward to continuing to work with staff in the refinement of the RESOLVE and SERVVM modeling tools. To date, RESOLVE has been limited in its ability to select candidate resources from zones that don’t have good transmission data (e.g., from existing TPP studies or Interconnection data). In the absence of transmission data, previous iterations of the model have included binary switches for certain candidate resource types or generic and conservative transmission cost assumptions. To better understand

the value of diversity, the Commission should direct the CPUC staff to undertake further “category-2” non-binding transmission studies, including:

- a. The Category 2 Policy Sensitivities related to 3 GW of regional wind conveyed in D.19-04-040 should be reiterated and updated in the 2020-21 TPP Cycle as a category 1 policy base case.
- b. Network transmission capacity made available by the retirement of Diablo Canyon should be studied as being available for allocation through the CAISO deliverability allocation procedure in the same time frame as offshore wind is made available (i.e., before 2030).
- c. New, undersea network transmission capacity delivering high capacity factor wind resources from the central coast into the LA basin and SCE’s broader Transmission Access Charge (“TAC”) should be studied in conjunction with offshore wind resource availability before 2030.
- d. New network transmission capacity or line reconductoring enabling new deliveries of high capacity factor wind in the Humboldt region should be analyzed. The Ocean Protection Council and Office of Policy and Research are funding research from Humboldt State University Schatz Center looking at the costs and options for subsea transmission from North Coast Offshore Wind.

These transmission study requests will help inform the availability and cost of high capacity factor wind resources and enable future IRP processes to take more concrete steps towards planning for these resource types in furtherance of both a 2030 RPS and the 2030 and 2045 GHG targets.

3. **Since the IRP process is an iterative process, the Proposed Decision should provide direction to the Energy Division Staff to Improve the Ability of Resolve to Select a Diverse Set of Candidate Resources Consistent with Public Utilities Code Section 454.51 to identify a “Diverse and Balanced Portfolio.”**

Both the IRP and RPS statutes require the CPUC to evaluate a diverse array of resources. In the context of modeling, this means ensuring a broad array of commercially available resources are able to compete. AWEA-CA is optimistic that offshore wind resources can and will be able to compete in LSE solicitations ahead of the arbitrary and binary 2030 demarcation set in the Resolve modeling supporting the Proposed Decision. In past comments, AWEA-CA

has advocated for certain changes to model inputs and assumptions for offshore wind. First, we recommended that offshore wind be refined as a candidate resource to ensure the model can select it in any year during the planning horizon, rather than in 2030 alone. We note that 4,500 MW of gas capacity was retained until 2030 in this RSP. Offshore wind provides end-of-day capacity which could offset some of this gas retention if it were analyzed as available prior to 2030.

In previous comments we also recommended modifying the transmission cost assumptions associated with offshore wind to better reflect the notion that network capacity currently utilized by Diablo may be delivered and allocated pursuant to the CAISO Appendix DD (or successor) process in a similar timeframe as OSW projects may be deliverable. A total of roughly 3-4 GW of transmission capacity may be available in the 2025 timeframe (according to the CAISO). How this transmission capacity is allocated in the GIDAP process may have important implications for capacity expansion modeling and the costs of achieving various levels of GHG targets. Similarly, there is a clear need to more precisely consider the costs of transmission necessary to build out the potential Humboldt offshore wind area. We recognize that it may not have been possible to implement this second recommendation in time for this RSP development.

Further, the Commission should direct Energy Division staff to continue to refine all resource cost assumptions, particularly those for Offshore Wind. As a relatively new technology, it's not unusual for cost projections to decrease rapidly, even year-over-year, as has occurred with other technologies like solar and batteries in earlier periods. For example, the offshore wind costs used in the Industry Cost scenario were recently updated in the NREL 2019 ATB, while the latest iteration of the RESOLVE modeling used higher costs reflected in the



NREL 2018 ATB. Improving these assumptions in future IRP cycles will help ensure that the IRP process better fulfills the statutory objectives of evaluating a diverse portfolio.

### **CONCLUSION**

For the reasons detailed above, the Commission should not adopt a 46 MMT GHG target because it does not meet the statutory requirements of SB 350. The Commission should bolster the recommended policy sensitivities for the 2020-2021 Transmission Planning Process to ensure that future IRP cycles can evaluate the benefits in terms of reliability and affordability of a more diverse portfolio.

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Respectfully submitted,

By: \_\_\_\_\_ /s/

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**AWEA-CA RECOMMENDED CHANGES TO  
FINDINGS OF FACT AND CONCLUSIONS OF LAW**

**Findings of Fact:**

15. The Commission should, in the procurement track of this proceeding, continue to consider steps required to develop and procure not only the resources identified in the 2019-2020 RSP, **but also potentially additional geothermal and offshore wind resources, or other resources designed to bring diversity to the portfolio. The Commission should work with the CAISO and developers to assess transmission costs associated with 1,500 MW of offshore wind off the coast of Humboldt County and up to 4,000 MW of offshore wind in the central coast utilizing capacity from the retiring Diablo Canyon and Morro Bay facilities. These costs, as well as updated technology costs, should be incorporated into the 2021-2022 IRP cycle.**

**Conclusion of Law:**

22. The Commission should utilize the 2017-2018 PSP as the reliability and policy-driven base case, with updates as described in this decision, to forward to the CAISO for purposes of its 2020-21 TPP. **The Policy Sensitivity conveyed in the 2017-2018 PSP relating to out-of-state wind should be conveyed as part of the policy-driven base case for the 2020-2021 TPP.**

**Add Conclusions of Law:**

31. **As a third policy-driven sensitivity on the 46 MMT policy and base case, the CAISO should contemplate utilizing network transmission capacity made available by the retirement of Diablo Canyon that becomes available in the same timeframe as offshore wind (i.e., before 2030).**
32. **As a fourth policy-drive sensitivity on the 46 MMT policy and base case, the CAISO should study a new, undersea network transmission capacity delivering high capacity factor wind resources from the central coast into the LA basin and SCE's broader Transmission Access Charge ("TAC") area enabling delivery of offshore wind from the Diablo Canyon and Morro Bay call areas.**
33. **As a fifth policy sensitivity on the 46 MMT policy and base case, the CAISO should study the effect of network transmission capacity or line reconductoring enabling new deliveries of high capacity factor wind in the Humboldt region to be analyzed in the 2020-21 TPP.**