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## Trident Winds comments on CEC 2017-10-23 IERP workshop

Additional submitted attachment is included below.



November 6, 2017

**California Energy Commission** Dockets Office, MS-4 Docket No. 17-IEPR-01 1516 Ninth Street Sacramento, CA 95814-5512

## RE: Trident Winds LLC Comments on October 23, 2017 Workshop on the Draft 2017 Integrated Energy Policy Report, Docket No. 17-IEPR-01

Dear Commissioners:

Trident Winds LLC (Trident) is an offshore wind project development company and one of the few developers with expertise in the technological and operational capabilities needed to develop California's offshore wind resources. In January 2016, Trident submitted an unsolicited lease request to the Bureau of Ocean Energy Management (BOEM) for a 725 MW offshore wind project, which would take advantage of the existing transmission line that is now available after the shutdown of the Morro Bay power plant. Trident thanks the Commission for this opportunity for comment on the Draft 2017 Integrated Energy Policy Report (IEPR) and commends the Commissioners and their staff on the excellent report.

Offshore wind is an important and uniquely valuable renewable energy resource in California, but it has not yet been included in the IEPR. Offshore wind provides a stable 24hour generating profile with a late afternoon and early evening peak that matches California's demand profile. Unlike most other renewable energy technologies, offshore wind's steady generation and well-timed peak enable it to reduce the evening ramping requirements associated with the well-known California Independent System Operator (CAISO) "duck curve." Moreover, California's offshore wind resources are considerable. The National Renewable Energy Laboratory (NREL) estimates that the amount of California offshore wind energy that "could become commercially viable with available technology" is 112 GW or approximately 1.5 times California's annual electricity consumption.<sup>1</sup> These benefits should be formally considered by the Commission in the next IEPR.

The economic potential of offshore wind should also be considered. Integrating solar and land-based wind is becoming more expensive, and day-ahead spot prices during the evening

<sup>&</sup>lt;sup>1</sup> Walt Musial et al., NREL, Potential Offshore Wind Energy Areas in California: An Assessment of Locations, Technology, and Costs, 5 (2016).



ramp can reach \$609/MWh.<sup>2</sup> NREL reports that offshore wind could reduce these ramping costs and support the integration of higher levels of intermittent renewables.<sup>3</sup> Related daytime over-generation creates negative pricing that forces utilities (and ratepayers) to pay wholesale customers for demand response. Offshore wind can reduce these costs. Offshore wind would also create in-state jobs in logistics, manufacturing, and related fields. NREL estimates that in the first year of offshore wind deployment in California, 1,300 construction jobs could be created. By 2030, offshore wind could produce approximately 5,800 construction jobs and 700 operations jobs in California.<sup>4</sup> This economic potential should be included in IEPR.

Trident acknowledges and appreciates the work of Commissioners Karen Douglas and David Hochschild in bringing offshore wind to the attention of California decision-makers. The formation of an intergovernmental task force between BOEM and the State of California at the request of Governor Brown was timely and has been helpful. The taskforce's objective is to streamline and coordinate the development of offshore wind in California.

Given its abundance and unique generation profile, offshore wind can play an important role in meeting California's climate and renewable energy goals. Trident looks forward to working with the Commission on these issues and respectfully urges the Commission to include offshore wind in future revisions of the IEPR.

Very truly yours,

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Alla Weinstein Founder

<sup>&</sup>lt;sup>2</sup> California Independent System Operator, *Q2 2017 Report on Market Issues and Performance*, 13 (2017). <sup>3</sup> *Id.* at 4.

<sup>&</sup>lt;sup>4</sup> Bethany Speer et al., NREL, *Floating Offshore Wind in California: Gross Potential for Jobs and Economic Impacts from Two Future Scenarios*, v, 15 (2016).