

**BEFORE THE
PUBLIC SERVICE COMMISSION
STATE OF NEW YORK**

**Application of Beacon Wind LLC for a
Certificate of Environmental Compatibility and
Public Need to Construct and Operate the New
York Portion of the Beacon Wind 1 Project
Transmission System**

Case No.: 22-T-XXXX

Beacon Wind LLC

Beacon Wind 1 Project

MATTER OF APPLICATION

APPLICATION

Pursuant to Article VII of the New York Public Service Law (PSL) and Subpart 85-2 of the Commission's Procedural Rules, 16 NYCRR Subpart 85-2 (2019), Beacon Wind LLC (Beacon, or the Applicant) hereby petitions the New York State Public Service Commission (Commission) for a Certificate of Environmental Compatibility and Public Need (the Certificate) authorizing the Applicant to construct, operate and maintain the New York portion of the transmission facilities required to interconnect Applicant's proposal of at least 1,230-megawatts (MW) Beacon Wind 1 Offshore Wind Generating Facility (the OSW Facility), to be located within the Bureau of Ocean Energy Management (BOEM) designated Renewable Energy Lease Area OCS-A 0520, to a Point of Interconnection (the POI) with the New York State Transmission System, located at the Astoria power complex in Queens, New York.

In accordance with Sections 3.3, 85-2.2, 85-2.4 and 85-2.8 of the Commission's Procedural Rules, the Applicant hereby submits its Application and exhibits, along with the information required by Section 122 of the PSL and Parts 86 and 88 of the Commission's Rules of Procedure, the testimony comprising the Applicant's direct case in support of its Application, and a motion for waiver of certain filing requirements. Further, in compliance with PSL Sections 122(2) and 122(5), Applicant also submits a certificate of service of this Application, a copy of the newspaper notice (with an affidavit of publication of such notices to be provided promptly upon receipt), a copy of the landowner notice, and a check in the amount of \$450,000 for intervenor funding.

REQUEST FOR EXPEDITED ACTION

On July 18, 2019, Governor Andrew Cuomo signed into law the Climate Leadership and Community Protection Act (CLCPA), "the most aggressive climate change legislation in the

nation.”¹ A key part of this new legislation was the requirement that the Commission establish a program under which New York’s jurisdictional load serving entities would secure sufficient renewable energy to serve at least 70 percent of their loads by 2030 and 100 percent of their loads by 2040.² As part of this aggressive clean energy mandate, the Commission was also directed to ensure that New York’s load serving entities procure at least 9,000 megawatts (MW) of electricity from offshore wind resources by 2035.³

These ambitious clean energy mandates require expedited action by the Commission on this Article VII Application, as the facilities proposed herein are required to connect Beacon’s offshore wind facility to deliver at least 1,230 MW to the New York State Transmission System and thereby supply renewable electricity from the offshore wind facility to consumers in New York State, as required by Beacon’s contract with the New York State Energy Research and Development Authority (NYSERDA). Prompt action on this Application will also further the public interest in a number of other important ways, as the Commission explained in its July 12, 2018 Order Establishing Offshore Wind Standard and Framework for Phase 1 Procurement in Case 18-E-0071:

[O]ffshore wind is projected to provide numerous benefits in addition to playing a significant role in contributing toward achieving the [Clean Energy Standard] targets and reducing greenhouse gas emissions. Because of its proximity and direct access to load centers, offshore wind would provide substantial reliability and diversity benefits to the electric system. Offshore wind also has the potential to create thousands of jobs for New Yorkers, both in construction of the facilities and in the operations and maintenance of the completed projects. It may also produce significant public

¹ Governor Cuomo Executes the Nation's Largest Offshore Wind Agreement and Signs Historic Climate Leadership and Community Protection Act (ny.gov)

² N.Y. Pub. Serv. L. § 66-p(2).

³ N.Y. Pub. Serv. L § 66-p(5).

health benefits by displacing fossil-fired generation in the downstate area.⁴

Expedited action on this Article VII Application is required to achieve all of these important objectives and to protect New York's leadership position in the burgeoning offshore wind industry. In conformance with Section 85-2.8 of the Commission's Procedural Rules, the Applicant further states as follows:

I. DESCRIPTION OF THE PROPOSED PROJECT

The Applicant is seeking a Certificate of Environmental Compatibility and Public Need for the New York portion of the Beacon Wind 1 Project (NY Project). The NY Project is anticipated to be constructed entirely underground or under the waters of New York State and includes the following components:

- One 320-kV HVDC submarine export cable circuit (two cables) located within an approximately 115 nautical miles (nm) (213 km)-long submarine export cable corridor from the boundary of New York State waters 3 nm (5.6 km) offshore to the cable landfall at Lawrence Point at the Astoria power complex in Queens, New York;
- One, 2,000 feet (610 meters)-long onshore cable route and substation facility within the Astoria power complex including:
 - One 320-kV HVDC onshore export cable circuit (two cables) installed underground from the landfall to the onshore substation facility within the Astoria power complex (approximately 600 feet (183 meters));

⁴ Case 18-E-0071, *In the Matter of Offshore Wind Energy*, Order Establishing Offshore Wind Standard and Framework for Phase 1 Procurement, slip op. at 3 (Issued and Effective July 12, 2018).

- One onshore substation facility (inclusive of an onshore converter station and onshore substation) to convert HVDC power to HVAC power and step the voltage down from 320-kV to 138-kV; and
- Three 138-kV cable circuits, each with nine HVAC onshore interconnection cables, buried underground from the onshore substation facility to the Astoria West POI (approximately 1,400 feet (427 meters)).

II. THE LOCATION OF THE PROPOSED RIGHT OF WAY

The NY Project will connect the offshore wind farm to the POI at the Astoria power complex in Queens, New York, and will include one submarine export cable circuit, consisting of two cables, approximately 115 nm (213 kilometers (km)) in length in New York State waters, one onshore export cable circuit, consisting of two cables, approximately 600 feet (183 meters) in length, and three interconnection cable circuits approximately 1,400 feet (427 meters) in length. The POI to the New York State Transmission System operated by the New York Independent System Operator (NYISO) will be at the existing Astoria West 138-kV Substation in Queens, New York. The Astoria West Substation is owned by the Consolidated Edison Company of New York, Inc. (ConEdison). Detailed maps, drawings and explanations showing the proposed, primary route for the NY Project and alternate configurations considered by the Applicant are set forth in Exhibits 2 and 5 to the Application.

III. SUMMARY OF ENVIRONMENTAL STUDIES AND ENVIRONMENTAL IMPACT

The NY Project will be designed, constructed and operated in a manner that avoids or minimizes impacts to environmental resources and the general public to the maximum extent practicable. The Applicant, through its consultants, has conducted field investigations, environmental impact studies, literature reviews and agency consultations (where appropriate) to

identify and assess existing environmental conditions within the NY Project's Study Areas. A detailed description of these studies and the potential environmental impacts of the NY Project is set forth in the resource-specific sections of Exhibit 4 to the Application, including:

- Marine Physical and Chemical Conditions;
- Topography, Geology, Soils and Groundwater;
- Wetlands and Waterbodies;
- Terrestrial Vegetation and Wildlife;
- Fisheries and Benthic Resources;
- Important Habitats and Protected Species;
- Cultural and Historic Resources;
- Visual and Aesthetic Resources;
- Land Use;
- Noise; and
- Electric and Magnetic Fields

Study and technical reports, agency correspondence and environmental assessments for the NY Project are provided in the following appendices:

- Agency Outreach and Correspondence (Appendix A1);
- Confidential IPaC and NYSDEC Threatened and Endangered Species (Appendix A2);
- In-Air Acoustics Report (Appendix B1);
- Underwater Acoustics Report (Appendix B2);
- Electric and Magnetic Field Assessment (Appendix C);
- Wetland Delineation Report (Appendix D);
- Essential Fish Habitat Assessment (Appendix E);

- Terrestrial Archaeological Resources Assessment Survey (Appendix F);
- Analysis of Visual Effects on Historic Properties (Appendix G);
- Visual Impact Assessment (Appendix H);
- Coastal Zone Management Consistency Statement (Appendix I);
- Public Involvement Plan (Appendix J); and
- Local Ordinances (Appendix K).

In sum, these studies show that the environmental impacts of the construction and operation of the NY Project will be generally minor to negligible, limited in both scope and duration, and will occur primarily during the construction phase. The Applicant also will implement measures to further reduce potential impacts. As a result, construction and operation of the proposed NY Project would not have any significant adverse impacts on environmental resources or on business or the general public in Queens or Nassau County, New York. A summary of the anticipated potential impacts of the NY Project on each of the identified resources is presented below. Where applicable, strategies that will be employed to minimize any potential environmental impacts that cannot be avoided are also described.

Marine Physical and Chemical Conditions

As detailed in Exhibit 4, no significant impacts to tides, currents, bathymetry, or water temperature are anticipated from NY Project-related construction, operations or maintenance activities. NY Project construction activities will result in short-term, minor disturbance of seabed sediment, minor to negligible physical changes from cable protection on the seafloor, and minor to negligible bathymetry changes from pre-sweeping and dredging activities.

Topography, Geology, Soils and Groundwater

For the reasons explained in greater detail in Section 4.3 of Exhibit 4 of the Application, NY Project construction is not expected to result in significant alterations to topography, geology, soil or groundwater, and is not expected to significantly change stormwater runoff patterns or volumes. Site specific erosion and sediment control measures will be provided as part of the Environmental Management & Construction Plan (EM&CP). As such, the NY Project is not expected to impact surface water or groundwater quality during onshore soil disturbing activities.

Wetlands and Waterbodies

As described in Section 4.9 of Exhibit 4 of the Application, because the onshore portion of the NY Project is located within a highly developed area, there are no freshwater wetlands or onshore surface waterbodies located directly within the onshore NY Project Area. Potential impacts to the adjacent tidal wetlands (the East River) as a result of the NY Project's onshore construction and operation will be short-term and minor to negligible. NY Project-related impacts from construction of the onshore NY Project components as well as installation of the submarine export cable system will be limited to the shoreline and intertidal zone of the East River and the associated tidal wetland adjacent area. While the submarine cable route is located within NYSDEC-designated tidal wetland and adjacent area, the use of HDD or other trenchless installation methods for export cable landfall will avoid direct impacts to the East River littoral zone. To minimize impacts to offsite water resources, the Applicant will implement a soil erosion and sediment control plan for the cable landfall, onshore substation and onshore cable installation that satisfies the requirements detailed in the New York State Standards and Specifications for Erosion and Sediment Control (Blue Book), and a Stormwater Pollution Prevention Plan (SWPPP) will be provided as part of the

Applicant's EM&CP. The Applicant also will implement an Inadvertent Return Plan and SPCC Plan to avoid, minimize, and mitigate potential impacts.

Terrestrial Vegetation and Wildlife

As detailed in Section 4.8 of Exhibit 4 of the Application, because the onshore portion of the NY Project is located within a highly developed area that predominantly devoid of natural vegetation, potential impacts to terrestrial vegetation and wildlife resources as a result of the NY Project's onshore construction and operation are anticipated to be negligible.

Fisheries and Benthic Resources

As detailed in section 4.12 of Exhibit 4, the Applicant has sited the NY Project to avoid sensitive benthic habitats to the extent practicable. Short-term minor direct disturbance, changes in water quality, entrainment, disturbance of soft bottom habitat, and project-related noise and vibrations may temporarily affect fisheries and benthic resources during construction activities. Long-term changes potentially affecting fisheries and benthic resources include the introduction of artificial habitat resulting from cable protection measures, electric and magnetic fields from the submarine export cables, and risk of bottom disturbance upon secondary interaction of fishing gear and vessel anchors with the cables during operations.

Given the Applicant's commitment to cable burial, the potential impacts of energized cables on fish and invertebrates would be negligible. Electric and magnetic fields generated by the buried export cables would be detectable by some benthic fish and invertebrates but would not adversely impact individuals or populations. The NY Project's impact on benthic and pelagic habitat would be either neutral or beneficial to most fish and invertebrates. The new infrastructure would neither harm nor benefit demersal species that prefer open sandy bottoms, such as surf clam and flounder,

because sandy bottom is not a limiting feature in the NY Project Area; therefore, impacts are expected to be minor. To decrease the risk of gear snagging where target burial depth cannot be achieved, the Applicant has committed to limit the use of concrete mattresses, except where required for certain asset crossing locations. Cable protection, when applied, will be designed to minimize the potential for gear snags, as feasible. Additional mitigation to avoid and reduce impacts (e.g., route planning, burial depth surveys, feedback based on fisheries input to minimize the impacts of the export cable on fishing) will be employed.

Important Habitats and Protected Species

As detailed in Section 4.15 of Exhibit 4, due to the placement of the onshore portion of the NY Project within a highly developed area, no critical habitat was identified within or adjacent to the NY Project area, and any potential impacts to protected species and important habitat associated with the NY Project construction are anticipated to be negligible. The Applicant proposes to implement measures to avoid, minimize, and mitigate impacts to protected species during construction and operation of the NY Project, including: the development and enforcement of an Oil Spill Response Plan; providing appropriate NY Project-related personnel onboard NY Project vessels with relevant training in wildlife sighting, recording and reporting procedures, vessel-strike avoidance and minimum separation distances, and awareness training to emphasize individual responsibility for protected wildlife awareness and protection, as necessary; and vessel lighting that minimizes illumination of the sea surface where feasible and in compliance with regulatory requirements.

Cultural and Historic Resources

Section 4.16 of Exhibit 4 of the Application indicates that there are no archaeological sites or sites of undetermined status under the National Register of Historic Places (NRHP) that occur

within the NY Project's onshore archaeological area of potential effects (APE). Overall archaeological sensitivity of the onshore construction and operation is low due to the effects of nineteenth- and early twentieth-century land reclamation activities and the subsequent industrial development of Lawrence Point. During construction, the impacts to marine cultural resources have the potential to include disturbance to known and/or unknown submerged marine archaeological resources. The forthcoming Marine Archeological Resources Assessment (MARA) (anticipated Summer 2022) will contain more specific information about those portions of the Marine Archaeological Study Area that have the highest, and lowest, potential to contain potentially significant marine archaeological and cultural resources. Based on the results of the survey activities and marine archaeological analysis completed to date, the maximum possible disturbance to the seabed within State of New York waters would likely occur during the construction phase, specifically during installation of the submarine export cables, anchoring of installation vessels, and from the legs of jack-up vessels. It is anticipated that any potential effects associated with operation and maintenance activities associated with the NY Project, such as repair of submerged cables, will be minimal and occur within areas previously impacted by construction activities. The MARA will include recommendations for avoidance and minimization of potential effects to potentially significant marine archaeological and cultural resources.

Visual and Aesthetic Resources

As described in greater detail in Section 4.17 of Exhibit 4 of the Application, long-term visual effects during operation of the onshore substation will result from the visibility of some of the aboveground components associated with the onshore substation facility. During construction, short-term, minor impacts will be associated with offshore and onshore construction activities. During operations, the onshore substation will introduce tall, rectangular forms and vertical and

geometric structures into the landscape setting, which already is highly developed with similar forms and structures. The burial of the onshore cables will mitigate many of the potential visual effects of the NY Project that would otherwise occur. The onshore substation site is located within the jurisdiction of the Long Island Sound Coastal Management Program; therefore, a pre-engineered building system with prescribed architectural elements incorporated into the design will be used to ensure the NY Project meets the Management Program policies, and lighting at the onshore substation will be designed to reduce light pollution where feasible (e.g., downward lighting, motion-detecting sensors).

Land Use

As described in greater detail in Section 4.18 of Exhibit 4 of the Application, the NY Project will not conflict with current or planned land uses within the NY Project Area and will have at most a minimal impact on any future planned uses. Construction of the NY Project will result in minor, short-term impacts, including a short-term increase in construction vehicle traffic and activity, as well as the short-term implementation of safety zones. The Applicant proposes to avoid, minimize, and mitigate impacts through the addition of security measures to monitor and properly mark active construction sites; the development of a Traffic Management Plan; and implementation of the NY Project's Public Involvement Plan (see Appendix J), including regular updates to the local community through social media, public notices, the Beacon Wind Project website, and/or other appropriate communications tools.

Noise

Section 4.5 of Exhibit 4 and Appendices B1 and B2 of the Application describe the noise impacts resulting from construction and operation of the NY Project. Construction will primarily result in short-term, minor increases in in-air noise levels associated with support vessels and

construction of the onshore substation and installation of the onshore cables. The Applicant will implement many avoidance, minimization, and mitigation measures, including compliance with relevant noise standards for nearshore work; ensuring construction equipment will be well-maintained and vehicles using internal combustion engines equipped with mufflers will be routinely checked; use of quiet, adjustable backup alarms for vehicles, when feasible; and minimize hours of construction operations, to the extent practical, especially if nighttime operations are necessary.

Modeling of the onshore substation facility determined that two locations would exceed New York City's octave band Noise Code limits. Proposed measures to mitigate impacts and bring operation in line with the required limits include maintaining onshore substation facility equipment and, where appropriate, installing mufflers; and use of noise barriers if necessary. The final design and mitigation strategies will be presented in the EM&CP.

Electric and Magnetic Fields

As detailed in Section 4.6 of Exhibit 4 and Appendix C of the Application, the magnetic field of the onshore HVAC interconnection cables is not expected to exceed the Commission's standard of 200 milligauss (mG) at the edge of the right-of-way (ROW). The electric-field levels at the edge of the NY Project ROW will be below the electric-field limit of 1.6 kilovolts per meter (kV/m) because any electric field will be blocked by the cable construction and ground. The NY Project will not be a direct source of any electric field and any electric field induced by the magnetic field will be de minimis and below the NYPSC limit.

IV. NEED FOR THE FACILITY

The NY Project is required to deliver at least 1,230 MW Beacon Wind 1 OSW Facility to the New York State Transmission System, so that the Applicant can supply renewable electricity

produced from that OSW Facility to consumers in New York State as required by the Applicant's contract with NYSERDA. NYSERDA and the Applicant entered into an Offshore Renewable Energy Certificate Purchase and Sale agreement pursuant to NYSERDA's 2020 offshore wind solicitation and will support New York State's mandate to achieve 9,000 MW of offshore wind generating capacity by 2035 required by the CLCPA.

As the Commission explained in establishing a special program of renewable energy credits for offshore wind generating facilities selected by NYSERDA, projects like the NY Project play a crucial role in achieving New York's ambitious clean energy objectives:

The reasons for adopting an Offshore Wind procurement requirement are compelling. Achieving the State's ambitious carbon reduction goals will require contributions from a variety of sources – no single technology or simple formula will suffice – and offshore wind will be an essential contributor. Offshore wind addresses the transmission and siting constraints that would otherwise inhibit the development of renewable power in the downstate area, and it has a higher capacity factor than other weather-variable renewable sources of generation. It is particularly well suited for the Atlantic coast, from siting and operations to system efficiency and potential output. Clean power delivered directly to the downstate capacity zones will also have the effect of displacing local fossil generation and reducing local air contaminants.⁵

V. DESCRIPTION OF REASONABLE ALTERNATIVE ROUTES AND TECHNOLOGY

Exhibit 3 of this Application provides a description and evaluation of alternatives, including a description of the comparative merits and detriments of each alternative and an explanation of why the proposed route is best suited for the NY Project. The Applicant evaluated alternatives for the submarine export cable route, onshore substation, cable landfall and onshore cable route.

⁵ Case 18-E-0071, *In the Matter of Offshore Wind Energy*, Order Establishing Offshore Wind Standard and Framework for Phase 1 Procurement, slip op. at 15-16 (footnotes omitted) (Issued and Effective July 12, 2018).

VI. OTHER RELEVANT INFORMATION

Exhibit 1 to the Application provides the name, address and phone number of the Applicant; the principal officer name and address for the Applicant; and the names and addresses of those persons upon whom documents and correspondence are to be served. Exhibits 2, E-1 and E-2 to the Application provide a detailed description of the location of the facilities comprising the NY Project. Exhibit 6 to the Application sets out the economic effects of the construction and operation of the NY Project.

Exhibit 7 to the Application provides information on local laws, codes and ordinances (Local Laws) that are applicable, or potentially applicable, to the NY Project. As indicated in Exhibit 7, the Applicant requests that the Commission grant waivers of specified provisions of those Local Laws that Applicant believes would be unreasonably restrictive if applied to the NY Project. Exhibit 8 to the Application describes other pending filings associated with the Application. Exhibit 9 to the Application provides estimated cost information regarding the proposed NY Project.

Exhibit E-4 to the Application presents the engineering justification for the NY Project. Exhibit E-5 to the Application explains why the NY Project is not expected to cause any material adverse impacts to television, radio or other communications systems. Exhibit E-6 to the Application evaluates the impacts of the NY Project on airports, railroads, roads, marine transportation, and pedestrian areas. This analysis demonstrates that the NY Project will be designed and constructed in a manner that will avoid interference with any of these transport modes except for impacts on roads and marine traffic during construction, which impacts will be temporary and minimized by appropriate safety measures. Appendix J contains the Applicant's most recent Public Involvement Plan ("PIP").

Key features of the PIP include identifying key stakeholders in the NY Project area; advancing the public's understanding of the NY Project; and encouraging and collecting input from, and disseminating information to, stakeholders and the communities surrounding the NY Project area. The PIP is intended to provide relevant information to the public and stakeholders, consider stakeholder input and to ensure consistent, frequent and transparent outreach and communications with stakeholders. Various communication methods will be used as part of the Applicant's PIP, including but not limited to: public information meetings, presentations, a website, direct mail, NY Project brochures or newsletters, and electronic mail.

To date, as part of its comprehensive PIP, the Applicant has:

- met with certain key stakeholders, including State agency staff (including that of NYSDPS, NYSDEC and NYSDOS) and local elected leaders, informing them of the proposed NY Project;
- held public open house sessions (both virtual and on location);
- published notice of the filing of the Article VII Application in newspapers of general circulation;
- sent letters to the landowners on which the NY Project would be located and adjacent landowners, notifying them of the NY Project;
- established a website at www.beaconwind.com, which will be updated regularly with NY Project information; and
- established a telephone number to receive calls regarding the NY Project.

VII. CONCLUSION

For the reasons set forth above, the Applicant respectfully requests that the Commission:

- i. grant the Applicant's request for expedited treatment of this Application; and
- ii. grant a waiver of those Commission rules and regulations specified in the Motion for Waivers from Application Requirements accompanying this Application; and

- iii. grant a waiver of those applicable Local Laws specified in Exhibit 7 pursuant to Section 126.1(g) of the Public Service Law and 16 N.Y.C.R.R. § 86-8; and
- iv. grant any other and further authorizations, consents, permissions, approvals, waivers and permits, as necessary, for the construction, operation and maintenance of the NY Project described herein; and
- v. issue an order granting a Certificate of Environmental Compatibility and Public Need authorizing the Applicant to construct, operate and maintain the NY Project as described in this Application and in the attached exhibits and appendices.

Dated: May 12, 2022
Albany, NY

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