



# California Wind Energy Association

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May 16, 2022

California Energy Commission  
Docket No. 17-MISC-01  
Docket Office  
1516 Ninth Street  
Sacramento CA 95814

*Submitted Electronically via CEC website to Docket 17-MISC-01*

## **Re: Comments on May 2022 AB 525 Draft Commission Report**

The California Wind Energy Association (“CalWEA”) appreciates this opportunity to provide written comments on the Commission’s draft report: *Offshore Wind Energy Development off the California Coast: Maximum Feasible Capacity and Megawatt Planning Goals for 2030 and 2045* (“Draft Report”). CalWEA is a 22-year-old trade organization whose members are focused on developing wind energy resources within and directly interconnected to California and off the coast of California, as well as capturing the related economic and workforce development benefits for California.<sup>1</sup>

CalWEA applauds the Commission for producing a well-documented and thoughtful Draft Report, and we generally support the report and its megawatt planning goals. Given numerous uncertainties at play, ranges are appropriate in setting the planning goals as any precise goals would be difficult to justify. Therefore, we support the statement that the megawatt planning goals “are not intended as a core input to IRP or TPP analysis, nor should they be seen as a ‘floor’ or ‘ceiling’”, and we support the use of ranges in quantifying those goals. Thus, we support the 2045 goal of 10 to 15 GW, with technological developments potentially supporting larger goals of as much as 20 GW between 2045 and 2050. Various uncertainties will make ranges appropriate even after the strategic plan is finalized in June of 2023. As examples: It will be impossible to accurately determine environmental impacts at least until initial turbine deployments are studied; and actual technology cost declines cannot be known in advance.

CalWEA offers three recommendations, below, to further strengthen the report and increase its efficacy in advancing the planning goals.

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<sup>1</sup> CalWEA’s members with interests in offshore wind include Brookfield Renewable Energy Group, Business Network for Offshore Wind, DEME Offshore U.S., Floventis Energy, Milbank LLP, Sempra Infrastructure, and Wind Stream Properties.

**1. The 2030 preliminary planning goal of 3 GW should be converted to a range of 100 MW – 3 GW and be associated with the decisions and policies that would be necessary to achieve each end of the range.**

Consistent with the 2045 goal, the 2030 3-GW goal should be converted to a range. 2030 is near enough that it can be informed by the specific and aggressive policy decisions that would be needed to make the goal a reality. Unless grounded in a realistic path toward its achievement, a 3-GW goal will have little meaning.

Numerous challenges are associated with achieving a 3-GW goal. Among them are: (a) BOEM’s current permitting timeline, under which mid-2031 is likely to be the earliest installation and export of power for the *initial* turbines in federal-waters projects<sup>2</sup>; (b) lack of any offtake plan; and (c) lack of clear availability of deliverable transmission capacity and interconnection agreements. Further, if the state desires offshore wind projects to come with some domestic content, ports, supply chain and a workforce must be developed. The final report should identify the actions that would be needed on each of these topics – along with a timeline – to realize the goal of 3 GW by 2030. Those actions would include streamlining permitting processes, the designation of a central procurement entity to sign contracts with initial offshore wind projects on behalf of all (or at least CPUC-jurisdictional) load-serving entities, and ensuring (or at least increasing the odds) that “Transmission Planning Deliverability” (“TPD”) capacity will be available for Central Coast offshore wind projects so that they will receive Resource Adequacy credit.<sup>3,4</sup>

The lower end of a goal range for 2030 should reflect the two proposed state-waters projects currently being reviewed by the State Lands Commission (“SLC”).<sup>5</sup> The two projects are CADEMO, which would demonstrate two different floating platform technologies by installing four 12-15 MW floating wind turbines in the area; and the Ideol Vandenberg Air Force Pilot Project, which would install four floating offshore wind turbines with a maximum generation capacity of 10 MW each. Given the SLC’s permitting timeline, which is roughly five years shorter than BOEM’s permitting process, these two projects have a relatively high probability of bringing online a maximum capacity of 100 MW before 2030. As with the 3 GW goal, the final report should identify the policies and decisions that would have to be made, and by when, to realize this minimum goal. As with

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<sup>2</sup> On May 11, 2022, the Biden-Harris Administration released a [Permitting Action Plan](#) that could accelerate BOEM’s current timeline (or at least help ensure that it is met). In addition, in January 2022, BOEM and NOAA announced an Interagency Memorandum to support responsible deployment of wind energy capacity to support the Biden-Harris Administration’s goal 30 gigawatts of wind energy production capacity in Federal waters by 2030.

<sup>3</sup> TPD capacity for North Coast projects would require major upgrades and thus Resource Adequacy credit is not possible for these projects in this timeframe.

<sup>4</sup> These issues were discussed in CalWEA’s March 11, 2022, comments in this docket.

<sup>5</sup> See <https://www.slc.ca.gov/renewable-energy/offshore-wind-applications/>.

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the 3-GW goal, this would require the identification of a central procurement entity and TPD capacity, among other things.

## **2. The report should evaluate levels of offshore wind exceeding 10 GW.**

The Draft Report considers the findings of the 2021 SB 100 Joint Agency Report to be one of the 5 factors that have the greater influence on shaping or effecting the megawatt planning goals.<sup>6</sup> And yet that SB 100 analysis assumed that a maximum of 10 GW of offshore wind is available<sup>7</sup> and thus the identified cost savings were limited to \$1 billion.<sup>8</sup> Because the SB 100 model selected all 10 GW, it is clear that additional capacity would be cost-effective, producing greater savings. As the SB 100 Joint Agency Report is the State's roadmap, as it will be a key element of the planning goals, and as conducting a modeling run changing only one variable is a relatively small task, the Commission should conduct a modeling run making substantially more offshore wind available to be selected. The results would inform this process of how much more offshore wind would be justified as part of an overall portfolio that ensures reliability and minimizes costs in achieving the SB 100 goals.

The Commission should also address other, more indirect or intangible benefits related to offshore wind, including various risk-reductions from greater resource diversity (e.g., supply chain and operational risks), economic benefits to the state, and reduced pressure to site resources on land.

## **3. The discussion on reliability should be strengthened.**

The brief section on the reliability benefits of offshore wind<sup>9</sup> underplays those benefits. The complementarity of offshore wind to daytime solar production is a major benefit, which significantly reduces the total amount of storage and other resources that would otherwise be required to achieve the same reliability standard. The *SB 100 Joint Agency Report* found that replacing 10 GW of offshore wind and 8 GW of out-of-state wind (18 GW total) requires 22 GW more solar capacity, 15 GW more storage capacity, and approximately 2 GW of geothermal capacity (39 GW total).<sup>10</sup> Thus, offshore wind substantially reduces not only required storage capacity, but the total overall capacity necessary to meet the SB 100 goals.<sup>11</sup>

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<sup>6</sup> Draft Report at p. 1 and elsewhere.

<sup>7</sup> *Id.* at p. 2.

<sup>8</sup> *Id.* at p. 7.

<sup>9</sup> Draft Report at pp. 28-29. The section also includes information that is extraneous to the topic.

<sup>10</sup> See *SB 100 Joint Agency Report* at p. 88-89 (also see p. 75).

<sup>11</sup> Additional SB 100 modeling could tease out the replacement capacity required for only offshore wind.

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The additional resource diversity is itself a reliability benefit, due to the operational, supply chain,<sup>12</sup> and other risks associated with a portfolio otherwise heavily dominated by solar photovoltaics and batteries that are reduced by offshore wind. The reduced overall capacity that is needed when offshore wind is in the portfolio will also increase the ability to meet our reliability standards as well as our SB 100 goals. Finally, if the transmission network that is designed for offshore wind is located off the coast below sea level, that network would reduce the substantial risk that wildfire poses to the grid.

CalWEA appreciates this opportunity to comment and looks forward to continued participation in this important process.

Sincerely,



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<sup>12</sup> Illustrating supply chain risks, in calling for extending Diablo Canyon's life, Governor Newsom recently invoked the Commerce Department's investigation of possible evasion of tariffs imposed on Chinese solar products, which threatens to delay over four gigawatts of solar-plus-storage projects that California needs by 2024. See [https://www.newsdata.com/california\\_energy\\_markets/potomac/solar-industry-warns-of-tariff-impacts/article\\_86ec71e2-c7fa-11ec-895e-1b6a86e38661.html](https://www.newsdata.com/california_energy_markets/potomac/solar-industry-warns-of-tariff-impacts/article_86ec71e2-c7fa-11ec-895e-1b6a86e38661.html).

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