

State Environmental Quality Review
NEGATIVE DECLARATION
Notice of Determination of Non-Significance

Project: Hempstead Substation, Transmission Lines, and Distribution Lines Upgrades
(the "Proposed Action")

Date: March 22, 2018

This notice is issued in accordance with Article 8 (State Environmental Quality Review Act) of the Environmental Conservation Law and its implementing regulations at 6 NYCRR Part 617 and 21 NYCRR LXXXI 10052.

The Long Island Power Authority ("Authority") has determined, based on information provided by PSEG Long Island that the Proposed Action described below will not have a significant adverse impact of the environment and a Draft Environmental Impact Statement will not be prepared.

Name of Action: Hempstead Substation, Transmission Lines, and Distribution Lines Upgrades

Location: Within and Proximate to Hempstead Substation (115 W. Columbia Street),
Village of Hempstead, Nassau County, New York

SEQR Status: Unlisted

Conditioned Negative Declaration: No

Proposed Action Description:

Hempstead Substation Upgrade

The following measures will be undertaken to upgrade the existing Hempstead Substation: installation of a new 69kV transformer, a 69 kV gas circuit breaker, and a 69kV circuit switcher (2000 AMPS), and one 13kV distribution switchgear containing eight cubicles. All of the new equipment will be located inside of the existing substation fence and in the undeveloped southern portion of the Substation Property. The existing control house will remain in the northwest corner of the Substation Property. Customer load will be transferred from one of the existing 23/4kV transformer and associated switchgear to the new 69 kV equipment, and the 23/4 kV transformer will serve as a backup until Phase II part of the project.

New 69kV Underground Transmission Circuit

The installation of the new underground transmission cable will involve approximately 3,425 LF of new 69 kV underground cable in conduit from Riser Pole #34, located on Hilton Ave., south of Atlantic Ave. to the Hempstead Substation. Riser Pole #34 connects the new unground cable to an existing 69 kV overhead line. The route of the underground transmission circuit will be as follows: approximately 135 LF from Pole #34 to Atlantic Ave.; approximately 1,370 LF from Hilton Ave. to Franklin Ave., beneath Atlantic Avenue; approximately 700 LF from Atlantic Ave. to W. Columbia St., beneath Franklin Avenue; and approximately 1,220 LF from Franklin Ave. to the Hempstead Substation, beneath W. Columbia St (See attached Hempstead 69kV Underground Transmission Circuit, Dated August 2017 for additional information). One (1) new manhole will be installed within Atlantic Ave., east of Franklin Ave. This work will use both open trench and horizontal directional drilling methods. All work areas will be restored upon completion of work.

Distribution Feeders and Distribution Circuit Upgrades

The Proposed Action will upgrade and convert three of the six existing 4kV distribution feeders to two 13kV feeders. A 4kV to 13kV upgrade consists of replacing underground exit cable, pole insulators, distribution transformers and a portion of the primary distribution wire.

Approximately 1,888 LF of new 13 kV underground cable will be installed in the following four (4) locations: 1) approximately 583 LF originating from newly-installed 45-foot Pole #6.5, (which will be located on the south side of W. Columbia Ave., approximately 163 feet east of Main St.) to Morrell St., beneath W. Columbia St.; 2) approximately 90 LF from Hempstead Substation to a newly-installed manhole located within W. Columbia St., located approximately 25 feet west of Morrell St.; 3) approximately 325 LF from W. Columbia St. to Webb Ave., beneath Morrell St.; and 4) approximately 890 LF from Morrell St. to a newly-installed 45-foot Pole #8, which replaces an existing 40-foot pole, located on the south side of Webb Ave., approximately 186 feet east of Washington St, beneath Webb Ave. In addition, a second new manhole will be installed within Webb Ave., located approximately 130 feet east of Morrell St. This work will be completed utilizing both open trench and horizontal directional drilling methods. All work areas will be restored upon completion of work.

The overhead distribution work includes the replacement of 186 poles with poles no more than 10 feet taller, and within the same relative location. These replacement poles will allow for the upgrade of 97 pole top transformers, and the upgrade of 6,200 feet of primary distribution wire.

Reasons Supporting This Determination:

Based on a review of the Proposed Action's scope of work as set forth in the attached PSEG Long Island design plans, a Full Environmental Assessment Form (FEAF), as well as a Visual Assessment, and a Noise and EMF Assessment (Attachments B and C, respectively) were prepared to evaluate potential impacts of the Proposed Action. The Proposed Action is an "Unlisted" Action as that term is defined in SEQRA.

a) Visual Impacts

The Substation Property is approximately 20,100 square feet, and is surrounded by an approximately 6 foot high chain link fence (outlined in purple in Attachment A – Figure 1). The existing 23/4kV substation equipment is located entirely in the northern 11,000 square feet of the property and the southern portion of the property is a 9,100 square foot undeveloped area containing short grasses and weedy vegetation (the "Southern Portion of the Substation Property") (the two portions are separated by an internal fence as indicated by the light blue line shown in Attachment A – Figure 1). Immediately adjacent to the Substation Property is the Long Island Rail Road's Hempstead train station and associated parking, to the north and west; the Hempstead Transit Center located across W. Columbia Street to the south; a four-story residential apartment building located across Morrell Street to the east, and a single family residence located across Morrell Street to the northeast. The two transportation facilities, along with the existing substation facility, produce an industrial-like character to the area.

The existing substation equipment occupies a footprint with a maximum width of approximately 72 feet and a maximum length of approximately 75 feet (outlined in red in Attachment A – Figure 1). The new 69/13kV substation equipment that will be installed during Proposed Action will occupy a footprint that will have a maximum width of approximately 36 feet, and a maximum length of approximately 75 feet (outlined in green in Attachment A – Figure 1). The new substation equipment will have a maximum height of 17 feet and therefore will have a lower profile than the existing substation equipment, which has a maximum height of 21 feet.

The existing substation equipment is located approximately 80 feet north of the southern fence line, and approximately 10 feet west of the eastern fence line. The new substation equipment will be located entirely in the Southern Portion of the Substation Property, with a setback of approximately 15 feet or more from the southern fence line, and approximately 10 feet or more from the eastern fence line. The new substation equipment will expand the substation equipment footprint approximately 70 feet to the south, utilizing the undeveloped portion of the existing Substation Property.

The new substation equipment will be closer to, and some of the equipment directly opposite of, the windows of the apartment building located to the east. However the new substation equipment will have a lower profile than the existing 23kV substation equipment (which will be removed during Phase II), that is also visible from the apartment building. Accordingly, the location of the new substation equipment will not significantly change the views from the four-story apartment building or the single family residence. Furthermore, the new equipment is consistent with the existing neighborhood character. Thus, the location of the new equipment will not result in a significant adverse impact.

A six foot tall chain link fencing with Permahedge will be installed around the perimeter of the Southern Portion of the Substation Property to reduce the visibility of the new substation equipment from surrounding sidewalks and roadways. The interior fencing that divides the southern and northern portions of the Substation Property will be removed. The existing 6 foot chain link fence with wooden privacy screening around the northern portion of the property will remain. It would be upgraded as a part of a Phase II project that would upgrade the equipment in the northern area.

Two 45-foot poles that will be installed in connection with the upgraded distribution feeders will be located in line with existing poles that range from 35 to 40 feet in height. One-hundred eighty-six existing 35 and 40 foot distribution poles along the distribution circuits will be replaced with 45 foot poles at the same relative locations. The new and upgraded distribution poles will not create a significant visual impact.

b) Ecological Impacts

There are no environmentally sensitive areas identified within the location of the Proposed Action. Ground disturbances will be required within the Substation Property to install footings to support planned structures and for the installation of exit feeders. The Substation Property does not contain surface waters, wetlands, or federal or state listed threatened or endangered animals or plants.

The New 69kV Underground Transmission Circuit will be installed within existing paved roadways through the use of machine open trenching laterally beneath the roadways.

The upgraded underground portion of the distribution feeders will be completed within existing paved roadways. Ground disturbance will occur when digging 3-foot diameter holes required for the installation of the poles and during the trenching or direction drill installation for the underground portion of the upgraded underground portion of the distribution feeders.

c) Construction Impacts

The Substation Upgrades will not create traffic impacts because all work will take place within the Substation Property. All vehicles required for construction will be staged at the Hempstead Substation. As a result, impacts associated with construction activities will be minimal. The installation of the upgraded substation equipment will take approximately three months to complete.

The Underground Transmission Circuit and Upgraded Distribution Feeder work will occur on the side of paved roads and result in only minimal traffic impacts. These impacts will be minimized through the use

of flagging/traffic control, which will be provided in accordance with the Village of Hempstead Department of Public Works Road Opening Permit for the project. Traffic disruptions will consist of minor lane diversions and possible short term lane closings. Impacts on access to adjacent properties will be minimized using administrative controls, including, publicly displayed notifications, and correspondence through PSEG Long Island External Affairs, and engineering/physical controls, such as flaggers, and road construction plates if needed to bridge roadway openings. In the immediate vicinity of construction activity, access to residences and businesses will be temporarily limited, but at no point completely blocked workers will be assigned to move protective barriers to allow access to properties as needed. At all times there will be a path for emergency services to access all residences and businesses. At completion of all work shifts, access will be returned to normal. Each property will be affected for a period of time ranging from approximately ten minutes to one hour. Notifications will be sent in advance to local residences and businesses. The construction within roadways is expected to take three months to complete and will be completed concurrently with the construction within the Substation Property.

d) EMF Impacts

The estimated EMF levels for the Hempstead Substation will be significantly lower than the magnetic field "prudence avoidance" health standard set forth by the New York State Public Service Commission (NYSPSC) for EMF exposure. According to the NYSPSC's Statement of Interim Policy on Magnetic Fields of Major Electric Transmission Facilities (issued and effective September 11, 1990), the standard for magnetic field is 200 milligauss (mG).

The potential EMF impact of the substation equipment of this Proposed Action has been evaluated relative to the EMF levels modeled for the Kings Highway Substation. For comparison purposes, the Kings Highway Substation is a 138kV substation containing two 138-kV transmission circuits, six 138KV gas circuit breakers, three 138/13.8-kV 33MVA transformers, and three metal-clad switchgear power centers with a capacity to connect a total of eleven 13.8-kV feeders. In contrast, at the completion of the Proposed Action, the Hempstead Substation will consist of one 69-kV transmission circuit, one gas circuit breaker, one 69/13.8-kV 33MVA transformer, one metal-clad switchgear power center with a capacity to connect a total of four 13.8-kV feeders, and two 23-kV transmission circuits, two gas circuit breakers, two oil circuit breakers, two 23/4kv transformers, and two metal-clad switchgear power centers with a connected capacity total of six 4-kV feeders. Thus, the Kings Highway Substation will operate at a significantly higher capacity as compared to the Proposed Hempstead Substation, and accordingly will have higher EMF levels. Therefore the EMF levels of the Proposed Action will be lower than the estimated EMF levels at Kings Highway Substation.

The EMF study that was undertaken for the Kings Highway Substation determined that the maximum EMF levels, at the fence line 60 feet away from the substation equipment, will be 56.8 mG and the EMF levels exponentially decline as the distance away from the substation equipment increases. At the Hempstead Substation, the 4-story residential apartment building and the single family residence are located approximately 70 feet and 95 feet, respectively, from the proposed substation equipment. Therefore, given that these distances are greater than the distance used to calculate the expected EMF levels for the Kings Highway Substation, the expected maximum EMF levels at the four-story residential building and the one-story residence will be below 56.8 mG. See attached Electric and Magnetic Field Assessment: The Kings Highway Substation for additional information.

The potential EMF impact of the Transmission Lines and Distribution Line Upgrades of this Proposed Action has been evaluated relative to the EMF levels modeled for the Berry Street Substation. For comparison purposes, the Berry Street Substation has and the Proposed Action will have an underground 69kV transmission circuit. The EMF study that was undertaken for the Berry Street Substation determined

that the peak load maximum EMF level immediately above the underground 69kV transmission circuit will be 28.6 mG. Since there is no difference between the Berry Street Substation 69kV underground circuit and the Proposed Action's 69kV underground circuit relative to EMF levels, the peak load EMF level immediately above the Proposed Action's 69kV transmission circuit will be approximately the same as at Berry Street (approximately 28.6 mG). The Upgraded 13kV Distribution Feeder and 13kV Distribution Circuit will operate at a lower voltage than the 69kV Underground Transmission Circuit, and therefore will have EMF levels lower than 28.6 mG. See attached Electric and Magnetic Field Assessment: The Berry Street Substation for additional information.

Accordingly, based on a comparative analysis of the Kings Highway Substation and Berry Street Substation EMF Assessments that involved projects operating at higher capacity and higher voltages, the predicted EMF levels from the Proposed Action would be well below the 200 mG threshold established by the NYSPSC and would not result in any significant adverse environmental impacts.

e) Noise Impacts

A Noise Study for the Proposed Action was undertaken in October 2017 to evaluate the potential noise impact for the installation of two 69/13kV transformers, in addition to the two existing 23/4kV transformers remaining in service. Existing ambient noise levels were measured by continuous noise monitoring for 24 hours, from October 26 to October 27, 2017 at these five (5) locations around the boundary of the Property. The five monitoring locations were: 1) the southwestern corner of the singlefamily residential property, which is located northeast of the Substation; 2) the north property line adjacent to Long Island Rail Road parking; 3) the east property line that is between the Substation Property and adjacent four-story residential building, which is the nearest residential building; 4) the south property line, which is between the Substation Property and the Hempstead Transit Center; and 5) the southeast corner of the nearest commercial property, which is located southwest of the Substation. The ambient noises levels at the monitoring locations varied from 59 dBA to 67 dBA during the daytime and 54 dBA to 64 dBA during the nighttime.

The maximum potential increase in noise levels attributed to the Hempstead Substation as a result of the Proposed Action will be less than 1 dBA. The only new source of noise as a result of the Proposed Action is the new 69/13 kV transformer bank. The maximum projected noise level from the new 69kv transformer ranges from 41dBA to 45 dBA at the nearest noise receptor (the four story apartment building). The Noise Study determined that, at the four-story residential apartment, which is the nearest noise receptor, the projected maximum noise levels from the Proposed Action will range from 41 dBA to 45 dBA. Thus, the noise level from the Proposed Action will be muffled by the existing ambient noise level and will not cause a noticeable difference. Therefore, projected noise level increases will be less than 1 dBA at all receptors. See attached Noise Impact Assessment Study for PSEG Long Island Hempstead Substation Proposed Upgrade for additional information.

For Further Information:

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