

**PSEG LONG ISLAND LLC**  
**on Behalf of and as Agent for the**  
**LONG ISLAND LIGHTING COMPANY d/b/a LIPA**

**Western Nassau Transmission Project**

**ENVIRONMENTAL MANAGEMENT AND CONSTRUCTION PLAN**

**CASE NO. 17-T-0752**

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## **1.0 SITE AND PROJECT DESCRIPTION**

PSEG Long Island LLC on behalf of the Long Island Lighting Company d/b/a LIPA, a wholly-owned subsidiary of the Long Island Power Authority (“PSEG Long Island” or “the Certificate Holder”) hereby submits its Environmental Management & Construction Plan (“EM&CP”) for the construction, operation, and maintenance of a new 138 kilovolt (“kV”) underground transmission line wholly within the Town of Hempstead, Nassau County, New York (“Project”). The Project, called the “Western Nassau Transmission Project” (“WNTP”), is the construction of a second circuit (the “Facility”) between the East Garden City (“EGC”) Substation (located in Uniondale), and the Valley Stream (“VS”) Substation (located in Lynbrook), both in the Town of Hempstead. The Facility will traverse the Villages of Garden City, Malverne, and Lynbrook. The Project will be constructed primarily within municipal public roadway right-of-way (“ROW”) for a total distance of approximately seven miles.

This Project is necessary to make the Certificate Holder’s electric transmission system more resilient and improve redundancy. The line must be installed by 2020 for PSEG Long Island to continue to maintain a safe, robust, and reliable system, and remain in compliance with mandatory federal regulations.

### **1.1 The Certified Route**

The Project route begins at the East Garden City Substation, initially runs east across the eastern portion of the EGC Substation property and then across the western edge of the abutting property to the east, then turns north for approximately 300 feet, where the route then turns west onto Stewart Avenue. The route follows Stewart Avenue southwest for 1.6 miles to Hilton Avenue. The route turns northward on Hilton Avenue for an approximate distance of one block (0.1 mile). The route then turns west and runs along 9th Street (0.2 mile) before turning southwest and proceeding along Cherry Valley Avenue within the roadway (0.4 mile), crossing underneath the double Long Island Rail Road (“LIRR”) tracks. The LIRR is elevated over Cherry Valley Avenue so that conventional open trench installation techniques can be employed in Cherry Valley Avenue where it passes under the LIRR.

Cherry Valley Avenue becomes Rockaway Avenue and then Westminster Road, which the route follows (1.3 miles) to the intersection with Hempstead Avenue, including making a perpendicular crossing of Hempstead Turnpike (Route 24), a state highway, approximately 0.2 mile north of the intersection with Hempstead Avenue. The route then turns southwest onto Hempstead Avenue (1.7

miles) to the intersection with Cornwell Avenue, where the route proceeds southwest along Cornwell Avenue (0.3 mile), under the Southern State Parkway, to the intersection of Dogwood Avenue. The Southern State Parkway is elevated over Cornwell Avenue at this crossing. This allows the use of conventional open trench installation techniques in Cornwell Avenue where it passes under the Southern State Parkway. The route then travels south on Dogwood Avenue (0.3 mile) to the intersection with Hempstead Avenue, where it proceeds southwest on Hempstead Avenue (0.2 mile) to where the road intersects with Broadway. The route follows Broadway in a southwesterly direction (0.3 mile) through the intersection with Eimer Avenue to the intersection with Franklin Avenue. The route turns southeast onto Franklin Avenue. Here a trenchless crossing of the single track LIRR line will be required. The route then proceeds (0.1 mile) to the intersection with Whitehall Street, where the route turns west and proceeds for the final 0.8 mile, terminating in the Valley Stream Substation.

### **1.1.1 East Garden City Substation**

The modifications at the East Garden City Substation include the construction of a new terminal to connect the Facility, which will be connected to the same terminal node as the existing 138-463 (Newbridge Road) circuit & 138/13 kV-33MVA Transformer # 4. This interconnection will also require the installation of a new circuit breaker on circuit 138-463, the relocation of the terminals for the connection to 138/13 kV transformer #4, and the replacement of motor operated air break switch #1344 with a 138 kV circuit switcher. A new control enclosure will also be required to house the additional system protection equipment associated with the Facility and the newly created 138 kV bus section.

The following is a list of the major equipment to be installed at the substation:

- Two (2) 138 kV, 3000A, 80KA Gas Circuit Breakers, with associated foundations
- One (1) 138 kV, 3000A Gang Operated Disconnect Switch, with associated structure and foundations
- One (1) 138 kV, Gang Operated 3 Phase Grounding Switch, with associated structure and foundations
- Two (2) 138 kV UG termination structures and associated foundations
- One (1) 138 kV, 1200A, Motor Operated Circuit Switcher with pedestal and associated foundations
- One (1) 20' x 30' control enclosure with relay panels and associated foundation
- Grounding, conduits, control cables, lightning mast, and arresters



### **1.1.2 Valley Stream Substation**

The modifications at the Valley Stream Substation include the construction of a new terminal to connect the Facility to the spare terminal location. This will require the installation of a second 138 kV Gas Circuit Breaker (“GCB”) in series with existing GCB-1450, to prevent the loss of the Facility and existing circuit 138-292 (E.F. Barrett) for the single element failure of GCB-1450.

The following is a list of the major equipment to be installed at the substation:

- One (1) 138 kV, 3000A, 63KA Gas Circuit Breaker, with associated foundation
- One (1) 138 kV, 3000A Gang Operated Disconnect Switch, with associated structure and foundations
- Three (3) 138 kV Potential Transformers, with associated structure and foundations
- One (1) 138 kV, 3000A Motor Operated Air Break Disconnect Switch, with associated structure and foundations
- One (1) 138 kV, Gang Operated 3 Phase Grounding Switch, with associated structure and foundations
- One (1) 138 kV UG termination structure and foundations
- Two (2) Relaying Panels
- Grounding, conduit, control cables, spline ball, and arresters

### **1.2 Property Rights**

The Certificate Holder currently has statutory and municipal franchise rights which allow it to install permanent electric facilities in roadways along the general alignment of the proposed route of the Facility. The vast majority of the Project will be constructed within the roadway limits. The Certificate Holder has secured or will, prior to construction, secure the necessary permits and easements to utilize the private and governmental properties in which the Project will be constructed. No buildings or structures will be acquired, demolished, moved or removed by the Certificate Holder.

### **1.3 Design Criteria**

The high voltage cable system components of the Facility include:

- (i) stranded copper conductor with water blocking compounds;
- (ii) cross-linked polyethylene insulation with inner and outer semiconducting insulation shields;

- (iii) cable shield with inner swelling tape moisture barriers; and
- (iv) high-density polyethylene outer jacket with semiconducting layer.

Each cable will be installed in a 12-inch high-density polyethylene (“HPDE”) standard diameter ratio (“SDR”) 21 conduit. In addition to these conduits, two four-inch HPDE SDR 11 conduits will be installed for communication and ground. The three power conduits will be arranged in a trefoil (triangular) configuration.

The construction methods to install the Facility will be conventional trenching, jack-and-bore, and horizontal directional drilling trenchless techniques to minimize impacts to associated communities and roadways. Splice vaults, which serve to install (pull) and connect (splice) successive lengths of cable, will be installed at approximate intervals of 1,600 feet along the underground route.

## **1.4 Fulfillment of Certification Conditions**

Each Condition of the Certificate is provided verbatim below, followed by PSEG Long Island’s corresponding response.

### **1.4.1 Conditions of the Order**

1. The Certificate Holder shall, within 30 days after the issuance of the Certificate, file with the Secretary to the Commission (the “Secretary”) either a petition for rehearing or a verified statement that it accepts and will comply with the Certificate. Failure to comply with this condition shall invalidate the Certificate.

**Response 1:** *PSEG Long Island will comply.*

2. If the Certificate Holder decides not to commence construction of any portion of the Facility, it shall so notify the Secretary in writing within 30 days of making such decision and shall serve a copy of such notice upon all parties in the same manner and at the same time as it files with the Secretary.

**Response 2:** *No response required.*

3. If construction of the Project hereby certified is not commenced within 18 months after the Certificate Holder files a verified statement that it accepts and will comply with the Certificate, the Certificate may be vacated with notice to the Certificate Holder.

**Response 3:** *No response required.*

4. Except for deadlines established by statute, the Secretary may extend any deadlines established by this order for good cause shown.

**Response 4:** *No response required.*

5. The Certificate Holder shall construct the Facility in a manner that conforms to the then-current Building Code of New York State and all applicable standards of the American National Standards Institute (“ANSI”) including, without limitation, the National Electrical Safety Code (“NESC”), Institute of Electrical and Electronics Engineers (“IEEE”) Standard IEEE [C2-2012, 2017], and any stricter standards adopted by the Certificate Holder.

**Response 5:** *PSEG Long Island will comply.*

6.
  - a) The Certificate Holder shall coordinate all work performed on state and municipal roads and highways with the appropriate state and municipal officials and shall obtain the required authorization for such work, subject to the Commission’s continuing jurisdiction as appropriate.
  - b) The Certificate Holder shall coordinate with the appropriate municipal agencies and police departments for traffic management of roads under municipal jurisdiction.

**Response 6:** *PSEG Long Island will comply.*

7. If the Certificate Holder believes that any action taken, or determination made, by a State or municipal agency in connection with this Certificate is unreasonable or unreasonably delayed, with the exception of issues arising under federal environmental permits or regulations administered by the New York State Department of Environmental Conservation (“NYSDEC”), the Certificate Holder may petition the Commission, upon reasonable notice to that agency, to seek a resolution of any such unreasonable or unreasonably delayed requirement. Such agency may respond to the petition, within 5 business days, to address the reasonableness of any requirement or delay. For issues arising under federally-delegated environmental permits or regulations administered by the NYSDEC, the Certificate Holder shall contact the NYSDEC to request a resolution of any action or approval which the Certificate Holder believes is unreasonable or unreasonably delayed.

**Response 7:** *No response required.*

#### **1.4.2 Public Health and Safety**

8. The Certificate Holder shall design, engineer and construct the Project such that its operation shall comply with the electric and magnetic field standards established by the Commission in Opinion No. 78-13, issued June 19, 1978, and the Statement of Interim Policy on Magnetic Fields of Major Electric Transmission Facilities, issued September 11, 1990.

**Response 8:** *PSEG Long Island will comply.*

9. The Certificate Holder shall engineer and construct the Facility to be fully compatible with the operation and maintenance of nearby electric, gas, telecommunication, water, sewer, and related facilities; details of such other facilities and measures to protect the integrity, operation and maintenance of those facilities shall be presented in the Project's Environmental Management & Construction Plans ("EM&CP"). The Facility shall be designed and constructed to avoid adverse effects on the cathodic protection system and physical conditions of existing structures and any fuel gas pipelines.

**Response 9:** *PSEG Long Island will comply.*

10. The Certificate Holders shall comply with the requirements for the protection of underground facilities set forth in 16 NYCRR Part 753, entitled "Protection of Underground Facilities."

**Response 10:** *PSEG Long Island will comply.*

11. The Certificate Holder shall keep local fire department and emergency management teams apprised of on-site hazardous chemicals and waste. All such chemicals and waste shall be secured in a locked and controlled area.

**Response 11:** *PSEG Long Island will comply.*

12. The Certificate Holder shall notify the NYSDEC of any fuel or chemical spill it is required to report in accordance with NYSDEC regulations and guidance and shall notify New York State Department of Public Service ("DPS") staff ("Staff") as soon as possible thereafter.

**Response 12:** *PSEG Long Island will comply.*

13. The Certificate Holder shall take appropriate measures to minimize fugitive dust and airborne debris from construction activity. Exposed soils and roadways shall be wetted as needed during extended dry periods to minimize dust generation. To the extent practicable,

water for dust control shall come from municipal water supplies/sources. If surface waters are used, equipment shall be disinfected afterwards.

**Response 13:** *PSEG Long Island will comply.*

14. The Certificate Holder shall ensure that parking for Project construction workers shall be in designated areas which do not interfere with normal traffic, cause a safety hazard, or interfere with existing land uses. These parking areas shall be designated in the EM&CP.

**Response 14:** *PSEG Long Island will comply.*

15. The Certificate Holder shall implement a Maintenance and Protection of Traffic (“MPT”) plan that identifies procedures to be used to maintain traffic and provide a safe construction zone for those activities within the roadway right-of-way. The MPT plan shall address temporary signage, lane closures, placement of temporary barriers and traffic diversion.

- a) All signage utilized shall comply with the New York State Department of Transportation (“NYSDOT”) Manual of Uniform Traffic Control Devices. Placement of signs shall be determined in consultation with the jurisdictional agency.
- b) Flaggers shall be present at all times when equipment is crossing any road, when equipment is being loaded or unloaded, and where two-lane traffic has been reduced to one lane. All flagging operations shall comply with 17 NYCRR Part 131.

**Response 15:** *PSEG Long Island will comply.*

16. The Certificate Holder or its supplier, as the case may be, shall obtain any permits from applicable agencies required for the delivery of oversized components for the Project.

**Response 16:** *PSEG Long Island will comply.*

17. The Certificate Holder shall have the right to require that any person seeking to access the Project area first be appropriately trained in environmental protection and safety.

**Response 17:** *No response required.*

#### **1.4.3 Environmental Management and Construction Plan**

18. Except where this Certificate requires otherwise, the terms of the Certificate and the environmental protection measures contained in the Application shall be incorporated into the EM&CP. These environmental protection measures shall be applied during construction,

operation and maintenance of the Project. Applicable provisions of the Certificate, EM&CP, and Order(s) approving the EM&CP shall be accommodated in any design, construction, ownership, or maintenance contracts associated with the Project.

**Response 18:** *PSEG Long Island will comply.*

19. The EM&CP shall be developed in accordance with these Certificate Conditions.

**Response 19:** *PSEG Long Island has complied.*

20. Prior to filing the EM&CP, the Certificate Holder shall contact the NYSDEC Region 1 Natural Resources Supervisor, NYS Natural Heritage Program and the United States Fish and Wildlife Service (“USFWS”) to check for any updates or changes of known threatened or endangered plant or animal species, or special concern species listed in New York, (collectively, “RTE” species) or habitat or Significant Natural Communities in the Project area.

**Response 20:** *PSEG Long Island has complied.*

21. Deviations from the certified centerline shall be allowed for appropriate environmental or engineering reasons, except where a conflict with an explicit provision of the Certificate would be created.

**Response 21:** *PSEG Long Island will comply.*

22. The EM&CP shall identify the property locations, if any, where the Certificate Holder anticipates that it will install one or more wells to conduct temporary or permanent dewatering activity for the Project at a total withdrawal capacity of such wells or wells on any one property in excess of 45 gallons per minute (with capacity based on the capacity of the pumps to be installed, not on the contemplated draft). The EM&CP shall also provide the substantive information outlined in 6 NYCRR § 602.3(c)-(d) for any such activities. Prior to commencement of such activities, DPS Staff, in consultation with NYSDEC, will determine whether to recommend that the Commission impose any conditions or restrictions on such activities. Such determination will be based on the standards of issuance in ECL § 15-1527(4).

**Response 22:** *PSEG Long Island has complied.*

23. The EM&CP shall identify any water withdrawal activities that the Certificate Holder

anticipates will be regulated pursuant to 6 NYCRR §§ 601.3 and 601.6. The EM&CP shall also provide the information outlined in 6 NYCRR § 601.10 for any such activities. Prior to commencement of such activities, DPS Staff, in consultation with NYSDEC, will determine whether to recommend that the Commission impose any conditions or restrictions on such activities. Such determination will be based on the substantive portions of the following regulations: 6 NYCRR §§ 601.11, 601.12, 601.16, 601.19, and 601.20.

**Response 23:** *PSEG Long Island has complied.*

24. The Certificate Holder shall not commence construction of any portion of the Project, the preparation of the site for the construction of any portion of the Project, or any proceedings under the Eminent Domain Procedure Law (“EDPL”) to acquire property rights with respect to any portion of the Project until the Commission has approved the EM&CP for such portion of the Project. To calculate the three-year period for acquisition of property pursuant to the EDPL, the date of Commission approval of the EM&CP covering the affected parcel shall be regarded as the date on which this Article VII proceeding was completed. Surveying, soils testing and such other activities as are necessary for preparation of the final design plans for the Project do not constitute the construction of any portion of the Project or the preparation of the site for the construction of any portion of the Project.

**Response 24:** *PSEG Long Island will comply.*

25. The Certificate Holder shall file an electronic copy of its proposed EM&CP with the Secretary and, unless otherwise directed by the Secretary, serve one electronic copy on each of: the assigned Project Manager in the Major Projects Management Bureau of the NYSDEC Central Office in Albany; the Natural Resources Supervisor of the Region 1 office of the NYSDEC; the staff of the New York State Department of Agriculture & Markets (“NYSDAM”); the staff of the Region 10 office of the NYSDOT; any other New York State agency that requests the document; and any party on the service list who requests the document. Within 7 business days after the Certificate Holder files the proposed EM&CP with the Secretary, it shall deliver two hard copies to DPS Staff. The Certificate Holder also shall place one electronic copy or one hard copy for inspection by the public in a convenient location in each municipality in which construction will take place, which location for a given municipality may be a library in such municipality identified in the Service List for the Application. The Certificate Holder will also make the EM&CP accessible on its Project website by way of either direct PDF download(s) or a web link to the DPS website page(s)

where the EM&CP is available.

**Response 25:** *PSEG Long Island will comply.*

26. Contemporaneously with filing and serving the proposed EM&CP, the Certificate Holder shall disseminate, in the manner specified below, a written notice, in language reasonably understandable to the average person, that the proposed EM&CP has been filed (the “EM&CP Filing Notice”):
- a) The Certificate Holder shall serve a copy of the EM&CP Filing Notice on all parties to this proceeding (except those upon whom the foregoing paragraph requires the Certificate Holder to serve a copy of the proposed EM&CP) and on all persons required to be served with the Application by statute or regulation.
  - b) The Certificate Holder shall deliver by first class mail a copy of the EM&CP Filing Notice to the owners of all properties that abut the Project route and all properties on which new property rights are required for the Project.
  - c) The Certificate Holder shall include a copy of the EM&CP Filing Notice in the proposed EM&CP.
  - d) The Certificate Holder shall publish a copy of the EM&CP Filing Notice in a newspaper or newspapers of general circulation near the Facility.
  - e) The EM&CP Filing Notice delivered to the owners of properties on which property rights are to be acquired shall be accompanied by a description of the type of property rights required for the Project with respect to such property (*e.g.*, fee, easement, lease, etc.).

**Response 26:** *PSEG Long Island will comply.*

27. The EM&CP Filing Notice shall contain, at a minimum, the following:
- a) a statement that the proposed EM&CP has been filed;
  - b) a general description of the certified Facility and of the content of the proposed EM&CP;
  - c) a listing of the locations and the websites where the Certificate Holder and DPS have made the proposed EM&CP available for public inspection;
  - d) a statement that any person desiring additional information about a specific geographical



location or specific subject may request it from the Certificate Holder;

- e) the name, address, and telephone numbers of an appropriate Certificate Holder representative;
- f) the e-mail address and postal address of the Secretary and the DPS website; and
- g) a statement that any person may be heard by the Commission on any matter or objection regarding the proposed EM&CP by filing written comments with the Secretary and the Certificate Holder within 30 days of the date the proposed EM&CP was filed with the Commission, or within 30 days of the date of the newspaper publication of a copy of the EM&CP Filing Notice, whichever is later.

**Response 27:** *PSEG Long Island has complied.*

- 28. A certificate of service evidencing service of the EM&CP Filing Notice as required above shall be filed with the Secretary within 7 business days after the time the proposed EM&CP is filed, and shall be a condition precedent to approval of the EM&CP. When available, proof of publication of the newspaper notice(s) of filing the proposed EM&CP, including a copy of such notice, shall be filed with the Secretary.

**Response 28:** *PSEG Long Island will comply.*

- 29. After the EM&CP has been approved by the Commission:
  - a) The Certificate Holder shall report any changes it proposes to DPS Staff. If the change involves the jurisdictional area of another agency, DPS Staff will consult such agency. DPS Staff will refer any proposed changes that will not result in any increase in adverse environmental impacts or are not directly related to contested issues decided during the proceeding to the Chief of Environmental Certification and Compliance (“EC&C”) Section of the Office of Electric, Gas and Water for approval. DPS Staff will refer all other proposed changes to the Commission for approval.
  - b) Upon being advised that DPS Staff will refer a proposed change to the Commission, the Certificate Holder shall notify all parties as well as property owners or lessees whose property is affected by the proposed change. The notice shall: (1) describe the original conditions and the requested change; (2) state that documents supporting the request are available for inspection at specified locations; (3) state that persons may comment by writing

or calling (followed by written confirmation) to the Commission within 21 days of the notification date; and (4) provide the Secretary's email address, phone number, and mailing address. Any delay in receipt of written confirmation will not delay Commission action on the proposed change.

- c) The Certificate Holder shall not execute any proposed change until it receives written approval from the Chief of EC&C or the Commission, except in emergency situations threatening personal injury, property damage, or severe adverse environmental impact, or as specified in the approved EM&CP.

**Response 29:** *PSEG Long Island will comply.*

#### **1.4.4**     *Notices and Public Complaints*

- 30. The Certificate Holder shall make available to the public a toll-free or local phone number of an agent or employee who will, for the duration of construction of the Project, be available to receive complaints, if any, from the public about the construction of the Project. That number shall include a recorded outgoing message that will, when a call is not answered by a person, provide the caller with: (i) the number to be called at any time in case of emergency, (ii) the phone number and email address of the Secretary, and (iii) the phone number of the Commission's Environmental Compliance Section.

**Response 30:** *PSEG Long Island will comply.*

- 31. The Certificate Holder's Project website shall provide a means for the public to communicate to the Certificate Holder about the Project (*e.g.*, to register complaints or ask questions) through either a direct link to a complaint form or email or by providing the contact information (phone and/or email address) of a representative of the Certificate Holder who can respond to communications that include questions and concerns about the Project from members of the public.

**Response 31:** *PSEG Long Island will comply.*

- 32. The Certificate Holder shall report to DPS Staff every complaint that cannot be resolved, and describe the actions taken to address the complaint, within 10 business days after receipt of the complaint.

**Response 32:** *PSEG Long Island will comply.*

33.

- a) No less than 2 weeks before commencing site preparation, the Certificate Holder shall notify the public of the anticipated date that site preparation will commence, as follows:
  - i. Provide notice to local official and emergency personnel along the entire Facility route;
  - ii. Provide notice to local media for dissemination; and
  - iii. Provide notice for display in the libraries identified in the Service List of the Application, the Certificate Holder's Project website, and other public places (such as general stores, post offices, community centers and conspicuous community bulletin boards).
- b) The notice or notices under this paragraph shall be written in language reasonably understandable to the average person and shall contain:
  - i. a map of the Project;
  - ii. a brief description of the Project;
  - iii. the anticipated date for start of site preparation and estimated date for Project completion (inclusive of restoration);
  - iv. the name, mailing address, local or toll-free telephone number, and email address of an employee or agent of the Certificate Holder who will, for the duration of construction of the Project, be available to receive complaints, if any, from the public about the construction of the Project; and,
  - v. a statement that the Project is under the jurisdiction of the New York State Public Service Commission, which is responsible for enforcing compliance with environmental and construction conditions, and which may be contacted at an address, email, and telephone number to be provided in the notice.
- c) Upon distribution, a copy of the form of the notice or notices under this paragraph shall be submitted to the Secretary.

- d) The Certificate Holder shall notify all persons who own properties that are on or abut the certified Project route of the planned construction activities and anticipated schedule affecting the abutting properties at least 14 days, but no more than 45 days (or longer on the specific request of the Certificate Holder agreed to by DPS Staff), prior to the commencement of construction. The Certificate Holder shall deliver such notice by first class mail or, at its option, may instead affix the notices to the doors of the residences. The Certificate Holder shall provide a copy of the generic form of such notice to the Secretary prior to the commencement of construction.

**Response 33:** *PSEG Long Island will comply.*

34. For the duration of Project construction, the Certificate Holder shall post and maintain on its Project website a schedule that includes at least general-level information for the public about Project activities scheduled to occur during the upcoming 2-week period.

**Response 34:** *PSEG Long Island will comply.*

35. The Certificate Holder shall provide all contractors providing services for construction of the Project (“Contractors”) with complete copies of the Certificate, the approved EM&CP, the order approving the EM&CP, updated construction drawings, and any site-specific plans prepared in accordance with Article 145 of the New York State Education Law, the State Pollutant Discharge Elimination System (“SPDES”) General Permit for Stormwater Discharge from Construction Activity (Permit No. GP-0-15-002) (“SPDES General Permit”), any permit issued pursuant to Section 404 of the Federal Clean Water Act and any Section 401 Water Quality Certification.

**Response 35:** *PSEG Long Island will comply.*

36. The Certificate Holder shall notify all Contractors that the Commission may seek to recover penalties for violation of the Certificate and other orders issued in this proceeding, not only from the Certificate Holder, but also from its Contractors, and that Contractors also may be liable for other fines, penalties and environmental damage.

**Response 36:** *PSEG Long Island will comply.*

37. The Certificate Holder shall inform the Secretary in writing at least 5 days before commencing construction of the Facility.

**Response 37:** *PSEG Long Island will comply.*

38. The Certificate Holder shall provide DPS Staff and the NYSDEC with weekly status reports summarizing construction of the Project and indicating construction activities and locations scheduled for the next week.

**Response 38:** *PSEG Long Island will comply.*

39. Within 10 days after the Project is fully constructed and placed in service, the Certificate Holder shall notify the Secretary in writing of that fact.

**Response 39:** *PSEG Long Island will comply.*

40. Within 10 days of the completion of final restoration of the Project, the Certificate Holder shall notify the Secretary in writing that all restoration has been completed in compliance with this Certificate and the order(s) approving the EM&CP.

**Response 40:** *PSEG Long Island will comply.*

#### **1.4.5 Construction, Operation, Maintenance, and Restoration**

- 41.
- a) At least 2 weeks prior to the start of construction of the Project, the Certificate Holder shall hold a preconstruction meeting to which it shall invite its Contractors, DPS Staff, NYSDOT, and the NYSDEC. An agenda, the location, and an attendee list shall be agreed upon between DPS Staff and the Certificate Holder.
  - b) Maps showing designated travel routes, construction worker parking and access road locations and a general project schedule will be available at the meeting for the attendees.
  - c) The Certificate Holder shall supply draft minutes from this meeting to a representative of DPS Staff, NYSDOT, and the NYSDEC for corrections or comments, and thereafter the Certificate Holder shall issue the finalized meeting minutes to all attendees.
  - d) If, for any reason, the Contractors cannot finish the construction of the Project, and one or more new Contractors are needed, there shall be another preconstruction meeting with the same format as outlined above.

**Response 41:** *PSEG Long Island will comply.*

42. The Certificate Holder shall confine construction and subsequent maintenance to the road right-of-way or as otherwise certified and to additional work areas as detailed in the

EM&CP.

**Response 42:** *PSEG Long Island will comply.*

43. Prior to commencement of construction of the Project at any location along the certified route, the Certificate Holder shall provide to DPS Staff documentation evidencing that the Certificate Holder has received all of the real property rights from owners of private properties for the Certificate Holder to construct the Project there.

**Response 43:** *PSEG Long Island will comply.*

44. Each construction activity shall be described in detail in the EM&CP.

**Response 44:** *PSEG Long Island has complied.*

45.

- a) The Certificate Holder shall adhere to the NYSDEC's then effective "New York State Standards and Specifications for Erosion and Sediment Control," ("NYSSESC") also known as the "Blue Book."
- b) The Certificate Holder's proposed SWPPP for the Project shall be submitted with the EM&CP.
- c) Prior to construction at a location requiring the installation of temporary erosion control as indicated in the EM&CP, the Certificate Holder shall install such measures, which shall be maintained at the end of the work day in which site disturbance occurs.

**Response 45:** *PSEG Long Island will comply.*

46. Disturbed areas, ruts, and rills shall be restored to original grades and conditions with permanent re-vegetation and erosion controls appropriate for those locations. Disturbed pavement, curbs and sidewalks shall be restored to their original preconstruction condition or improved.

**Response 46:** *PSEG Long Island will comply.*

#### **1.4.6 Environmental Supervision**

47. The Certificate Holder shall use at least 4 inspectors (or fewer if the Certificate Holder elects to use the same individual in more than one role): (a) at least one environmental monitor

employed full-time on the Project; (b) at least one construction inspector employed full-time on the Project; (c) at least one safety inspector who will inspect the work site from time to time; and (d) at least one quality assurance inspector who will inspect the work site from time to time. The environmental monitor shall have stop work authority over all aspects of the Project.

**Response 47:** *PSEG Long Island will comply.*

48. The environmental monitor(s) and the construction inspector(s) shall be equipped with sufficient documentation and transportation and communication equipment to effectively monitor each Contractor's compliance with the provisions of every order issued in this proceeding and applicable sections of the PSL, the ECL and regulations issued thereunder, any Section 401 Water Quality Certification, and the EM&CP.

**Response 48:** *PSEG Long Island will comply.*

49. The names and qualifications of the environmental monitor(s) and the construction inspector(s) shall be submitted to the Secretary at least 2 weeks prior to the start of construction. The environmental monitor's qualifications shall satisfy those of a "Qualified Inspector" pursuant to the SPDES General Stormwater Permit for construction activity (GP-0-15-002).

**Response 49:** *PSEG Long Island will comply.*

50. The Certificate Holder's employees, Contractors and subcontractors assigned to the construction of the Project and inspection of such construction work shall be properly trained in their respective responsibilities.

**Response 50:** *PSEG Long Island will comply.*

51. The Certificate Holder shall regard DPS Staff representatives (authorized pursuant to PSL Section 8) as the Commission's designated representatives in the field. In the event of any emergency resulting from specific construction or maintenance activities that violate or may violate the terms of the Certificate or any other order in this proceeding, such DPS Staff representatives may issue a stop work order for that location or activity.

**Response 51:** *PSEG Long Island will comply.*

52. A stop work order shall expire 24 hours after issued unless confirmed by a single Commissioner. If a stop work order is so confirmed, the Certificate Holder may seek reconsideration from the confirming Commissioner or the whole Commission.

**Response 52:** *PSEG Long Island will comply.*

53. Stop work authority will be exercised sparingly and with due regard to potential environmental impacts, economic costs involved, possible impact on construction activities, and whether an applicable statute or regulation is violated. Before exercising such authority, DPS Staff representatives will consult (wherever practicable) with the Certificate Holder's representatives possessing comparable authority. Within reasonable time constraints, all attempts will be made to address any issue and resolve any dispute in the field. In the event the dispute cannot be resolved, the matter will be brought immediately to the attention of the Certificate Holder's Project Manager and the DPS Chief of EC&C. In the event that a DPS Staff representative issues a stop work order, neither the Certificate Holder nor the Contractor will be prevented from undertaking any safety- related activities as they deem necessary and appropriate under the circumstances. The issuance of a stop work order or the implementation of measures as described below may be directed at the sole discretion of the DPS Staff representative during these discussions.

- a) If a DPS Staff representative discovers a specific activity that represents a significant environmental threat that is or immediately may become a violation of the Certificate or any other order in this proceeding, the DPS Staff representative may -- in the absence of responsible Certificate Holder supervisory personnel, or in the presence of such personnel who, after consultation with the DPS Staff representative, refuse to take appropriate action -- direct the field crews to stop the specific potentially harmful activity immediately. If responsible Certificate Holder personnel are not on site, the DPS Staff representative will immediately thereafter inform the Construction Inspector or Environmental Monitor of the action taken. The stop work order may be lifted by the DPS Staff Representative if the situation prompting its issuance is resolved;
- b) If the DPS Staff representative determines that a significant threat exists such that protection of the public or the environment at a particular location requires the immediate implementation of specific corrective measures, the DPS Staff representative may, in the absence of responsible Certificate Holder supervisory personnel, or in the presence of such



personnel who, after consultation with the DPS Staff representative, refuse to take appropriate action, direct the Certificate Holder or its Contractors to implement the corrective measures identified in the approved EM&CP. The field crews shall comply with the DPS Staff representative's directive immediately. The DPS Staff representative will immediately thereafter inform the Certificate Holder's Construction Inspector or Environmental Monitor of the action taken.

**Response 53:** *PSEG Long island will comply.*

54. The Certificate Holder shall organize and conduct site-compliance audit inspections for DPS Staff as needed, but for the Project not less frequently than once per month during the site preparation, construction, and restoration phases. Such inspections shall conclude upon the final sign-off of the SWPPP.
- a) The monthly inspections shall include a review of the status of compliance with all conditions contained in the Certificate and any other order issued in this proceeding and with all other legal requirements and commitments, as well as a field review of the Facility site, if necessary. The inspections also shall include:
- i. review of all complaints received, and their proposed or actual resolutions;
  - ii. review of any significant comments, concerns or suggestions made by the public, local governments, or other agencies, and the Certificate Holder's response(s);
  - iii. review of the status of the Project in relation to the overall schedule established prior to the commencement of construction; and,
  - iv. other items the Certificate Holder or DPS Staff considers appropriate.
- b) The Certificate Holder shall provide a written record of the results of the inspection, including resolution of issues and additional measures to be taken, to all agencies involved in the inspection audit and as part of its scheduled construction update reports.

**Response 54:** *PSEG Long Island will comply.*

#### **1.4.7 Roads and Highways**

55. The Certificate Holder shall minimize the impact of the construction of the Project on traffic circulation. Traffic control personnel and safety signage shall be employed to ensure safe

and adequate traffic flow when secondary roadways are affected by construction.

**Response 55:** *PSEG Long Island will comply.*

56. The Certificate Holder shall consult periodically with municipal highway transportation agencies about traffic conditions near the Project site and shall notify each such transportation agency of the approximate date work will begin in its jurisdiction, using access points that take direct access from the highways in that jurisdiction.

**Response 56:** *PSEG Long Island will comply.*

57. In preparing the proposed EM&CP, the Certificate Holder shall consult with each transportation department or agency normally having jurisdiction over any roads in the Project vicinity that will be affected by Project construction. The EM&CP will include a scope and methods to assess the pre-construction condition of municipal roads. The assessment will include an evaluation of road pavement, road base, stormwater facilities, sidewalks, street furniture and other amenities found in the road right-of-way.

**Response 57:** *PSEG Long Island will comply.*

58. The Certificate Holder shall coordinate with DPS Staff and NYSDOT for all work to be performed in the State highway rights-of-way. Prior to submitting its construction plan for any State highway right-of-way segment, the Certificate Holder shall provide to DPS Staff and NYSDOT a preliminary design marked to avoid conflict with potential future transportation projects that NYSDOT may seek to undertake in the future and shall offer to consult with NYSDOT concerning any comments it may offer and shall use reasonable efforts to accommodate any NYSDOT concerns.

**Response 58:** *PSEG Long island will comply.*

59. Nothing herein shall preclude the Certificate Holder from voluntarily subjecting itself to any State or local approval, consent, permit, certificate or other condition for the construction or operation of the Project, subject to the Commission's ongoing jurisdiction.

**Response 59:** No response required.

#### **1.4.8 Cultural Resources**

60. The Certificate Holder shall not undertake construction in previously undisturbed areas

where archeological surveys have not been completed until such time as the appropriate authorities, including New York State Office of Parks Recreation & Historic Preservation (“OPRHP”) and DPS Staff, have reviewed the results of any additional historic properties and archeological surveys that are required.

**Response 60:** *PSEG Long Island will comply.*

61. Should archeological materials be encountered during construction, the Certificate Holder shall stabilize the area and cease all construction activities in the immediate vicinity of the find and protect the find from further damage. Within 24 hours of such discovery, the Certificate Holder shall notify and seek to consult with DPS Staff and the OPRHP Field Services Bureau to determine the best course of action. No construction activities shall be permitted in the immediate vicinity of the archeological materials until such time as the significance of the resource has been evaluated and the need for and scope of impact mitigation has been determined.

**Response 61:** *PSEG Long Island will comply,*

62. Should human remains or evidence of human burial(s) be encountered during the conduct of archeological data recovery fieldwork or during construction, all work in the vicinity of the find shall be halted immediately and the remains shall be protected from further disturbance. Within 24 hours of any such discovery, the Certificate Holder shall notify and consult with DPS Staff and the OPRHP Field Services Bureau. Treatment and disposition of any human remains that may be discovered shall be managed in a manner consistent with the OPRHP’s *Human Remains Discovery Protocol*. All archaeological or remains-related encounters and their handling shall be reported in the status reports summarizing construction activities and reviewed in the site-compliance audit inspections.

**Response 62:** *PSEG Long Island will comply.*

63. The Certificate Holder shall avoid creating adverse impacts on heritage resource sites, archeological sites, and historic structures in the vicinity of the Project by implementing specific Project location, design, vegetation management, resource protection, and construction scheduling measures described in the EM&CP.

**Response 63:** *PSEG Long Island will comply.*

64. The Certificate Holder shall have a continuing obligation during the duration of Project construction to respond promptly to complaints of negative archeological impacts and to mitigate any negative archeological impacts through on-site design modifications and off-site mitigation techniques developed in consultation with the OPRHP Field Services Bureau.

**Response 64:** *PSEG Long Island will comply.*

#### **1.4.9 Terrestrial and Wildlife Resources**

65. Should the Certificate Holder encounter any northern long-eared bats or other rare, threatened or endangered species during vegetation clearing, it shall immediately stop all work that risks impacting the encountered individuals of such species and contact NYSDEC and DPS Staff for consultation regarding further clearing. NYSDEC or DPS Staff shall have authority to allow the Certificate Holder to resume work upon determining that it will not create such risks.

**Response 65:** *PSEG Long Island will comply.*

66. The Certificate Holder shall promptly notify DPS Staff and the NYSDEC Region 1 Wildlife Manager if any RTE species is encountered in any area where Project activities are conducted, so as to determine the appropriate measures to be taken to protect such species. If necessary to protect a species or its habitat from immediate harm, the Certificate Holder shall secure the immediate area and cease construction in that area. The Certificate Holder shall refer to 6 NYCRR Part 182 and <http://www.dec.ny.gov/animals/7494.html> for lists of RTE species. Prior to the commencement of construction, the Certificate Holder shall provide all workers with pertinent information on protected species in the Project area.

**Response 66:** *PSEG Long Island will comply.*

#### **1.4.10 Petroleum and Hazardous Substances**

67. The EM&CP shall include Fuel and Chemical Handling Procedures, and a spill response and route emergency plan, including the NYSDEC spill reporting contact number. This plan shall provide proposed methods of handling spills of petroleum products and any hazardous or controlled substance which may be stored or utilized during construction, operation, or maintenance of this Facility.

**Response 67:** *PSEG Long Island will comply.*

68. All Certificate Holder and Contractor vehicles working on the Project shall have a spill kit that is appropriate for the volume of fuel carried by the vehicle.

**Response 68:** *PSEG Long Island will comply,*

69. The Certificate Holder's Contractor will retain a qualified spill response company for the duration of the Project and provide that company with maps showing access roads, marshalling yards, and other information that will facilitate response to a spill location.

**Response 69:** *PSEG Long Island will comply.*

## 2.0 PROJECT PERSONNEL

In accordance with the Certificate, personnel and procedures are identified herein to assign responsibilities for minimization of environmental impact and compliance with the environmental protection provisions specified by the Certificate. The Project participants with responsibilities for compliance include two groups:

- PSEG Long Island
- Contractors<sup>1</sup>

The following subsections identify the roles and responsibilities of each group listed above during the installation of the Facility (including staff qualified for work within East Garden City Substation) and, as applicable, during site restoration.

### 2.1 PSEG Long Island

PSEG Long Island is ultimately responsible for the Project. PSEG Long Island's assigned Project personnel will interface directly with Contractors, key regulatory agencies and stakeholders. PSEG Long Island will have responsibility for environmental compliance as well as construction oversight. All field personnel will be equipped with sufficient documentation, transportation, and communication equipment to effectively monitor Contractor compliance with the provisions of the Certificate, applicable sections of the Public Service Law, Environmental Conservation Law, the 401 Water Quality Certification and the approved EM&CP.

#### 2.1.1 *Project Manager*

The PSEG Long Island Project Manager will have overall responsibility for the project including engineering, design, construction, and coordination of the various construction-related activities. The Project Manager will be responsible for verifying that construction is in conformance with the project schedule, the authorized budget, the design and contract documents, and the EM&CP. The Project Manager will have stop-work authority in the event of a violation of Certificate provisions.

#### 2.1.2 *Construction Project Manager*

The Construction Project Manager will have the following compliance responsibilities:

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<sup>1</sup> The term Contractor, as used in this document, refers to the Project construction contractor and includes any subcontractors, vendors or other personnel and entities acting on behalf of the Contractor.

- Communicating project schedules and upcoming work activities to the Compliance Team
- Communicating between the Compliance Team and the Construction Team
- Reviewing and understanding field application of the requirements of the Certificate and other permits
- Reporting unsatisfactory performance of the Contractor to the Compliance Team

### **2.1.3 Construction Supervisor**

The full-time Construction Supervisor will be available throughout all construction phases of the Project to assist the Construction Manager in verifying implementation of environmental protection provisions and site-restoration activities, as specified in the Certificate. Additionally, the Construction Supervisor will verify that construction field work complies with the Certificate Holder's construction specifications. The Construction Supervisor will be on-site daily to provide oversight for the Project and will have stop-work authority. The Construction Supervisor and the Engineering Manager will share quality assurance responsibilities.

### **2.1.4 Engineering Manager**

The Engineering Manager will have the following compliance responsibilities:

- Verifying that the construction plans detailed in the EM&CP are built to PSEG Long Island engineering standards.
- Communicating between the Engineering Team and the Construction and Compliance Teams.

### **2.1.5 Environmental Compliance Manager**

The Environmental Compliance Manager is responsible for managing compliance requirements and commitments throughout the life of the Project. The Environmental Compliance Manager will be responsible for verifying minimization of environmental impact, compliance with the environmental protection provisions specified by the Certificate, applicable sections of the Public Service Law, traffic safety measures, the EM&CP, and adherence to the health and safety plan(s). The Environmental Compliance Manager will communicate the environmental protection criteria of the Certificate and the EM&CP to project management, the Environmental Monitor, and Contractor personnel and will be available throughout the entirety of construction to provide guidance and interpretation related to those criteria. The Environmental Compliance Manager will direct

environmental inspection, coordinating daily inspections as well as non-routine monitoring (such as stormwater inspections in response to heavy rainfall or special environmental monitors, as necessary). The Environmental Compliance Manager will coordinate preconstruction walkdowns with the Contractor to verify a comprehensive understanding of site regulations and required compliance. The Environmental Compliance Manager will report to the Project Manager and will have stop-work authority.

#### **2.1.6 *Environmental Monitor***

The Environmental Monitor will be tasked with day-to-day observation of the Project site with respect to minimization of environmental impact, compliance with the provisions specified by the Certificate, applicable sections of the Public Service Law, traffic safety measures, the EM&CP, and adherence to the health and safety plan(s). The Environmental Monitor will communicate the environmental protection criteria of the Certificate and the EM&CP to Contractor personnel and will be on site throughout the entirety of construction to provide guidance and interpretation related to those criteria. The Environmental Monitor will satisfy the qualifications of a “Qualified Inspector” pursuant to the SPDES General Stormwater Permit for Construction Activity (GP-0-15-002). This person must also satisfy the requirements of NYSDEC Technical Guidance for Site Investigation and Remediation (DER-10).

The Environmental Monitor will closely monitor work conducted in the vicinity of environmentally sensitive areas where there exists the potential to encounter contaminated soils.

The names and qualifications of those fulfilling the Environmental Monitor role will be submitted to the DPS at least two weeks prior to the start of construction. The Environmental Monitor will complete environmental monitoring reports on a regular basis and will verify compliance with permit conditions for permits issued for the Project. The Environmental Monitor will assist in the preparation of monthly inspections and reports for submittal to the DPS. The Environmental Monitor will report to the Environmental Compliance Manager and will have stop-work authority.

#### **2.1.7 *Traffic Supervisor***

A full-time Traffic Supervisor will be on site to prevent or limit traffic disruptions to the surrounding area and assist the Environmental Monitor in verifying the Project's compliance to traffic safety measures as set in the Certificate and detailed in the Maintenance and Protection of Traffic Plan (“MPT”) found in Appendix B. The Traffic Supervisor will also oversee the installation of signage,



verifying compliance with the New York State Department of Transportation (“NYSDOT”) Manual of Uniform Traffic Control Devices and that installation is done in accordance to any commitments to municipalities or other stakeholders. When Project activity requires closing a lane of traffic (e.g. during equipment delivery), the Traffic Supervisor will verify that the Contractor’s use of flagmen is consistent with the MPT.

### **2.1.8 Health and Safety Manager**

The Health and Safety Manager will oversee Contractor safety in accordance with PSEG Long Island’s safety requirements. Other typical duties include auditing work areas to confirm compliance with PSEG Long Island’s safety requirements, conducting daily work area inspections, and reviewing submittals. The Health and Safety Manager will also lead regular construction progress meetings for safety and conduct safety orientation training sessions.

## **2.2 Contractors**

### **2.2.1 Safety Supervisor**

Site safety training and contractor specific training will be required for all Project personnel. Additionally, the Project will have a Safety Supervisor, provided by the Contractor, who will be responsible for monitoring compliance with PSEG Long Island and Project safety requirements.

## **2.3 Staffing Requirements for East Garden City Substation**

East Garden City Substation formerly contained a gas holder and was investigated as a former Manufactured Gas Plant (“MGP”) facility. Soil and groundwater contamination occurred on the site because of past activities relating to the gas holder. Site and remedial investigations determined that arsenic, mercury, SVOCs, and polycyclic aromatic hydrocarbons (“PAHs”) were present in shallow subsurface soils. Benzene, toluene, ethylbenzene and xylene (“BTEX”) compounds and chlorinated solvents were identified in up-gradient groundwater wells. Additionally, some hardened tar was discovered around the former gas holder and within a 36-inch pipe at the gas holder’s base. The areas containing hardened tar were capped with an asphalt surface. Institutional and engineering controls are in place at the site as documented in an Environmental Easement (“EE”) recorded with the Nassau County Clerk on June 19, 2017 and a Site Management Plan (“SMP”) developed under NYSDEC oversight. The EE requires implementation of a SMP to manage future development- related excavation activities at the Site that might result in the cap/cover being disturbed and the remaining on-site contaminants of concern being encountered.

National Grid is the responsible party for the remediation and must comply with the SMP. The Project Manager will coordinate work within the limits of the East Garden City Substation property with National Grid to assure compliance with the SMP. The SMP specifies that the following personnel will have assigned duties for any intrusive activities taking place inside the EGC Substation.

### **2.3.1 *Qualified Environmental Professional***

When completing work within the East Garden City Substation, National Grid, or its representative, shall verify that a qualified environmental professional will be on site for all intrusive activities.

### **2.3.2 *Competent Person***

When completing work within the East Garden City Substation, the Contractor shall maintain a full-time Competent Person, who will have at least five years cumulative experience of work within energized electrical substations, and/or in close proximity to energized underground and overhead high voltage electrical lines. The Contractor must submit the Competent Person's resume, detailing such work experience, to the Certificate Holder for review and approval prior to any intrusive work activities.

### **3.0 PROJECT PROCEDURES**

The following construction site safety and environmental impact minimization procedures are applicable to the installation of the transmission line between the East Garden City and Valley Stream substations.

#### **3.1 Worksite Health and Safety**

Measures will be taken by the Certificate Holder and Contractor to protect the health and safety of all WNTP related site personnel and all pedestrians within the Project limits throughout the duration of the Project. Required orientations are detailed in the sections below.

##### **3.1.1 *Required Orientations***

Training, instruction, and periodic briefings will be provided to all WNTP related site personnel, as appropriate, to verify that health and safety precautions and measures are followed during construction. Project personnel are required to complete the following orientations and safety training prior to commencing work on the Project. In addition, the Contractor must provide documentation to the Project Manager indicating this training has been successfully completed.

##### **3.1.1.1 *Site Specific Safety Orientation***

All Contractors, sub-contractors and related site personnel must be provided with safety training prior to work on the Project or be escorted by personnel that have been trained. The Health and Safety Manager will verify the orientation was given, prior to an employee working on the jobsite. This training will include all hazards the workers may be exposed to in relation to their own specific craft and work procedures. A review of the submitted Activity Hazard Analysis and emergency and non-emergency medical procedures will also be part of this contractor specific training.

##### **3.1.1.2 *Project Orientation***

All personnel employed on the Project site must attend a Project orientation conducted by the Health and Safety Manager, or his or her designee, prior to working on the jobsite. This includes company management personnel who frequently visit the site. This training will be provided at a location and schedule designated by a PSEG Long Island employee or consultant. The training will review general site policies and procedures contained in the site-specific health and safety plan. It is not intended to be specific to the worker's craft or to replace the Contractor provided training listed above.

### **3.1.2 Stop Work Procedures**

On-site Project personnel with stop-work authority include the Project Manager, Environmental Compliance Manager, Environmental Monitor, and Construction Supervisor. These Project personnel may stop work during construction if the environmental terms of the Certificate, approved EM&CP or applicable law are being violated. Any Project personnel can stop work for health and safety reasons.

### **3.1.3 Traffic Safety**

Most construction will take place within the existing public roadway ROW. As a result, site activities will require temporary modification of existing typical traffic movements, and the use of traffic-related measures protective of the traveling public, construction personnel, and cable installation equipment.

Maintenance and protection of traffic for all construction activities will comply with rules and regulations included in the New York State Manual of Uniform Traffic Control Devices (“MUTCD”) and 17NYCRR Chapter V (New York Supplement). The Certificate Holder will implement an MPT for the locations of the ROW in and along public roadways. The purpose of the MPT is to ensure safe and adequate traffic operations on the affected roads and streets. Nassau County Department of Public Works will be contacted to ensure continued safe operations of County roads in the vicinity of the proposed work areas. The Town of Hempstead, Village of Garden City, Village of Malverne, and/or Village of Lynbrook will also be contacted when work would occur in the vicinity of local roadways, as applies to each municipality. The MPT indicates temporary signage and barriers expected during the construction activity. As such, safety signage and traffic control personnel (i.e. flagmen) will be employed to verify safe and adequate traffic flow, as necessary, when roadways are affected by construction. Appropriate safety practices, including temporary barricades to prevent pedestrians from entering the construction area or the active roadway, will be implemented as identified in the MPT.

A full-time Traffic Supervisor will be responsible for verifying that all site activities are performed in compliance with the MPT, with additional oversight from the Construction Supervisor.

### **3.1.4 Maintenance and Protection of Traffic Plan**

All work within New York State highway ROW will be performed according to the official compilation of codes, rules and regulations of the State of New York (NYCRR), Title 17, Vol. B and

the traffic and safety standards required by the NYSDOT specifications, Section 619. Work within roads owned or controlled by Nassau County, the Villages of Garden City, Lynbrook, and Malverne, and the Town of Hempstead and Malverne will be coordinated with the respective local agency. Maintenance and protection of traffic for all construction will comply with rules and regulations included in the New York State MUTCD and the NYSDOT Standard Specifications and Standard Details. An MPT plan prepared by KAG Engineering, PLLC (“KAGE”), include drawings and general notes specific to the Facility, as described below, and will be used to mitigate the impacts of this construction project. Detailed traffic safety procedures are described in Section 3.1.3 and Appendix B of this EM&CP.

The Certificate Holder will notify the NYSDOT and OPRHP in writing at least two weeks in advance of the commencement of work in the ROW. Flag persons will be employed, as necessary, to direct traffic through work zones protecting motorists and pedestrians from injury as well as protecting construction workers from oncoming motor vehicles. Construction signage in accordance with the MUTCD will be used to supplement flag persons.

When two-way traffic is alternately placed in one lane, the traffic flow will be maintained by the flag persons. It is currently anticipated that this procedure will be utilized along the entire Project route including: 9th Street, Broadway, Cherry Valley Avenue, Cornwell Avenue, Dogwood Avenue, Franklin Avenue, Hempstead Avenue, Hilton Avenue, Rockaway Avenue, Stewart Avenue, Westminster Avenue, and Whitehall Street. When a splice vault is located on the shoulder and the combined width of the road’s travel lanes and the opposite shoulder is at least 24 feet wide, the Contractor may maintain two lanes of traffic during the Facility installation. Points of access to the ROW have been selected to allow all construction equipment to move parallel to traffic along the ROW travel lanes.

The Certificate Holder will provide to local officials, media, and repositories notice of the anticipated date that construction will commence. No less than two weeks prior to the anticipated commencement of construction, the Certificate Holder will publish a public notice with proposed construction schedules. Notifications will also be submitted to local emergency services such as fire departments, police departments, emergency medical technicians, and hospitals no less than two weeks prior to construction.

The MPT conforms to the latest standards of the American Association of State Highway and Transportation Officials and MUTCD. These measures minimize any temporary disruptions to

roadway traffic. Traffic control needs at each location will vary based on the activity being performed, weather and road conditions and other factors that may affect the safety of crew members and the general public.

### **3.1.5 Road Closures**

The Certificate Holder anticipates temporary road closures will be required during construction as needed. It is currently anticipated that the only full road closures will be Broadway, Dogwood Avenue and Whitehall Street. The roadway configuration in that/those area(s) is such that while the Facility installation takes place, there will not be sufficient room to provide for a single lane of traffic. Prior to and during construction, signage will be provided informing motorists of the closure. Residents of the area proximate to the road closure will be given advance notice of the closure and will be able to access their residence or will be provided with alternate parking arrangements.

All construction signs will be covered or removed when the work they pertain to is not in progress. Visibility will be maintained throughout the construction activities. Temporary signs will not be placed at any location where they would be obscured by temporary or permanent objects or at locations where they would obscure any permanent traffic signage. If work is to be conducted after dusk and/or during evening hours, auxiliary lighting will be used so that work may continue in a safe manner. All traffic signs related to the Project will be sufficiently visible during evening work hours to provide adequate traffic safety for the public and construction workers. Any travel lane closed for construction will be swept clean by the Contractor and inspected for debris or road hazards before the lane is re-opened to traffic. This will require the use of mechanized street sweepers and water trucks.

### **3.1.6 Sidewalk Closures and Pedestrian Safety**

Appropriate construction and safety practices including signage, will be implemented by the Certificate Holder to minimize pedestrian inconvenience and avoid risks to safety from construction activities and are detailed in the MPT. Construction practices, such as steel plates, temporary barricades, barrier tape and fencing, will be used to restrict pedestrians from entering construction zones and limit pedestrian impacts from the Project. Additionally, the WNTP Outreach Plan (Appendix H) describes the types of outreach to be conducted prior to and during construction as well as the type of signage that will be used at the sidewalk level. In addition, supplemental police staff, provided by Nassau County, will be positioned within the construction area near schools and high-traffic pedestrian zones. Additional traffic safety personnel may be supplied at the direction of the Project Manager.

### **3.1.7 Construction Vehicles Use of Roads**

All vehicles used in construction of the Project will use public roads in compliance with all applicable law.

### **3.1.8 Consultation with Transportation Agencies**

The Certificate Holder consulted with local and State transportation officials in development of the EM&CP. No objections were raised as to the work hours, final location or manner of installation and restoration of, or access to, the WNTP. During construction, the Certificate Holder shall periodically consult with state and local highway transportation agencies about traffic conditions near the Project site and shall notify each such transportation agency of the approximate date work will begin for each phase of construction.

## **3.2 Soil Handling and Disposal Plan**

Soil will be exposed during trench and splice vault excavations as necessary for cable and splice vault installations. The Certificate Holder will backfill all excavations and trenches either with clean thermal fill material, which was removed, or with clean washed building sand or suitable thermal fill such as cementitious slurry backfill. The backfill material will comply with applicable code requirements and minimize heat retention of the newly installed cables. The Applicant will dispose of any excess spoils, debris, soils or fill, whether or not contaminated, in accordance with code requirements applicable to such substance. Excavated soils will be removed from the site to enable continued pedestrian or vehicular access. If necessary, soil will be staged within Contractor yards within covered or sealed roll-off containers. No excavated material shall be placed on or encroach on private property.

The following sections detail the procedures through which soil generated during excavation activities will be evaluated for potential environmental impacts, evaluated for reuse or suitability as backfill, stored or stockpiled, and soils disposed of. Section 5.0- Soil and Erosion Control, and Section 5.1- Storm Water Pollution Protection Plan (“SWPPP”) contain more information regarding soil management. The SWPPP is attached as Appendix C.

### **3.2.1 Soil Evaluation**

Excavated material will be evaluated by construction and engineering personnel for suitability as backfill. A qualified environmental professional or person under their supervision will also oversee all intrusive activities and handling of any excavated material and verify that the soil is not environmentally contaminated.

The Environmental Monitor will be responsible for completing visual and odor assessments of all materials, as they are excavated, for evidence of contamination such as discoloration, debris, free product or other non-native materials, and will evaluate suspect soils for the presence of total Volatile Organic Compounds (“VOCs”) using a Photoionization Detector (“PID”). Any soil showing evidence of contamination from the PID reading, staining, free product or visual observations of impact will be treated as contaminated material.

This soil shall be kept separate from other materials and will be staged on and covered by polyethylene sheeting to prevent contact with the ground surface and erosion/transport. The Environmental Monitor will notify the Environmental Compliance Manager of potential contamination. The Environmental Compliance Manager will be responsible for managing additional evaluation and/or sampling of potentially hazardous material to confirm presence or absence of contaminated soil and determine how it shall be treated or disposed.

A series of environmental borings were performed in August and September of 2018. Borings were located along the Certified Route, with the boring locations determined by the results of the previously completed Phase I Site Investigation. Soil samples were collected at each location and were analyzed for VOCs, Semi Volatile Organic Compounds (“SVOCs”), Metals, Polychlorinated Biphenyls (“PCBs”), Toxicity Characteristic Leaching Procedure (“TCLP”) VOCs, TCLP SVOCs, TCLP Herbicides, TCLP Pesticides, and Ignitability, Reactivity, and Corrosivity. During construction, these sample results will be used as a reference for evaluating and handling excavated materials in the vicinity of each environmental boring. A petroleum-contaminated soil is considered a characteristic hazardous waste when it exhibits any of the following characteristics: ignitability, corrosivity, reactivity, or toxicity, as defined in 6 NYCRR Part 371, Section 371.3, or 40 Code of Federal Regulations (“CFR”) Section 261.

During construction, if excavated soil generates a PID reading within the background levels, work will continue as planned. Naturally occurring background levels for PID monitoring range between 0.0 ppm and 2.0 ppm but can also fluctuate due to ambient conditions (e.g. nearby traffic exhaust, high humidity, excess moisture). Work will continue at the discretion of the air monitoring personnel but will pause if readings exceed 5.0 ppm. Soil which has PID readings above the naturally occurring background levels at the specific work site (established by the air monitoring personnel), or which is stained, discolored, or odorous as determined by the Environmental Monitor shall be transported



off-site and disposed of (as further detailed in Standard Operating Procedure {"SOP"} EG-111 Waste Management Decision Tree and EP-01 Waste Management). This disposed soil will be treated as non-hazardous petroleum contaminated soil. If soil is determined to be contaminated, and previous 2018 boring sample results meet the criteria stipulated by the NYCRR or CFR regulations, then the soil will instead be treated as hazardous waste. The Environmental Monitor shall also monitor for Lower Explosive Limit percentages ("LEL") more than 10 percent in the excavation.

Any hazardous wastes generated will be managed in accordance with the applicable regulations found in 6 NYCRR Parts 370-374 and 376 as well as by the PSEG Long Island SOP EP-01 Waste Management. Hazardous wastes are those materials that are specifically "listed wastes" per 6 NYCRR Part 371 and/or those that display hazardous waste characteristics for ignitability, corrosivity, reactivity, and/or toxicity. Petroleum products and chemical substances (generally termed "hazardous materials") will be managed in such a manner as to minimize the potential for threats to human health and the environment. The Environmental Compliance Manager shall be notified in the event that contaminated material is encountered over the course of excavation work. Any material deemed contaminated shall be handled according to company policy and all applicable regulations and/or codes. The Environmental Compliance Manager will be responsible for managing additional evaluation and/or sampling of potentially contaminated material.

### **3.2.2     *Soil Reuse***

Soil removed to dig the splice box locations would be used as backfill to close the excavation. In the event that contamination is suspected based on observed soil conditions or observed free product, the Environmental Monitor and Environmental Compliance Manager must be notified. The Environmental Monitor and Environmental Compliance Manager will make additional notifications, including to DPS. The excavated soil will be placed in lined roll offs and taken off site for later testing and disposal. Certified clean fill will be used as backfill instead.

Excavated soil may be used to restore the original soil surface elevation after utilities and splice vaults have been properly installed, provided that this excavated soil has been deemed suitable for use as backfill by a PSEG Long Island engineer and is also deemed free of contamination. Backfilling will be performed in accordance with NYSDOT Standard Specifications §203-3.15 Fill and Backfill at Structures, Culverts, Pipes, Conduits and Direct Cable Burials as appropriate. In the case that material is deemed unsuitable for use as backfill, the Contractor shall provide clean washed building

sand or suitable thermal fill such as cementitious slurry backfill in its place, as specified by the Certificate Holder.

### **3.2.3     *Soil Storage***

Excavated materials shall be removed immediately and transported to an appropriate disposal facility or designated staging area within a laydown yard such that they may be tested and properly managed. Any soil deemed as contaminated material by the on-site environmental professional shall be separated from other excavated materials and staged separately.

Contaminated soil will be stored in lined roll-offs within laydown yards and covered at all times and secured.

### **3.2.4     *Soil Handling, Transportation and Disposal***

The Certificate Holder will direct the Contractor to dispose of all excavated material from the site that is not reused as backfill.

Construction and demolition (“C&D”) debris including: concrete and other masonry waste (including steel or fiberglass reinforcing embedded in concrete), asphalt pavement, brick, soil or rock removed from the site as part of construction will be disposed of in accordance with Certificate Holder protocols at a State- permitted facility. The disposal facility will come from a list of PSEG Long Island approved disposal facilities and will comply with all environmental regulations set by the state in question’s environmental agency (i.e. New York State Department of Environmental Conservation (NYSDEC)). This material will not be commingled with any other types of waste. If C&D materials are found to contain industrial waste (coal, coal ash, municipal ash, cinders, or refuse as defined in 6 NYCRR Part 360-1.2(b)(88)) it will be handled as industrial waste.

Soil that has been deemed to be contaminated material will also be disposed of at a State-permitted end-use facility. This material will not be commingled with any other types of waste.

Disposal requirements will be established with the facility prior to commencement of construction. Disposal characterization samples will be collected in accordance with disposal facility permits and all local, State and Federal regulations. Prior to commencement of the project, the permitted disposal facility will provide the Contractor their operating permit, including the required sampling frequency, analysis of the facility and insurance certificates. The Certificate Holder will provide the disposal facility with the sampling results and, prior to the material being

transported, the facility will provide the Certificate Holder with an approval letter stating that the analytical data has been reviewed, the results are within the facilities permissible limits, and the facility is allowed to accept the material under the terms of the current operating permit. Prior to disposal of any materials requiring classification sampling under receiving facility operating permits, the Environmental Compliance Manager will send NYSDEC and DPS Staff acceptance criteria sampling results and copies of approval letters from receiving facilities indicating that the analytical data has been reviewed and the facility is allowed to receive such materials under the terms of their current operating permit. Waste transporters will possess valid permits which will be confirmed by the Certificate Holder.

### **3.3 Spill Prevention and Response**

Vehicles and construction equipment will be inspected daily to check that fluids (oil, hydraulic, lubricants, or brake fluid) are not leaking and that fuels and fluids are stored in proper, labeled containers. All drilling equipment will have diapers or similar leak containment measures under the equipment overnight to contain spills. Any observation of spills, leaking fluid, or improperly stored fluids may trigger the issuance of a stop-work notice until the situation is resolved, and the appropriate field measures are implemented to avoid future spills.

The Certificate Holder shall notify DPS and NYSDEC of any fuel or chemical spill it is required to report in accordance with NYSDEC regulations and guidance. All petroleum spills that occur within New York State must be reported to the New York State Spill Hotline (1-800-457-7362) and PSEG Long Island Spill Hotline (516-824-2485) within two hours of discovery, except spills which meet the following criteria:

1. The quantity is known to be less than 5 gallons; and
2. The spill is contained and under the control of the spiller; and
3. The spill has not and will not reach New York water or land; and
4. The spill is cleaned up within two hours of discovery

A spill is considered to have not impacted land if it occurs on a paved surface such as asphalt or concrete. A spill in a dirt or gravel parking lot is considered to have impacted land and is reportable. More details on notification and reporting requirements can be found in Section 11 of the NYSDEC Spill Guidance Manual.

Prior to the start of construction, the Contractor shall provide a list of the drilling fluids, petroleum

products and hazardous substances to be used in the performance of Project work, along with a Safety Data Sheet (“SDS”) for each such material. The SDSs will be kept on-site, alongside the HASP, for the duration of the construction. If, during the course of construction, a contractor proposes to use a product not on the original list, the list must be modified and the appropriate SDS provided to the Certificate Holder prior to the use of the material on the Project. This list will be provided to local fire department and emergency management teams. Due to the different types of regulated materials typically used during construction, different handling and storage procedures may be required.

The Certificate Holder will require Project personnel to adhere to all directions and warnings for products used on the Project. Employees will be trained in the use, storage, handling, spill control, and first aid measures required for these chemicals in accordance with OSHA’s Construction Hazardous Communication Standard (29 CFR § 1926.59) (NYSDOT Standard Specifications § 107-05). The on-site Health and Safety Manager will verify that any non-hazardous material encountered during any activity is properly handled.

The on-site storage of hazardous chemicals and waste in above and/or below ground tanks is not anticipated during construction. However, if hazardous substances are to be stored on-site, the Contractor shall develop a Spill Prevention, Control, and Countermeasures Plan (“SPCC”). In the event of a hazardous substance release, the following spill release reporting procedure will be implemented:

- Notify the Health and Safety Manager
- Contact local police department having jurisdiction in the spill area
- Contact local fire department having jurisdiction in the spill area
- Contact local emergency officials having jurisdiction in the spill area
- Contact DPS and NYSDEC Spill Hotline
- Contact PSEG Long Island Spill Hotline

The Environmental Compliance Manager will be responsible for contacting DPS and NYSDEC or other agencies with regard to reportable spills or releases. The on-site Health and Safety Manager will also verify that any hazardous materials encountered on-site will be managed and handled in accordance with the applicable regulations found in 6 NYCRR Parts 370-374 and NYSDOT Standard Specifications § 107-10F.

Prior to construction, the Contractor must identify licensed spill response contractor(s) who will be

on-call during construction.

### **3.4 Reporting Requirements**

The Certificate Holder shall conduct compliance inspections detailed below. In addition, the Certificate Holder shall organize and conduct site-compliance audit inspections for DPS Staff as needed, but for the Project not less frequently than once per month during the site preparation, construction, and restoration phases. Such inspections shall conclude upon the final sign-off of the SWPPP. Additionally, the full-time Environmental Monitor is responsible for completing daily inspections and submitting weekly status reports.

#### **3.4.1 *Monthly Inspection Report***

The monthly inspections shall include a review of the status of compliance with all Certificate conditions. The inspections also shall include a review of all complaints received, and their proposed or actual resolutions; a review of any significant comments, concerns or suggestions made by the public, local governments, or other agencies, and the Certificate Holder's response(s); review of the status of the Project in relation to the overall schedule established prior to the commencement of construction; and, other items the Certificate Holder and DPS Staff agrees are appropriate. PSEG Long Island will provide a written record of the results of the inspection, including resolution of issues and additional measures to be taken, to all agencies involved in the inspection audit and as part of its scheduled construction update reports.

#### **3.4.2 *Environmental Inspection Reports***

Each day, the Environmental Monitor will fill out a Supervisors Inspection Report, a form of which can be found in Appendix G, detailing every task performed on site. Due to the linear nature of the Project, if the same task is completed at different locations during the work day, one report will be filled out. A Supervisors Inspection Report will be filled out for each scheduled work day even if no work has been performed during that day. Inspection reports will be prepared for each phase of the Project (site preparation, construction and restoration).

#### **3.4.3 *Weekly Status Reports***

During construction, the Certificate Holder will provide DPS Staff and the NYSDEC (and NYSDOT when state highways are affected) with weekly status reports. These reports will summarize construction activities and indicate construction activities and locations scheduled for the following two weeks.

#### **3.4.4 SWPPP Weekly Inspection**

Construction activities for the Project will entail soil disturbances of greater than one acre. Accordingly, the Certificate Holder is seeking coverage from the NYSDEC under the State's General Permit ("GP") for Stormwater Discharges from Construction Activities (GP-0-15-002). A Stormwater Pollution Prevention Plan has been prepared for the Project and is included as Appendix C. The SWPPP identifies potential sources of pollutants that may be expected to adversely affect stormwater quality and details the selection, design, installation, implementation, and maintenance of the erosion and sediment control measures and practices that will be utilized at the site to prevent/minimize those impacts.

After construction starts, GP-0-15-002 requires that a "qualified inspector" conduct site inspections with the results documented in a signed inspection report. A "qualified inspector" may be a licensed Professional Engineer ("PE"), Registered Landscape Architect ("RLA"), or Certified Professional in Erosion and Sediment Control ("CPESC"). Additionally, any trained technician who has completed the NYSDEC 4-hour Erosion and Sediment Control Training and is working under the direct supervision of, and at the same company as, a PE, or RLA also meets the requirements of a "qualified inspector." The SWPPP inspection reports must be kept at a secure location at the Project site for the duration of construction and until a Notice of Termination has been filed with NYSDEC.

The purpose of the SWPPP inspections is to verify that the erosion and sediment control measures prescribed in the SWPPP are being implemented and are effective in the prevention of stormwater quality impacts. The qualified inspector shall conduct site inspections in accordance with the following timetable, depending on the stage of construction activities:

a.) For construction sites where soil disturbance activities are on-going, the qualified inspector shall conduct a site inspection at least once every seven calendar days.

b.) For construction sites where soil disturbance activities are on-going, and the owner or operator has received authorization in accordance with the SPDES General Permit to disturb greater than five acres of soil at any one time, the qualified inspector shall conduct at least two site inspections every seven calendar days. The two inspections shall be separated by a minimum of two full calendar days. Inspections will exceed the requirements of the SPDES General Permit, as an Environmental Monitor will be on-site daily.

c.) For construction sites where soil disturbance activities have been temporarily

suspended (e.g. winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the qualified inspector shall conduct a site inspection at least once every 30 calendar days.

d.) For construction sites where soil disturbance activities have been shut down with partial project completion, the qualified inspector can stop conducting inspections if all areas disturbed as of the Project shutdown date have achieved final stabilization and all post-construction storm water management practices required for the completed portion of the Project have been constructed in conformance with the SWPPP and are operational.

The qualified inspector must report any needed corrective action to the Certificate Holder and the appropriate contractor within one business day of the inspection. The Contractor must begin implementing the corrective actions within one business day of notification. After construction is completed and the site has been stabilized, the qualified inspector must conduct a final site inspection and certify that the site has been properly stabilized and that other requirements have been met.

## **4.0 ENVIRONMENTAL PROTECTION AND MITIGATION**

The Environmental Compliance Manager and Environmental Monitor, in conjunction with the Project Manager and Construction Supervisor, will be responsible for verifying that the requirements of this EM&CP are adhered to during construction of the Project. Environmental protection measures have been developed for the Project as discussed below:

### **4.1 Vegetation and Animal Management**

#### **4.1.1 *Vegetation Management***

A goal of construction and installation work on the Project is to minimize vegetation disturbance and potential adverse impacts to existing vegetation from the installation of the splice vaults and 138 kV cable along the ROW from the East Garden City Substation to the Valley Stream Substation. Vegetation disturbance should be minimal because the trench will be constructed primarily within a paved roadway. The trench will be backfilled with soils removed to dig the trench for the cable installation or with cement slurry, except when said soil is contaminated or unfit for use as backfill. To the extent practicable, the Project will avoid damage to existing turf grass and other ground covers.

Construction activity will be under the observation of a full-time Environmental Monitor as a primary means of avoiding unnecessary impact to trees. All tree work, including the handling of feeder tree roots, will be performed in accordance with PSEG Long Island's Specification for Line Clearance - Distribution Circuit Trim (as well as applicable ANSI A300 Standards and ISA Best Management Practices) and the WNTP Tree Management Plan (see Appendix D). Tree protection fencing is shown on Project Plan and Profile drawings.

#### **4.1.2 *Rare, Threatened, and Endangered Species***

The Certificate Holder contacted the NYS Natural Heritage Program ("NYNHP") and the United States Fish and Wildlife Service ("USFWS") to check for updates or changes with regard to the potential presence of rare, threatened, or endangered plant or animal species (collectively, "RTE" species) in the Project area on July 12, 2019 and July 15, 2019, respectively. The request also sought updates regarding special concern species listed in New York and Significant Natural Communities in the Project area.

Based on a review of an Official Species List obtained via USFWS' Information for Planning and



Consultation (IPaC) system, no federally listed threatened, endangered, proposed and candidate species, nor proposed and final designated critical habitat, not previously assessed in the Application, has been identified in the Project area. The NYNHP did not identify any additional state-listed species or significant natural communities not previously identified and evaluated in the Application. If any RTE species is encountered during the construction of the Project, the Environmental Monitor will identify the extent of the area of concern, clearly mark it in the field, and GPS its location. The Certificate Holder shall promptly notify Staff and the NYSDEC Regional Natural Resources Supervisor of Region 1 – and, if appropriate, USFWS - in order to determine the appropriate measures to be taken to avoid and minimize direct impacts and protect such species and species' habitat. If discovery of an unanticipated RTE species is made during construction, all construction activities in the immediate area will cease, to protect the species or their habitat from immediate harm. The Certificate Holder shall stabilize the area and cease construction or ground-disturbing activities in the area until the appropriate officials are notified, and protective measures are implemented. The Environmental Monitor will work with the Construction Inspector to implement necessary protective measures and best management practices identified below:

- a) Plans will be updated to reflect the new RTE species area of concern and the site will be clearly marked in the field.
- b) Crews will be updated on the new sensitive area location and species identification.
- c) Any documents or information which identify the location or habitat of any known RTE species shall be labeled CONFIDENTIAL and access shall be restricted to only those persons who need to know this information. The Certificate Holder will provide appropriate training to employees and contractors as to the confidential nature of this information.

#### **4.1.3     *Invasive Species***

The Certificate Holder will prevent, to the extent practicable, the transport and spread of invasive species during soil disturbance management, transport of materials, and landscaping/revegetation. It should be noted that soil disturbance will be limited to the installation of the cable within the ROW and vegetation disturbance would also be limited to only include mowing and trimming. As such, little, if any, revegetation or landscaping would be required. Appropriate construction practices

aimed at reducing the spread of invasive species are detailed in the Invasive Species Management Plan (Appendix E).

## **4.2 Water Resources**

The protection of water bodies, wetlands and groundwater resources is a primary objective of this EM&CP. Specific protection measures are discussed in the following subsections.

### **4.2.1 Surface Water Resources**

Halls Pond is a surface water feature located immediately north of the Project ROW at Hempstead Avenue between the intersections of Nassau Boulevard [west] and Eagle Avenue [east]). The pond is classified as PUBHx (Palustrine, Unconsolidated Bottom, Permanently Flooded, Excavated) on U.S. Fish & Wildlife Service (“USFWS”) National Wetland Inventory (“NWI”) Maps. The waterbody draining Halls Pond, known as Pines Stream, flows under Hempstead Avenue within a concrete-lined culvert with a riprap stream bed. The Project will cross Pines Stream at this location.

The duct bank will be installed across Pines Stream along a route adjacent to and approximately parallel to Hempstead Avenue using open cut trenching methods at a minimum 48-inch depth of burial. A site-specific erosion and sediment control plan has been prepared for the crossing of Pines Stream and is depicted on the Plan and Profile Drawings. A description of the construction sequencing, as well as a Contingency Plan, are provided in Section 6.16.

### **4.2.2 Groundwater and Dewatering**

A subsurface investigation conducted in August and September of 2018 and consisting of soil borings and groundwater well installations throughout the Project Route has determined that there are several locations where groundwater can be expected to be encountered during excavation activities associated with the Project. Based on these findings and a review of the 60 Percent Plan and Profile (“P&P”) Drawings dewatering will likely be required at several locations on the upland construction of the Project, most notably during excavation and installation of splice vaults (as further detailed in SOP EG-706 Excavation Dewatering). The results of the subsurface investigation do not indicate that groundwater along the Project route is likely to be contaminated.

The Certificate Holder has prepared a SWPPP and will obtain the requisite Municipal Separate Storm Sewer Systems (“MS4s”) acceptance of the SWPPP from the MS4s before construction begins. A list of MS4 administrators and their contact information are included with the SWPPP.

In the event that dewatering is required, the Environmental Monitor will be notified prior to any dewatering activities. The Environmental Monitor will be responsible for assessing the water for obvious signs of contamination, such as separate-phase product, odors or sheens, before dewatering can begin. If the assessment shows no evidence of contamination, best management practices still need to be followed in order to avoid erosion and sediment migration concerns. Dewatering will follow the PSEG Long Island SOP EG-706 and will likely be performed by use of portable pumps drawing through a suction line and discharging through a flexible hose. Water will be pumped from the excavation, settled in a container, tank, or temporary basin and filtered through sediment filter bags before discharge into storm drains or sewer inlets. Per EG-706, filter fabric must be used over storm drains and sewer inlets prior to discharging any water to them. If no storm drains or other drainage systems are available, water may be discharged to the ground, provided the discharge location is down gradient from the excavation area and the affected property can accommodate the infiltration of the discharged water. In no such situations shall the water be discharged in private properties, wetlands, wetland adjacent areas or allowed to flow onto private properties, wetlands and wetland adjacent areas. In the event that contamination is suspected based on observed soil conditions or observed free product on ground water, the Environmental Monitor and Environmental Compliance Manager must be notified. Contaminated groundwater will be pumped directly from the excavation to a holding tank for later treatment and/or disposal.

Areas where dewatering will likely be required are 1) along Hempstead Avenue adjacent to Halls Pond Park; 2) in the vicinity of the Southern State Parkway underpass along Cornwell Avenue; 3) an approximately 50-foot-long section at the intersection of Dogwood Avenue and Hempstead Avenue in the Village of Malverne; and 4) in the Village of Valley Stream, at the intersection of Whitehall Street and Stevenson Street.

Dewatering discharge points for each of these locations is as follows:

- 1) The Southern State Parkway underpass contains a storm inlet at the point of lowest elevation, which falls under Nassau County jurisdiction. Dewatering to the south of the underpass, along Dogwood Avenue, would fall under the Village of Malverne's jurisdiction;
- 2) Dewatering in the vicinity of the Village of Malverne is flanked by private residences and businesses, so dewatering would have to be directed to the storm inlets located within Hempstead Avenue. Any dewatering into storm inlets within

Dogwood Avenue would fall under the jurisdiction of the Village of Malverne MS4 authority. Storm inlets within Hempstead Avenue in this area would be under the jurisdiction of Nassau County.

- 3) Dewatering in the vicinity of the Stevenson Street Intersection with Whitehall Street is flanked by private properties, so dewatering would have to be directed to the storm inlets located within Whitehall Street. Two storm inlets flank each side of the Stevenson Street intersection and a third storm drain is situated at the west side of the intersection. Any dewatering into Whitehall Street storm inlets would fall under the jurisdiction of Nassau County.

Given the Project will be constructed within existing ROW, there is minimal potential for environmental impacts to surface waters or aquifers below the Project corridor.

#### **4.3 Sensitive Land Uses**

Residential areas immediately adjacent to the Project corridor are generally considered to be noise-sensitive. However ambient noise levels vary by neighborhood, depending on location and proximity to routes with high levels of vehicular traffic. Religious institutions, emergency services, and schools are also considered to be noise-sensitive receptors. Anticipated noise impacts due to construction activities are directly related to the type of equipment required (magnitude) and average length of construction time (duration). Measures will be taken to minimize the potential for noise impacts of construction activities near all noise-sensitive areas. The Certificate Holder will use noise attenuated generators and/or compressors to minimize noise from construction activities. Heavy construction vehicles and equipment will be fitted with appropriate low noise engine exhaust mufflers as necessary.

It is currently planned that some of the Project's construction and restoration activities will be performed at night and at other off-hours times. This will help minimize the Project's impacts on vehicle traffic with minimal increase in nighttime impacts to sensitive noise receptors. Some activities, such as completing a cable splice, pulling conduit bundles into HDD bore holes, and pulling transmission and fiber optic cables into the installed conduits may extend from daytime into night, whether or not doing so will mitigate traffic impacts, because such activities are best performed in a continuous operation. Trenching locations where nightwork will occur are detailed in Table 6.3.

#### **4.4 Cultural Resources**

It is not anticipated that construction activities associated with the upland cable route and trenchless entry pits will encounter cultural resources. However, should archaeological materials be encountered during construction, the Environmental Monitor (as specified in Section 2.1.6) will secure the area and cease construction activities in the immediate vicinity of the find and protect the materials from further disturbance. Within 24 hours of such a discovery, the Environmental Monitor will notify DPS Staff and the New York State Office of Parks, Recreation and Historic Preservation (“OPRHP”) Field Services Bureau to determine the best course of action. No construction activities will occur within the vicinity of the find until the significance of the resource has been evaluated and the need for scope of impact mitigation has been determined. Archaeological or burial encounters and their handling will be reported in the status reports summarizing construction activities and reviewed in the site compliance audit inspections.

Should human remains or evidence of human burial(s) be encountered during construction, all work in the vicinity of the find shall be halted immediately and the remains shall be protected from further disturbance. Within 24 hours of any such discovery, the Environmental Monitor shall notify and consult with DPS Staff and the OPRHP Field Services Bureau. Treatment and disposition of any human remains that may be discovered shall be managed in a manner consistent with the OPRHP’s *Human Remains Discovery Protocol*. All archaeological or remains-related encounters and their handling shall be reported in the status reports summarizing construction activities and reviewed in the site-compliance audit inspections.

#### **4.5 Recreational Areas**

Existing recreational areas will not be impacted by this construction project since the Project will utilize existing rights-of-way and roadways. The Cherry Valley Club and the Garden City Golf Club are golf courses that abut the Project corridor. However, the Project will have no effect on the recreational uses of these facilities during construction or operation. Care will be taken to maintain vehicular and pedestrian access to recreational areas along the Project corridor. Work in the areas of the aforementioned golf courses will occur on weekdays only, when recreational use is typically lighter than it is on weekends. Therefore, the recreational use of The Cherry Valley Club and the Garden City Golf Club will not be impeded or impaired during or after construction of the Project.

#### **4.6 Historical Areas**

While numerous properties of architectural or historic significance exist in the general Project

corridor, the construction of an underground transmission line has no potential to affect such resources. Historic properties and districts adjoining the Project are shown on Plan and Profile drawings in Appendix A.

## **5.0 SOIL AND EROSION CONTROL**

Soil excavation for the Project will encompass trenching for approximately 7.3 miles with splice vaults installed approximately at every 1,600 feet (See Section 1.1 – The Certified Route). Most excavation work will take place in existing paved areas, either on substation property or within roadways and existing ROW. To minimize impacts to associated communities and roadways, jack-and-bore and HDD trenchless techniques will also be employed. Applicable erosion and sediment control practices will be followed through all phases of excavation and restoration, to avoid impacts to nearby water bodies and vegetation.

Erosion and sedimentation control devices will be installed prior to initial disturbance of the soil and maintained in place in accordance with NYSDOT and/or NYSDEC standard specifications (including the NYSDEC “Blue Book”), where applicable. All erosion and sedimentation control devices will be monitored by on-site personnel and will be inspected by a Qualified Inspector at least once every seven days. All erosion and sedimentation control devices will be maintained in place until restoration or permanent stabilization of the work area is completed, or the former work location is demonstrably stable due to its pre-existing characteristics.

Since excavation work will take place primarily in existing, active municipal public roadway ROWs, maintained construction areas will be minimized and moved as work progresses along the Certified Route. Erosion and sediment control devices will be employed in accordance with field conditions and work activity. Site-specific erosion and sediment control plans have been prepared for the Long Island Rail Road (“LIRR”) crossing at Franklin Avenue as well as the crossing of Pines Stream and are depicted on the Plan and Profile Drawings.

In general, sedimentation control devices will be located down gradient from active work areas in order to detain and settle runoff and prevent migration of excavated materials.

Any grassed or landscaped areas disturbed by work activities will be protected with mulch, where necessary. Excavation will occur immediately before conduit placement to minimize potential runoff.

### **5.1 Storm Water Pollution Protection Plan**

A Stormwater Pollution Prevention Plan (SWPPP) has been prepared for this EM&CP and as required for coverage under the NYSDEC State Pollutant Discharge Elimination System (SPDES)

General Permit for Stormwater Discharges from Construction Activity. The SWPPP is included in Appendix C.



## **6.0 STANDARD CONSTRUCTION PRACTICES**

Installation of the Facility will be carried out in accordance with standard cable pulling and splicing practices and the detailed construction documents consisting of plans and specifications are included in this EM&CP. The ROW, no-disturbance limits, and existing splice vault locations are shown on the Plan and Profile drawings.

### **6.1 Construction Equipment and Staging**

Construction activities will primarily consist of excavation and installation of the conduit, the cable and splice vaults within the Project ROW. The cable will be installed in the conduit using conventional pulling and splicing techniques at 23 manholes along the Project ROW from the Garden City Substation to the Valley Stream Substation. Typical cable pulling equipment will include a cable reel, trailer with back tensioning capability, rollers, and cable winch. The maximum pulling tension of a single cable will not exceed cable manufacturer limits. The cable pulling lubricant will be a non-toxic, water-based gel harmless to humans and environmentally safe, with no wax, grease or silicon content.

Typical splice vault installation equipment will include a crane, excavator, payload, digging box, tractor trailer low-boy, assemblies, fittings and accessories.

Once the cable is pulled, cable splices will be installed at the manhole locations. Sheath bonding equipment and techniques will also be employed in the splice vaults to minimize circulating currents and sheath voltage levels, and to maximize cable power capacity. Typical splicing equipment will include a step van or trailer equipped with portable power tools to cut, crimp, solder, and seal cable ends together. This equipment will be stationed at the splice vaults for easy access. In the trenchless technique, pits are dug on both ends of the route and a drill is used to open a tunnel of sufficient diameter to be able to pull the conduits through the tunnel. After the conduits are installed under the road, the pits are backfilled. Roadway surfaces along the Project corridor where splice vaults are installed will be repaired with asphalt to a level grade and condition.

#### **6.1.1 Laydown Yards**

Staging of construction equipment and materials on unpaved areas will occur only in pre-designated areas specified on the EM&CP Plan and Profile Drawings. Pre-designated staging areas for cable pulling construction equipment are shown on the attached Plan and Profile Drawings. Per PSEG

Long Island SOP EG-303, upon completion of all work, all material storage yards, and staging areas should be completely cleared of all waste and debris. Material storage yards and staging areas should be returned to the condition that existed prior to the installation of the material storage yard or staging area. Also, any temporary structures erected by the construction personnel, including fences, should be removed by the construction personnel and the area restored as near as possible to its original condition, including possibly restoration of damaged pavement/roadways, seeding and mulching.

### **6.1.2 *Fusing and Conduit Staging Areas***

The Contractor will stage the conduit in several pre-designated staging areas along the Project corridor, as noted on the EM&CP Plan and Profile Drawings, where the Certificate Holder has received temporary work easements. Conduit will be fused in the staging areas along the Project ROW to a pre-determined length, prior to delivery to the trench. Fusing equipment located in the conduit staging areas will include conduit fusing machines, small diesel generators and a backhoe or excavator.

### **6.1.3 *Material Delivery***

The Contractor will be responsible for all material delivery, in accordance with applicable time restrictions and local law.

## **6.2 *Site Security***

The Certificate Holder and/or the Contractor will be responsible for properly fastening or protecting all equipment that could, under conditions of storm and/or darkness, be the cause of accidents, service interruptions, and conflict with the use of existing utilities, or which could endanger persons or property. The Certificate Holder and/or the Contractor will provide and maintain all worksite security including signs, lights, barricades, and warning devices to minimize hazards to the general public and to maintain the movement of vehicular and pedestrian traffic.

Measures will be taken by the Certificate Holder and/or the Contractor to assure the health and safety of all construction workers for the Project. Occupational Safety and Health Administration (“OSHA”) – approved fire and first aid equipment will be provided by the Certificate Holder and/or the Contractor’s Site Health and Safety Manager for the Project. Emergency police, fire and hospital phone numbers and locations will be posted at all field locations.

The Certificate Holder and/or the Contractor will conduct training, instruction, and daily briefings to all construction workers to verify that worksite safety and security measures are followed during

construction.

### 6.3 Construction Time Restrictions

As described in Table 6.3 below, some of the Project’s construction and restoration activities will be performed at night and at other off- hours times during the week and on Saturdays.

*Table 6.3: Trenching Night Work Locations*

Street	Municipality	Station
Hempstead Ave	Malverne	69+00 to 87+50
Hempstead Ave	West Hempstead	117+00 to 131+00
Hempstead Ave	West Hempstead	131+00 to 132+50
Hempstead Ave	West Hempstead	165+00 to 179+00
Hempstead Ave	West Hempstead	179+00 to 209+00
Westminster Road	West Hempstead	209+00 to 226+00
Stewart Ave	Garden City	371+00 to 393+00

Evening/night-time work occurring within the residential areas of the Town of Hempstead will be limited to splicing and final testing activities (which may be conducted on a 24-hour per day basis when necessary) and pulling conduit bundles into HDD bore holes, as well as pulling transmission and fiber optic cables into the installed conduits, because such activities are best performed in a continuous operation.

The Certificate Holder will coordinate with the Town of Hempstead and Villages of Garden City, Malverne, Lynbrook and Valley Stream as well as residents of all affected neighborhoods prior to evening/night-time construction and will indicate a contact person and 24-hour telephone number for handling complaints related to construction noise, if any.

### 6.4 Construction Worker Parking Areas

Construction workers will muster in the Contractor’s marshalling yards and commute to the various work locations in crew cabs designed to carry multiple workers and their personal tools. Contractor personal vehicles are not expected to be parked along the route.

### 6.5 Snow Removal and Winter Procedures

The Certificate Holder and/or the Contractor will coordinate with local municipalities and Nassau County to verify winter maintenance operations such as snow removal, plowing, and salting can

continue within the Project work limits during construction. Any road plates installed during the winter will be recessed and pinned to allow for plowing and snow removal operations. The Certificate Holder's responsibility to coordinate with the municipalities and the County to continue routine winter maintenance operations will extend until the construction portion of the Project is completed.

## **6.6 Pre-Construction**

Before construction begins in any location, the 811 utility mark out process will be performed for such location. Others to be notified include but are not limited to LIRR, local water companies and Department of Public Works, etc.

The Certificate Holder will perform slit trench testing in advance of splice vault excavation activities to positively locate existing underground utilities.

The Certificate Holder will provide to local officials, media and repositories notice of the anticipated date that construction will commence and will publish a public notice including proposed construction schedules. This notice will be provided no less than two weeks prior to the anticipated commencement of construction. Notifications will also be submitted to local emergency services such as fire departments, police departments and hospitals no less than two weeks prior to construction.

## **6.7 Construction**

During construction, the Certificate Holder will periodically consult with state and local highway transportation agencies about traffic conditions near the Project corridor and will notify each such transportation agency of the approximate date work will begin using highways and roads under their respective jurisdictions. The Certificate Holder will regularly advise NYSDOT, OPRHP, the County and Towns about traffic conditions near work in the Project corridor.

At each stage of construction, the Certificate Holder will provide traffic control as detailed in the MPT.

The majority of the Facility will be constructed via open-cut trench excavation methods. In general, the trench will be excavated to a depth sufficient to provide a minimum of three feet, six inches of cover over the cable conduit. The standard duct bank configuration will require an excavation at least three feet in width to a minimum six feet of depth. Greater trench depth and/or alternative duct bank configurations may be required to avoid existing subsurface obstructions.

Pre-cast concrete splicing vaults will measure approximately 16 feet in length by eight feet in width by nine feet two inches in height (inside dimensions), with approximate 12-inch wall thicknesses. Splice vault locations are detailed on the Plan and Profile Drawings included in Appendix A. Vault excavations will be to an average depth of 12 feet with over excavations of two feet on each side for workspace.

The trench will accommodate cable installation with each cable being installed along the length of the underground route. Splice vaults will be installed at approximate intervals of 1,600 feet along the underground route. The design criteria for cable and splicing vault installations is specified in Section 1.3.

The Certificate Holder will require its Contractor to test hole in advance of duct bank excavation activities to positively locate existing underground utilities.

## **6.8 Post-Construction**

Once soil disturbance activities have been shut down with partial or total project completion, the Environmental Monitor shall stop conducting stormwater inspections if all areas disturbed have achieved final stabilization and all post-construction stormwater management practices required for the completed portion of the Project have been constructed in accordance with the SWPPP and are operational. PSEG Long Island will notify the MS4(s) having jurisdiction in writing prior to the shutdown. PSEG Long Island will then submit a completed Notice of Termination (NOT) form with applicable signatures under the “MS4 Acceptance” statement from MS4(s) having jurisdiction to the NYSDEC.

## **6.9 Splice Vault Installation**

Precast concrete splice vaults will be installed at the locations and depths shown on the Plan and Profile Drawings. Most splice vaults will be installed within public roadway limits, under pavement. Prior to excavation, manhole locations will be marked out per the design location. Pavement saw cutting, jack hammering, dewatering (where necessary), and removal activities will occur as required. Excavation will be performed by rubber-tired or tracked backhoe or excavator. Excavation and installation activities will require more than one working day. No open excavations will be left unsecured or accessible to pedestrians or vehicular traffic while work has stopped. Depending on site requirements and construction progress, barricades which will be illuminated or visible at night may remain, or traffic lanes closed until work is completed. The excavation will be larger than the

exterior dimensions of the splice vault required to allow for sheeting and shoring equipment, and adequate workspace around the exterior of the splice vault. Sheeting and shoring must be provided in accordance with OSHA standards and can be completed in various methods based on contractor preferences, soil characteristics, and equipment availability and cost. This can include sheet piles, trench boxes, slide rails, and timber shoring. The bottom of the excavation will be compacted and prepared with an aggregate base to provide for an adequate foundation for the splice vaults. Splice vaults will be transported to the site on flat-bed trucks or similar. Splice vaults will likely come in two pieces (a bottom section, and a top section) based on weight. Once on site, an appropriately sized crane will lift and place the bottom and top sections. An appropriate gasket will join the two sections to provide for a water-resistant splice vault interior. Precast concrete grade rings will be installed over each splice vault entrance to extend and ensure splice vault frames and covers will be flush with the final road grade. Once splice vaults are installed, they will be backfilled and compacted. Finally, temporary pavement restoration will be completed until final pavement restoration can be coordinated.

#### **6.10 Fiber Handhole Installation**

Handholes for fiber optic communication cables will be installed at the location and depth as indicated on the Plan and Profile Drawings, tandem to the splice vaults. Handhole installation will likely occur as splice vault installation takes place due to shared activities. Excavation methods and equipment will be shared with splice vault installation activities.

#### **6.11 Trenching**

Daily trenching operations will consist of trench excavation, dewatering (where necessary), conduit installation, and backfilling activities. Excavations will be conducted so as to not disturb adjacent buildings, streets and utility lines. Trenching near existing structures and utilities (i.e., crossings of existing services) will be done by non-destructive means (e.g., by hand, vacuum) as necessary. Trenching near existing structures (e.g., manholes, lampposts, signposts, etc.) will provide a minimum of 12 inches between the structure's surfaces and the sides of the trench excavation. Fences, markers, culverts, underground structures, utilities, and other appurtenances will be protected accordingly.

Open trenching will typically consist of pavement saw cutting followed by digging using a rubber-tired or tracked backhoe or excavator. Trench excavation will follow NYSDOT Standard Specifications §206 – Trench, Culvert and Structure Excavation as appropriate (Appendix F). Trenches will be excavated to the lines and grades necessary for proper conduit clearance, bedding

and stabilization. The minimum trench width must accommodate a clear working space of six inches around the maximum outer diameter of the conduit arrangement and be of sufficient width to permit proper joining of conduit and backfilling.

Trenching work will be confined within the limits of the permitted disturbance. There are no identified wetland areas, vegetated freshwater or tidal wetlands within the upland construction area. As a result, no trenching or construction activities will occur within wetland areas. Any tree root encountered in the trench will be cut back far enough so that the root will not interfere with the conduit. In addition, stumps, roots or other material will be removed from the trench.

Trench side slopes will be protected appropriately as required (e.g., sloping, shoring, and shielding) as per the NYSDOT Standard Specifications (Appendix F). Trench excavations will be maintained until backfilled adequately so as to provide workers with a safe working condition and protect the work, existing property, utilities, and roadway. Controls will be in place to prevent unauthorized access to pedestrians and surrounding public.

#### **6.11.1 *Trench Width and Cover Requirements***

Typical trench dimensions will vary with the cable/conduit arrangements but will range from approximately three to six feet in width and up to approximately six feet deep. A total of approximately 34,000 linear feet of trenching will be dug for the conduit installation.

The minimum soil cover above the conduit bundle will be 42 inches. If a shallower cover is necessary for an isolated area, appropriate duct bank protection will be used. As necessary, the duct bank may be installed deeper than 42-inches to avoid subsurface conflicts such as existing utilities.

#### **6.11.2 *Compatibility with Existing Utilities***

The manhole and conduit system is to be installed so as not to interfere with the operation and maintenance of adjacent utilities such as, but not limited to, service connections, power lines, oil, water, and gas lines, sewers and other drains; telephone lines; electrical duct banks or buried structures within the construction limits. The 138kV cables used in this Project are engineered and constructed to be fully compatible with the operation and maintenance of nearby utility cables.

The route has been investigated for known utility crossings. Utility information was compiled from record drawings and field collection. Existing utilities in the area and their locations are shown on the Plan and Profile Drawings in Appendix A.

The manhole and conduit installation and construction activities will comply with the requirements for the protection of underground facilities set forth in 16 NYCRR Part 753. The purpose of these rules is to establish procedures for the protection of underground facilities in order to assure public safety and to prevent damage to public and private property.

As required in 16 NYCRR Part 753, before commencing or engaging in any non-emergency excavation, excavators working along the cable installation route will provide notice of the location and date of the planned excavation to the New York Call Before You Dig system (811). Such notice will be served at least two but not more than ten working days, not including the date of the call, before the commencement date of the excavation or demolition. During the length of the Project the one call requirements will be adhered to. The one call tickets will be updated every 10 days as required by law. Copies of all utility notification documents will be retained by the Contractor and will be furnished at the request of PSEG Long Island, their Consultants and DPS.

The plan for crossing above or below existing utilities will follow the industry standard which is a minimum of 1-foot clearance from all utilities. When necessary for adequate identification, or as determined by mutual agreement of the operator and excavator, the excavator will delineate the work area with white paint, white stakes or other white suitable markings. All underground installations will be positively identified using hand excavations and, when available, using locator services and detection devices provided by the utility owners.

Trench excavation will begin only when all known utilities are verified. In the event that there are utilities that were not previously identified, new test holes will be excavated to confirm the utility mark outs. Local utility companies will be consulted in the event a known utility cannot be field verified. During the excavation activities, a field crew will physically locate all underground utilities with hand excavation or vacuum excavation. If utility relocation is required, the utility owner will be notified of the required relocation and the Certificate Holder will directly work with them to develop a relocation plan and minimize service disruptions. If service disruptions are required, the Certificate Holder will utilize the utility owner's notification system to notify the impacted community. Once the conduit is installed, care will be taken while backfilling around the utility to prevent damage. All identified utility crossings will be noted on the as-built drawings.

## **6.12 Duct Bank Installation**

The duct bank trench will be excavated to the design depths as subsurface conditions allow.



Unknown features and characteristics may force field modifications to the duct bank design. Generally, the cable will be buried at the depths specified in the Plan and Profile drawings (Appendix A). Deviations in depth, provided they are still in compliance with the NESC, shall be allowed for appropriate environmental or engineering reasons, except where a conflict with an explicit provision of the Certificate would be created. The Project Work Area includes the area within the PSEG Long Island ROW that will contain all construction activities. The Project Work Area is limited and bounded by a Limit of Disturbance (LOD - see below) depicted on the Plan and Profile drawings. The LOD defines the authorized limit of all construction activity, soil disturbance, and alteration to vegetation. This limit confines all activities including access, parking of vehicles, staging of construction materials. Any disturbance beyond the curblin of the sidewalk are expected to be temporary and will be restored by the Contractor in a timely fashion.

These conduits will provide a pathway that the electrical cable can be pulled through. The High-Density Polyethylene (“HDPE”) conduits will be fused end-to-end. All the conduits will be strapped together to form a duct bundle. The conduit bundle will be backfilled and compacted with suitable backfill material indicated on the Plan and Profile Drawings. Marking tape is placed above the conduit bundle as a warning in case of future excavation. Once backfilled, trenched areas will be restored to their prior condition. Excavations which extend into pavement subgrade, subbase or shoulder courses will be replaced in kind. See Section 6.20.3 for a description of restoration activities associated with trench excavation and conduit installation.

One end of the trench may remain open at the end of each work day to facilitate the next day’s trenching operation. Open trench ends will be protected using roadway plates.

The Contractor shall provide shoring as needed for personnel protection, in accordance with OSHA requirements. At the completion of each day’s work, all open trenches and excavations shall be plated.

### **6.13 Cable Installation**

Subsequent to successful duct bank and splice vault installation, cable installation will occur. Large cable reels will be transported to the appropriate splice vault locations. Winching equipment will be set up at the next immediate splice vault. Pulling direction will be indicated on the Plan and Profile Drawings, which will identify where to set up the cable reels and winch equipment. Mule tape, previously installed in the conduits, will be used to pull the pull rope through the conduits to the splice vault with the cable reel. The cable will be attached to the pull rope via a pulling eye. The winch

will then pull the cable back through the conduit. As the cable is being pulled, workers will apply a non-toxic lubricant to reduce friction between the cable and conduit. Once the cable is installed, the cable will be cut. The process will be repeated for each power cable needed and at all splice vault-to-splice vault/termination segments. Prior to cable pulling and immediately after cable installation, appropriate cable Jacket Integrity Testing (“JIT”) will be performed to verify the cable jacket has not been damaged.

## **6.14 Cable Splicing**

Following successful cable installation, each appropriate cable will be spliced end-to-end to form a continuous cable connecting each substation. A splicing trailer will set up over each splice vault. The trailer contains all the necessary splicing tools and equipment in addition to providing a controlled clean environment for splicing to occur. To maintain this clean environment, the cable splicing trailer will be required to stay continually over the splice vault until splicing operations are completed. Generators powering all the equipment may need to run continually to maintain proper temperature, humidity and air- quality. Cable splicing will follow proprietary cable manufacturer procedures and specifications. In general, each cable conductor will be exposed, joined, then adequate layers of insulation, tapes re-applied. Cable sheaths will be gathered, then appropriately grounded.

## **6.15 Trenchless Installation**

### **6.15.1 Auger Bore**

A trenchless installation will be required at the Franklin Avenue (LIRR crossing) in order to maintain continual operation of the railroad. The trenchless installation will be constructed as shown on the Plan and Profile Drawings. The trenchless installation will be done in compliance with the LIRR requirements. The trenchless installation will be done with an auger bore method. A workspace approximately 10,000 square feet encompassing the entry shaft will be required. Additionally, a workspace approximately 5,000 square feet encompassing the exit shaft will be required. The entry side workspace will contain a majority of the required equipment such as generators (not in pit), dewatering machinery, pumps, hydraulics, material laydown, bits, casings, and drill mud containers and cleaners. An entry shaft of approximate dimensions 15 feet wide by 35 feet long and 16 feet deep will be excavated using rubber-tired or tracked backhoe, excavator. Acceptable native soil will be stockpiled on site or hauled off site. Similarly, an exit shaft of approximate dimensions of 15 feet wide by 15 feet long and 15 feet deep will be excavated using rubber- tired or tracked backhoe, excavator opposite of the entry shaft and across the LIRR tracks as indicated. Each shaft will have

the appropriate sheeting and shoring required. Proper dewatering equipment and methods will be used to provide a safe and workable environment within each shaft. A flat-bed truck or similar will transport the auger bore machinery. A crane will lower the auger bore machine into the entry shaft. The auger bore machine will tunnel under the LIRR and connect to the exit shaft where a crane will lift it out. As the auger bore machine advances it will install a casing in which the conduit bundle will be installed. Following conduit bundle installation, the annular spacing of the bore will be grouted appropriately. The conduit bundle will then be connected and transitioned to the open-cut trenching portion. Following successful conduit installation and transition, each shaft will be backfilled and compacted with acceptable native soil. The impacted area will be restored.

### **6.15.2 *Horizontal Directional Drilling***

In order to minimize the disruption of traffic, four major intersections along the Project route will be crossed using horizontal directional drilling (“HDD”). These four HDD intersections are: (a) the intersection of Stewart Avenue and Clinton Road (plus three more intersections to the west to Coventry Place); (b) the intersection of Stewart Avenue and Franklin Avenue (plus four more intersections to the east to Washington Avenue); (c) the intersection of Cherry Valley Avenue, Stewart Avenue and Cathedral Avenue; and (d) the intersection of Westminster Road and Hempstead Turnpike (Route 24). On average, the construction duration for each crossing will be a month, although the exact duration will differ depending on the particular length and drilling conditions of the HDD.

### **6.16 *Stream Crossing***

Work within Pines Stream will be during the summer and will be conducted by temporarily halting stream flow during construction. To achieve this, the Contractor will either use a pump to siphon the water overtop the weir boards or remove the weir boards from the southern end of Halls Pond recreation area, lowering the pond approximately 12 inches. The weir boards will then be reinstalled, and as the pond recharges, flow downstream would be temporarily halted. This will allow enough time to trench through the dry streambed. The Contractor will monitor stream depth downstream to verify that no flooding occurs.

The installation would begin at a section of existing concrete retaining wall where a 36-inch storm sewer lets out into Pines Stream. The wall section, along with a section of 36-inch concrete storm sewer pipe back to the nearest storm sewer manhole, will be removed. Then the Facility’s duct bank will be installed with a minimum vertical clearance under or integrated with the retaining wall

foundations sufficient for the reconstruction of the wall section previously removed. The removed sections of wall and storm sewer will then be restored in-kind. Following construction within Pines Stream, the open-cut trench will be backfilled as required for stream restoration and erosion control. A stream crossing detail is provided in the Plan and Profile drawings.

#### **6.16.1 Contingency Plan**

Prior to the start of construction of the Pines Stream crossing, the Contractor will be required to submit a detailed contingency plan to the Certificate Holder, in the event that a significant wet weather event occurs while the stream is dammed. A flume pipe and pump will be required to be set up to divert the stream flow downstream of the work area. The flume pipe diameter and pump capacity will be sized in accordance with the Plan and Profile drawings in Appendix A. Riprap must be installed to minimize erosion and scouring of the streambed at the discharge point of the bypass.

As part of the Contractor's contingency plan, they will be responsible to monitor and forecast the weather prior to and throughout the duration of the stream crossing. The Contractor will not be allowed to start work within the stream if wet weather is forecasted in excess of one-inch total accumulation. After the water level in Halls Pond is lowered by approximately 12 inches, it will be monitored a minimum of four (4) times per day to confirm its elevation. If the water level increases over time, the Contractor will lower the water level back down to 12 inches below the top of weir to maintain maximum storage capacity. The water level should never exceed 10 inches below top of weir throughout the duration of work.

In the instance of a major wet weather event, the Contractor must immediately stabilize the work area and remove the bypass setup of the culvert and storm drain manhole to allow for unrestricted flow through the stream. The Contractor must have all necessary equipment and materials onsite to proceed with this emergency action plan. The Contractor will provide contact information for an authorized representative that can respond, should any issues arise. If the Contractor identifies any issues, the Certificate Holder and DPS must be notified immediately.

#### **6.17 Fuel, Oil and Chemical Storage Handling**

The Certificate Holder will keep local fire department and emergency management teams apprised of chemicals and waste materials on the construction site. A list of chemicals used or stored at staging areas and their appropriate SDS will be kept on site and provided to the appropriate emergency management entities. Local fire department and emergency management teams will be notified at

least 48 hours prior to the commencement of construction activities within their corresponding jurisdictions.

Personnel working near hazardous chemicals will be fully trained in the use, storage, handling, spill control and first aid measures required for all fuel oil and chemicals in accordance with OSHA's Hazard Communication for construction work standard (29 CFR §1926.59) and (NYSDOT Standard Specifications §107-05). The Environmental Monitor will verify that any non-hazardous material encountered during any activity is properly handled. Personnel responsible for fueling of vehicles will be fully trained in spill prevention and containment and will be provided with copies of the PSEG Long Island Standard Operating Procedures associated with spill prevention and containment.

A majority of fueling will be completed in designated marshalling yard areas. If fueling of construction vehicles and equipment must be accomplished along the Project corridor, a dedicated fuel-dispensing vehicle will be used. Designated fuel-dispensing vehicles will be returned to a designated staging site away from the construction areas. These sites may be either a PSEG Long Island/LIPA Operations Center or other appropriate site. All Certificate Holder and Contractor vehicles working on the Project shall have a spill kit that is appropriate for the volume of fuel carried by the vehicle. Fueling of construction equipment and vehicles must be done on asphalt or concrete and will not occur within 100 feet of any state regulated freshwater wetland or environmentally sensitive areas.

All vehicles and construction equipment will be inspected daily for fluid leaks (oil, hydraulic fluid, transmission fluid, lubricants or brake fluid). Any equipment observed to be leaking will be immediately repaired or removed. All equipment will receive regular preventative maintenance to reduce the risk of leakage. Construction vehicles will be parked at least 100 feet from environmentally sensitive areas whenever practicable. All fuels and fluids are to be stored in proper, labeled containers. Any observation of spills, leaking fluids or improperly stored fluids may trigger the issuance of a stop-work notice until the situation is resolved, including the removal of any soil impacted by the vehicle fluids.

Should any of the above-mentioned hazardous materials or petroleum products be accidentally spilled on the site, the Certificate Holder and/or the Contractor will take immediate action to contain and recover the spilled materials. Spill kits will be kept at the Project corridor, vehicle yards, fuel, oil, and chemical storage areas, and fueling locations. Immediate notification will be made to the

Construction Inspector, who will notify the Project Manager and Environmental Compliance Manager for PSEG Long Island, who will be responsible for making necessary spill reporting requirements to DPS and NYSDEC. Depending on the severity of the spill, emergency response procedures will be undertaken immediately by PSEG Long Island Hazardous Materials Responders or the contractor's designated Spill Response Contractors.

### **6.18 Fugitive Dust Control**

The Certificate Holder will take appropriate measures to minimize fugitive dust and airborne debris from construction activity. Exposed soils shall be wetted as needed during extended dry periods to minimize dust generation. A watering vehicle shall be available and be used as necessary for the duration of project activities. Other dust control measures to be utilized as necessary may include: covers for trucks, maintenance of low construction vehicle speeds, minimized duration of stockpiling of trench soils, minimized height of soil piles, covering soil piles when not in use and restoration of disturbed areas to their pre-construction conditions as soon as practicable. Dust control will conform with the New York State Standards and Specifications for Erosion and Sediment Control (the "Blue Book").

### **6.19 Pesticides and Herbicides**

The Certificate Holder will not use pesticides or herbicides during construction of the Project. Vegetation management activities during operation of the Project will be limited given that the facilities will be primarily located underground. During operation, the above-ground facilities at the East Garden City and Valley Stream Substations will be included in the Certificate Holder's existing annual substation spray program. Any pesticides and herbicides used will be NYSDEC-approved for use in New York State and in Nassau County. Use of herbicides and pesticides must follow NYSDEC laws and regulations and follow EPA registered label requirements. All pesticide or herbicide application methods will be determined by the Certificate Holder's Vegetation Management Organization. Pesticide and herbicide application rates will be in accordance with the label rates for the application technique used.

At the East Garden City and Valley Stream substations, the Certificate Holder's current vegetation management program consists of both bare ground and fence sprays using handheld sprayers in equipment areas. The bare ground application consists of both pre-emergent and post-emergent ingredients in spring, and fence sprays are post-emergent only, later in summer.

The types of pesticide or herbicide currently used in the East Garden City and Valley Stream substations, including the volumes of use of each, are shown in Table 6.19 (Pesticide and Herbicide Use at Substations) below:

*Table 6.19: Pesticide and Herbicide Use at Substations*

<b>Herbicide</b>	<b>Rate Per Acre</b>	<b>Total Volume</b>
<i>Valley Stream (2.6 acres)</i>		
Payload (Flumioxazin)	8 ounces	20.8 ounces
Oust (Sulfometuron methyl)	3 ounces	7.8 ounces
Glyphosate	3 quarts	7.8 quarts
<i>East Garden City (5.2 acres)</i>		
Payload (Flumioxazin)	8 ounces	41.6 ounces
Oust (Sulfometuron methyl)	3 ounces	15.6 ounces
Glyphosate	3 quarts	15.6 quarts

## **6.20 Clean-Up and Restoration**

All disturbed and restored areas will be inspected at least once weekly during construction. Disturbed areas along the Project corridor will be restored to preconstruction grades and conditions.

The Contractor will be required to perform maintenance and cleaning when directed by the Construction Supervisor. Maintenance cleaning includes the removal of debris from any source which, in the opinion of the Construction Supervisor, impedes the flow of traffic or storm water or poses a potential health and safety hazard. In the event the Contractor’s construction vehicles track dirt or other debris outside of the construction area and into the ROW, they will be directed by the Construction Supervisor to perform maintenance cleaning.

Restoration of the disturbed area will include the removal of all construction equipment and material, including tools, parts, junk, rubbish, signs, barriers, excess materials, and debris. Such materials will be disposed of properly (NYSDOT Standard Specifications § 107-11). Residual material from excavations determined to not be suitable for re-use on-site will be disposed of in accordance with all applicable regulations. Soil erosion and sediment control measures must remain in place until the soil is stabilized. Following soil stabilization, erosion and sedimentation controls will be removed from the work area and disposed of appropriately. The Certificate Holder and/or the Contractor will verify that the Project corridor is stabilized upon completion of construction activities.

Clean-up and restoration of the Project corridor will take place as each stage of the installation is completed, with the possible exception of certain planting or seeding of vegetation in laydown or storage areas, which may be delayed until a season with more favorable weather conditions.

### **6.20.1    *Removal of Construction Materials***

No equipment, tools, sheathing, signs, lights, barriers or debris will be left at a completed section of the Facility installation. Existing transmission facility components replaced as part of the Project will be removed from the ROW to appropriate destinations and handled appropriately for re-use as available.

### **6.20.2    *Access and Buffers***

Project construction may necessitate a limited amount of trimming or clearing of shrubs and trees within the ROW to provide unimpeded and safe access to work sites. Trees that provide visual buffers in visually sensitive areas will be retained to the maximum extent practical and only removed if they interfere with construction activities. The visual buffers in sensitive areas will be assessed for replacement after construction activities are complete.

### **6.20.3    *Roadway Restoration***

Roadway features such as road surface, medians and driveways removed or damaged along the Project corridor as a result of normal construction activities will be replaced or restored to at least pre-existing conditions and will be conducted in accordance to the *Rules & Regulations Pertaining to Permits for Work on County Roads and Within County Right-of-Way*. Roadway restoration will be monitored by PSEG Long Island construction management. Access to residences and businesses will be maintained during construction and until roadway restoration is complete.

#### **6.20.3.1    *Paving Replacement***

Restoration includes the replacement of any pavement that is removed or damaged as a result of construction activities. Limits of the pavement restoration have been coordinated and agreed upon with the County and municipalities and are noted in the Plan and Profile Drawings. Replacement is expected to some extent along the entire Project corridor. If other areas of pavement are damaged during construction, they will be replaced accordingly.

#### **6.20.3.2    *Curbs and Sidewalks***

Restoration includes the repair and replacement of curbs and sidewalks. Curbs removed, and sidewalks damaged along the Project corridor during construction will be replaced or restored to at least pre-existing conditions. Sidewalks will be restored to the nearest expansion joint.



## **6.21 Testing and Commissioning**

The Certificate Holder will perform testing and commissioning activities of the cable system as described. A JIT will be performed prior to, and after each cable phase and cable segment installation. Prior to cable splicing and termination activities, proper cable phasing will be verified by electrical continuity tests. Finally, a 24-hour AC Soak Test will be performed on the circuit prior to circuit energization.

## 7.0 PLAN AND PROFILE DRAWINGS

The Plan and Profile drawings in Appendix A detail the boundaries of the Project ROW and depict the location, depth and size of the duct bank and each Facility splice vault structure. There are typical duct bank sections showing minimum depth requirements, minimum trench width, acceptable soil backfill, conduit configurations, circuit phasing, warning tape and final grade substrate. Typical sections also depict stockpiling, and utility crossings.

Each abutting property has been assigned a unique identifying number, in place of its known address. These line list numbers are provided on the table on pages F105735 to F105743 of the Plan and Profile drawings.

Utilities and natural features shown on the Plan and Profile drawings are based on field surveys and record documents. Other facilities may exist although they were not discovered through the field work. Before construction commences, the Contractor shall verify the exact location of all utilities through appropriate utilities companies. Duct bank locations are subject to adjustments due to unforeseen conditions. A PE will be notified and will need to approve any adjustments to the Certified duct bank alignment. Any significant changes to the duct bank alignment will be resolved to the satisfaction of the on-site DPS representative.

The duct bank shall maintain a minimum cover depth of 3'- 6" unless otherwise shown on the Plan and Profile drawings. The duct bank shall maintain a one-foot vertical clearance over or under any existing utilities unless otherwise noted on the Plan and Profile drawings. The maximum depth of cover, as measured at any point of buried splice vault, shall be 1'-6' unless otherwise shown on the Plan and Profile drawings.