

**BEFORE THE
NEW JERSEY BOARD OF PUBLIC UTILITIES**

**IN THE MATTER OF OFFSHORE)
WIND TRANSMISSION) **DOCKET NO. QO20100630**
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**PUBLIC COMMENTS
OF
JERSEY CENTRAL POWER & LIGHT COMPANY**

Introduction and Summary

Jersey Central Power & Light Company (“JCP&L”) is pleased to submit these public comments to the Board of Public Utilities (“Board”) in support of the Board’s initiative to develop cost-effective and environmentally compatible offshore wind (“OSW”) generation and delivery, to achieve Governor Murphy’s goal of having in place 7,500 MW of OSW generation by 2035.¹ JCP&L and its parent, FirstEnergy Corp. (“FirstEnergy”), fully support the Governor’s vision and the Board’s initiatives to put the state at the forefront of reliance on renewable energy resources. JCP&L’s and FirstEnergy’s mission, to make New Jersey a better place to live through continual investment and environmental stewardship, is fully compatible with and supportive of the State’s goals.

JCP&L has submitted two proposals, designated 2021 PJM-NJOSW-17 (“Option 1a”) and 2021 PJM-NJOSW-453 (“Option 1b”) to the Pennsylvania-Jersey-Maryland Independent System Operator (“PJM”). These proposals are responsive to PJM’s implementation of the State Agreement Approach (“SAA”),² and are in the form and manner requested by the Board and its

¹ New Jersey Governor Executive Order 92, November 19, 2019.

² The SAA process was proposed by PJM pursuant to provisions in its operating agreement that were authorized by the Federal Energy Regulatory Commission, in its “Order No. 1000.” *Transmission Planning and Cost Allocation by*

Staff to incorporate OSW development into PJM’s Regional Transmission Expansion Plan (“RTEP”) process.

JCP&L’s proposals are purposefully integrated and designed to be constructed and operated in parallel to satisfy violations found at the proposed points of injection (“POIs”) for OSW generation. In addition, JCP&L’s project components may be sequenced and adapted for phase-in consistent with the Board’s long-range vision and master plan for OSW development.

As more fully described herein, the proposals:

- Maximize the location of transmission facility upgrades and expansions within existing utility rights-of-way (“ROWS”) and existing substation locations, which decreases costs, the risks of non-completion, and environmental and community impact;
- Provide by 2032 the transmission capacity to deliver more than 75% of Governor Murphy’s OSW generation goal reliably and cost-effectively through JCP&L’s transmission facilities;
- Establish multiple, near-shore points of injection (“POIs”) of OSW generation into JCP&L’s transmission system through the expansion of existing substations, thus avoiding adverse environmental impacts and enhancing transmission system operational flexibility and reliability;
- Provide a high-capacity transmission backbone to reliably deliver OSW generation from JCP&L’s POIs into the multistate PJM region;
- Offer a diverse array of strategically located and scalable regional transmission project options for interconnecting JCP&L’s transmission system with its neighboring utilities’ transmission systems, thus cost-effectively reinforcing the regional transmission system’s reliability, resiliency, and providing flexibility for transmitting OSW generation into the regional transmission system;
- Take advantage of JCP&L’s coastline proximity and central State location to have its existing and expanded transmission network play a key role in achieving the Board’s objective to have a fully integrated onshore/offshore transmission system grid serving southern, central and northern Bureau of Ocean Energy Management lease areas that is reliable, resilient, and cost-effective to construct and operate, and compatible with the environment;

Transmission Owning and Operating Public Utilities, Order No. 1000, 136 FERC ¶ 61,051 at P 203 (2011), order on reh’g, Order No. 1000-A, 139 FERC ¶ 61,132, order on reh’g, Order No. 1000-B, 141 FERC ¶ 61,044 (2012), aff’d sub nom. *S. C. Pub. Serv. Auth. v. FERC*, 762 F.3d 41 (D.C. Cir. 2014). See: *In the Matter of Offshore Wind Transmission*, BPU Docket no. QO20100630 (Nov. 18, 2020) (“SAA Order”), at 3-4.

- Involve upgrades to existing, older transmission system infrastructure at or near the end of its useful life, which improves reliability and resiliency while enabling delivery of wind energy, and providing long-term benefits to ratepayers.
- Ensure that the NJ ratepayers will continue to receive the benefit of JCP&L’s institutional experience in standardized design, construction, operation, and interconnection of its network transmission system within the PJM region and in accordance with the RTEP process; and
- Create economic benefits to New Jersey since a significant amount of physical work is expected to be performed by highly skilled labor located in the state.

About JCP&L and FirstEnergy

JCP&L is a subsidiary of FirstEnergy primarily engaged in the purchase, transmission, distribution, and sale of electric energy and related utility services to more than 1 million residential, commercial, and industrial customers that are located within 13 counties and 236 municipalities of the State of New Jersey. FirstEnergy and its affiliates serve 6 million customers in six states, and own and operate 24,000 miles of transmission lines in the Midwest and Mid-Atlantic regions. A primary goal of FirstEnergy and JCP&L is to put their customers and the environment first, as their mission statement reads:

“We are a forward-thinking electric utility centered on integrity, powered by a diverse team of employees committed to making customers’ lives brighter, the environment better, and our community stronger.”

JCP&L employs approximately 1,500 New Jersey-based workers, including more than 1,100 IBEW electricians, line workers and technicians who build and maintain the critical assets that make up JCP&L’s transmission and distribution systems. JCP&L owns and operates more than 26,000 miles of transmission and distribution lines in the State. Over the past decade, JCP&L’s economic development efforts have helped facilitate more than 7,000 new jobs and \$1.7 billion in investment in New Jersey.

JCP&L has a strong commitment to a green future, as it was the first New Jersey utility to be named to the New Jersey Department of Environmental Protection's Sustainable Business Registry in 2019. In 2020, FirstEnergy released its climate strategy addressing the threat of climate change to the state of New Jersey and its people. As part of the climate strategy, FirstEnergy advocates for public policy encouraging the development of renewable energy and is transitioning its vehicle fleet to electric and hybrid alternatives to reduce the greenhouse gas emissions companywide.

Prompted by Governor Murphy's clean energy goals, New Jersey's 2019 Energy Master Plan has set a target for the State of 100% clean energy by 2050. JCP&L and FirstEnergy are also committed to achieving carbon neutrality by 2050 through improvements in transmission reliability and reductions in outage durations. To reach these goals, FirstEnergy is upgrading aging equipment and adding operational flexibility to respond to distributed generating sources that are being added to the electric grid.

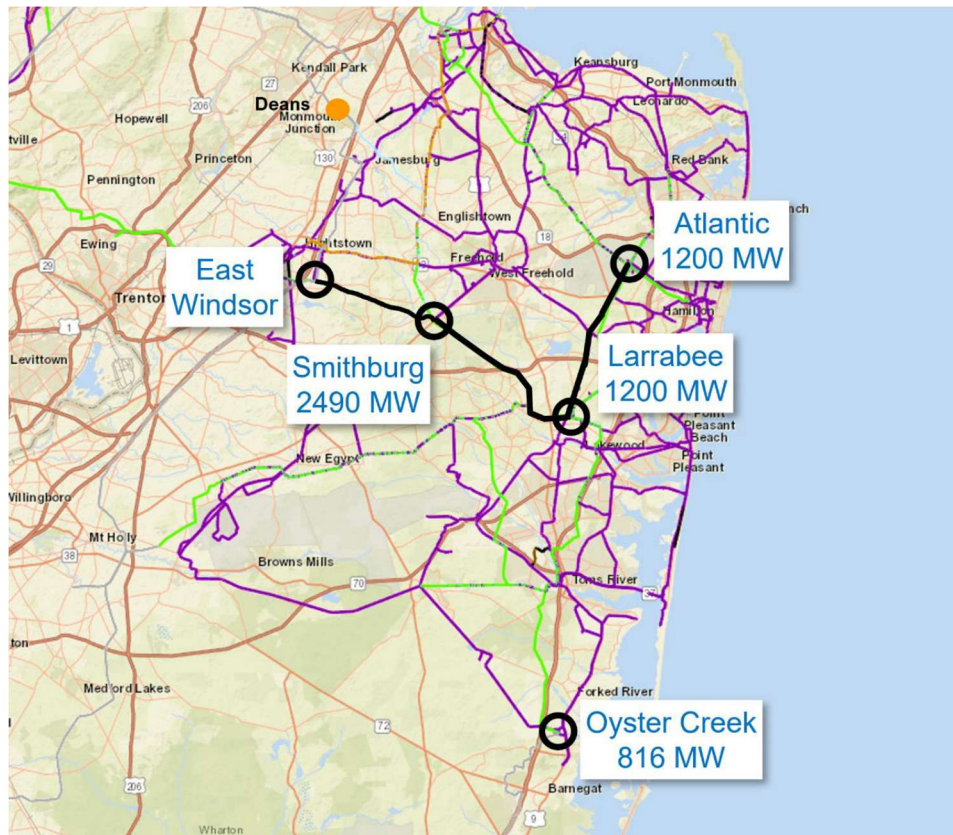
FirstEnergy's goal is to reduce transmission outage frequency by 20% and the duration of service interruptions by 5% and have publicly committed to \$25 billion in cumulative impact in their service territory. As of September 2021, FirstEnergy has efficiently spent \$80 million on renewable-related transmission projects as well as \$1.3 billion in transmission-related upgrades to address plant deactivations, which includes the deactivation of 32 power plants and 87 fossil units within PJM. Within the JCP&L service territory, FirstEnergy has successfully implemented \$165 million of capital transmission investment and \$329 million of capital distribution investment in 2020.

Summary of JCP&L's Option 1a Proposal

JCP&L's Option 1a proposal is responsive to PJM's 2021 SAA Proposal Window, which

seeks technical solutions . . . to resolve potential reliability criteria violations on [existing and planned] PJM facilities in accordance with all applicable planning criteria . . . resulting from the injections at identified POIs representing future offshore wind generation and the transmission facilities necessary to connect the offshore wind to the PJM grid.

JCPL’s proposal modifies the Board’s straw POIs set forth in the SAA Order by using JCP&L’s Atlantic and Oyster Creek substations, along with the Board-identified Larrabee and Smithburg substations, to have a collective transfer capacity of 5,706 megawatts (MW) of OSW into the JCP&L transmission system, as shown on the following map.



JCP&L’s proposal, including the Atlantic substation, takes advantage of JCP&L’s strong 230kV transmission capacity in that area and is relatively close to the shore. Benefits include closer proximity of POIs to the coastline and development of new transmission infrastructure entirely within existing ROWs and substation locations, which significantly reduces project

completion risk, minimizes environmental impact and avoids capital costs related to greenfield development. Oyster Creek was identified as a POI in Solicitation 1 of the Board's program for OSW development and has been awarded 816 MW of OSW injection into the JCP&L transmission system.

Proposal elements include the following upgrades and expansions to existing and planned substations and lines:

- add a new 500 kV transmission line (on existing ROW) from the Smithburg substation to the East Windsor substation, rebuild the existing 6-wired East Windsor- Smithburg E2005 230-kV Line, expand the East Windsor 500-kV Ring; and expand the substations, to provide the necessary transfer capacity of the OSW generation injected into the JCPL system to the larger PJM system;
- add a new 500/230 kV transformer at Smithburg substation, install a 500-kV breaker position, and add a new 230-kV breaker and a half string position for the new transformer;
- reconductor the Oyster Creek-Manitou N1028 and O1029 230 kV lines and upgrade the associated remote end terminal equipment at Oyster Creek and Manitou substations;
- reconductor the Lake Nelson-Kilmer section of the I1023 230 kV line;
- replace the 230 kV circuit switcher at Middlesex substation for the Lake Nelson I1023 line;
- reconductor a section of the Clarksville-Lawrence D1018 230 kV line; and
- rebuild an existing section of the Windsor-Clarksville C1017 230 kV line and upgrade the associated remote end terminal equipment at Windsor substation.

JCP&L estimates a total capital expenditure of \$334 million for Proposal 1a, excluding allowance for funds used during construction ("AFUDC"), to complete all proposed project components. These projects involve a proposed phase in of in-service dates in support of the

Board’s scheduled solicitations and progress toward the Governor’s OSW capacity goals. The in-service date for the first completed project component is June 2026, and the in-service date for last completed project component is June 2032.

Summary of JCP&L’s Option 1b Proposal

JCP&L’s Option 1b proposal is responsive to PJM’s 2021 SAA Proposal Window, which

seeks technical solutions . . . to provide new onshore transmission facilities to connect at or near the point of landfall connection from the new offshore transmission facilities in responses to the problem statement Option 2 with the default or alternative onshore points of interconnection (POI). Option 1b should only be used for proposals that require a new onshore substation to connect the offshore transmission facilities at or near landfall to the onshore transmission facilities.

The JCP&L Option 1b proposal assumes there will be a new converter station near the Larrabee substation as the main point of injection for OSW generation into the JCP&L system.³

JCP&L’s Option 1b elements include:

- a 230 kV transmission line from the converter station to the nearby Larrabee substation, and expansion of the substation, to accept the injection of 1,200 MW of OSW generation;
- a 230 kV transmission line within the existing ROWs from the converter station to the Atlantic substation, and expansion of the substation, to accept the injection of 1,200 MW of OSW generation; and
- two 500 kV transmission lines within existing ROWs from the converter station to the Smithburg substation, and expansion of the substation, to accept the injection of 2,490 MW of OSW generation.

³ JCP&L has coordinated with Mid-Atlantic Offshore Development (“MAOD”) (*PJM Proposal IDs: 2021-NJOSW-431, 2021-NJOSW-551, 2021-NJOSW-321*), a transmission developer, to integrate the construction of converter stations with JCP&L’s substations and transmission lines. MAOD proposes to build the Larrabee converter station, which is necessary for the Projects in JCP&L’s Proposal 1b. With dual implementation of the MAOD converter station and JCP&L’s projects, just one converter station will be built to inject offshore wind capacity to the Larrabee, Atlantic, and Smithburg Substations. JCP&L and MAOD are strategically aligned to provide the most efficient solution to reduce cost and impact to the environment and surrounding community. This solution is expected to have great benefits for PJM in the coordination and implementation of new or upgraded infrastructure.

JCP&L estimates a total capital expenditure of \$754 million, excluding allowance for funds used during construction (“AFUDC”), to complete all Proposal 1b project components. The proposed in-service dates for the Proposal 1b components ranges from June 2027 to December 2032.

Recommendations

JCP&L has the following recommendations for the Board to consider in its decision-making for OSW development.

The Board should make an Option 1a award(s) early in the process to establish a key, basic element of an interconnected on-shore/off-shore transmission grid – location and injection capacity of the POIs – to eliminate any uncertainty for developers of the offshore transmission grid and OSW generation in a long-term process. If warranted, the Board should then provide Option 1b, Option 2, and Option 3 proposers an opportunity to adapt their proposals consistent with the Board’s selection of the location and capacity of the POIs. An early award will also jump start design, permitting and construction of onshore transmission system upgrades and expansions supporting attainment of the State’s OSW capacity goals and schedule.

The JCP&L Proposals also involve extensive use of existing ROW, substation locations which provides real environmental, permitting, and cost advantages as well as greatly reduced risks regarding on-time completion of projects. JCP&L’s knowledge and commitment to New Jersey, combined with FirstEnergy’s multistate transmission experience and expertise also would provide benefits for decades to come. JCP&L’s Proposals upgrade and extend the useful lives of existing transmission facilities, which results in benefits to New Jersey ratepayers beyond enabling OSW generation. For these and other reasons detailed above, JCP&L recommends selections of its projects.

Thank you for the opportunity to submit these comments.

Respectfully submitted,

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