

**Comments of the Sustainable FERC Project, Natural Resources Defense Council, Americans for a Clean Energy Grid, American Clean Power Association, Sierra Club, Advanced Energy Economy, Union of Concerned Scientists, and New York Offshore Wind Alliance Concerning Possible Interregional Transmission Projects**

**July 2, 2021**

Sustainable FERC Project, The Natural Resources Defense Council, Americans for a Clean Energy Grid, American Clean Power Association, Sierra Club, Advanced Energy Economy, Union of Concerned Scientists and New York Offshore Wind Alliance (collectively, the Clean Energy Advocates) appreciate the opportunity to provide comments pursuant to the June 4, 2021 PJM/ISO-NE/NYISO Interregional Planning Stakeholder Advisory Committee (IPSAC) meeting concerning possible interregional transmission projects.

The need for interregional transmission projects to meet state public policy goals regarding offshore wind is more urgent than ever. On June 4, 2021, the Governors of New York, New Jersey, Massachusetts, Maryland, Connecticut, Maine, New Hampshire, Rhode Island and Virginia wrote a letter to President Biden underscoring the need to prioritize offshore wind as well as interstate coordination to ensure adequate transmission capacity.<sup>1</sup> Specifically, letter states that “[a]s multiple states share common Wind Energy Areas, and in some cases the same regional power system, transmission planning and development are best organized through regional, multi-state coordination.” The letter goes on to encourage the federal government to “direct regional system operators to initiate policies that encourage collaboration across transmission systems and stimulate investment in the planning and development of offshore transmission as soon as possible.”

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<sup>1</sup> See [https://www.governor.ny.gov/sites/default/files/2021-06/Joint\\_Governors\\_Letter\\_to\\_Biden\\_Admin\\_OSW\\_priorities\\_FINAL.pdf](https://www.governor.ny.gov/sites/default/files/2021-06/Joint_Governors_Letter_to_Biden_Admin_OSW_priorities_FINAL.pdf).

Given this urgent need, Clean Energy Advocates respectfully request that the Joint ISO/RTO Planning Committee (JIPC) conduct a study of the potential benefits of interregional transmission solutions in the New York Bight Wind Energy Area<sup>2</sup> that would meet the needs of two active state public policy orders concerning offshore wind in New York and New Jersey. Moreover, because several East Coast states from Massachusetts to North Carolina have ambitious offshore wind targets and carbon reduction goals, Clean Energy Advocates request that the JIPC conduct a broader joint study of the benefits and costs of an interregional offshore high-voltage direct current (HVDC) network connecting the high-voltage systems of these states and relevant offshore wind lease areas. Such a study should account for the states' statutory and regulatory commitments to offshore wind, as well as points of interconnection for currently-planned projects, and should attempt to identify a range of frameworks for accommodating significant expansion of offshore wind power to provide efficient and reliable operations between offshore wind transmission and the onshore transmission system.

**1. JIPC should conduct a study on the potential benefits of interregional transmission solutions that would meet the needs of New York and New Jersey in an efficient and cost-effective manner**

Both New York and New Jersey have issued ambitious state targets for offshore wind, with New York establishing a goal of 9,000 MW of offshore wind by 2035<sup>3</sup> and New Jersey establishing a goal of 7,500 MW of offshore wind by 2035.<sup>4</sup> Offshore wind projects in the New York Bight lease area, under comment with the Bureau of Ocean Energy Management now, could conceivably serve either state or optimally serve both states in an integrated operational manner.<sup>5</sup> Moreover,

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<sup>2</sup> See <https://www.boem.gov/renewable-energy/state-activities/new-york-bight>.

<sup>3</sup> See <https://www.nyseda.ny.gov/all-programs/programs/offshore-wind>.

<sup>4</sup> See

<https://www.nj.gov/dep/offshorewind/#:~:text=Governor%20Murphy%20through%20Executive%20Order,to%207%2C500%20megawatts%20by%202035>.

<sup>5</sup> <https://www.boem.gov/renewable-energy/state-activities/new-york-bight>.

each state has declared a public policy need for the transmission necessary to deliver this energy onshore. New Jersey has incorporated the state's offshore wind public policy goals into PJM's regional transmission planning process through the State Agreement Approach established in response to Order No. 1000.<sup>6</sup> Pursuant to this approach, New Jersey is able to determine whether a coordinated approach to transmission planning can lead to more cost-effective, efficient transmission solutions that minimize environmental impacts. PJM has opened a 120-day solicitation window on behalf of New Jersey for qualified developers to submit potential transmission solutions that will enable this power to be integrated into the existing grid.<sup>7</sup> The State has the option to select one or more of the proposed projects, but is not required to do so.

Similarly, the New York State Public Service Commission issued an order on May 14, 2020 on transmission planning pursuant to the state's Accelerated Renewable Energy Growth and Community Benefit Act.<sup>8</sup> Among other things, the order calls for a Power Grid Study to identify the transmission and distribution upgrades needed to reliably and cost effectively integrate the required renewable resources necessary to achieve the ambitious climate and clean energy mandates set forth in New York's nation-leading Climate Leadership and Community Protection Act (CLCPA). The Power Grid Study includes an Offshore Wind Integration Study, which identifies possible grid interconnection points and offshore transmission configurations and assessing onshore bulk transmission needs relating to the integration of 9,000 MW of offshore-wind generation.<sup>9</sup>

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<sup>6</sup> See <https://www.nj.gov/bpu/pdf/boardorders/2020/20201118/8D%20-%20ORDER%20Offshore%20Wind%20Transmission.pdf>.

<sup>7</sup> See <https://www.pjm.com/planning/competitive-planning-process>.

<sup>8</sup> N.Y. Pub. Service Comm'n (NYPSC), Order On Transmission Planning Pursuant to the Accelerated Renewable Energy Growth & Community Benefit Act, NY PSC Case No. 20-E-0197, (May 14, 2020).

<sup>9</sup> See <https://www.nyserda.ny.gov/About/Publications/New-York-Power-Grid-Study>.

Pursuant to Section 7.3 of the Amended and Restated Northeastern ISO/RTO Planning Coordination Protocol which governs the interregional planning process between ISO-NE, NYISO and PJM through JIPC, an Interregional Transmission Project may be proposed in the planning process of more than one region to address system needs identified in the planning process of those respective regions.<sup>10</sup> Given that both PJM<sup>11</sup> and NYISO<sup>12</sup> have identified offshore wind transmission needs in New York and New Jersey, Clean Energy Advocates respectfully request that JIPC conduct a study of the potential benefits of interregional transmission solutions that account for both direct and indirect costs and benefits with transmission solutions that can serve both NYISO and PJM.

Direct costs and benefits could include aggregate transmission line development and upgrade costs as well as potentially avoided costs from interregional solutions versus separate regional solutions and the reliability benefits of additional transmission capacity in typically constrained areas. Indirect costs and benefits could include maximizing use of limited onshore interconnection capacity, potential dispatch savings and reduced curtailment from making wind energy available to more than one region. Clean Energy Advocates specifically suggest that the reliability benefits of an offshore transmission system with some redundant pathways and looped circuits be considered in meeting N-1 and N-2 conditions in the offshore systems as well as similar onshore transmission failures.

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<sup>10</sup> [https://www.iso-ne.com/static-assets/documents/committees/comm\\_wkgrps/otr/ipsac/rto\\_plan\\_prot/planning\\_protocol.pdf](https://www.iso-ne.com/static-assets/documents/committees/comm_wkgrps/otr/ipsac/rto_plan_prot/planning_protocol.pdf).

<sup>11</sup> See <https://www.pjm.com/-/media/about-pjm/newsroom/2020-releases/20201118-pjm-new-jersey-collaborate-to-advance-states-offshore-wind-goals-through-regional-planning-process>.

<sup>12</sup> See <https://www.nyiso.com/-/offshore-wind-and-the-role-of-new-transmission>.

**2. JIPC should conduct a joint study of the benefits and costs of an interregional offshore high-voltage direct current network connecting the high-voltage systems of state and relevant offshore wind lease areas from Massachusetts to North Carolina**

In addition to a study on the potential benefits of interregional transmission solutions that would meet the needs of New York and New Jersey in a cost-effective manner, JIPC should conduct a joint study on the benefits and costs of an interregional offshore high-voltage direct current (HVDC) network connecting the high-voltage systems of state and relevant offshore wind lease areas from Massachusetts to North Carolina. Such a study will enable various grid operators, states, utilities as well as generation and transmission developers to determine whether such an offshore network – or discrete portions of it – would be an effective approach to transmission planning. A study should also identify the resiliency and economic benefits of such a system.

States within the NYISO, PJM, and ISO-NE regions have collectively committed to obtain a minimum of 29 GW of offshore wind, and this amount continues to increase.<sup>13</sup> Given that states in these regions are already conducting studies examining the optimal way to build out offshore wind transmission both onshore and offshore, a joint study examining the benefits and costs of an interregional offshore high-voltage direct current (HVDC) network connecting the high-voltage systems of each and the relevant offshore wind lease areas logically flows, including the potentially large savings from an interregional solution versus separate state or regional solutions.

Such an HVDC network would allow electricity to flow from one region to another when needed – from both offshore wind generation and potentially providing an interregional tie benefit – alleviating congestion and enhancing resilience. Benefits that will follow this investment likely include both financial and efficiency considerations such as reductions in electricity prices for consumers, and reduction in duplicative infrastructure. In particular, inter-regional transmission

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<sup>13</sup> See <https://e360.yale.edu/features/on-u-s-east-coast-has-offshore-winds-moment-finally-arrived>.

reduces the need for generating capacity by capturing diversity in electricity demand and supply. The study should include the value such transmission would provide in each region's energy or fuel security. PJM and ISO-NE have each studied fuel security issues, following multiple cold snap events in which each experienced large losses of generation during periods of high demand. Because cold snaps and other severe weather events tend to have a relatively narrow footprint, inter-regional transmission ties can deliver needed power from a region that is less affected by the event. Resilience assessments should include the value of transmission during these winter peak net load periods when gas imports may be constrained and generators may suffer weather-driven common mode outages in one or multiple of these regions. The study should compare a proactive, large-scale approach to transmission expansion to meeting these state offshore wind targets with today's incremental reactive approach. The study should optimize the limited connection points to the existing transmission systems and limited places to site lines to the coast. Offshore transfer to optimize limited onshore interconnection capacity should be examined for both efficiency, cost and reliability benefits.

As with the more focused New York and New Jersey offshore wind study request, Clean Energy Advocates suggest that the reliability benefits of an offshore transmission system with redundant pathways and/or looped circuits be considered in meeting N-1 and N-2 conditions in the offshore systems as well as similar onshore transmission failures. Clean Energy Advocates view the transmission to service offshore wind as an opportunity to address some of the inefficiencies and reliability shortcomings of the historic transmission systems between PJM, NYISO and ISO-NE. This type of opportunity presents itself only once and Clean Energy Advocates urge the RTOs to thoroughly examine the potential benefits and costs for the U.S. East Coast.

For the reasons stated above, Clean Energy Advocates respectfully request that the JIPC (1) conduct a study of the potential benefits of interregional transmission solutions that would meet the needs of two active state public policy orders concerning offshore wind in New York and New Jersey and (2) conduct a broader joint study of the benefits and costs of an interregional offshore HVDC network connecting the high-voltage systems of these state and relevant offshore wind lease areas to ensure an optimal framework for accommodating injections of offshore wind power onto the onshore electricity system.

Respectfully submitted,

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