STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

At a session of the Public Service Commission held in the City of Albany on October 15, 2020

COMMISSIONERS PRESENT:

John B. Rhodes, Chair
Diane X. Burman
James S. Alesi
Tracey A. Edwards
John B. Howard

CASE 20-T-0430 - Petition of Long Island Power Authority to Amend Certificate of Environmental Compatibility and Public Need Granted by Order Dated May 14, 2010.

ORDER APPROVING AMENDMENT TO THE CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED SUBJECT TO CONDITIONS

(Issued and Effective October 15, 2020)

BY THE COMMISSION:

INTRODUCTION

On August 25, 2020, PSEG Long Island (PSEG LI) on behalf of and as agent for the Long Island Power Authority (LIPA) filed a Petition with the New York State Public Service Commission (Commission) to further amend its Certificate of Environmental Compatibility and Public Need (Certificate) granted pursuant to Article VII of the Public Service Law (PSL).[1] The Certificate was issued to LIPA on June 21, 2007 and amended on October 17, 2008 and May 14, 2010. The Certificate authorized LIPA to construct and operate a 138 kilovolt (kV)

[1] Case 01-T-1679, Long Island Power Authority - Article VII, Order Adopting the Terms of the Joint Proposal and Granting Certificate of Environmental Compatibility and Public Need (issued June 21, 2007).

submarine electric transmission line between Northport, New York and Norwalk, Connecticut (the Facility).

LIPA recently completed its annual inspection of the submarine line in accordance with its Certificate. During the 2019 inspection program, LIPA discovered that immediately north of the existing mattresses within the "Nearshore Cable Installation Work Area,"[2] approximately 80-100 linear feet of each of the three cables were exposed above the seafloor. As discussed herein, LIPA seeks Commission approval to install articulated concrete mattresses to secure and protect the approximately 100-foot-long exposed section of its 138-kV submarine electric transmission cable between Northport, New York and Norwalk, Connecticut.

Through this Order, the Commission approves the Petition to amend the Certificate to allow the installation of mattresses to secure and protect the approximately 80-100-foot-long exposed section of its 138-kV submarine electric transmission cable between Northport, New York and Norwalk, Connecticut pursuant to PSL § 122(4) subject to the conditions discussed below.

BACKGROUND

Subsequent to the issuance of the Certificate, LIPA intended to embed the cables that make up the three transmission lines to a design depth of 10 feet below the floor of the seabed in the Nearshore Cable Installation Work Area.[3] The jet plow equipment used to embed the cables was apparently unable to

[2] Defined as the area between the New York landfall at the mean high-water contour and at a point 1,000 feet seaward of the northernmost mean lower water contour.

[3] Case 01-T-1679, Long Island Power Authority – Northport-Norwalk Article VII, Application Exhibit 37, "Comparison of Proposed Burial Depths" Drawing No. 1 (November 3, 2005).

achieve the design depth of 10 feet. Thereafter, numerous attempts were made with land-based hydraulic excavators to achieve the required burial depth, however, the cable installation only achieved embedment to an approximate depth of four feet below the seabed floor. LIPA attributed this failure to a near-shore environment comprised of coarse sediments, boulders and cobbles, rather than the silt and sand typically found in deeper off-shore waters which are generally easier to excavate. After multiple attempts to install the cable to a depth of 10 feet, the Department of Public Service (DPS) staff determined by letter dated November 21, 2008 to accept the actual burial depth of the cables (approximately four feet).

In May 2009, LIPA discovered that portions of the submarine cables were exposed on the sea floor surface in shallow waters in the Nearshore Cable Installation Work Area at Northport. Expressing concerns about public safety (boat or anchor contact) as well as fatigue or failure of the exposed cables if left unsupported and subjected to flexing and abrasive wear, LIPA requested an amendment of the Certificate. By a One Commissioner Order dated May 14, 2010, the Commission amended the Certificate as well as LIPA's Environmental Management and Construction Plan (EM&CP) to provide for the authority to lay rock-filled geotextile mattresses on top of each of the exposed cables in the Nearshore Cable Installation Work Area (later confirmed by the Commission on June 17, 2010), and the exposed cables were covered with geotextile erosion control mattresses.[4] LIPA states that the mattresses continue to function to the design specifications with no exposure noted during its recent 2019 inspection.

[4] Case 01-T-1679, Long Island Power Authority – Article VII, Order Permitting Exposed Undersea Cables to be Protected with Geotextile Mattresses Containing Natural Stone Material (issued May 14, 2010).

In the instant Petition, LIPA now seeks the authority to cover different areas of exposed cable for the same concerns expressed in 2010. The Petition states new areas of the cables were found to be exposed on the sea floor during the recent 2019 inspection. According to the Petition, roughly 80-100 feet of each of the three cables were reportedly exposed. Furthermore, LIPA states a high-resolution hydrographic survey was conducted, corroborating the inspection and in addition revealed an apparent drag mark of unknown origin. This drag mark, according to LIPA, may be the result of contact with a ship's keel or anchor.

LIPA subsequently sought and received approvals from the New York State Department of State (DOS) and the United States Army Corps of Engineers (USACE) to cover the exposed areas of cable with sand as an immediate temporary measure.[5] This measure was approved by the DOS through a letter dated September 26, 2019, and the USACE issued a similar approval on October 1, 2019.[6] LIPA completed the sand cover in October 2019. In May and June of 2020, additional surveys were conducted to assess the effectiveness of these temporary emergency measures. LIPA asserts that there is already some exposure of the cable through the recently placed sand; emphasizing the urgent need for a long-term and permanent solution, once again expressing public safety concerns.

Specifically, the Petition requests an amendment to the Certificate to allow the use of "ECO Mat" articulated concrete mattresses, which are distributed by ECOncrete, rather than the geotextile erosion control mattresses previously approved in the Commission's 2010 Certificate Amendment. LIPA asserts that the ECO Mat articulated concrete mattresses were

[5] Petition, p.3.

[6] Id.

recommended as an alternative to standard articulated concrete mattresses in recent discussions with the New York State Department of Environmental Conservation (DEC). ECO Mat articulated concrete mattresses, according to LIPA, are made up of numerous one-foot square concrete blocks that allow the mattresses to conform to changes in bottom contour that occur over time.

Regarding environmental impacts, the Petition asserts that the proposed long-term cable protection approach (including the placement of clean sand fill and ECO Mat articulated concrete mattresses) will occur within the seabed area previously impacted by the original cable installation and the 2019 short-term protection measures. The work will directly impact approximately 6.992 square feet surrounding the 601, 602, and 603 cables. The mattresses will extend for approximately 100 linear feet along each cable for a total of approximately 300 linear feet and will be placed below mean lower low water. Impacts to the benthic community or essential fish habitat (EFH) are expected to be localized and temporary. Sessile organisms in the immediate vicinity of the mattresses are at the greatest risk to injury or mortality events. The design of ECO Mat concrete mattresses, LIPA states, provides varying surface textures/complexity to encourage marine growth. Additionally. the concrete mattresses will provide a stable bottom area as a benefit to the benthic community or EFH. The Petition further states there will be no shore-based work associated with this effort that could affect any plovers that may be present on the adjacent beach. According to LIPA, DOS issued General Concurrence with Coastal Zone Management Federal Consistency on July 24, 2020, for the proposed installation of articulated concrete mattresses and the USACE issued a modification to Permit number NAE 2004-01017 for the proposed work on August 19, 2020. Under the USACE permit, LIPA would need to complete any

such work authorized herein by December 31, 2020, to minimize impacts to fish habitat.

The Commission is further advised that DEC and DPS Staff also reviewed the use of ECO Mat articulated concrete mattresses and do not foresee environmentally negative effects associated with that usage in comparison to the geotextile erosion control mattresses or standard articulated concrete mattresses. Further, LIPA states it has agreed to monitor the efficacy of the ECO Mat mattresses at the request of DEC and DPS Staff, in order to evaluate its performance as compared to standard articulated concrete mattresses as well as to provide observations on any marine growth.[7]

Previously amended Subsection (d) of Certificate Condition 49 currently reads, in its entirety, as follows:

> For the Nearshore Cable Installation, if, during the initial attempt at Nearshore Cable Insta11ation using the jet plow, there is a fai1ure to bury the facility cables no less than ten feet below the seabed, LIPA may make three additional passes of the jet plow; to achieve the maximum burial depth achievable. In such case, LIPA may also make jet plow equipment changes or adjustments which could better allow for trench formation, but in no case is dredging or side casting of materials allowed, nor are a geotextile cover or concrete mats allowed to be placed over the facility cables.

As discussed above, on May 14, 2010, the Commission amended Certificate Condition 49 to allow for the use of cable protection in the form of rock-filled geotextile mattresses only over the cable within the Nearshore Cable Installation Work Area.[8] Thus, because the cable protection solution proposed by LIPA would be inconsistent with previously amended Certificate

[7] Id., p. 7.

[8] See, f.n. 4, supra.

Condition 49 prohibition on placing concrete mattresses on the cables, PSEG LI on behalf of LIPA now requests, in accordance with PSL § 122(4), that the Commission amend this portion of the Certificate Condition to permit LIPA to implement the cable protection solution as discussed herein.

PUBLIC NOTICE

Public Notice of the Petition was published in the Newsday newspaper on August 5 and August 12, 2020, before the Petition was filed, and notice was served on the affected municipalities, state agencies, members of the legislature, and others in the manner required by PSL § 122. Staff advises that DEC, DOS, and the USACE, have been consulted directly by LIPA and have expressed no objections. No public comments have been submitted in response to the Public Notice.

LEGAL AUTHORITY

PSL § 122(4) provides that "[a]n application for an amendment of a certificate shall be in such form and contain such information as the commission shall prescribe. Notice of such an application shall be given as set forth in subdivision two." In addition, under PSL §123(2), "[o]n an application for an amendment of a certificate, the commission shall hold a hearing in the same manner as a hearing is held on an application for a certificate if the change in the facility to be authorized would result in any material increase in any environmental impact of the facility or a substantial change in the location of all or a portion of such facility other than as provided in the alternates set forth in the application."

Inasmuch as this amendment request does not propose any change in the location of the Facility or involve any material increase in any environmental impact, no hearing is

required.[9]

DISCUSSION AND CONCLUSION

The Petition demonstrates sufficient public interest concerns to warrant the proposed remedial cable construction work. This submarine cable operates as critical infrastructure needed for system reliability, and its continued exposure on the sea floor presents a potential high risk of being damaged. This in turn presents a potential risk to public safety. Additionally, a line outage due to damage could have substantial cost implications on rate payers. The cable protection solution should provide appropriate safeguards in a manner that does not substantially harm the environment.

Therefore, amended Certificate Condition 49(d) is further amended to allow the use of ECO Mat articulated concrete mattresses to cover, protect and support the cables that have

[9] See, e.g., Case 08-T-0034, Application of Hudson Transmission Partners, LLC for a Certificate of Environmental Compatibility and Public Need for a 345 kV Submarine/Underground Electric Transmission Link Between Manhattan and New Jersey, Order Granting Amendments to Certificate of Public Convenience and Necessity (issued November 3, 2011); See, e.g., Case 08-T-0034, Application of Hudson Transmission Partners, LLC for a Certificate of Environmental Compatibility and Public Need for a 345 kV Submarine/Underground Electric Transmission Link Between Manhattan and New Jersey, Order Approving Certificate Amendments and Directing Compliance (issued January 12, 2017); Case 02-T-0036, Application of Neptune Regional Transmission System LLC for a Certificate of Environmental Compatibility and Public Need for the Construction of two 600 megawatt (+/- 500 kV) High-voltage Direct Current Submarine/Underground Electric Transmission Cables - Petition to Amend Opinion and Order Issued January 23, 2004, filed by Neptune Regional Transmission System LLC, Order Granting Amendment of Certificate of Environmental Compatibility and Public Need (issued August 26, 2005), at p. 4 (finding that an amendment to a certificate condition does not require a hearing where the proposed amendment "will not result in any material increase in any environmental impact or a substantial change in the location of the transmission facility.")

become exposed. Specifically, the text will now read:

> For the Nearshore Cable Installation, if, during the initial attempt at Nearshore Cable Insta11ation using the jet plow, there is a fai1ure to bury the facility cables no less than ten feet below the seabed, LIPA may make three additional passes of the jet plow; to achieve the maximum burial depth achievable. In such case, LIPA may also make jet plow equipment changes or adjustments which could better allow for trench formation, but in no case is dredging or side casting of materials allowed.

LIPA is directed to employ best commercial efforts to float the mattresses on barges to the affected areas within the Nearshore Cable Installation Work Area at high tide and install them with the appropriate lifting equipment on and from the barges. The work may commence immediately to ensure completion prior to December 31, 2020, in accordance with LIPA's USACE permit and to minimize impacts to fish populations and EFH in the area. In the event weather or other conditions present safety concerns for the public or for the workers performing this work, or in the event the structural integrity of the mattresses or cables could be compromised, LIPA may instead perform the work at periods of low tide (working within the inter-tidal area, but not from the beach itself). However, LIPA must first give 24 hours' notice to DPS Staff, DOS, and DEC prior to doing so, document its justification for doing so, and report the same in writing to DPS Staff and the Commission within 48 hours of its decision.

Given the history of the cables' persistence to become exposed, great care should be given towards ensuring this action is an effective, permanent measure. To that effect, prior to placing the ECO Mats, LIPA shall place approximately twelve inches of clean sand over the cables to a point approximately 100 feet seaward, to ensure a stable area and permanent

stabilization on the seafloor once the ECO Mats are installed. Further, LIPA is authorized to place natural stone below any segments of cable that are suspended and need additional support, prior to being covered by the ECO Mat mattresses. Notwithstanding the above, the relief granted here shall not be construed to grant a blanket authorization; LIPA must seek future Commission approval to lay additional mattresses if a different section of the cables becomes exposed.

Lastly, the Commission also concurs with DEC and DPS Staff's determination that post-installation monitoring of the ECO Mats is necessary to determine the efficiency of these measures as a permanent solution to avoid future issues with submarine cable exposure. To that effect, the Commission directs LIPA to include in its annual Inspection and Monitoring Plan, criteria for the evaluation of the integrity and performance of the ECO Mat articulated concrete mattresses, its effectiveness as compared to standard articulated concrete mattress design, as well as observations of benthic marine growth, to be included as a component of its annual reporting requirements after installation is completed. LIPA shall submit the amended plan to the Commission for its approval, and thereafter file its report pursuant to the plan on an annual basis with the Commission.

The Commission Orders:

1. The Certificate of Environmental Compatibility and Public Need dated June 21, 2007, and amended on October 17, 2008, and May 14, 2010, granted to the Long Island Power Authority (LIPA) in this proceeding (Certificate) and resultant Environmental Management and Construction Plan (EM&CP) are hereby modified consistent with the discussion in the body of this Order. Certificate Condition 49(d) shall now read as follows:

For the Nearshore Cable Installation, if, during the initial attempt at Nearshore Cable Insta11ation using the jet plow, there is a fai1ure to bury the facility cables no less than ten feet below the seabed, LIPA may make three additional passes of the jet plow; to achieve the maximum burial depth achievable. In such case, LIPA may also make jet plow equipment changes or adjustments which could better allow for trench formation, but in no case is dredging or side casting of materials allowed.

2. LIPA is directed to complete the installation of ECO Mat articulated concrete mattresses over the affected areas in the manner prescribed in the body of this Order by December 31, 2020.

3. LIPA will file an updated Inspection and Monitoring Plan to the Commission for approval by June 30, 2021, consistent with the discussion in the body of this Order. LIPA shall thereafter file its report made pursuant to the Inspection and Monitoring Plan on an annual basis with the Commission. Copies will be submitted to Department of Public Service Staff and to the New York Department of Environmental Conservation.

4. The Secretary, in her sole discretion, may extend the deadlines set forth in this Order, provided the request for such extension is in writing, including a justification for the extension, and filed on a timely basis, which should be on at least one day's notice prior to any affected deadline.

5. LIPA shall follow all the requirements of the Certificate, as amended, and the approved EM&CP, unless superseded by this Order.

6. This proceeding is continued.

By the Commission,

(SIGNED) MICHELLE L. PHILLIPS
Secretary