



**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

**Offshore Wind Integration  
In RTOs/ISOs**

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**Docket No. AD20-18-000**

**Comments of Gabe Tabak,<sup>1</sup> for the  
American Wind Energy Association  
October 27, 2020**

On behalf of the American Wind Energy Association (AWEA) and its members, I am pleased to participate in today’s technical conference to discuss the need for transmission policies to successfully integrate thousands of megawatts of offshore wind into Regional Transmission Organizations and Independent System Operators (RTOs/ISOs). AWEA is the trade association for the U.S. wind energy industry, and represents over 1,000 member companies including project developers, utilities, and component manufacturers. AWEA commends the initiative of the Commission and staff in holding this technical conference, as the record developed here can allow the regulatory environment and physical transmission infrastructure to keep pace with the rapid progress of offshore wind.

Transmission planning and interconnection continue to be two of the highest priorities for AWEA’s members. Offshore wind poses several unique challenges in these areas, including how to integrate significant quantities of variable generation adjacent to load centers, balancing the need for certainty of already-leased projects with those of future projects, and ensuring that offshore wind resources are not subject to excessive congestion or curtailment.

In evaluating its best course of action for integrating offshore wind, the Commission should consider two benefits which are part of its statutory mandate – the salutary effects of this new resource category on rates and on reliability. Obtaining these benefits requires adequate transmission capacity, and clear rules for planning and interconnection.

First, the Commission is tasked with ensuring that rates are just and reasonable. Offshore wind will typically interconnect to the onshore grid fairly close to load – in states with some of the highest retail electricity prices in the country,<sup>2</sup> and RTO/ISO coastal pricing

<sup>1</sup> Mr. Tabak is Counsel at the American Wind Energy Association.

<sup>2</sup> See [https://www.eia.gov/electricity/monthly/epm\\_table\\_grapher.php?t=epmt\\_5\\_6\\_a](https://www.eia.gov/electricity/monthly/epm_table_grapher.php?t=epmt_5_6_a)

zones that have historically had higher wholesale rates than inland hubs. A 2020 study from the National Renewable Energy Laboratory found that 7GW of offshore wind in the Northeast (a figure that is now below state commitments) could result in up to a 12% reduction in wholesale LMP in ISO-NE, and 6% in NYISO.<sup>3</sup> When considering potential reductions in the need for imports, the NREL study also found that production cost savings of more than 18% were likely in the 7GW scenario. Again, this figure is significantly below existing state commitments.

Second, offshore wind is a valuable addition to the reliability of the bulk electric system, as it tends to be coincident with peak load and has relatively little correlation with other variable energy resources.<sup>4</sup> For instance, recent analysis shows that California offshore wind tends to increase during peak load hours when solar energy ramps down,<sup>5</sup> and several RTO/ISO studies have identified offshore wind as having a capacity factor above 50%. With significant retirements of aging generators planned over the next decade, adding a new class of resources with a high capacity factor that complements other generators is a logical and necessary decision in many regions. Offshore wind supports the reliability of the electrical system overall.

This technical conference highlights the need for successful integration of offshore wind to achieve these and other benefits. Absent clear, timely, and cost-effective transmission rules, some planned offshore wind projects may not come to fruition, or may be subject to an excessive degree of curtailment. In many cases, retiring coastal generators provide viable points of interconnection, but the 29 GW of offshore wind currently called for on the East coast requires a careful review of current planning and interconnection frameworks to ensure that projects can deliver their output to customers without excessive upgrade costs.

AWEA offers several considerations to inform Commission action on the critical issues discussed today.

1. **Ensure that planning and interconnection policies are flexible.** The policy drivers, economic imperatives, and technological innovations supporting the offshore wind boom are rapidly evolving. In many regions, offshore wind goals exceed the capacity available from current leases - meaning that the precise

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<sup>3</sup> See Beiter et al, *The Potential Impact of Offshore Wind Energy on a Future Power System in the U.S. Northeast* (2020), <https://www.nrel.gov/docs/fy20osti/74191.pdf>.

<sup>4</sup> See <https://www.energy.gov/eere/wind/articles/top-10-things-you-didn-t-know-about-offshore-wind-energy>

<sup>5</sup> See Wang et al., *Spatial and temporal variation of offshore wind power and its value along the Central California Coast* (2020) <https://iopscience.iop.org/article/10.1088/2515-7620/ab4ee1>.

- location of subsequent projects will not be known immediately. Similarly, state policies continue to require further offshore wind development, and this trend is likely to accelerate. Planning and interconnection frameworks must be sufficiently flexible to accommodate this changing environment.
2. **Balance the needs of projects in various stages of development.** At least 15.5 GW of offshore wind projects currently in planning will come online over the next decade. Many of the projects will come online in stages, or with a subsequent project from the same lease area seeking to interconnect nearby. The Commission should ensure that changes in transmission planning or interconnection rules allow projects that are currently well underway to proceed without shifting the goalposts. This principle also means that any longer-term planned offshore transmission system – which most members agree would be needed to attain the 29GW of Eastern state goals - should have adequate lead time, to ensure that later projects are not subject to excessive upgrade costs. AWEA notes that the Commission and RTOs/ISOs have successfully implemented planned transmission in several areas, notably the Tehachapi Renewable Transmission Project in CAISO and the MISO Multi-Value Project portfolio; in both regions, renewable energy projects took advantage of planned transmission, while others interconnected elsewhere in the region under the Generator Interconnection Process. Neither model has been successfully replicated in their region since, however.
  3. **Consider the interplay between offshore and onshore integration policies.** The integration of offshore wind raises multiple issues, as today’s agenda reflects. However, AWEA notes that many of the topics discussed today – including the role of state policies, the potential role of a “transmission first” model, the benefits of transmission, modeling of inverter-based generation, and transmission approaches from other jurisdictions - are not confined to the offshore context. The rapid growth and potential of offshore wind provides an opportunity for fresh evaluation of transmission planning, cost allocation, and interconnection rules in other contexts, while also allowing the Commission and RTOs/ISOs to identify and expand upon best practices from onshore integration of renewables. AWEA hopes that the Commission’s present focus on offshore wind will allow for a holistic examination of renewable energy integration strategies, and that effective policies from both onshore and offshore contexts can inform RTO/ISO processes and subsequent Commission action.

AWEA and its members appreciate the Commission’s consideration of the numerous issues raised today, and look forward to continuing to support the successful integration of offshore wind into RTO and ISO regions.