

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

At a session of the Public Service
Commission held in the City of
Albany on September 19, 2013

COMMISSIONERS PRESENT:

Audrey Zibelman, Chair
Patricia L. Acampora
Garry A. Brown
Gregg C. Sayre
Diane X. Burman

CASE 11-T-0068 - Petition of Niagara Mohawk Power Corporation
d/b/a National Grid for a Certificate of
Environmental Compatibility and Public Need for
the Reconstruction of Approximately 14 Miles of
115 kV Double-Circuit Electric Transmission
Facilities from the Mohican Substation in
Saratoga County to the Battenkill Substation in
Washington County.

ORDER GRANTING CERTIFICATE OF ENVIRONMENTAL
COMPATIBILITY AND PUBLIC NEED AND CLEAN WATER ACT §401
WATER QUALITY CERTIFICATION

(Issued and Effective September 24, 2013)

BY THE COMMISSION:

INTRODUCTION

In February 2011, Niagara Mohawk Power Corporation
d/b/a National Grid (National Grid or Applicant) applied for a
Certificate of Environmental Compatibility and Public Need
(Certificate), pursuant to Public Service Law (PSL) Article VII.
The Certificate would authorize National Grid to reconstruct and
reconductor roughly 14.2 miles of two of its 115 kV electric
transmission lines. The two lines are the Mohican-to-Battenkill
Line 15 (Line 15) and the portion of the Mohican Luther Forest
Line 3 between the Mohican Substation in Saratoga County and the
Battenkill Substation in Washington County (Line 3 Segment)

(together, the proposed rebuild and reconductoring of these lines is referred to as the Project, while the resulting rebuilt and reconductored lines are referred to as the Facility). The purpose of the Project is to help relieve current and projected load constraints in National Grid's Northeast Region.

By letter dated March 18, 2011, National Grid was notified that its February 2011 application contained several deficiencies that needed to be cured before the application could be deemed to comply with PSL §122. National Grid filed a supplement to its application on May 9, 2011. By letter dated May 18, 2011, National Grid was informed that its application complied with PSL §122 as of May 9, 2011.

On July 21, 2011, public statement hearings and a preliminary conference were held in Fort Edward at the Washington County Municipal Center.¹ No members of the public attended the public statement hearings. On August 4, 2011, a ruling adopting a consensus settlement schedule was issued. By letters dated August 9 and 10, 2011, Applicant provided its Notice of Intent to Enter Settlement Negotiations, which was filed with us and served on all parties in accordance with our rules.² Thereafter, Applicant, New York State Department of Public Service Staff (DPS Staff), New York State Department of Environmental Conservation (DEC) and New York State Department

¹ Notices of the public statement hearings were duly published in local newspapers prior to the hearings and copies of the notices were mailed to individuals or entities who owned property abutting the rights-of-way for the proposed and alternate routes. See letter dated August 8, 2011 to PSC Secretary Brillling from Lisa M. Zafonte, Esq., National Grid Senior Counsel submitting affidavits of publication, and letter dated June 27, 2011 to Lisa M. Zafonte, Esq., National Grid Senior Counsel from Administrative Law Judge Michelle L. Phillips.

² The notice was reported to us, in accordance with 16 NYCRR 3.9, on August 10, 2011.

of Agriculture and Markets (Agriculture and Markets) engaged in settlement negotiations, periodically providing status reports to the Administrative Law Judge and requesting additional time to continue their efforts to reach a settlement. The negotiations ultimately led to the filing, on June 6, 2013, of a Joint Proposal (JP) that was signed by Applicant, DPS Staff, DEC and Agriculture and Markets. These parties also filed statements in support of the JP on June 20, 2013. No statements were filed in opposition to the JP.

On June 21, 2013, a Notice of the Joint Proposal and Opportunity for Public Comment was issued. Public comments were submitted by the Planning Board of the Town of Easton. At an August 2, 2013 evidentiary hearing, the Signatory Parties answered questions regarding the terms and proposals set forth in the JP.

Description of the Proposed Facilities³

As noted above, the Project entails the reconstruction and reconductoring of portions of two existing 115 kV National Grid electric transmission lines over a distance of approximately 14.2 miles. The Facility has been designed to operate at a nominal system voltage of 115 kV alternating current (AC), mostly using a single 795,000 circular mills 26/7 Aluminum Conductor, Steel Reinforced (ACSR) Drake conductor.⁴ The insulator design will be predominantly suspension-type porcelain ball-and-socket insulators, all of which will be dark brown. The average height of the proposed Facility will be 85 feet and the average span will be about 600 feet.

³ The following is a summary of the Description of Facility Location, set forth in JP Appendix B.

⁴ The span across the Battenkill River will use a 1113 MCM (or thousand circular mills) 54/19 "Finch" conductor.

Several different structure types will be used, but all will be self-supporting, weathering tubular steel pole structures which will, over time, become a rusty brown color. From the Mohican Substation to Mile 0.2, proposed Line 15 will be supported on single circuit tubular steel structures, and the proposed Line 3 Segment will be supported on a single circuit vertically-configured dead-end structure. From Mile 0.1 to the Battenkill Substation, the currently-existing double circuit lattice tower structures will be replaced by double circuit tubular steel structures.

The Facility right-of-way (ROW) is located in the Towns of Moreau, Fort Edward, Greenwich, and Easton, in Washington and Saratoga Counties. It varies in width from approximately 100 feet to 175 feet. With the exceptions noted in JP Appendix B, the centerline of the Facility from Mile 0.1 to Mile 11.9 will be placed to the east of the existing lines but still inside the existing ROW so that the new structures and conductors along this section of the ROW may be installed prior to removal of the existing ones. Between Mile 11.9 and the Battenkill Substation, a distance of 2.3 miles, the Facility will be offset to the east of the existing lines by approximately five feet. Additional permanent easement rights ranging in width from 10 feet to 25 feet will be required at various locations along the ROW to construct the Facility and to safely and reliably operate and maintain it.

At various segments, the alignment of the Facility differs from what was proposed in the application. Such changes are the result of the discussions among the JP Signatories and are designed to minimize impacts by avoiding additional permanent easements rights for vegetation clearing; mitigate visual impacts associated with the Hudson River crossing; address site constraints associated with a DEC-regulated

wetland; and avoid an archeological site. Also, in order to minimize the duration of outage to a specific transmission-level customer during construction, a temporary by-pass line, consisting of two wood pole structures, will be constructed near Mile 1.0, slightly south of existing structure 93.5. The total length of the proposed by-pass line (about 250 feet) will require temporary property rights to accommodate the conductor's location above a small parcel of land. A minor reconfiguration of existing sub-transmission assets near Mile 12.6 and Mile 13.3 also will be required to ensure safe construction.

Other Permits

National Grid requests that we issue a water quality certificate pursuant to §401 of the Federal Water Pollution Control Act (commonly referred to as the Clean Water Act).⁵ The water quality certificate states that the transmission facility will comply with the applicable requirements of the Clean Water Act and will not violate any New York State water quality standards and requirements.

National Grid also must obtain, as required, New York State Department of Transportation highway work and use permits; U.S. Army Corps of Engineers (USACE) permits for construction in federal wetlands affected by the facility; a permit pursuant to §404 of the Federal Clean Water Act, if one is necessary for construction; a permit pursuant to §10 of the Rivers and Harbors Act; the State Pollutant Discharge Elimination System (SPDES) General Permit; and evidence of a Federal Aviation Administration (FAA) determination that the final design of the structures proposed for the Facility will have no impact (or will have impacts mitigated by FAA-directed modifications to

⁵ The WQC would be signed by the Department of Public Service's Director of the Office of Energy Efficiency and the Environment. See JP Appendix F.

such final design) on the three public-use airports that are within 20,000 feet of the Facility ROW.⁶

The Joint Proposal

The JP addresses many factors that are relevant to the proposed transmission facility, specifically including its need and environmental compatibility, as well as the other statutory findings required for the issuance of an Article VII certificate. These areas are briefly discussed below.

Basis of the Need - Electric System Requirements

According to the JP, and as advocated by Applicant and DPS Staff, this rebuild is needed to help relieve the current thermal and projected load constraints in National Grid's Northeast Region. The Northeast Region encompasses the Greater Saratoga area and parts of Schenectady and Rensselaer Counties, including the Luther Forest Technology Campus and GLOBALFOUNDRIES.⁷ National Grid developed a long-range (ten-year) plan for providing reliable electric service within the Northeast Region referred to as the Northeast Region Reinforcement Plan (NRRP).

If the Project is not completed, the current condition of the existing facility presents the risk that Line 15 will be exposed to post-contingency thermal overloads, which could physically damage the line and cause interruption of electric service to thousands of customers in the Northeast Region. The Project is one of a number of planned reinforcements designed to address the current and long-range needs of the Northeast Region. According to the terms of the JP, power-flow analyses performed by National Grid that encompass load growth through

⁶ See, e.g., JP Appendix D, Certificate Conditions 73 and 89.

⁷ GLOBALFOUNDRIES, located in the Luther Forest Technology Campus, began receiving transmission service on October 18, 2010. JP ¶12.

2012 demonstrate need by showing that the Project will relieve the post-contingency overloads that the various analyses show are affecting Line 15.⁸

The copper conductor currently on the Line 3 segment has an expected life of 85-90 years. When this application was filed, it had been in service for approximately 85 years. Given its advanced age, reconductoring of the entire 37.4 miles of Line 3 would need to occur soon, likely in the next decade. The estimated cost of reconductoring the 14.2 mile Line 3 Segment as an integral component of this Project is approximately 1/10 the estimated cost of a separate reconductoring project on the entire 37.4 miles of Line 3.⁹

The JP indicates that the projected cost of the Facility is \$31.5 million (in 2010 dollars), and that the Facility as proposed is the least costly of the alternative routes and alternative means that were examined in this proceeding.¹⁰

Probable Environmental Impacts

The JP states that the application, testimony and exhibits supplied for the record describe the nature of the probable environmental impacts of the Facility. The JP summarizes the environmental impacts as they relate to the following areas: land use; visual resources; cultural resources; terrestrial ecology and wildlife resources; wetland

⁸ JP, pp. 6-8.

⁹ Hearing Exhibit 13, pp. E-4-3 to E-4-4.

¹⁰ JP, p. 8. The recently updated cost estimate for this project is \$41 million (in 2013 dollars). See letter dated August 12, 2013 to Michelle L. Phillips, Administrative Law Judge, from Lisa Zafonte, Esq.

and water resources; topography and soils; transportation; noise and debris; communications; and electric and magnetic fields.¹¹ The JP notes that the selected route, access points, and configuration of the Facility mostly use existing ROW, and they avoid or minimize the disturbance of natural habitat and of residential and commercial properties and activities, and traffic and emergency operations. It adds that nearly all impacts will be minimal and limited to temporary, construction-related disturbance and inconvenience.

Land use

The JP says that the rebuild and reconductoring of the Facility would occur primarily within the existing ROW, which, with a few exceptions, National Grid owns in fee. Current land uses in the area in and surrounding the transmission corridor are mostly rural communities and agricultural fields, with river and stream crossings.¹² National Grid will need to acquire new permanent easement rights along certain segments of the existing ROW, typically about 15 to 25 feet wide. These new easement rights will be used for one or more of the following purposes: vegetation management, danger tree clearance, construction work space, environmental mitigation measures, and access roads.¹³

No change to existing residential use adjacent to the ROW or in surrounding areas is anticipated. However, the precise fee-owned ROW boundaries will be further investigated to find any potential encroachments within the existing ROW. Abutting property owners or occupants will be contacted by

¹¹ JP, pp. 9-34.

¹² JP, p. 10; Hearing Exhibit 4.

¹³ JP, p. 10 and Appendix B, p. 6; Hearing Exhibit 2. The total estimated acreage for the permanent easements is roughly 39 acres. Danger tree rights will be required for the entire length of the Facility but already are possessed by National Grid in many locations. JP, p. 10.

Applicant and afforded an opportunity to remove any encroaching structures or uses prior to construction.¹⁴

With respect to local highways, users may experience short-term and temporary disturbance and inconvenience of the type typically associated with construction activities. Such impacts, however, are minimized by operation of certificate conditions requiring National Grid to provide timely information to adjacent residents regarding the planned construction activities and schedule. In addition, National Grid will coordinate with New York State Department of Transportation (NYSDOT), county officials, and local police departments to develop and implement traffic control measures to ensure safe and adequate traffic operations along roadways used by construction vehicles.

In the approximately 9.2 miles of designated Agricultural Districts traversed by the Project, the many active agricultural activities currently taking place on National Grid's fee-owned ROW are expected to continue upon the completion of construction. National Grid will minimize any short-term disruption to farming activities through the scheduling, planning, and use of site-specific protection measures. No long-term impacts on farming or agricultural activities are anticipated; however, agricultural operations on the Facility ROW may be disrupted for a single season, depending upon the timing of construction. National Grid will comply with

¹⁴ National Grid already has identified one encroachment -- a barn located partially on the existing ROW near existing structure 184. Asserting that it is not compatible with the safe operation of the Facility, the Signatories have agreed that the barn will be removed before the Facility is energized. JP ¶25. According to witness testimony, the owner of the barn is aware of the parties' position regarding the barn's removal and negotiations regarding the proper compensation for the loss of the barn as a storage building are ongoing. Tr. 24-25, 44-45.

Agriculture and Markets' recommendations and the protection measures set forth in Section N of JP Appendix D. No adverse impacts on active agricultural lands or designated Agricultural Districts or permanent impacts to agricultural land use are anticipated.

Visual Resources

The portion of Saratoga County in which the Facility ROW is located is dominated by agricultural and rural residential landscapes. The existing lines begin just east of South Glens Falls, a town of about 3,300 people. They pass through mostly wooded and wetland areas before paralleling neighborhood streets and crossing several steep-sided ravines, a golf course and some open agricultural fields. After the line crosses the Hudson River, the ROW is located in Washington County, where the landscape is predominantly open agricultural fields with occasional stream crossings and associated wetlands, ultimately passing through the towns of Fort Edward and Greenwich with populations of approximately 6,000 and 5,000, respectively. The Facility ROW continues out of Greenwich, over the Battenkill River to the town of Easton where it terminates at the Battenkill Substation.

Consistent with our regulatory requirements, Applicant conducted a review to determine the location of places that are listed on the National Register of Historic Places (NRHP) relative to the proposed Facility ROW. Most of the 60 individual properties, districts and complexes that were found to be listed on the NRHP are located northwest of the Mohican Substation and are screened from long-range views of the Facility by mature vegetation. The Facility ROW crosses the Champlain Barge Canal, which has been determined eligible for inclusion on the NRHP. Placement of the segment of the Facility where the Project crosses the Canal is centered on the existing

centerline, thus eliminating any need for additional permanent easement rights and minimizing any additional visual impacts. Other than the Canal crossing, the nearest historic above-ground resource is approximately one-half mile from the Facility ROW.

The vegetation characteristics within the Facility ROW will temporarily change during construction of the Project, due to the mowing and clearing that will be necessary to accommodate safe access and workspace for construction. Post-construction, the vegetation in the Facility ROW will be maintained in accordance with National Grid's approved Transmission Right-of-Way Management Program (TROWMP),¹⁵ and will consist of compatible tree, shrub and herbaceous species vegetation similar to what presently exists.

The Facility will be located approximately 50 feet or less from the centerline of the existing steel lattice structures (which are not located on the centerline of the existing ROW). The average height of the new structures will be approximately 85 feet, an average 15 feet taller than the existing structures. The increase is necessitated by the more stringent clearance criteria set forth in the 2012 Edition of the National Electrical Safety Code, or by the New York State DOT, New York State Thruway Authority, other State of New York departments and agencies, and others with authority (e.g., railroads). The proposed structures will be constructed of self-weathering steel which will, over time, become brown in

¹⁵ We periodically review and approve National Grid's TROWMP, the most recent being the one we approved in Case 10-E-0155, Proceeding on Motion of the Commission as to New York State's Electric Utility Transmission Right-of-Way Management Practices, Order Adopting Recommendations (issued May 27, 2011). However, in every instance where the TROWMP is mentioned, in the JP the parties intend it to refer to the latest Commission-approved, then applicable Right-of-Way Management Plan. Tr. 36-39.

color, ultimately providing a low-contrast appearance in the mostly rural and forested surrounding landscape and thus minimizing visual contrasts.

Cultural Resources

The JP reports that an archaeological sensitivity assessment was conducted by Hartgen Archaeological Associates, Inc. (HAA) to review the Facility ROW for archaeological and historic architectural resources.¹⁶ Though a total of 86 recorded archaeological sites were identified within one mile of the Project area, only one site was identified within the Project area, and two recorded sites were identified adjacent to the Facility ROW. A total of 208 aboveground properties listed or determined eligible for inclusion on the NRHP were identified within 3 miles of the Facility ROW, but only one resource, the Champlain Barge Canal, was located in the Project area. Because the Facility will be an overhead transmission line, with poles located on high points well above and on either side of the Canal and its associated features, the Canal will not be affected by Project construction. In addition, as a rebuild of an existing line, the Facility will not cause a significant change in the Canal's setting.

With respect to the two archeological sites along the ROW, additional evaluations were conducted, resulting in the relocation of proposed structure 81 and the performance of retrieval work near proposed structure 33 and the submission of

¹⁶ In the Phase 1A report, HAA found that sections of the Facility ROW along the northern end of the route are high sensitivity for pre-contact resources and historic cultural resources, given mapped nearby historic structures and that the southern section is indicative of modern condition and prior disturbance due to line construction and is therefore considered low sensitivity. HAA further found that areas of steep slopes and wetlands are considered to have no archeological potential.

a written report and findings of said retrieval to OPRHP for review and comment. OPRHP review is ongoing and the parties indicate that the final report will be included in the Environmental Management & Construction Plan (EM&CP) filing.¹⁷ Based on its field evaluations of the Temporary By-Pass and Sub-T Reconfiguration areas in April 2013, HAA recommended no additional archeological site evaluation for either area. HAA's May 10, 2013 written report of the results and findings of its field evaluations were submitted to OPRHP for comment and approval. At the evidentiary hearing, a National Grid witness testified that OPRHP has responded, stating it had no further concerns regarding the area studied and that the archeological work at those sites has been completed.¹⁸

Terrestrial Ecology and Wildlife Resources

Because the rebuilt and reconductored transmission lines will be located wholly within the existing ROW, and construction activities will be conducted on that ROW and on a small amount of abutting land for which National Grid will acquire property rights, the JP says that significant wildlife habitat loss or conversion will be avoided. Vegetative impacts will be primarily associated with disturbance along temporary and permanent access roads and at structure work areas. As noted above, within the Facility ROW, trees and shrubs will be mowed or cleared to provide unimpeded and safe access to proposed structure work sites. National Grid, however, will restore the ROW in accordance with the Certificate Conditions

¹⁷ At the evidentiary hearing, the parties reported that OPRHP cannot complete its review until the U.S. Army Corps of Engineers (USACE) completes its review; they however expect USACE review to be completed prior to the filing of the EM&CP. Accordingly, the final report would be included in the EM&CP filing. Tr. 39-41.

¹⁸ See Tr. 48.

and as detailed in the approved EM&CP. Any newly acquired permanent easement areas and danger tree easement areas will be maintained in accordance with National Grid's Commission-approved TROWMP. Maintenance will include removal of tall-growing species, but compatible medium-growing species and woody shrubs will be allowed to re-vegetate. In short, there are no anticipated, significant long-term impacts to any vegetative communities as a result of constructing the Facility.

In addition, wildlife use within and adjacent to the ROW is not anticipated to measurably change as a result of the Project. Post-construction, vegetative cover and food sources are expected to be restored with early succession shrublands and open meadow species that are typical of the existing ROW.

Clearing, construction, and operation are not expected to adversely affect wildlife habitat or be a significant factor in the survival of any wildlife species. Those wildlife species utilizing any areas of scrub-shrub or woodlands where clearing is proposed may be temporarily affected by the loss of woody species for food, shelter and nesting; however, the wooded areas located adjacent to or in close proximity to the Facility ROW will be unaffected and will continue to provide this habitat component.

A large portion of the existing plant communities that are in early successional stages will remain unaltered by the Project. Therefore, wildlife species that utilize these cover types will be largely unaffected as they will continue to have a significant amount of suitable habitat available within the Facility ROW. Due to the linear nature of rebuild activities, impacts are anticipated to be brief within any given area. Wildlife patterns of movement are expected to return to normal following the completion of the construction activities at a given site.

The Indiana Bat, identified as an "endangered species" by the U.S. Fish & Wildlife Service (USFWS), is known to occur in the vicinity of the Project area. However, because this species travels and forages over long distances, temporary disturbance in a localized area from construction of the Project will not have an adverse effect on normal foraging activity. In addition, there are no known roosting locations for the Indiana Bat in the Project area. Nonetheless, National Grid will comply with the USFWS' recommendation to conduct clearing in Washington County only between October 1 and March 31 when the Indiana Bats hibernate.

The Karner Blue Butterfly, identified as an "endangered species" by the USFWS, also is known to occur in the vicinity of the Project area. Again, because this species travels and forages over long distances, temporary disturbance in a localized area from construction of the Facility will not have an adverse effect on normal foraging activity. Neither this species nor its habitat (wild blue lupine) are known to occur along or adjacent to the Facility ROW; moreover, there are no recent records of Karner Blue Butterfly in this area. Therefore, construction of the Facility is not expected to impact the Karner Blue Butterfly or its habitat.

The following species are listed as "threatened" or "endangered" by New York State and are known to occur in the vicinity of the Project area: the Northern Harrier; the Upland Sandpiper; the Short-eared Owl; and the Bald Eagle (also federally protected). In order to mitigate any impacts on these species, National Grid will perform surveys to determine if the species are present or actively nesting; implement avoidance measures such as temporarily limiting clearing or construction; and notify the DPS and DEC within 24 hours of observing any rare, threatened, or endangered species exhibiting nesting

behavior within any portion of the Facility ROW. No impacts are anticipated and no mitigation is proposed for the Hooker's Orchid, listed by New York as "endangered" or the Small Whorled Pagonia (listed as a state-endangered and federal-threatened species) because these species have not been sighted since 1912 and 1875, respectively.

Wetland and Water Resources

The JP notes that a variety of meadows, marshes and scrub-shrub wetlands associated with rivers, perennial streams and intermittent streams occur within the Facility ROW. Of the 46 wetlands within the Facility ROW that were delineated in the field in May of 2010, only one is designated as a DEC-regulated wetland. Other wetlands, many of which appear on the National Wetlands Inventory (NWI) mapping for the Project area, are regulated by the USACE under the Clean Water Act (CWA). There are eleven NWI mapped wetlands in the Project area.

Though the Facility ROW crosses the Hudson and Battenkill Rivers (as well as several small streams), neither river will be affected by construction of the Facility because the line crosses them overhead, with poles located on high points well above and on either side of the river and its associated features. By locating the Facility entirely within the existing ROW, National Grid avoids significant or adverse impacts to wetlands and stream resources. Permanent impacts to wetlands and adjacent areas associated with the placement of structures will be minimized to the extent practicable by locating structures outside of wetlands where possible. Existing access roads to the Facility ROW will be used as much as possible for the construction of the Facility. Moreover, to the extent practicable, the construction of new permanent roads in wetlands will be avoided and, as further specified in the proposed EM&CP, tracked vehicles and temporary mats will be used

as necessary when working in wetlands and near stream banks to protect vegetation root systems, reduce compaction, and minimize ruts. In addition, if possible, work activities in wetlands will be scheduled during dry or frozen periods to facilitate access and minimize disturbance. Any impacts which cannot be avoided will be mitigated in consultation with the appropriate governmental agency.

Proposed tree clearing will result in some minor conversion of forested wetland to scrub-shrub/emergent wetland, but this conversion is not anticipated to significantly affect wetland functions or wildlife use. However, any impacts which cannot be avoided will be mitigated in consultation with the appropriate governmental agency.

As noted above, there is one DEC-regulated wetland traversed by the Facility ROW, located in the Town of Moreau. Due to site constraints, it will be necessary to locate one structure in this DEC-regulated wetland.

There are twenty-three (23) structures that are currently proposed to be sited within other existing wetland resource areas; the proposed EM&CP will elaborate on the activities proposed to occur in the wetlands and will prescribe site-specific protection measures and mitigation for impacts which cannot be avoided. Authorization from the USACE will be sought by Applicant and it is anticipated that the construction activities in wetland areas will be authorized by the USACE under Section 404 of the CWA (33 U.S.C. §1344).

Topography and Soils

The JP states that there are no topography- or soil-related impacts anticipated as a result of the Project. There are no unique geologic or topographic features that will be permanently affected by construction of the Facility or its operation and maintenance. Temporary environmental effects

during construction related to topography and soils would most likely occur in areas of steep slopes or areas where activities could result in significant ground disturbance. The proposed EM&CP will specify the avoidance, minimization, and mitigation measures for disturbed soils and topography along the Facility ROW and access roads.

Transportation

The JP notes there are three public-use airports within 20,000 feet of the Facility ROW, and that, in response to National Grid's submission of the FAA Notice of Proposed Construction or Alteration for the Project, the FAA found that the initial design of the structures proposed for the Project will have no impact on these airports. National Grid intends, after the design is finalized and set forth in the approved EM&CP, to re-submit for FAA review, those structure final design elements that differ from the initial designs.

The Facility ROW does not parallel any railroad corridors but does cross over railroad corridors in the Towns of Moreau (owned by Delaware & Hudson Railway) and Greenwich (owned by Batten Kill Railroad). The final designs for the Facility will incorporate appropriate transmission facility design criteria, line clearance requirements, and railroad safety clearances. National Grid will review the Facility design with the railroad companies in parallel with the development of proposed EM&CP drawings associated with the Project. Specific drawings detailing rail crossings, in conformance with the appropriate rail entity specifications, will be developed and submitted with the proposed EM&CP. Construction activities will be coordinated with the railroad companies to ensure that construction activities do not conflict with railroad operations and freight movements and to ensure that appropriate railroad safety precautions are implemented.

The Facility ROW crosses 17 state, county, and local roadways in Saratoga and Washington Counties. During construction, the Facility ROW will be accessed from these road crossings and existing access entrances and drives will be used to the extent possible. The proposed EM&CP will show the location and type of all access points and will identify whether they are new or existing. Construction access points from local roads will be located to ensure maintenance of safe traffic operations at the road crossings.

To ensure safe and continued traffic flow, to maintain access to local residences, and to provide a safe construction work zone near the edge or within a traffic lane for construction activities within the road right-of-way, a Maintenance and Protection of Traffic Plan will be developed for each location where construction vehicles will access the Facility ROW frequently from local roadways. To minimize potential conflicts with traffic patterns and lane usage, National Grid has located transmission structures outside of road rights-of-way and as far from road crossings as feasible.

The number of trips generated by the construction crews for Facility ROW clearing, transmission structure erection, and conductor stringing will be minimal and short-term. Construction-related truck traffic will consist of equipment and material deliveries to the structure sites and removal of cleared vegetation and construction debris from the ROW.

The locations of construction marshalling yards and staging areas will be selected so as to minimize cost, delay, and environmental impact; their locations will be identified in the proposed EM&CP. All necessary permits will be obtained for delivery of oversized components. Soil washed, dropped, spilled, or tracked onto public rights-of-way will be removed at

the end of each work day, or more often if a safety hazard is created.

All work within state highway rights-of-way will be designed and performed in accordance with the traffic and safety standards and other applicable substantive requirements. For trails and any other pedestrian paths or multi-purpose trails that could be impacted by Facility construction identified during the development of the proposed EM&CP, National Grid will implement appropriate construction safety practices to prevent unauthorized access to construction work zones and otherwise avoid potential safety conflicts during construction activities.

Noise and Debris

There are no residences within 50 feet of the edge of the existing ROW, but there are about 20 residences within 50 to 100 feet of the edge of the existing ROW. To minimize disturbance to nearby residences, construction activities will be limited to 7:00 a.m. to 6:00 p.m., Monday through Saturday. Construction noise will be temporary, of short duration (3 to 5 days at each structure site) and vary according to the equipment in use and existing background or ambient noise. No one residence will be exposed to significant noise levels for an extended period. After the Facility is built, its operation will not result in any significant adverse noise impacts.

High-traffic areas will be covered with gravel, and exposed soils and roadways will be wetted as needed during extended dry periods to minimize dust generation.

Communications

The JP indicates that the Facility is not expected to result in any interference with radio, television, cell reception, or public safety communications. It specifies that National Grid will comply with applicable provisions of the National Electrical Safety Code (NESC) related to appropriate

spacing between the Facility and communication facilities. If there are any reports of possible interference along the Facility ROW, Applicant will document them and take appropriate follow-up action. National Grid's Customer Service Division is staffed by people trained to direct complaints to the appropriate company department.

Electric and Magnetic Fields

Opinion No. 78-13 (in Cases 26529 and 26559), effective June 19, 1978, established the Commission's interim standard for an electric field strength of 1.6 kV/m at the edge of the ROW as calculated at one meter above ground, with the line at rated voltage. The JP reports that the calculated electric field ranges from 0.03kV/m to 1.03kV/m for the various cross sections analyzed, and thus is within the standard limit.

The Commission's Statement of Interim Policy on Magnetic Fields of Major Electric Transmission Facilities (in Cases 26529 and 26559), effective September 11, 1990, set a limit for magnetic fields of 200 milliGauss (mG) at the edge of the ROW as measured at one meter above ground when the circuit phase currents are equal to the winter-normal conductor rating. The JP reports that the calculated magnetic field for the winter normal rating varies from 7.45 mG to 165.29 mG at the edge of the right-of-way for the various Facility cross sections investigated, and thus is within the standard limit.

The EMF Study indicates that the maximum calculated electric and magnetic fields are within the Commission's guidelines in all cases.

Invasive Species

The JP states that, at DPS Staff and DEC's request, National Grid conducted a pre-construction inventory of invasive plant species along the ROW, consistent with the methodology contained in Exhibit 21, Best Management Practices for Article

VII Electric Transmission Line Projects, to determine the presence and relative abundance of invasive species on the ROW. Ubiquitous along the ROW are: Morrow honeysuckle, purple loosestrife, and common buckthorn. Other, sporadically occurring invasive species include the multi-flora rose, Russian olive, spotted knapweed, reed canary grass, Oriental bittersweet, and Canada thistle. The complete and detailed results of the survey are contained in Hearing Exhibit 29 (National Grid Invasive Species Survey (August 2011) -- Inventory and Maps).

During development of the EM&CP, National Grid will meet with the appropriate representatives of DPS Staff, DEC's Regional Natural Resource Section and Agriculture and Markets to determine plant and insect species of special concern and to develop a tiered evaluation to categorize the level of priority for further action during the construction process and to prescribe site-specific measures to be employed within each tier that are aimed at reducing the potential spread or introduction of invasive species. All such site-specific protection measures will be identified on the EM&CP Plan and Profile drawings. And, additional requirements, specified in the Certificate Conditions and in Hearing Exhibit 21, are proposed in order to control and prevent the transport of invasive species during construction, with particular attention to DEC-regulated Wetland HF-1.

Alternatives

The JP indicates that the Facility as located and configured is preferable, considering all factors, because the Project is a rebuild of an existing line and thus mostly uses an existing right-of-way and avoids increased land-use conflicts and impacts, environmental impacts, and ROW maintenance costs.¹⁹

¹⁹ JP, p. 36.

According to the JP, alternative routes would present greater environmental and cost impacts.²⁰ The alternatives that were considered included alternative routes, undergrounding, and alternative methods of fulfilling the energy requirements.²¹

Two alternative routes and undergrounding of the Facility were considered. Each of the alternatives was rejected, in part, due to the need for additional electrical transmission ROW for between half and almost all of the length of the line and to acquire and use virgin ROW due to the absence of other infrastructure between the Mohican and Battenkill Substations. They also were rejected because of the attendant increases in construction cost, construction challenges, and the need for additional ROW and ROW access they would engender, along with the abandonment of improvements made on the existing facility that would be required.²²

A no-build alternative is described as not viable or effective because it does not serve the growing Northeast Region load, eliminate projected thermal overloads on Line 15 under certain conditions, or address asset-condition issues on the Line 3 Segment. With respect to demand response, the JP notes that there is insufficient potential for demand response in the region to reduce regional peak load by the necessary amount and in the necessary time frame; it cites, as support, a document included in Hearing Exhibit 31 entitled "A National Assessment of Demand Response Potential."

The undergrounding alternative is deemed to be unwarranted because the provision of a reasonably equivalent underground transmission system would require several different cable segments and intermediate switching stations, and higher

²⁰ JP, p. 36-37.

²¹ JP, pp. 37-38.

²² JP, pp. 36-37.

costs, systemic and operational issues, and increased construction impacts and potential environmental impacts. The JP recounts the Signatories' conclusion that the visual impacts of the Project's contemplated overhead transmission lines do not warrant further consideration of undergrounding alternatives.

Long-Range Plans and System Impact Studies

The JP notes the Project is one of a number of planned reinforcements intended to address the present and long-range needs of the Northeast Region. It states that failure to perform the Project will expose Line 15 to post-contingency thermal overloads, which could physically damage Line 15, and cause interruption of electric service to thousands of customers in the Northeast Region. It indicates that these statements are supported by power-flow analyses set forth in Hearing Exhibit 13, and a System Impact Study (SIS) for the "Northeast NY Reinforcement Project" that was performed in cooperation with the New York Independent System Operator (NYISO) and approved by the NYISO's Operating Committee in December 2009.

State and Local Laws

In Hearing Exhibit 7, National Grid identifies, for each local jurisdiction, every substantive local legal provision (ordinance, law, regulation, standard, and requirement) potentially applicable to the Project and every such local legal provision that National Grid requests we not apply because, as applied to the Project, such local legal provision is unreasonably restrictive in view of the existing technology, factors of costs or economics, or the needs of consumers. The following are examples of local laws National Grid requests the we not apply, as well as the corresponding justifications for such requests: (i) noise, odor, emission and vibration prohibitions, on the grounds that these impacts from construction equipment are technically impossible or

impracticable to limit to levels specified in the ordinances, and mitigation will be accomplished by the Project's use of industry standard methods that muffle heavy equipment noise and emissions and that suppress the spread of dust and fly ash; (ii) prohibitions on sign placement near utility poles, on the grounds that the placement of warning and safety signs is warranted and appropriate to most effectively warn the general public of dangers associated with energized electrical equipment; (iii) minimum lot width, frontage, and depth requirements, because these requirements have no necessary nexus or relevance when considered in light of National Grid's contiguous linear ROW lots; (iv) maximum height requirements, because compliance is technologically impossible; (v) shielding and/or screening requirements and prohibitions on cutting existing vegetation, on the grounds that these requirements cannot be reconciled with the Clearing and Slash Disposal Procedures in the proposed EM&CP and National Grid's Commission-approved TROWMP; (vi) road width minimums as applied to Project access roads, on the ground that these requirements provide no benefit in light of the very limited purposes for which National Grid will use access roads; (vii) utility undergrounding requirements, because they would impose an unreasonably high cost; (viii) the prohibition on construction or development within federally-designated wetlands as applied to a particular structure, on the grounds that disturbance to the federally designated wetland is unavoidable and National Grid's proposed approach will create the least disturbance in this location; and (ix) prohibitions on creation of electrical disturbances, on the grounds that it is impossible to design and build the Project such that it would emit no electric or magnetic fields and National Grid will implement electric disturbance mitigation

measures by complying with the Commission's standards for electric and magnetic fields.

The JP states that, with the exception of the provisions National Grid specifically requests that we refuse to apply, National Grid will comply with, and the location of the Facility as proposed conforms to, all substantive State and local legal provisions that are applicable to the Project.

Public Outreach

The JP highlights the public outreach that was conducted by National Grid regarding the application, including the legal notice of the filing that was published for two consecutive weeks prior to the Article VII application filing in the Saratogian, the Glens Falls Post Star, and the (Albany) Times Union; National Grid's provision of copies of the application for public inspection to the Argyle Free Library, the Cambridge Public Library, the Corinth Free Library, the Crandall Public Library, the Easton Library, the Fort Edward Free Library, the Greenwich Free Library, the Hudson Fall Free Library and the Schuylerville Public Library; letters to owners of property adjacent to the Facility ROW in April 2010 and November 2010, which explained the Project and provided a toll-free number for people seeking additional information about the Project²³; meetings held between October 22 and November 5, 2010 between National Grid representatives and representatives of all

²³ A copy of the Commission's Notice of Joint Proposal and Opportunity for Public Comment for this proceeding, issued on June 21, 2013; a cover letter highlighting National Grid's proposal to acquire new permanent easements along the project ROW and explaining the purpose of such easements; and a map that shows the project route and the width and location of any proposed new, additional permanent easements was required to be mailed by National Grid to individuals or entities who own property abutting the Project ROW. See letter dated June 21, 2013 to Lisa M. Zafonte, Esq., National Grid Senior Counsel, from Administrative Law Judge Michelle L. Phillips.

four towns along the Project route; and the presence of National Grid representatives to conduct informational meetings prior to, and to informally address questions and concerns from the public at, the Commission's public statement hearings held on July 21, 2011 in Fort Edward. Prior to starting work in each Project area, National Grid will notify adjacent landowners and residents of construction commencement and include a safety message and the toll-free phone number that can be used to obtain additional information.

Other Provisions of the JP

The JP contains attachments which specifically address the proposed findings that are required under Article VII of the Public Service Law, the proposed ordering clauses and certificate conditions, the proposed EM&CP guidelines, and a proposed water quality certification. The parties have agreed to the terms and conditions of these JP attachments.²⁴

The JP also includes the following general provisions relating to the parties' agreement or to related procedural or administrative matters.

Signatory Parties' Statements and Public Comments

Applicant, DPS Staff, Agriculture and Markets and DEC filed statements in support of the JP. No party or member of the public filed any opposition, but the Town of Easton Planning Board submitted comments expressing concern about its ability to require subdivision review for new easements and to review proposals revising the configuration of existing approved plats.

National Grid, DPS Staff, Agriculture and Markets and DEC assert that the record supports the findings that are required by PSL Article VII and that adoption of the terms of the JP are in the public interest. National Grid and DPS Staff

²⁴ See JP Appendices C-F.

add that compliance with our Settlement Guidelines²⁵ and processes was maintained at all times, stating that the JP was arrived at fairly and in a way that allowed all parties the opportunity to participate.

National Grid and DPS Staff posit that a JP inherently involves compromises to satisfy diverse interests, and that many of the individual components of this JP are inter-related compromises that, individually, do not stand alone. As such, they contend that the individual components of the JP must be judged as a package, and if that overall package is in the public interest and meets the other statutory requirements, then we may certify the Project.

National Grid asserts that a significant example of such compromise is its agreement to proposed Certificate Condition 134(1), a clause that requires National Grid to monitor DEC-regulated Wetland HF-1 for two growing seasons following completion of Facility ROW restoration. It says it agreed to this post-construction monitoring obligation solely because Wetland HF-1 is approximately 1.4 acres in size and would be traversed by the Project for a distance of about 600 feet, thus making the burden with respect such an obligation (and the corresponding cost to its ratepayers) relatively small. National Grid stresses that its agreement to this condition here should not be interpreted as a willingness to make the same agreement for any other project.

The Signatory Parties assert that the required statutory findings and determinations are supported by the record developed in this proceeding. National Grid and DPS

²⁵ Case 90-M-0255, Proceeding on Motion of the Commission Concerning its Procedures for Settlement and Stipulation Agreements, Opinion, Order and Resolution Adopting Procedures and Guidelines, Opinion 92-2 (issued March 24, 1992), Appendix B, p. 8.

Staff assert that the key factors supporting the need and public interest findings are: the Project is needed to help relieve the current thermal and projected load constraints in National Grid's Northeast Region; of the major configuration alternatives considered, the Project configuration involves the least cost and least environmental impact; the JP includes sound provisions to protect the environment; and the JP embodies the agreement of normally adversarial parties to a reasonable result. They stress that this Project is one of a number of planned reinforcements intended to address the current and long-range needs of the Northeast Region, and that, without it, post-contingency thermal overloads could physically damage the transmission line and cause interruption of electric service to thousands of customers in the Northeast Region.

Citing many of the factors discussed in the JP and summarized above, the Signatories observe that the nature of environmental impacts are expected to be minimal and limited to temporary, construction-related disturbance and inconvenience; they stress that adequate measures to protect the environment are included in the JP and will be incorporated into the EM&CP. They also assert that the Project represents the minimum adverse environmental impact, because when considering feasibility and impact, the Project as located and configured is preferable, on balance, to the other alternatives that were considered and described in this record; that undergrounding was demonstrated to be inappropriate; and the Project conforms to the State's and the NYISO's energy policies and long-range planning objectives and strategies, and is consistent with National Grid's transmission plans.

DPS Staff adds that the Facility will serve the interests of electric system economy and reliability because it will improve the reliability of the transmission system for the

loads to be served and avoid unplanned outages due to potential failure of existing facilities. Finally, National Grid indicates that it will comply with the substantive provisions of each applicable state statute and regulation not found by us to be unreasonably restrictive. DPS Staff concurs, stating that the record justifies a finding that the substantive provisions of State and local laws and regulations are, or will be, conformed to by the Applicant in the construction and operation of the Facility, with the exception of those local laws that the Applicant has requested the Commission to refuse to apply.

Agriculture and Markets expresses its confidence that the facility represents the minimum adverse impact on agricultural lands, considering the state of available technology, and the nature and economics of the various alternatives, and other pertinent considerations required by PSL §126. It notes that, as a statutory party in PSL Article VII proceedings, it conducts agricultural assessments to determine whether a proposed project has avoided impacts to agricultural resources to the extent practicable. It reports that no agricultural operators/owners contacted it with specific concerns relative to this Project, adding that, based on conversations it initiated with two agricultural landowners impacted by the Project, its understanding is that their issues are being addressed through negotiations with National Grid.

Agriculture and Markets notes that several proposed certificate conditions contain agricultural protection measures designed to minimize and mitigate the impacts to agricultural resources and farm operations.²⁶ It adds that the Specifications for the Development of the EM&CP ensure that the final EM&CP will include site-specific agricultural resource information and the appropriate construction and restoration measures and the

²⁶ Specifically, JP Appendix D, Section N, Clauses 92-118.

Best Management Practices for Article VII Electric Transmission Line Projects include additional practices for the avoidance, minimization, and mitigation of impacts to agricultural resources and farm operations.²⁷ From an agricultural impact standpoint, it asserts that the JP is consistent with results that would be expected to be achieved if the case had been litigated.

Noting that it too is a statutory party to all PSL Article VII proceedings, DEC says its role is to act as an advisor on matters arising under the Environmental Conservation Law (ECL), Navigation Law, and applicable Federal statutes. It adds that it provides expertise in the area of environmental impact assessment, including whether a proposed project has appropriately avoided environmental impacts, and adequately minimized and mitigated unavoidable impacts.

Based on its review of the application, submission of discovery requests, and active participation in the settlement discussions, DEC states that it is satisfied that the JP is in the public interest and that the Project, with the proposed certificate conditions represents the minimum adverse impact considering the state of available technology, the nature and economics of the various alternatives, and other pertinent considerations as required by PSL §126. It asserts that the JP is consistent with sound environmental, social, and economic policies and produces results that are within the range of reasonable outcomes that would likely have arisen from a Commission decision following a litigated proceeding. DEC states that we can make all of the applicable and necessary statutory findings to grant the Certificate, and should do so

²⁷ In support of these assertions, Agriculture and Markets cites JP Appendix E, Section (A) (7) (a) and Exhibit 21 (esp., Section 4, pages 4-1 - 4-4).

subject to the certificate conditions the Signatory Parties have proposed.

DPS Staff notes that National Grid requests the issuance of a water quality certification (WQC), pursuant to §401 of the Federal Clean Water Act (CWA), for activities associated with Facility construction. DPS staff notes that the CWA requires a federal permit to discharge dredged or fill material into "navigable waters" (33 U.S.C. §§1311(a) and 1342(a)) and requires an applicant for a federal permit to provide a certification from the State that the discharge will comply with State water quality standards. DPS Staff also notes that National Grid has not yet applied for a permit from the U.S. Army Corps of Engineers (USACE), but expects to do so after a Certificate is granted. DPS Staff asserts that the record in this proceeding supports the proposed WQC set forth in Appendix F to the Joint Proposal. After recounting that the Commission previously delegated responsibility for granting a WQC in connection with Article VII certificates to the Director of the Office of Electricity and Environment, DPS Staff states that, consistent with the request by National Grid, the Director of the Office of Energy Efficiency and the Environment should issue the WQC.

By letter dated July 29, 2013, the Planning Board of the Town of Easton (Town) expressed concern about the Town's ability to require subdivision review for new easements and to review proposals revising the configuration of existing approved plats.²⁸ The Town asserted that Easton Town Law #3-99 requires a

²⁸ The specific plats identified by the Town include the Woolley Major Re-subdivision # 2-04 County file # 22C-55, filed 5/28/2004; the Hollingsworth & Vose Co. Minor Re-subdivision # 6-04 County file # 22C-58, filed 6/23/2004; two plats filed in 1974: John Meek to Hollingsworth & Vose Co. for Sanitary Landfill; and the New York State Electric & Gas transmission line from the Battenkill Substation.

subdivision review for establishing easements and New York State and Easton Town Law require a review of proposals revising the configuration of existing approved plats. The Town sought "a response and guidance on how the applicant can fulfill the requirements of submitting plat map revisions to the planning board and subsequent filing of approved plats with Washington County NY."

The Town's concerns were raised with the parties at the evidentiary hearing held on August 2, 2013. At the hearing, it was confirmed that Niagara Grid had discussed its intentions with members of the Town and committed to work with the Town Planning Board to produce survey and plat maps in the form that "fits the needs of the local governments and the filing agency - in this case the County of Washington." It also was confirmed that the Town did not object to the PSC granting the requested waiver of its local laws but did want to assure that it would have accurate and current plat maps on file and that National Grid would work with the Town to meet its needs in that regard.²⁹

Discussion

The June 6, 2013 JP is supported by four parties who have been active in this proceeding -- Applicant, DPS Staff, Agriculture and Markets and DEC. It addresses all of the statutory and regulatory issues pertaining to National Grid's Certificate request, adequately discusses all probable environmental impacts, and addresses the steps needed to ensure that the Facility represents the minimal adverse environmental impact considering the state of available technology and the nature and economics of various alternatives and other pertinent considerations. In addition, the process provided all interested parties and the public a full opportunity to

²⁹ Tr. 27-36.

participate, and the parties adhered to our settlement rules and guidelines.

The record³⁰ supports our finding that the Facility is needed to replace an aging, less reliable facility, parts of which are over 85 years old, and that it will improve reliability in a way that minimizes costs and adverse environmental impact. Of the various alternatives to the proposed rebuild that were identified and evaluated, we find that none of them has as few impacts or as low cost as the JP option, and each alternative is less desirable than the JP proposal.

The JP provides full account of the expected environmental impacts and demonstrates that adequate mitigation measures can be taken to minimize potential impacts. Additionally, National Grid's Environmental Management and Construction Plan and BMP Manual will further address steps that will be taken to minimize the impacts associated with this proposed rebuild, and the EM&CP will be subject to review and comment. Overall, we find that the proposed Facility will serve the public interest, convenience and necessity.

We were asked by the Planning Board of the Town of Easton to consider its concerns with regard to having current plat map revisions on file. We find that the collaborative process articulated at the evidentiary hearing -- whereby National Grid's Survey Team will work with the Town of Easton Planning Board to ensure that National Grid produces and files accurate and up-to-date plat maps -- is reasonable and appropriate. It is our understanding that the Town's interest is in ensuring that the filed plat maps conform to its standards

³⁰ By Ruling Admitting Evidence (issued July 9, 2013), the testimony, affidavits and exhibits listed in JP Appendix A were received into the record in this proceeding.

and requirements, and that Town acknowledges that in reviewing such maps, it will not have the authority to require changes to the Facility that are inconsistent with the Certificate, the EM&CP, or our Orders approving them.

With respect to the general provisions set forth in section I of the Joint Proposal, we note that, for the most part, these are routine terms governing the parties' relationships. We are not required to make any findings about them to determine whether or not a Certificate should be issued, and therefore, with the exception of provision I.4 (relating to dispute resolution), we do not adopt them.

In conclusion, based on the JP, the evidentiary record, and the parties' supporting statements, and subject to the exceptions noted above, we find the terms and conditions of the JP acceptable and find and determine that:

1. The project for which Niagara Mohawk Power Corporation d/b/a National Grid seeks certification in the instant proceeding is needed to relieve the thermal and projected load constraints in National Grid's Northeast Region.
2. The nature of the probable environmental impacts resulting from the Project includes: (a) minimal and temporary construction impacts on active agricultural lands; (b) minimal incremental visual impacts from the reconstruction of the existing lines; (c) construction impacts on certain State-regulated wetlands and protected streams and waterbodies; (d) selective clearing of undesirable woody species or saplings on some segments of the Facility's right-of-way; (e) selective vegetative clearing within 50 feet of watercourses and wetlands; (f) temporary disturbance and inconvenience associated with construction activities; (g) noise and debris due to construction activities; and (h) maximum calculated electromagnetic fields at the edge of the Facility's right-of-way that comply with the Commission's guidelines.
3. The Facility, as proposed in the Joint Proposal, represents the minimum adverse environmental impact, considering the state of available technology and the nature and economics of the

various alternatives, and other pertinent considerations including but not limited to the effect on agricultural lands, wetlands, parklands, and river corridors traversed.

4. No part of the Facility shall be located underground as undergrounding would have significantly increased costs, environmental and construction impacts, and system operating impacts.

5. Construction of the Facility conforms to the State's and the New York Independent System Operator's energy policies and long-range planning objectives and strategies, and is consistent with National Grid's transmission plans.

6. The location of the Facility conforms to applicable state laws and regulations issued thereunder, including Articles 9, 15 and 24 of the Environmental Conservation Law and 6 NYCRR §§608.8 and 663.5 and Parts 701 and 703.

7. The location of the Facility conforms to the substantive provisions of the applicable local laws and regulations issued thereunder, except those local laws and regulations which the Commission refuses to apply because it finds, based on the justifications set forth in Hearing Exhibit 7, that as applied to the Facility, such are unreasonably restrictive in view of the existing technology, or of factors of cost or economics, or of the needs of consumers whether located inside or outside of such municipality.

8. Based upon all information set forth in the record as listed in Appendix A, the Facility will serve the public interest, convenience, and necessity.

The Commission orders:

1. With the exceptions discussed above, the terms of the June 6, 2013 Joint Proposal, the Attachment to this order, including the ordering paragraphs in Appendix D, are adopted and incorporated into and made a part of this order.

2. The Water Quality Certification (JP Appendix F) is authorized to be signed and issued by the Director of the Office of Energy Efficiency and the Environment of the New York State Department of Public Service.

3. This proceeding is continued.

By the Commission,

KATHLEEN H. BURGESS
Secretary

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Case 11-T-0068 - Application of Niagara Mohawk Power Corporation d/b/a National Grid for a Certificate of Environmental Compatibility and Public Need for the Reconstruction of Approximately 14 Miles of 115 kV Double-Circuit Electric Transmission Facilities from the Mohican Substation in Saratoga County to the Battenkill Substation in Washington County

JOINT PROPOSAL

By: Niagara Mohawk Power Corporation d/b/a National Grid
Staff of the New York State Department of Public Service
New York State Department of Environmental Conservation
New York State Department of Agriculture and Markets

Dated: May 31, 2013
Albany, New York

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**STATE OF NEW YORK
PUBLIC SERVICE COMMISSION**

Case 11-T-0068 - Application of Niagara Mohawk Power Corporation d/b/a National Grid for a Certificate of Environmental Compatibility and Public Need for the Reconstruction of Approximately 14 Miles of 115 kV Double-Circuit Electric Transmission Facilities from the Mohican Substation in Saratoga County to the Battenkill Substation in Washington County

THIS **JOINT PROPOSAL**, which includes Appendices A through F attached hereto and incorporated herein, is made on the ___ day of May, 2013 by and among Niagara Mohawk Power Corporation d/b/a National Grid (“National Grid” or the “Company”), Staff of the New York State Department of Public Service designated to represent the public interest in this proceeding (“DPS Staff”), the New York State Department of Environmental Conservation (“DEC”), and the New York State Department of Agriculture & Markets (“Ag & Mkts”) (collectively referred to as the “Signatory Parties”).

INTRODUCTION

On February 17, 2011, the Company submitted application documents to the New York State Public Service Commission (“Commission”) seeking a Certificate of Environmental Compatibility and Public Need (“Certificate”), pursuant to Article VII of the New York Public Service Law (“PSL”), for the reconstruction and reconductoring of approximately 14.2 miles of two of its 115 kV electric transmission lines (the “Project”). The two lines are the Mohican-to-Battenkill Line 15 (“Line 15”) and the portion of the Mohican Luther Forest Line 3 (formerly known as Mohican-to-North-Troy Line 3) between the Mohican Substation in Saratoga County and the Battenkill Substation in Washington County (“Line 3 Segment”) (collectively, as they

exist prior to the Project, the “Existing Lines,” and as National Grid proposes to rebuild and reconductor them in the Project, the “Facility”). The application documents were supplemented on May 9, 2011. In a letter dated May 18, 2011, the Secretary to the Commission found that the application (“Application”) was filed or otherwise in compliance with PSL §122 as of May 9, 2011. As discussed in more detail in this Joint Proposal, National Grid filed with the Commission on May 29, 2013 (and served on all active parties and all statutory parties to this proceeding a copy of): (a) a third restated version of Exhibit 7 of the Application, (b) a supplement to Exhibit E-4 of the Application, (c) a replacement to Appendix D of the Application, and (d) the pre-filed direct testimony of James R. Bunyan to replace the pre-filed direct testimony of Michael J. King, P.E. and Todd S. Goyette, P.E.

A preliminary conference of the parties was held before Administrative Law Judge Michelle L. Phillips in Albany, New York, on July 21, 2011. Public statement hearings were held before Administrative Law Judge Phillips on July 21, 2011 at the Washington County Municipal Center in Fort Edward. No member of the public offered comments at either session.

After exploratory discussions among the parties, Notices of Impending Negotiations were sent to all active parties and duly filed with the Commission on August 9 and 10, 2011. Settlement conferences were held in person or by telephone on August 18, 2011, November 3, 2011, February 2, 2012, March 6, 2012, March 14, 2012, March 20, 2012, March 26, 2012, April 5, 2012, June 12, 2012, June 20, 2012, June 25, 2012, July 10, 2012, July 17, 2012, October 25, 2012, December 6, 2012, December 19, 2012, January 7, 2013, January 10, 2013, January 14, 2013, January 16, 2013, February 5, 2013, February 6, 2013, February 14, 2013, March 5, 2013, May 8, 2013, and May 20, 2013. Electronic communications were also utilized to facilitate settlement discussions.

After thorough discussion of the issues, the Signatory Parties recognized that the parties' various positions can be addressed through settlement and agree that settlement is feasible. The Signatory Parties further believe that this Joint Proposal gives fair and reasonable consideration to the interests of customers, transmission owners, and the public in assuring the provision of safe and adequate service.

TERMS OF JOINT PROPOSAL

I. GENERAL PROVISIONS

1. Each provision of this Joint Proposal is in consideration and support of all the other provisions of this Joint Proposal and is expressly conditioned upon approval of the terms of this Joint Proposal in full by the Commission. If the Commission fails to adopt the terms of this Joint Proposal in full, the Signatory Parties to the Joint Proposal shall be free to individually pursue their respective positions in this proceeding without prejudice or to accept the Commission's modifications.

2. The terms of this Joint Proposal apply solely to, and are binding only in, the context of the present Application. None of the terms or provisions of this Joint Proposal and none of the positions taken herein by any party may be referred to, cited, or relied upon in any fashion as precedent or otherwise in any other proceeding before this Commission or any other regulatory agency or before any court of law for any purpose, except in furtherance of ensuring the effectuation of the purposes and results of this Joint Proposal. The Signatory Parties agree to submit this Joint Proposal to the Commission along with a request that the Commission adopt the terms and provisions of this Joint Proposal as set forth herein.

3. The Signatory Parties recognize that certain provisions of this Joint Proposal contemplate actions to be taken in the future to effectuate fully this Joint Proposal.

Accordingly, the Signatory Parties agree to cooperate with each other in good faith in taking such actions.

4. In the event of any disagreement over the interpretation of this Joint Proposal or implementation of any of the provisions of this Joint Proposal which cannot be resolved informally among the Signatory Parties, such disagreement shall be resolved in the following manner:

- a. the Signatory Parties shall promptly convene a conference and in good faith attempt to resolve any such disagreement; and
- b. if any such disagreement cannot be resolved by the Signatory Parties, any Signatory Party may petition the Commission for resolution of the disputed matter.

5. This Joint Proposal shall not constitute a waiver by the Company of any rights it may otherwise have to apply for additional or modified permits, approvals, or certificates from the Commission or any other agency in accordance with relevant provisions of law.

6. This Joint Proposal is being executed in counterpart originals, and shall be binding on each Signatory Party when the counterparts have been executed.

7. Appendix A attached hereto lists the testimony, affidavits and exhibits agreed upon by the Signatory Parties to be admitted as record evidence in this proceeding. National Grid filed with the Commission on May 29, 2013 the pre-filed direct testimony of James R. Bunyan to replace the pre-filed direct testimony of Michael J. King, P.E. and Todd S. Goyette, P.E. and served a copy on all active parties and all statutory parties to this proceeding.

II. DESCRIPTION OF FACILITY LOCATION

8. As discussed in more detail in the Application and Appendix B, the Project is proposed to rebuild and re-conductor the Line 3 Segment and Line 15 from the existing Mohican Substation to the existing Battenkill Substation, approximately 14.2 miles, located in National Grid's Northeast Regional Transmission System. The right-of-way ("ROW") of the existing Line 3 Segment and Line 15 is located in the Town of Moreau in Saratoga County, and the Towns of Fort Edward, Greenwich, and Easton in Washington County. The width of the existing ROW varies from approximately 100 feet to approximately 175 feet, which variations account for segments of the ROW that are occupied by 34.5 kV sub-transmission lines.

9. For the purposes of minimizing the duration of outage to a specific transmission-level customer during construction of the Facility, the Company proposes to construct a temporary by-pass line at approximately Mile 1.0 (between existing structures 93.5 and 94 and between proposed structures 11 and 12)¹ (the "Temporary By-Pass"). In addition, a minor reconfiguration of existing sub-transmission assets in the area approximately between Mile 12.6 (existing structure 199 and proposed structure 117) and Mile 13.3 (existing structure 202 and proposed structure 120) (the "Sub-T Reconfiguration") is required in order to safely construct the Facility. Both are more fully detailed in Appendix B.

10. The Signatory Parties agree that the Description and Location of Facility set forth in Appendix B attached hereto accurately describes the location and configuration of the Project as they recommend it be approved by the Commission.

¹ All mileage is measured from north to south. See the Structure-Mileage Cross Reference Table, which is Exhibit 30 to this Joint Proposal.

III. ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED

11. The Commission must consider the totality of all relevant factors in making its determination of environmental compatibility and public need. The relevant factors include, without limitation, the need for the Project, cost, environmental impact, availability and impact of alternatives, undergrounding considerations, conformance to long-range plans, electric system reliability, state laws and local laws, and the public interest, convenience, and necessity.

A. Need for the Project

12. National Grid filed a supplement to Exhibit E-4 of the Application with the Commission on May 29, 2013 and served a copy on all active parties and all statutory parties to this proceeding. As described in Exhibit E-4 as so supplemented (“Supplemented Exhibit E-4”), the Project (among other transmission projects) is needed to help relieve the current thermal and projected load constraints in National Grid’s Northeast Region. The Northeast Region encompasses the Greater Saratoga area and parts of Schenectady and Rensselaer Counties. The Luther Forest Technology Campus (the “Campus”) is situated in the middle of this area. GLOBALFOUNDRIES is a new industrial customer located in the Campus that began receiving transmission service on October 18, 2010. National Grid’s existing 115kV system in the Northeast Region includes, to the west of the Campus, the existing Lines 1 and 2. These lines run from the Spier Falls Substation north of the Campus, in Saratoga County, 33 miles south to the Rotterdam Substation in Schenectady County and comprise one double-circuit line. From Spier Falls, a 115 kV line runs east and connects to the Mohican Substation in the eastern part of the Northeast Region. From the Mohican Substation, two 115 kV lines (Line 15 and Line 3) run south to the vicinity of the Battenkill Substation, at

which Line 15 terminates. Line 3 continues south from the vicinity of Battenkill to North Troy in Rensselaer County.

13. National Grid developed a long-range (ten-year) plan for providing reliable electric service within the Northeast Region. This plan is referred to as the Northeast Region Reinforcement Plan, or NRRP. The risk that is present in the current condition is that failure to complete the Project will expose Line 15 to post-contingency thermal overloads, which could physically damage Line 15, and cause interruption of electric service to thousands of customers in the Northeast Region. The Project is one of a number of planned reinforcements that will address the current and long-range needs of the Northeast Region. Other reinforcements include the addition of the new Spier-Rotterdam 115kV Circuit that recently received a Certificate of Environmental Compatibility and Public Need (Case 10-T-0080), and the addition of the proposed Eastover Rd 230-115kV Station near North Troy.

14. Power-flow analyses performed by National Grid which encompass load growth through 2012 show the need for the Project. Applying a scenario without the proposed Eastover Rd 230-115kV Station and without the proposed new Spier Falls-to-Rotterdam 115kV circuit, the analyses show a reduction in the thermal capacity of Line 15 beginning in summer 2012. In the scenario without the proposed Eastover Rd Station, the worst-case post-contingency flow for Line 15 exceeds its short-term rating. Applying a scenario with the proposed Eastover Rd 230-115kV Station and the new Spier Falls-to-Rotterdam 115kV circuit, the analyses still show a reduction in the thermal capacity of Line 15 beginning in summer 2012, though with the worst-case post-contingency flow for Line 15 being between its long-term and short-term emergency ratings. The analyses performed demonstrate that the Project relieves these post-contingency overloads which affect Line 15.

15. The Project must be completed as soon as possible to maintain transmission service in National Grid’s Northeast Region at current levels of reliability. The need for the Project is demonstrated in the Northeast Region Reinforcement Plan.

B. Cost

16. In the Application, National Grid projected the Project to cost approximately \$31.5 million dollars. The Project will not impact the local economy sufficiently to directly induce significant changes in the residential, commercial, or industrial land use patterns in the Project area. The Facility is proposed to be located wholly within the existing ROW of Lines 15 and 3. Construction activities will occur primarily within the existing ROW, be of relatively short duration, and will not directly induce land use changes or patterns or development adjacent to the ROW. The Project will not disrupt any retail or industrial establishments or cause a loss of business income or displace any existing land uses. To the extent that trade-specific workers may be required from outside the Northeast Region, temporary indirect economic benefits would be realized within the host communities as a result of labor in-migration. Accordingly, no mitigation is deemed necessary, and none is proposed.

17. The following simplified cost comparison is provided for the major configuration alternatives considered by the Signatory Parties:

| <u>Configuration</u> | <u>Cost**</u> |
|-----------------------------|----------------------|
| Proposed Project* | \$31.5 million |
| East Alternative Route | \$52.18 million |
| West Alternative Route | \$59.26 million |
| Undergrounding | \$151.58 million |

*Denotes Joint Proposal Recommendation

**For accuracy of comparison, all amounts are as of date of Application

C. Environmental Impact

18. The Application, testimony, affidavits, and exhibits to be supplied for the record describe the nature of the probable environmental impacts of the Project and are briefly summarized below. The environmental impacts are expected to be minimal and limited to temporary, construction-related disturbance and inconvenience.

19. The Signatory Parties agree that the Facility, as this Joint Proposal and the accompanying Appendices propose it to be located and configured, represents the minimum adverse environmental impact considering the state of available technology and the nature and economics of the various alternatives and other pertinent considerations. The selected route, access points, and configuration are preferred because the Project makes use, to a great extent, of existing ROW, avoids or minimizes the disturbance of natural habitat, is reasonable in terms of cost, and avoids disturbance of residential and commercial properties and activities, and traffic and emergency operations.

20. The Project will have a minimal impact on the physical environment. The Project has been reviewed with respect to potential impacts to land uses, visual, cultural, terrestrial, wildlife, wetland and water resources, topography and soils, transportation, noise, debris, communications, and electric and magnetic fields. Nearly all impacts will be temporary, short-term, and insignificant in nature and are only associated with the construction aspects of the Project.

21. Categorized by type of impact, the following sections address the potential for environmental impacts to result from the proposed reconstruction and reconductoring of the Facility.

a. Land Use

22. The rebuild and reconductoring of the Facility would occur primarily within the existing ROW which, with few exceptions, National Grid owns in fee for the entire length of the Facility.

23. As noted in Exhibit 4 of the Application, current land uses in the area in and surrounding the transmission corridor are predominantly rural communities and agricultural fields, with river and stream crossings.

24. National Grid will need to acquire new permanent easement rights (referred to as “Vegetation Management Easements” in Exhibit 2 of the Application) on land that lies beyond the existing ROW for construction of the Project and for subsequent Facility operation and maintenance; these purposes include, without limitation, vegetation management, danger tree clearance, construction work space, environmental mitigation measures, and access roads. The typical permanent easement required adjacent to the existing ROW will be a 15- to 25-foot wide corridor; such easements will be required only along certain segments of the existing ROW. These easement areas will be mowed or cleared of vegetation during the construction phase of the Project. Maintenance of these areas will include the continued removal of tall-growing species; however, compatible medium-growing species, low-growing woody shrubs and herbaceous species will be allowed to revegetate. The total estimated acreage for the permanent easements is approximately 39 acres. Existing forestland in these easement areas that is converted to herbaceous cover and low-growing compatible shrub species is not anticipated to significantly affect land use patterns or uses along the Facility ROW. Danger tree rights will be required for the entire length of the Facility; the Company already has such rights in many locations along the existing ROW.

25. Because the Existing Lines are, and after the Project the Facility will be, located entirely within the existing ROW, the Project is not anticipated to change the existing residential use adjacent to the ROW or in surrounding areas. Any potential encroachments found within the existing ROW will be investigated through a survey of the precise fee-owned ROW boundaries at these locations. National Grid will contact individual abutting property owners or occupants to address potential encroachments on a case-by-case basis. Any additional encroachments identified during the preparation of the Environmental Management & Construction Plan (“EM&CP”) will be similarly addressed. Adjacent landowners will be afforded the opportunity to remove any encroaching structures or uses prior to the start of construction. National Grid has identified one encroachment, a barn located partially on the existing ROW near existing structure 184, which is not compatible with safe operation of the Facility. The Signatory Parties have agreed that the barn will be removed before the Facility is energized.

26. Nearby residences and users of local highways may experience short-term and temporary disturbance and inconvenience typically associated with construction activities (*e.g.*, noise, dust, minor changes to local traffic patterns). These impacts will be temporary and short in duration and will primarily occur only where the Facility ROW crosses public highways. To minimize potential construction effects to adjacent landowners and users of local highways, proposed certificate condition numbers 14 and 35 would require National Grid to provide timely information to adjacent residents regarding the planned construction activities and schedule, and National Grid will coordinate with New York State Department of Transportation (“NYSDOT”), county officials, and local police departments to develop and implement traffic control measures to ensure safe and adequate traffic operations along roadways used by construction vehicles.

27. The Facility ROW traverses active agricultural lands and approximately 9.2 miles of designated Agricultural Districts. The Agricultural Districts traversed by the Project include the following: District 1 in the Town of Moreau; Districts 4 and 6 in the Town of Fort Edward; District 4 in the Town of Greenwich; and District 3 in the Town of Easton. Many active agricultural activities currently take place on National Grid's fee-owned ROW and are expected to continue upon the completion of construction. National Grid will minimize any short-term disruption to farming activities through scheduling, planning, and the use of protection measures prescribed on a site-by-site basis. Active farming, including both cropland and pasture, currently occurs in many areas on National Grid's existing ROW and demonstrates the compatible co-existence of active farming and transmission line operation. No long-term impacts on farming or agricultural activities are anticipated as a result of the Project; however, during construction, agricultural operations on the Facility ROW may be disrupted for a single season, depending upon the timing of construction. National Grid will coordinate construction activities with ongoing farming activities in an effort to minimize disruption and crop damage. Should soil rutting occur in agricultural fields and pastures, National Grid will regrade and restore topsoil conditions upon completion of work. In addition, all construction debris will be removed from the fields upon the completion of construction. Protection measures and restoration measures such as rehabilitation of drainage tile and deep tilling of compacted areas will be prescribed on a site-by-site basis and will be shown in the proposed EM&CP. National Grid will comply with the Ag&Mkts recommendations and protection measures set forth in Section N of Appendix D. The Project will not adversely impact active agricultural lands or designated Agricultural Districts and there will be no permanent impacts to agricultural land use.

28. The Facility will be consistent with local open space and public land planning.

29. National Grid will consult with governmental agencies with jurisdiction over the Hudson and Battenkill Rivers and will comply with any requirements they impose as well as its own safety and protective measures with respect to construction in these areas. Compliance may result in temporary disruption of water-related activities in these areas (e.g., fishing and boating).

30. The Facility ROW crosses State Bicycle Route 9 and the proposed Champlain Canalway Trail approximately 1 mile south of Fort Edward town center (at approximately Mile 3.3, existing structure 116 and proposed structure 34). State Bicycle Route 9 is a signed on-road bicycle route (on Route 4 for the segment crossed by the Facility) that extends 345 miles from New York City to Rouses Point on the New York - Quebec border. The Champlain Canalway Trail is a proposed recreation trail which will utilize historic towpaths and canal shoreline, existing local trails, and on-street bicycle routes to provide a continuous route from the Village of Waterford in Saratoga County to the Village of Whitehall in Washington County. The trail is intended to provide recreational opportunities and provide links to regional and community attractions. The Champlain Canalway Trail Action Plan short-term recommendation, for the segment between Black House Road and Champlain Canal Lock 7, is to work with NYSDOT to establish an on-road trail route on Route 4. The long-term recommendation is to consider a separated trail within the Route 4 corridor in plans for future highway reconstruction, perhaps combining with greenway sections on a portion of the Old Champlain Canal towpath. The Green Infrastructure Plan for Saratoga County describes the conceptual trail (therein called the “Champlain Canal Trail”) as a 20.9 mile multi-use or foot path trail along the Champlain Canal. A location map for the proposed Champlain Canalway Trail that also depicts Route 4 / State Bicycle Route 9 is included as Exhibit 23.

31. The Facility will be located entirely within the existing ROW. The Project will result in no more than minor temporary impact to users of State Bicycle Route 9 or the proposed Champlain Canalway Trail.

32. The Facility will not adversely affect any state or local parks or public lands and will not have any significant impacts on local land use or land use activities.

b. Visual Resources

33. As discussed in Exhibit 4 of the Application, the eastern portion of Saratoga County, where the Facility ROW is located, is dominated by agricultural and rural residential landscapes. The Existing Lines begin just east of South Glens Falls, a town of about 3,300 people. At the outset, it passes through mostly wooded and wetland areas before paralleling neighborhood streets. Several steep-sided ravines containing small creeks cross the path of the existing ROW, breaking up the otherwise relatively gentle topography. As the Facility ROW heads south, it crosses a golf course and some open agricultural fields before reaching the Hudson River.

34. The Facility ROW crosses the Hudson River into Washington County, where the landscape is predominantly open agricultural fields with occasional stream crossings and associated wetlands. As the Facility ROW heads south paralleling the general course of the Hudson, it passes through the towns of Fort Edward and Greenwich with populations of approximately 6,000 and 5,000, respectively. The Facility ROW continues out of Greenwich and over the Battenkill River to Easton where it terminates at the Battenkill Substation.

35. A review of files maintained by the New York State Office of Parks, Recreation & Historic Preservation (“OPRHP”) and the New York State Museum in July 2010 found 60 individual properties, districts and complexes listed on the National Registers of Historic Places (“NRHP”). Most of these properties are located northwest of the Mohican Substation

in the City of Glens Falls, where intervening structures and mature vegetation screen long-range views toward the Facility. The Facility ROW crosses the Champlain Barge Canal at one location in the Town of Fort Edward, approximately 1 mile south of Fort Edward town center (at approximately Mile 3.3, existing structure 116 and proposed structure 34); that canal has been determined eligible for inclusion on the NRHP. Other than the canal crossing, the nearest historic above-ground resource is approximately one-half mile from the Facility ROW.

36. The Facility ROW crosses the Champlain Barge Canal and the “Lakes to Locks Passage” (Route 4) scenic byway in the Town of Fort Edward approximately 1 mile south of Fort Edward town center (at approximately Mile 3.3, existing structure 116 and proposed structure 34). The proposed alignment for this segment of the Facility is centered upon the existing centerline of the ROW, thereby negating the need for additional permanent easement rights and minimizing any additional visual impacts.

37. The vegetation characteristics within the Facility ROW will temporarily change during construction of the Project. The Facility ROW will be mowed or cleared to accommodate safe access and workspace for construction. Following construction, the vegetation in the Facility ROW will be maintained in accordance with National Grid’s Commission-approved *Transmission Right-of-Way Management Program* (“TROWMP”), and the ROW will host compatible tree, shrub and herbaceous species vegetation cover that are similar to what presently exists. The vegetation characteristics of the Facility ROW will be similar to those existing pre-construction.

38. The Facility will be approximately 50 feet or less from the centerline of the existing steel lattice structures (which are not located on the centerline of the existing ROW). The heights of the existing structures range from approximately 65 to approximately 105 feet

above grade. The above-grade height of the proposed steel pole structures will range from approximately 70 to approximately 130 feet; the average will be approximately 85 feet, an average change in elevation from the existing structures to the proposed structures of approximately 15 feet. The height of the conductor at its lowest point during the year is dependent upon the features below the conductor and National Grid must satisfy the more stringent of the clearance criteria set forth in the 2012 Edition of the National Electrical Safety Code, or by the New York State Department of Transportation, New York State Thruway Authority, other State of New York departments and agencies, and others with authority (*e.g.*, railroads).

39. The proposed structures will be constructed of self-weathering steel which will, over time, become brown in color and form an original rust color finish. As National Grid stated in its response to Request for Information No. DPS-7 (included in Exhibit 19), self-weathering structure finish was selected after considering the location of wood pole sub-transmission structures adjacent to Lines 3 and 15 in certain locations, the lack of a parallel painted-lattice tower line, and the reduced maintenance costs of self-weathering steel structures. Additionally, given the rural nature of the Facility ROW, self-weathering steel structures provide a low-contrast appearance in rural and forested landscapes, minimizing visual contrasts. Once the Facility is complete, the Existing Lines (structures and conductors) will be removed. Replacement of the Existing Lines' lattice structures, which have been in place and part of the landscape for decades, with new, slightly taller (approximately 15 feet) steel pole structures, will cause minimal visual impact on aesthetic resources.

c. Cultural Resources

40. As requested by OPRHP in its letter of May 26, 2010, an archaeological sensitivity assessment was conducted by Hartgen Archaeological Associates, Inc. (“HAA”) to review the Facility ROW for archaeological and historic architectural resources. A summary of that assessment to date is provided in the following paragraphs.

Findings of Phase IA

41. A total of 86 recorded archaeological sites were identified within one mile of the Project area. Only one site, a pre-contact trail with traces of pre-contact occupation located in the Town of Fort Edward, was identified within the Project area. Two recorded sites were identified adjacent to the Facility ROW, one a pre-contact site in the Town of Moreau, and the other a historic contact period site located in the Town of Fort Edward.

42. A total of 208 aboveground properties listed or determined eligible for inclusion on the NRHP were identified within 3 miles of the Facility ROW. Only one resource, the Champlain Barge Canal, was located in the Project area. The Facility ROW crosses the canal in the Town of Fort Edward. The route will cross the canal, which has been determined eligible for the NRHP, once in the Town of Fort Edward. The Champlain Barge Canal will not be affected by construction of the Project, as the overhead transmission line will cross over the Canal, with poles located on high points well above, and on either side of, the Canal and its associated features. Since the new line will replace an existing overhead line, there will be no significant change to the setting on the Canal. In addition, in this area National Grid will center the proposed structures on the centerline of the existing ROW to mitigate visual impacts to the canal and reduce the need to remove vegetation at the edges of the existing ROW. Other than the canal crossing, the nearest listed or eligible historic aboveground property is approximately one-half mile from the Facility ROW.

43. Most of the Facility ROW is located within an area designated on the OPRHP website as a known archeologically sensitive area, a designation generally based on the proximity of reported sites. The documentary research and observations during an archeologist's walkover of portions of the corridor in August 2010 were integrated to develop an assessment of the Project area's potential for containing unrecorded, intact archeological sites.

44. HAA assigned a high archeological sensitivity for potential intact pre-contact sites in undisturbed, level, and well-drained portions of the Project's Area of Potential Effects, due to the corridor's location near the Hudson River, Battenkill Creek and other surface water bodies, and the number of pre-contact sites already identified in the Project vicinity.

45. HAA assigned low, moderate and high sensitivities for unrecorded contact period archeological resources to the Project area. Areas of high sensitivity included the portions of the route crossing the Champlain Barge Canal; areas of moderate sensitivity were found in proximity to road crossings where historic structures were indicated based upon map review; and areas of low sensitivity included previously disturbed areas, wetlands, and sloped topography.

46. Sections of the Facility ROW along the northern end are considered high sensitivity for pre-contact resources and for historic cultural resources given mapped, nearby historic structures. However, the southern section of the line in particular is indicative of modern condition and prior disturbance due to line construction and is therefore considered low sensitivity. Areas of steep slopes and wetlands are considered to have no archeological potential.

47. OPRHP reviewed the Phase IA report and, by letter dated June 23, 2011 (included in Exhibit 22), concurred with the report's recommendation to subject much of the Project's Area of Potential Effects to Phase IB archaeological field testing. National Grid followed OPRHP's recommendations for the protection of cultural resources and a Phase IB investigation was conducted in April 2012 by HAA, except for the Phase IB investigations of the Temporary By-Pass and Sub-T Reconfiguration areas, which HAA conducted in April 2013.

Findings of Phase IB

48. The Phase IB archeological field reconnaissance that HAA conducted in April 2012 revealed two pre-contact archeological sites along the Facility ROW; one site in the Town of Moreau near proposed structure 33 (at approximately Mile 3.1 and existing structure 115), and one site in the Town of Fort Edward near proposed structure 81 (at approximately Mile 8.4 and existing structure 163). The report of that Phase IB investigation recommended that a Phase II archeological site evaluation be conducted at both sites. OPRHP reviewed that Phase IB report and by letter dated July 2, 2012 (included in Exhibit 22) agreed that a Phase II evaluation should be conducted at the two sites. A Phase II evaluation was conducted by HAA from May 29, 2012 to June 7, 2012.

Findings of Phase II

49. Based on the findings of the Phase II archeological site evaluations, both of the pre-contact archeological sites are eligible for the National Registry of Historical Places. The report recommended Phase III archeological data retrievals at both sites if they cannot be avoided. The Phase II recommendations included the observation that the site in the Town of Fort Edward near proposed structure 81 would be avoided, and thus no Phase III retrieval

would be required, if proposed structure 81 were relocated 50 feet to the north of the location proposed in the Application. The Signatory Parties are agreeable to that relocation and National Grid will construct accordingly. On the other hand, a Phase III archeological data retrieval was performed at the site in the Town of Moreau near proposed structure 33. In consultation with OPRHP, HAA developed a Phase III archeological data retrieval plan for that site and completed the retrieval work on November 30, 2012. On May 14, 2013, HAA submitted to OPRHP a written report of the results and findings of the Phase III retrieval for comment and approval.

Cultural Resources Review of Temporary By-Pass and Sub-T Reconfiguration Areas

50. Based on the Phase IB field evaluations of the Temporary By-Pass and Sub-T Reconfiguration areas conducted in April 2013, HAA recommended no Phase II archeological site evaluation for either area. On May 10, 2013, HAA submitted to OPRHP a written report of the results and findings of the Phase IB field evaluations for comment and approval.

d. Terrestrial Ecology and Wildlife Resources

51. Because National Grid proposes that the rebuilt and reconductored transmission lines will be located wholly within the existing ROW, and the Project will take place on that ROW and on a small amount of abutting land on which National Grid will acquire property rights, significant wildlife habitat loss or conversion will be avoided. Impacts to vegetation will be primarily associated with disturbance along temporary and permanent access roads and at structure work areas. Within the Facility ROW, trees and shrubs will be mowed or cleared to provide unimpeded and safe access to proposed structure work sites. National Grid will restore the Facility ROW in accordance with the Certificate Conditions and as detailed in the approved EM&CP. Any newly acquired permanent easement areas and

danger tree easement areas will be maintained in accordance with National Grid's Commission-approved TROWMP. Maintenance will include removal of tall-growing species; however, compatible medium-growing species and woody shrubs will be allowed to revegetate. There are no anticipated, significant long-term impacts to any vegetative communities as a result of constructing the Facility. Wildlife use within and adjacent to the Facility ROW is not anticipated to measurably change as a result of the Project. Following the temporary disturbances along access roads and around new structures, vegetative cover and food sources are expected to be restored with early succession shrublands and open meadow species that are typical of the existing ROW. Clearing, construction, and operation are not expected to adversely affect wildlife habitat or be a significant factor in the survival of any wildlife species.

52. Those wildlife species utilizing any areas of scrub-shrub or woodlands where clearing is proposed may be temporarily affected by the loss of woody species for food, shelter and nesting; however the wooded areas located adjacent to or in close proximity to the Facility ROW will be unaffected and will continue to provide this habitat component. A large portion of the existing plant communities that are in early successional stages will remain unaltered by the Project. Therefore, wildlife species that utilize these cover types will be largely unaffected as they will continue to have a significant amount of suitable habitat available within the Facility ROW.

53. Due to the linear nature of rebuild activities, impacts are anticipated to be brief within any given area. Wildlife patterns of movement are expected to return to "normal" following the completion of the construction activities at a given site.

54. The Indiana bat, identified as an "endangered species" by the U.S. Fish & Wildlife Service ("USFWS"), is known to occur in the vicinity of the Project area. Because this

species travels and forages over long distances, temporary disturbance in a localized area from construction of the Project will not have an adverse effect on normal foraging activity. In addition, there are no known roosting locations for the Indiana bat in the Project area.

55. The Company will comply with the recommendation of the USFWS and will conduct clearing only between October 1 and March 31 when the Indiana bats are in their hibernacula. This recommendation applies only to Washington County since the Indiana bat is unlikely to occur in Saratoga County.

56. The northern harrier and the upland sandpiper, both listed as “threatened” by New York State, are known to nest in the vicinity of the Project between Mile 4.1 (existing structure 124 and proposed structure 42) and Mile 6.3 (existing structure 144 and proposed structure 62) (the “Existing Structures 124-144 Area”). The typical nesting period has been identified as extending from April 23 to August 15. Potential direct effects from the Project include destruction of nests, if present in the herbaceous vegetation within the construction area. In order to minimize potential impacts to birds nesting in the Existing Structures 124-144 Area, National Grid proposes to conduct surveys immediately prior to any construction activities scheduled from April 23 to August 15 to determine if active nests are present. If nesting is observed during the surveys or during the period April 23 to August 15, National Grid proposes to implement avoidance measures as appropriate, including temporary limitations on clearing and construction activities.

57. The short-eared owl, listed as “endangered” by New York State and the northern harrier, listed as “threatened” by New York State, have been observed to use a raptor wintering concentration area identified by DEC in the Town of Fort Edward, Washington County, located in the Existing Structures 124-144 Area. The typical wintering season for this area has been determined to extend from December 1 to April 15. To minimize potential

disturbance to birds wintering in this area, National Grid will limit tree clearing from the Existing Structures 124-144 Area to the period from October 1 to November 30. In addition, National Grid proposes to conduct surveys immediately prior to any construction activities scheduled from December 1 to April 15 to determine if the species are present. If wintering birds are observed during the survey or during the period December 1 to April 15, National Grid proposes to implement avoidance measures as appropriate, including temporary limitations on construction activities. Exhibit 26 to this Joint Proposal, Mohican-Battenkill Rebuild, Seasonal Construction Limitations for Federal and State-listed Rare, Threatened, and Endangered Species (dated March 9, 2013), charts the calendar-based construction and clearing avoidance measures described in this paragraph and the preceding paragraph.

58. In addition, as National Grid stated in response to Request for Information No. DEC-8 (included in Exhibit 20), National Grid will notify the DEC and DPS within 24 hours of observing any rare, threatened, or endangered species exhibiting nesting behavior within any portion of the Facility ROW and will implement measures as appropriate, including temporary limitations on clearing and construction activities.

59. The Bald Eagle, identified as “threatened” in New York State and federally protected, is known to occur in the vicinity of the Project area. Because this species travels and forages over long distances, temporary disturbance in a localized area from construction of the Project will not have an adverse effect on normal foraging activity. In addition, there are no known nesting locations for the bald eagle in the Project area.

60. The Karner blue butterfly, identified as an “endangered species” by the USFWS, is known to occur in the vicinity of the Project area. Because this species travels and forages over long distances, temporary disturbance in a localized area from construction of the Facility will not have an adverse effect on normal foraging activity.

61. While the Karner blue butterfly may be present in the Project area, this species and its habitat are not known to occur along or adjacent to the Facility ROW. While the broad historic range of the Karner blue butterfly includes the Project area, it has very specific habitat requirements, *e.g.*, wild blue lupine, not observed on the Facility ROW or adjacent areas. Although it may be possible this habitat existed in the past, there are no recent records of Karner blue butterfly in this area and the butterfly was not included in DEC's correspondence regarding rare species.

62. Nonetheless, to ensure that no wild blue lupine populations have colonized along the Facility ROW or adjacent to it, a survey for the presence of wild blue lupine west of the Hudson River was performed. The surveyed area focused on areas of disturbance along the Facility ROW. The results of the survey were that no wild blue lupine was observed along the surveyed section of ROW. Therefore, construction of the Facility is not expected to impact the Karner blue butterfly or its habitat. A copy of the survey report is attached as Exhibit 28 to the Joint Proposal.

63. The Hooker's orchid, listed by New York as "endangered," has been reported in the Project vicinity, although the New York Natural Heritage Program reports no record of recent occurrences of this species in the Project area. The habitat for this plant species is woodlands and forest, whereas the habitat found within the Facility ROW consists of open, early successional communities. Accordingly, impacts to this species are not anticipated and no mitigation is proposed.

64. Based on information provided in an e-mail from the DEC dated December 8, 2011 (included as Exhibit 27), Area 2 of the Historical printout of the September 14, 2011 Natural Heritage Report on Rare Species and Ecological Communities, the Small Whorled Pagonia (listed as a state-endangered and federal-threatened species) and the Hookers Orchid (listed

as a state-endangered species) were not included, as they have not been sighted since 1875 and 1912 respectively. Accordingly, impacts to these species are not anticipated and no mitigation is proposed.

e. Wetland and Water Resources

65. As stated in Exhibit 4 of the Application, a variety of meadows, marshes and scrub-shrub wetlands associated with rivers, perennial streams and intermittent streams occur within the Facility ROW. A total of 46 wetlands within the Facility ROW were delineated in the field in May of 2010. Some of these wetlands are regulated under New York State law and are mapped as DEC wetlands. Other wetlands, many of which appear on the National Wetlands Inventory (NWI) mapping for the Project area, are regulated by the U.S. Army Corps of Engineers (“USACE”) under the Clean Water Act (“CWA”).

66. Of the forty-six (46) wetlands within the Facility ROW, only one (1) is designated as a DEC-regulated wetland. Eleven (11) wetlands mapped are NWI wetlands.

67. The Facility ROW crosses the Hudson River and Battenkill River as well as several small streams. The locations where the Hudson and Battenkill Rivers are crossed are listed in the Upper Hudson River Watershed Priority Waterbodies List. Neither River will be affected by construction of the Facility, as the overhead transmission line will cross over the river, with poles located on high points well above and on either side of the river and its associated features.

68. National Grid has avoided significant or adverse impacts to wetlands and stream resources by locating the Facility entirely within the existing ROW. Permanent impacts to wetlands and adjacent areas associated with the placement of structures will be minimized to the extent practicable by locating structures outside of wetlands where possible. Existing access roads to the Facility ROW will be used as much as possible for the construction of the

Facility. To the extent practicable, the construction of new permanent roads in wetlands will be avoided. Tracked vehicles and temporary mats will be used as necessary when working in wetlands and near stream banks to protect vegetation root systems, reduce compaction, and minimize ruts. The proposed EM&CP will prescribe protection measures such as tracked equipment and mats on a site-by-site basis with the intention of avoiding or minimizing impacts on wetland and water resources crossed by the Facility ROW. In addition, if possible, work activities in wetlands will be scheduled during dry or frozen periods to facilitate access and minimize disturbance. Any impacts which cannot be avoided will be mitigated in consultation with the appropriate governmental agency.

69. Proposed tree clearing will result in some minor conversion of forested wetland to scrub-shrub/emergent wetland. This habitat conversion is not anticipated to significantly affect wetland functions or wildlife use; however, any impacts which cannot be avoided will be mitigated in consultation with the appropriate governmental agency.

70. There is one DEC-regulated wetland traversed by the Facility ROW: wetland HF-1 in the Town of Moreau. Due to site constraints, it will be necessary to locate one structure in the DEC-regulated wetland. There are twenty-three (23) structures that are currently proposed to be sited within other existing wetland resource areas; the proposed EM&CP will describe the activities proposed to occur in the wetlands and will prescribe site-specific protection measures and mitigation for impacts which cannot be avoided.

71. It is expected that the construction activities in wetland areas will be authorized by the USACE under Section 404 of the CWA (33 U.S.C. § 1344); this authorization will be sought from the USACE.

f. Topography and Soils

72. As noted in Exhibit 4 of the Application, the Facility ROW is located within the Hudson Valley Section of the Valley and Ridge Province of the Appalachian Highlands (or Mountains). This region is generally underlain mostly by Lower and Middle Paleozoic shales and carbonate rocks, with a surficial cover of Quaternary glacial and alluvial deposits.

73. The Facility ROW crosses gentle rolling hills that are cut by relatively steep and narrow river valleys associated with the Hudson River tributary system. The Facility ROW begins at approximately 290 feet Above Sea Level (ASL) at the Mohican Substation in Moreau and ends at approximately 320 feet ASL at the Battenkill Substation in Easton. The route crosses eight river valleys, which are generally oriented NE/SW and correspond to changes in elevation of approximately 40 to 100 feet. By virtue of these features being valleys, the elevations on both sides of the crossings are approximately the same.

74. The largest single elevation change along the Facility ROW is associated with the southern bank of the Battenkill River crossing, where the elevation drops 180 feet in approximately 450 feet (40° slope). Three elongate hills oriented NE/SW are present in the Fort Edward and stand between 40 and 60 feet above the surrounding areas.

75. Several types of soils derived mainly from glacial till are crossed by the Facility ROW. Soils in Saratoga County are derived mainly from glacial till, but some soils types are water-sorted sand and gravel directly from glacier outwash planes, kames, eskers, and alluvial deposits. Several Saratoga County soils are poorly and very poorly drained and alluvial (floodplain) soils, with depth to bedrock of over 60 inches.

76. Most of the soils crossed by the Facility ROW within Washington County are derived from either glacial till or glaciolacustrine parent material. The depth to bedrock in these soils ranges from 0 to greater than 5 feet below the surface and the majority of soils

have bedrock at depths greater than 40 inches below the surface. The soils along the Facility ROW range from well drained to poorly drained in Washington County.

77. Grading operations for access roads and at structure work areas along the Facility ROW will vary with soil type, land use, and topography, and will be designed to protect soils from erosion, compaction, and soil mixing. Soil type and slope will be considered in determining the locations of construction activities. Temporarily stockpiled soils will be protected to prevent erosion and keep stormwater runoff from reaching adjacent areas. Vegetative clearing and slash disposal techniques will be prescribed on a site-by-site basis to minimize disturbance to areas of sensitive or unstable soils and steep slopes. There are no topography- or soil-related impacts anticipated as a result of the Project.

78. There are no unique geologic or topographic features that will be permanently affected by construction of the Facility or its operation and maintenance. Temporary environmental effects during construction related to topography and soils would most likely occur in areas of steep slopes or areas where activities could result in significant ground disturbance. The proposed EM&CP will specify the avoidance, minimization, and mitigation measures for disturbed soils and topography along the Facility ROW and access roads.

g. Transportation

79. There are three public-use airports that are within 20,000 feet of the Facility ROW: (1) The Garnseys Airport (FAA id: B04); (2) Heber Airpark (K30); and (3) Floyd Bennett Memorial Airport (KGFL). National Grid submitted the appropriate Federal Aviation Administration (“FAA”) Notice of Proposed Construction or Alteration for the Project. As indicated in Exhibit 24, the FAA found that the initial design of the structures proposed for the Project will have no impact on these airports. National Grid intends, after the design is

finalized and set forth in the approved EM&CP, to re-submit for FAA review those structure final design elements that differ from the initial designs.

80. The Facility ROW does not parallel any railroad corridors but does cross over railroad corridors in the Town of Moreau (owned by Delaware & Hudson Railway) and in the Town of Greenwich (owned by Batten Kill Railroad). The final designs for the Facility will incorporate appropriate transmission facility design criteria, line clearance requirements, and railroad safety clearances. National Grid will review the Facility design with the railroad companies in parallel with the development of proposed EM&CP drawings associated with the Project. Specific drawings detailing rail crossings, in conformance with the appropriate rail entity specifications, will be developed and submitted with the proposed EM&CP. Construction activities will be coordinated with the railroad companies to ensure that construction activities do not conflict with railroad operations and freight movements and to ensure that appropriate railroad safety precautions are implemented.

81. The Facility ROW crosses 17 state, county, and local roadways in Saratoga and Washington Counties. During construction, the Facility ROW will be accessed from these road crossings and existing access entrances and drives will be used to the extent possible. The proposed EM&CP will show the location and type of all access points and will identify whether they are new or existing. Construction access points from local roads will be located to ensure maintenance of safe traffic operations at the road crossings. To ensure safe and continued traffic flow, to maintain access to local residences, and to provide a safe construction work zone near the edge or within a traffic lane for construction activities (*e.g.*, removal of existing conductors and pulling of new conductors) within the road right-of-way, a Maintenance and Protection of Traffic Plan will be developed for each location where construction vehicles will access the Facility ROW frequently from local roadways. To

minimize potential conflicts with traffic patterns and lane usage, National Grid has located transmission structures outside of road rights-of-way and as far from road crossings as feasible. Should temporary parking along the local roadways be required, all vehicles will be situated such that the safe operation of the roadway is not impeded, appropriate safety signage will be provided, and all local ordinances applicable to such temporary parking will be complied with.

82. The number of trips generated by the construction crews for Facility ROW clearing, transmission structure erection, and conductor stringing will be minimal and short-term. Construction-related truck traffic will consist of equipment and material deliveries to the structure sites and removal of cleared vegetation and construction debris from the ROW. The locations of construction marshalling yards and staging areas will be selected so as to minimize cost, delay, and environmental impact; their locations will be identified in the proposed EM&CP. Construction workers will usually arrive at these areas outside of the morning peak travel period and depart these areas during the period between 4:00 pm and dusk. To the extent that delivery of oversized components is required for the Project, the Company intends that it, or its suppliers, will obtain the necessary permits from applicable state agencies.

83. Following final design, National Grid will submit work permit applications as necessary for all applicable road crossings and will fully comply with the permit conditions.

84. Soil washed, dropped, spilled, or tracked onto public rights-of-way will be removed at the end of each work day, or more often if a safety hazard is created. All work within state highway rights-of-way will be designed and performed in accordance with the traffic and safety standards and other substantive requirements contained in 17 NYCRR Part 131, entitled Accommodation of Utilities Within State Highway Right-of-Way, applicable design

standards of the American Association of State Highway and Transportation Officials, including the Manual of Uniform Traffic Control Devices, the Highway Design Manual, and the Policy and Standards for Entrances to State Highways.

85. National Grid has been advised that a Greenwich Trail Blazers snow mobile trail may cross the Facility ROW in Greenwich. For this trail and any other pedestrian paths or multi-purpose trails that could be impacted by Facility construction identified during the development of the proposed EM&CP, National Grid will implement appropriate construction safety practices to prevent unauthorized access to construction work zones and otherwise avoid potential safety conflicts during construction activities.

h. Noise and Debris

86. There are no residences within 50 feet of the edge of the existing ROW, and approximately 20 residences within 50 - 100 feet of the edge of the existing ROW, over the 14.2-mile-long ROW. To minimize disturbance to nearby residences, construction activities will be limited to 7:00 am to 6:00 pm Monday through Saturday; should safety or continuous operation requirements require work outside of the 7:00 am to 6:00 pm Monday through Saturday timeframe, the Company would provide advance notice as provided in proposed certificate condition number 47. Construction noise will be temporary and vary according to the construction equipment in use and existing background or ambient noise. Generally, temporary noise levels are mitigated by the attenuating effects of distance, the intermittent and short-lived character of the noise, the presence of existing vegetation or other natural or man-made barriers (*e.g.*, homes and buildings), the time of day and time of year, and the use of functional mufflers on all construction equipment. Transmission line construction is of short duration in the sense that equipment is generally located at a structure site for only three to five days and then shifted to the next pole structure site in the Facility ROW. No one

residence will be exposed to significant noise levels for an extended period. Comparable work activity and the associated magnitude of noise level impacts include public-works projects and tree-service activity. After the Facility is built, its operation will not result in any significant adverse noise impacts.

87. High-traffic areas will be covered with gravel, and exposed soils and roadways will be wetted as needed during extended dry periods to minimize dust generation.

i. Communications

88. The Facility is not expected to result in any interference with radio, television, cell reception, or public safety communications. National Grid will comply with applicable provisions of the National Electrical Safety Code (“NESC”) related to appropriate spacing between the Facility and communication facilities. Although National Grid has not received any complaints from communication facility operators or the public, National Grid will document any reports of possible interference along the Facility ROW and will take appropriate follow-up action. National Grid’s Customer Service Division is staffed by people trained to direct complaints to the appropriate Company department.

89. National Grid filed Exhibit 18 to the Joint Proposal, National Grid’s *Electric and Magnetic Field Calculations for the Mohican-Battenkill Rebuild Project*, amended May 1, 2013 (“EMF Study”), with the Commission on May 29, 2013 as a replacement to Appendix D of the Application, and served a copy of same on all active parties and all statutory parties to this proceeding. The EMF Study indicates that the proposed structures will reduce the high voltage transmission line radio noise levels. The EMF Study utilized CDEGS-TRALIN software developed by Safe Engineering Services and Technologies Ltd. which utilized the IREQ integration method with a worst case scenario of heavy rain conditions to calculate radio noise. This report is valid for radio noise created by corona only with the reduction in

noise being primarily attributed to the difference in the existing and proposed conductors and the different conductor configurations on the new structures. With the new conductor being larger in diameter than the existing conductor, the surface voltage gradients are reduced which in turn reduces the radio noise attributable to corona. Another source of radio noise is gap discharge, which occurs when two metallic elements which are originally in electrical contact with each other separate and create a short air gap. This phenomenon is more prevalent in distribution lines, but it does occur on transmission lines, and the installation of tighter-fitting new transmission line hardware on aged assets tends to reduce this source of radio noise.

90. During final design of the Facility and the development of the proposed EM&CP, National Grid will submit a Design Dig Safe ticket through the Dig Safely NY call center to identify any potential third-party underground facilities that are within or will be crossed by the Facility ROW. National Grid will identify any underground facilities on the proposed EM&CP Plan and Profile drawings based on input from the facility owner and any above ground features. Any underground facilities deemed critical to the design of the Project will be verified via an actual field mark out and surveyed for accurate placement on the proposed EM&CP drawings. In addition, prior to the commencement of any construction activities, a Dig Safe ticket will be submitted to the Dig Safely NY call center.

j. Electric and Magnetic Fields

91. The electric and magnetic field levels were calculated at the New York standard height of one meter above ground using CDEGS-TRALIN software. A maximum voltage of 105 percent of the line voltage was used to calculate worst-case electric fields. Magnetic field levels were calculated assuming line-loading equal to winter-normal conductor ratings.

Mid-span ground clearances were calculated from NESC tables for lines over areas with normal truck traffic.

92. Opinion No. 78-13 (in Cases 26529 and 26559), effective June 19, 1978, established the Commission's interim standard for an electric field strength of 1.6 kV/m at the edge of the ROW as calculated at one meter above ground, with the line at rated voltage. The calculated electric field ranges from 0.03kV/m to 1.03kV/m for the various cross sections analyzed, which is within the standard limit.

93. The Commission's Statement of Interim Policy on Magnetic Fields of Major Electric Transmission Facilities (in Cases 26529 and 26559), effective September 11, 1990, set a limit for magnetic fields of 200 milliGauss ("mG") at the edge of the ROW as measured at one meter above ground when the circuit phase currents are equal to the winter-normal conductor rating. The calculated magnetic field for the winter normal rating varies from 7.45 mG to 165.29 mG at the edge of the right-of-way for the various Facility cross sections investigated, which is within the standard limit.

94. When Line 15 and the Line 3 Segment were calculated with an ABC top-to-bottom phasing configuration, high magnetic fields at the edge of the Facility ROW were calculated at some cross sections that approached or exceeded the State of New York limit of 200 mG for magnetic field levels at winter-normal rating. National Grid adopted a cross-phasing mitigation approach, as more fully discussed in the Exhibit 18 EMF Study, which phases Line 15 CBA top to bottom, leaving all other circuits unchanged. Due to this cross-phasing mitigation approach, no value at the edge of Facility ROW value exceeds 85 percent of the State of New York guideline of 200 mG at winter-normal rating.

95. The EMF Study indicates that the maximum calculated electric and magnetic fields are within the Commission's guidelines in all cases.

D. Invasive Species

96. At the request of DPS Staff and DEC, National Grid conducted a pre-construction inventory of invasive plant species along the ROW, consistent with the methodology contained in Exhibit 21, Best Management Practices for Article VII Electric Transmission Line Projects, to determine the presence and relative abundance of invasive species on the ROW. Ubiquitous along the ROW are: Morrow honeysuckle, purple loosestrife, and common buckthorn. Other invasive species, multiflora rose, Russian olive, spotted knapweed, reed canary grass, Oriental bittersweet, and Canada thistle, appeared sporadically. The complete and detailed results of the survey are contained in Exhibit 29, National Grid Invasive Species Survey (August 2011) -Inventory and Maps.

97. During development of the EM&CP, National Grid will meet with the appropriate representatives of DPS Staff, DEC's Regional Natural Resource Section and Ag&Mkts to determine plant and insect species of special concern, i.e. invasive species which present an environmental or human health hazard that warrants the prescription of measures to control the spread or eradication, of such species during construction ("Invasive Species of Special Concern"). Each invasive species is to be considered in its landscape context, such as whether a species is contributing positively to vegetation management of the ROW and whether the same species has been observed, or is otherwise known to be abundant, on adjacent lands. The survey information and results of agency consultation will be used to develop a tiered evaluation to categorize the level of priority for further action during the construction process and to prescribe site-specific measures to be employed within each tier that are aimed at reducing the potential spread or introduction of invasive species. All such site-specific protection measures will be identified on the EM&CP Plan and Profile drawings.

98. In addition, the Signatory Parties agree to certain construction practices, contained in the Certificate Conditions and in Exhibit 21, in order to control and prevent the transport of invasive species during construction, with particular attention to DEC-regulated Wetland HF-1.

99. Because only one DEC-regulated wetland, Wetland HF-1 in the Town of Moreau, is traversed by the Facility ROW, National Grid has agreed to DEC's request that Appendix D include the requirement that the Company conduct invasive species monitoring for two growing seasons following completion of Facility ROW restoration. Such requirement is set forth in clause (l) of Certificate Condition 134.

E. The Availability and Impact of Alternatives

100. The Application and exhibits supplied for the record describe the availability and impact of alternatives to the Project and are summarized briefly below. Considering all factors, the Signatory Parties agree that the Project as described in Appendix B is preferable, on balance, to any of the alternatives considered, including an undergrounding alternative. The alternative analysis does not provide sufficient justification to relocate either Line 15 on its own or in conjunction with the Line 3 Segment in any corridor other than the existing National Grid ROW presently occupied by both lines. The creation of a new transmission line corridor would increase land-use conflicts, environmental impacts, and ROW maintenance costs. It also would require the acquisition of a significant amount of additional land rights.

Alternative Routes

101. The Signatory Parties considered and rejected three other route options for the Project: a West Alternative Route, an East Alternative Route, and undergrounding the Project. For the West Alternative Route, National Grid would have to acquire new electrical

transmission line ROW for approximately half the line's length. For the East Alternative Route, National Grid would have to acquire new electrical transmission line ROW for most of the line's length. Further, due to the absence of other energy and railroad infrastructure between the Mohican Substation and the Battenkill Substation, both the West and the East Alternatives would require the use of virgin ROW to connect the two stations with a new line. The Signatory Parties rejected these alternative routes because they would increase construction cost, construction challenges, and need for additional ROW and ROW access, and require abandonment of improvements made on the existing facility.

Alternative Methods to Fulfill Energy Requirements

102. The Signatory Parties agree that the “no build” alternative is not a viable option in this proceeding. This alternative does not serve the growing Northeast Region load and it does not eliminate projected thermal overloads on Line 15 under certain conditions. In addition, it does not address asset-condition issues on the Line 3 Segment. Therefore, it is not an effective alternative to the Project. Without the implementation of the Project, it would be necessary to find a way to reduce the peak load in the Northeast Region by at least 70 MVA (plus additional yearly reductions thereafter to offset projected load growth) in order to maintain acceptable transmission system performance with respect to applicable planning and operating criteria.

103. Although customers within the Northeast Region have the opportunity to participate in demand response programs administered by the NYISO, presently there is insufficient potential for demand response in the region to reduce regional peak load by 70 MVA (11.7%) in the necessary time frame. This conclusion is supported by a review of the literature regarding technical potential for demand response. For example, a June 2009 Staff Report prepared for the Federal Energy Regulatory Commission entitled “A National

Assessment of Demand Response Potential” (included as Exhibit 31) demonstrates that, even under aggressive scenarios, demand response could meet only 14% to 20% of peak load by 2019. To achieve this level of customer participation in demand response programs directed at addressing contingency needs would require the large-scale installation of appropriate telemetry infrastructure, either by the NYISO or by the Company, in order to trigger automatic load shed in the event of a contingency event during peak loads. The roll-out of a complex capital investment program across the Northeast Region to support such a large-scale deployment of demand response is not feasible in the necessary time frame.

104. Given the magnitude of additional energy requirements in the Northeast Region and the short lead-time for meeting these additional energy requirements, it is unrealistic to rely on demand response as an alternative to the proposed transmission reinforcement. In addition, a Demand Response Alternative would not address asset-condition issues relating to the Line 3 Segment.

F. Undergrounding Considerations

105. The Signatory Parties agree that an undergrounding alternative to the Project is not warranted. In order to provide an underground transmission system reasonably equivalent to the overhead lines contemplated in the Project, several different cable segments and intermediate switching stations would be required. Underground transmission lines have significantly higher costs as well as a number of systemic and operational issues.

Considering the increased construction impacts, potential environmental impacts, operational challenges, and the associated increased costs, the Signatory Parties agree that the visual impacts of the Project’s contemplated overhead transmission lines do not warrant further consideration of undergrounding alternatives.

G. Conformance to Long-Range Plans for Expanding the Electric Power

Grid

106. As described above in Section III.A “Need for the Project,” and described in more detail in Supplemented Exhibit E-4, the Project is one of a number of planned reinforcements which are intended to address the present and long-range needs of the Northeast Region. The NRRP has been developed to provide reliable electric service within the Northeast Region. Failure to perform the Project will expose Line 15 to post-contingency thermal overloads, which could physically damage Line 15, and cause interruption of electric service to thousands of customers in the Northeast Region.

107. Based on power-flow analyses set forth in Supplemented Exhibit E-4, which encompass load growth through 2012, the Project is required to maintain transmission service in National Grid’s Northeast Region at current levels of reliability. The results of these power-flow analyses show that the Project eliminates post-contingency thermal overloads to which National Grid Northeast Region is exposed when generation is unavailable.

H. Electric System Reliability

108. A System Impact Study (“SIS”) for the “Northeast NY Reinforcement Project” (NYISO Queue Position #331) was performed in cooperation with the NYISO, and approved by the NYISO’s Operating Committee in December 2009. This study shows that the long-range plan for the Northeast Region does not adversely affect the New York State Transmission System. The Project is needed to relieve post-contingency overloads which affect Line 15. This is consistent with the long-range (ten-year) plan identified above for the Northeast Region. Without the Project, the likelihood will be increased that Line 15 will be

exposed to post-contingency thermal overloads. This could physically damage the circuit and cause interruption of electric service to thousands of customers in the Northeast Region.

I. State and Local Laws

109. National Grid filed a third restated version of Exhibit 7 with the Commission on May 29, 2013 (“Third Restated Exhibit 7”) and served a copy on all active parties and all statutory parties to this proceeding. Third Restated Exhibit 7 identifies, for each local jurisdiction, every substantive local legal provision (ordinance, law, regulation, standard, and requirement) potentially applicable to the Project, as well as every such local legal provision that National Grid requests in such exhibit that the Commission not apply because, as applied to the Project, such local legal provision is unreasonably restrictive in view of the existing technology, factors of costs or economics, or the needs of consumers.

110. The following are examples of local laws National Grid requests the Commission not apply, as well as the corresponding justifications for such requests: (i) noise, odor, emission and vibration prohibitions, on the grounds that these impacts from construction equipment are technically impossible or impracticable to limit to levels specified in the ordinances, and mitigation will be accomplished by the Project’s use of industry standard methods that muffle heavy equipment noise and emissions and that suppress the spread of dust and fly ash; (ii) prohibitions on sign placement near utility poles, on the grounds that the placement of warning and safety signs is warranted and appropriate to most effectively warn the general public of dangers associated with energized electrical equipment; (iii) minimum lot width, frontage, and depth requirements, because these requirements have no necessary nexus or relevance when considered in light of the Company’s contiguous linear ROW lots; (iv) maximum height requirements, because compliance is technologically impossible; (v) shielding and/or screening requirements and prohibitions on cutting existing vegetation, on

the grounds that these requirements cannot be reconciled with the Clearing and Slash Disposal Procedures in the proposed EM&CP and its Commission-approved TROWMP; (vi) road width minimums as applied to Project access roads, on the ground that these requirements provide no benefit in light of the very limited purposes for which National Grid will use access roads; (vii) utility undergrounding requirements, because they would impose an unreasonably high cost; (viii) the prohibition on construction or development within federally-designated wetlands as applied to a particular structure, on the grounds that disturbance to the federally-designated wetland is unavoidable and the Company's proposed approach will create the least disturbance in this location; and (ix) prohibitions on creation of electrical disturbances, on the grounds that it is impossible to design and build the Project such that it would emit no electric or magnetic fields and National Grid will implement electric disturbance mitigation measures by complying with the Commission's standards for electric and magnetic fields.

111. No local jurisdiction has filed any objection to National Grid's requests, set forth in either the Exhibit 7 that was filed with the Application or Third Restated Exhibit 7, that the Commission not apply specified local laws. The Signatory Parties agree that the justifications set forth in Third Restated Exhibit 7 provide sufficient basis for the Commission to refuse to apply the identified ordinances.

112. Except for those provisions the Company specifically requests in Third Restated Exhibit 7 that the Commission refuse to apply, the Company will comply with, and the location of the Facility as proposed conforms to, all substantive State and local legal provisions that are applicable to the Project. Due to the preemptive effect of PSL Section 130, all procedural requirements to obtain any approval, consent, permit, certificate, or other condition for the construction or operation of the Project do not apply.

J. Public Interest, Convenience, and Necessity

113. As stated in Appendix C of the Application, National Grid conducted public outreach and information efforts in support of the Project. Legal Notice of the filing was published in the following publications for two consecutive weeks prior to the Article VII application filing: (i) the *Saratogian*; (ii) the *Glens Falls Post Star*; and (iii) the (Albany) *Times Union*. In addition, copies of the Application were provided to the following libraries for public inspection: Argyle Free Library, Cambridge Public Library, Corinth Free Library, Crandall Public Library, Easton Library, Fort Edward Free Library, Greenwich Free Library, Hudson Fall Free Library and Schuylerville Public Library. Owners of property adjacent to the Facility ROW were sent two letters, one in April 2010 and one in November 2010, which explained the Project and provided a toll-free number (for people seeking additional information about the Project). Between October 22nd and November 5th, 2010, National Grid representatives met with representatives of all four towns along the Project route. The Company conducted informational meetings prior to the Commission's public statement hearings held on July 21, 2011, and National Grid personnel familiar with all aspects of the Project were available to informally address questions and concerns from the public. No member of the public has submitted any written comments to the Commission or commented verbally at the public statement hearings in this case. Prior to commencement of work in each Project area, National Grid will notify adjacent landowners and residents of construction commencement and include a safety message and the toll-free phone number that can be used to obtain additional information.

IV. PROPOSED FINDINGS

114. The Signatory Parties agree that the record in this proceeding supports the Proposed Commission Findings set forth in Appendix C attached hereto.

V. PROPOSED CERTIFICATE CONDITIONS

115. The Signatory Parties agree that the Proposed Certificate Conditions set forth in Appendix D attached hereto are acceptable and appropriate for inclusion in a Certificate of Environmental Compatibility and Public Need authorizing construction and operation of the Project.

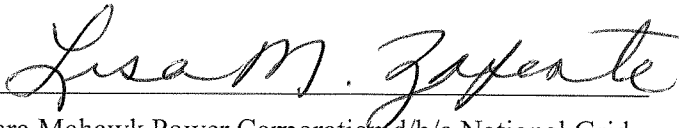
VI. ENVIRONMENTAL MANAGEMENT AND CONSTRUCTION PLAN

116. The Signatory Parties agree that the Specifications for the Development of the Environmental Management and Construction Plan set forth in Appendix E attached hereto are acceptable and appropriate for application to the Project as described herein.

VII. WATER QUALITY CERTIFICATION

117. The Signatory Parties agree that the record in this proceeding supports the water quality certification substantially in the form of Proposed 401 Water Quality Certification set forth in Appendix F attached hereto.

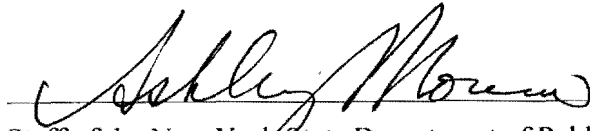
IN WITNESS WHEREOF, the Signatory Parties hereto have this day signed and executed this Joint Proposal.



Niagara Mohawk Power Corporation d/b/a National Grid

By: Lisa M. Zafonte, Esq.

IN WITNESS WHEREOF, the Signatory Parties hereto have this day signed and executed this Joint Proposal.

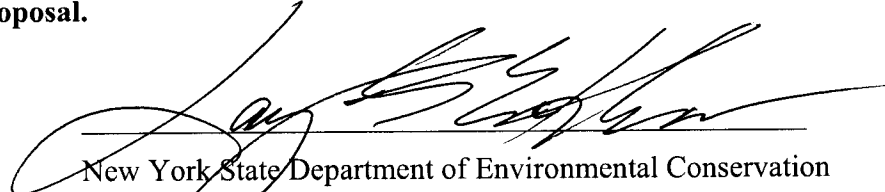


A handwritten signature in cursive script, appearing to read "Ashley Moreno", is written over a horizontal line.

Staff of the New York State Department of Public Service
designated to represent the public interest in this proceeding


By: Ashley Moreno, Esq.

IN WITNESS WHEREOF, the Signatory Parties hereto have this day signed and executed this Joint Proposal.



New York State Department of Environmental Conservation
By: Larry S. Eckhaus, Esq.

IN WITNESS WHEREOF, the Signatory Parties hereto have this day signed and executed this Joint Proposal.



New York State Department of Agriculture & Markets
By: Diane B. Smith, Esq.

APPENDIX A
LIST OF TESTIMONY, AFFIDAVITS AND EXHIBITS TO BE ADMITTED

Testimony:

Direct Testimony of James R. Bunyan, Jessica Farrell, Mark Forchilli, P.E., Frank L. Sciortino, and Stephen B. Wood sponsoring Exhibits 1 through 9 (Exhibits 1 through 9 to the Application in this proceeding (the “Application”)) and Exhibits 10-15 (Exhibits E-1 through E-6 to the Application).

Affidavits:

Affidavits of James R. Bunyan, Jessica Farrell, Mark Forchilli, P.E., Frank L. Sciortino, and Stephen B. Wood.

Exhibits:

- Exhibit 1: The Application, and General Information (Exhibit 1 to the Application)
- Exhibit 2: Location of Facilities (Exhibit 2 to the Application)
- Exhibit 3: Alternatives (Exhibit 3 to the Application)
- Exhibit 4: Environmental Impact (Exhibit 4 to the Application)
- Exhibit 5: Design Drawings (Exhibit 5 to the Application)
- Exhibit 6: Economic Effects of Proposed Facility (Exhibit 6 to the Application)
- Exhibit 7: Local Ordinances (Third Restated Exhibit 7 to the Application (filed with the Commission on May 29, 2013))
- Exhibit 8: Other Pending Filings (Exhibit 8 to the Application)
- Exhibit 9: Cost of Proposed Facility (Exhibit 9 to the Application)
- Exhibit 10: Description of Proposed Transmission Facility (Exhibit E-1 to the Application)
- Exhibit 11: Other Facilities (Exhibit E-2 to the Application)
- Exhibit 12: Underground Construction (Exhibit E-3 to the Application)

- Exhibit 13: Engineering Justification (Exhibit E-4 to the Application (as supplemented by the Supplement to Exhibit E-4 filed with the Commission on May 29, 2013))
- Exhibit 14: Effect on Communications (Exhibit E-5 to the Application)
- Exhibit 15: Effect on Transportation (Exhibit E-6 to the Application)
- Exhibit 16: Agency Correspondence (Appendix A to the Application, and September 14, 2011 Letter from the NYSDEC Division of Fish, Wildlife & Marine Resources to ESS Group, Inc.)
- Exhibit 17: Outreach and Education Plan (Appendix C to the Application)
- Exhibit 18: EMF Study (Amended May 1, 2013) (as filed with the Commission on May 29, 2013))
- Exhibit 19: Responses to DPS-1 through DPS-32
- Exhibit 20: Responses to DEC-1 through DEC-14 and DEC-16
- Exhibit 21: National Grid's Best Management Practices for Article VII Electric Transmission Line Projects
- Exhibit 22: June 23, 2011 and July 2, 2012 Letters to Applicant from Historic Preservation Field Services Bureau of New York State Office of Parks, Recreation and Historic Preservation
- Exhibit 23: Champlain Canalway Trail Action Plan (excerpt: Black House Road to Champlain Canal Lock 7)
- Exhibit 24: Federal Aviation Administration Notices of Determination that the initial design of the structures proposed for the Project will have no impact on Garnseys Airport, Heber Airport, and Floyd Bennett Memorial Airport
- Exhibit 25: NYS Department of Agriculture and Markets publication: "Fertilizing, Lime and Seeding Recommendations for Restoration of Construction Projects on Farmlands in New York State" (revised September 25, 2012)
- Exhibit 26: Mohican-Battenkill Rebuild, Seasonal Construction Limitations for Federal and State-listed Rare, Threatened, and Endangered Species (dated March 9, 2013)
- Exhibit 27: DEC E-mail regarding Rare Species (dated December 8, 2011)

- Exhibit 28: TRC Environmental Corporation Report of Wild Blue Lupine Field Survey (dated July 17, 2012)
- Exhibit 29: National Grid Invasive Species Survey (August 2011) - Inventory and Maps
- Exhibit 30: Structure-Mileage Cross Reference Table
- Exhibit 31: FERC Staff Report on National Assessment of Demand Response Potential (dated June 2009)

APPENDIX B DESCRIPTION AND LOCATION OF FACILITY

General Project Description

As proposed, this project (the “Project”) is the reconstruction and reconditioning over a distance of approximately 14.2 miles of two of National Grid’s 115 kV electric transmission lines within the existing right-of-way (“ROW”). The two lines are the Mohican-to-Battenkill Line 15 (“Line 15”) and the portion of the Mohican Luther Forest Line 3 (formerly known as Mohican-to-North Troy Line 3) between the Mohican and Battenkill Substations (the “Line 3 Segment”) (collectively, as they exist prior to the Project, the “Existing Lines,” and as National Grid proposes to rebuild and recondition them in the Project, the “Facility”).

The Facility has been designed to operate, like the Existing Lines, at a nominal system voltage of 115 kV alternating current (“AC”). The voltage of initial operation of the Facility will also be 115 kV.

The proposed conductor type for the Facility is 795,000 circular mills (a thousand circular mills is one “MCM”) 26/7 Aluminum Conductor, Steel Reinforced (“ACSR”) “Drake” conductor. The Facility is designed with a single 795 ACSR “Drake” wire per phase for 14.2 circuit miles from the Mohican Substation to the Battenkill Substation, except in the area of the span across the Battenkill River, which will be 1113 MCM 54/19 “Finch.” The winter STE rating for the Facility where it is conductored with 795 ACSR “Drake” is 1,629 amps; where it spans the Battenkill River, it will have a maximum winter STE rating of 2,030 amps. All conductor utilized will have a non-specular finish.

The aerial ground wire type utilized on the Facility will be 3/8-inch extra high strength (“EHS”) non-specular 7 strand steel cable. There will be one aerial ground wire strung over each circuit of the Facility on the single supporting structure, except that, directly adjacent to the Mohican Substation (from the Mohican Substation to Mile 0.1¹), where the circuit is supported by single circuit steel structures, proposed Line 15 will have a single 3/8 inch EHS 7 strand steel cable. The aerial ground wire utilized for the span over the Battenkill River will be ½” EHS steel shield wire. All aerial ground wire utilized will have a non-specular finish.

Insulator design for the Facility will be predominantly suspension-type ball-and-socket insulators. In all suspension applications, regardless of structure type, insulator strings will consist of ten (10) porcelain ball-and-socket insulators. Dead-end and angle structures will utilize either single- or double-string ten (10) porcelain ball-and-socket insulators. Where required, restrained porcelain insulator assemblies will be utilized to mitigate the effects of conductor blow-out and to facilitate appropriate clearance between the conductor and the grounded surfaces of the structures. Post insulators will be installed as required, depending upon line angle, at dead-end structures. All insulators will be colored dark brown.

¹ All mileage is measured from north to south. See the Structure-Mileage Cross Reference Table, which is Exhibit 30 to the Joint Proposal.

Several different structure types will be used for the Project. All permanent structure types for the Facility will be self-supporting weathering tubular steel pole structures which will, over time, become brown in color and form an original rust color finish. From the Mohican Substation to Mile 0.2, proposed Line 15 will be supported on single circuit tubular steel structures, and the proposed Line 3 Segment will be supported on a single circuit vertically-configured dead-end structure. From Mile 0.1 to the Battenkill Substation, the Facility, with proposed Line 15 on the east side and the proposed Line 3 Segment on the west side, will be supported by the same double circuit tubular steel structures, replacing the double circuit lattice tower structures currently supporting the Existing Lines.

The predominant structure type proposed for the Facility, for dead-end and suspension applications alike, is a phase-over-phase-configured davit arm monopole structure. A total of approximately 117 structures of this type are proposed. Of these, approximately 109 are to be phase-over-phase configured steel monopole double circuit davit arm suspension structures and approximately eight (8) are to be phase-over-phase configured steel monopole double circuit davit arm dead-end structures. There are two (2) single circuit steel vertical dead-end structures, two (2) single circuit steel delta davit arm suspension structures, one (1) single circuit vertically-configured switch structure, and one (1) steel single circuit three pole dead-end pull-off structure. The remaining structure types consist of approximately three (3) double circuit steel two pole vertical dead-end pull-off structures, one (1) special double circuit steel two pole vertical dead-end pull-off structure, and one (1) double circuit steel three pole vertical dead-end pull-off structure. The average structure height proposed for the Facility is approximately 85 feet and the average span length is proposed to be approximately 600 feet.

Specific Facility Components and Location

The Facility ROW is located in Washington and Saratoga Counties (Northeast Region of Eastern New York National Grid Service Territory). National Grid proposes to construct the Facility so that, where possible, the line of its new double circuit structures is located on the ROW offset from the line of structures for the Existing Lines. The locations and dimensions set forth in the following reflect National Grid's good faith effort to provide specifics prior to final design of the Project.

The width of the existing ROW varies from approximately 100 feet to 175 feet. The existing ROW is generally 150 feet wide from the Mohican Substation to the 115 kV Tap #1 in the Town of Moreau (at approximately Mile 1.0, between existing structures 93 and 94 and between proposed structures 11 and 12). The existing ROW is generally 175 feet wide along a segment of the route in the Town of Fort Edward, where the 34.5 kV Battenkill - Cement Mountain Line #5 (Fort Miller Tap) parallels the Existing Lines to the west for approximately 1.2 miles, at which point (approximately Mile 11.0, existing structure 188 and proposed structure 106) the Fort Miller Tap crosses to the eastern side of the Existing Lines and continues on toward the Battenkill Substation for approximately 3 miles. Approximately 900 feet north of the Battenkill Substation (approximately Mile 14.0, existing structure 207 and proposed structure 125), the Fort Miller Tap turns east and out of the ROW. The existing ROW is generally 125 feet wide in the

Town of Easton, for its final 2,000 foot distance to the Battenkill Substation. The existing ROW is generally 100 feet wide along all other segments of the route.

With the exception of certain locations (as noted below), the centerline of the Facility from Mile 0.1 (at approximately existing structure 84B and proposed structure 2) to Mile 11.9 (at approximately existing structure 194 and proposed structure 112) will be placed, for constructability reasons, to the east of the Existing Lines but still inside the existing ROW. This will permit installation of the new structures and conductors along this section of the ROW prior to removal of the existing ones, thus helping to minimize long-duration outages, maximize construction efficiency, and shorten the overall duration of the Project.

Between Mile 11.9 (at approximately existing structure 194 and proposed structure 112) and the Battenkill Substation, a distance of 2.3 miles, the Facility will be offset to the east of the Existing Lines by approximately five feet. The presence of a parallel sub-transmission circuit limits the distance between the Facility and the Existing Lines. The five foot offset from the centerline of the Existing Lines is the most viable place within the bounds of the existing ROW to accommodate the Facility.

At the northernmost section of the existing ROW, between Mile 0.0 and Mile 0.2 (existing structures 84C to 86 and proposed structures 1 to 4), the ROW is generally 150 feet wide. Along this segment, existing Line 15 is located on the centerline of the existing ROW, supported first (from north to south) by a vertically-configured single wood pole dead-end structure (existing structure 84C), followed by a single wood pole delta line post structure (existing structure 84B), and then by a three-pole, wooden cross-arm structure (Line 15's existing structure 85). These structures will be replaced by a self-supporting vertically-configured steel pole dead-end structure (proposed structure 1) and self-weathering steel, monopole, delta-configured structures (proposed structures 2 and 3). Existing Line 3, located approximately 29.5 feet from the western edge of the existing ROW, currently is supported by a wooden three pole dead-end pull-off structure (the Line 3 Segment's existing structure 84A) and a steel lattice flex tower (the Line 3 Segment's existing structure 85). The Line 3 Segment's existing structure 85 will be replaced in its current location by a self-weathering steel, monopole, vertically-configured dead-end structure (proposed structure 85). Structure 84A on the Line 3 Segment is to be replaced with a self-supporting steel single circuit three pole dead-end structure.

Between Mile 0.2 and Mile 1.0 (existing structures 86 to 93 and proposed structures 4 to 11) , the existing ROW is generally 150 feet wide, with the Existing Lines located approximately 29.5 feet from the western edge of the existing ROW. The Project will position the Facility on the centerline of the existing ROW, approximately 45.5 feet east of the existing structure locations. The Facility will be supported by self-weathering steel, monopole, phase-over-phase, double-circuit structures. The location of the existing sub-transmission 34.5kV Line 17 will not change.

Between Mile 1.0 and Mile 1.9 (existing structures 93 to 102 and proposed structures 11 to 20) , the existing ROW is generally 100 feet wide, and the Existing Lines are located approximately 29.5 feet east of the western edge of the existing ROW. The Facility will be located approximately 39.5 feet from the Existing Lines and supported by self-weathering steel, monopole, phase-over-phase, double-circuit structures. The Facility cannot be located at the

center of the existing ROW in this segment because of constructability issues given the proximity to the Existing Lines, and it cannot be moved closer to the eastern edge of the existing ROW because of conductor blow-out concerns. A twenty-five foot width of permanent easement is required on this segment to construct the Facility and to operate and maintain it in a safe and reliable manner.

Between Mile 1.9 and Mile 2.1 (existing structures 102 to 104 and proposed structures 20 to 22), the existing ROW is generally 100 feet wide, and the Existing Lines are located approximately 29.5 feet east of the western edge of the existing ROW. The Facility will be located on the centerline of the existing ROW, approximately 20.5 feet east of the Existing Lines and supported by self-weathering steel, monopole, phase-over-phase, double circuit structures. The structures adjacent to those located at Mile 1.9 and Mile 2.1 will be used to angle the Facility's general location of approximately 39.5 feet from the Existing Lines to the centerline alignment. The alignment of this segment, which differs from its alignment as proposed in the Application, results from discussions among the Signatory Parties and will minimize abutter impacts along Fort Edward Road by avoiding the requirement for additional permanent easement rights for vegetation clearing.

Between Mile 2.1 and Mile 2.9 (existing structures 104 to 113 and proposed structures 22 to 31), the existing ROW is generally 100 feet wide, and the Existing Lines are located approximately 29.5 feet east of the western edge of the existing ROW. The Facility will be located approximately 39.5 feet from the Existing Lines and supported by self-weathering steel, monopole, phase-over-phase, double-circuit structures. The Facility cannot be located at the center of the existing ROW in this segment because of constructability issues given the proximity to the Existing Lines, and it cannot be moved closer to the eastern edge of the existing ROW because of conductor blow-out concerns. A twenty-five foot width of permanent easement is required on this segment to construct the Facility and to operate and maintain it in a safe and reliable manner.

Between Mile 2.9 and Mile 3.5 (existing structures 113 to 118 and proposed structures 31 to 36), the existing ROW is generally 100 feet wide, and the Existing Lines are located approximately 29.5 feet east of the western edge of the existing ROW. The Facility will be located at the centerline of the existing ROW, approximately 20.5 feet east of the Existing Lines. The structures adjacent to those located at Mile 2.9 and Mile 3.5 will be used to angle the Facility's general location of approximately 39.5 feet from the Existing Lines to the centerline alignment. The Facility will be supported by self-weathering steel, monopole, phase-over-phase, double circuit structures. The alignment of this segment, which differs from its alignment as proposed in the Application, results from discussions among the Signatory Parties and is done to minimize abutter impacts by avoiding the requirement for additional vegetation clearing and by mitigating potential impacts to the views associated with the Hudson River crossing. Also differing from the Application, it will be necessary due to site constraints to locate one structure in DEC-regulated wetland HF-1 in the Town of Moreau.

Between Mile 3.5 and Mile 8.0 (existing structures 118 to 159 and proposed structures 36 to 77), the existing ROW is generally 100 feet wide, and the Existing Lines are located approximately 29.5 feet east of the western edge of the existing ROW. The Facility will be located generally

39.5 feet from the Existing Lines and supported by self-weathering steel, monopole, phase-over-phase, double circuit structures. The Facility cannot be located at the center of the existing ROW in this segment because of constructability issues given the proximity of the Existing Lines, and it cannot be moved closer to the eastern edge of the existing ROW because of conductor blow-out concerns. A twenty-five foot width of permanent easement is required on this segment to construct the Facility and to operate and maintain it in a safe and reliable manner.

Between Mile 8.0 and Mile 8.1 (existing structures 159 to 160 and proposed structures 77 to 78), the existing ROW is generally 100 feet wide, and the Existing Lines are located approximately 29.5 feet east of the western edge of the existing ROW. The Facility will be located at the centerline of the existing ROW, approximately 20.5 feet east of the Existing Lines. The structures adjacent to those located at Mile 8.0 and Mile 8.1 will be used to angle the Facility's general location of approximately 39.5 feet from the Existing Lines to the centerline alignment. The Facility will be supported by self-weathering steel, monopole, phase over phase, double circuit structures. The alignment of this segment, which differs from its alignment as proposed in the Application, results from discussions among the Signatory Parties and is done to minimize abutter impacts by avoiding the requirement for additional vegetation clearing.

Between Mile 8.1 and Mile 9.9 (existing structures 160 to 177 and proposed structures 78 to 95) , the existing ROW is generally 100 feet wide, and the Existing Lines are located approximately 29.5 feet east of the western edge of the existing ROW. The Facility will be located approximately 39.5 feet from the Existing Lines and supported by self-weathering steel, monopole, phase-over-phase, double circuit structures. The Facility cannot be located at the center of the existing ROW in this segment because of constructability issues given the proximity of the Existing Lines, and it cannot be moved closer to the eastern edge of the existing ROW because of conductor blow-out concerns. A twenty-five foot width of permanent easement is required on this segment to construct the Facility and to operate and maintain it in a safe and reliable manner. As discussed in the Joint Proposal, in order to avoid a pre-contact archeological site, the Signatory Parties have agreed to the relocation of proposed structure 81 a distance of 50 feet to the north of the location proposed in the Application.

Between Mile 9.9 and Mile 11.1 (existing structures 177 to 188 and proposed structures 95 to 106), the existing ROW is generally 175 feet wide. The Existing Lines are located approximately 17 feet to the east of the centerline of the existing ROW. The Facility will be located approximately 39.5 feet east of the Existing Lines and supported by self-weathering steel, monopole, phase-over-phase double-circuit structures. A twenty-five foot width of permanent easement is required on this segment to construct the Facility and to operate and maintain it in a safe and reliable manner.

Between Mile 11.1 and Mile 13.7 (existing structures 188 to 205 and proposed structures 106 to 123), the existing ROW is generally 100 feet wide, and the Existing Lines are located approximately 26.5 feet from the western edge of the existing ROW. Each structure in this segment of the Facility will be positioned approximately five feet east of the location of its counterpart on the Existing Lines and supported by self-weathering steel, monopole, phase-over-phase double-circuit structures. On this segment of the existing ROW, positioning the Facility any greater distance from the location of the Existing Lines is restricted by the presence of the

sub-transmission 34.5kV Line 5. A twenty-five foot width of permanent easement is required on this segment to construct the Facility and to operate and maintain it in a safe and reliable manner.

Between Mile 13.7 and Mile 14.0 (existing structures 205 to 207 and proposed structure 123 to 125), the existing ROW is generally 140 feet wide. The Existing Lines are located approximately 26.5 feet from the western edge of the existing ROW. They share the ROW with the sub-transmission 34.5kV Line 5. To facilitate construction on this segment of the existing ROW, National Grid proposes to locate the centerline of the Facility, supported by self-weathering steel, monopole, phase-over-phase double-circuit structures, five feet to the east of the Existing Lines, which are supported by double-circuit lattice-tower structures. A ten foot width of permanent easement is required on this segment to construct the Facility and to operate and maintain it in a safe and reliable manner.

Between Mile 14.0 and Mile 14.2 (existing structures 207 to 208 and proposed structures 125 to 126), the Existing Lines, which are supported by double circuit lattice tower structures, are the sole occupants of the existing ROW. The Facility, which will be supported by self-weathering steel, monopole, phase-over-phase double circuit structures, will be located generally five feet to the east of the Existing Lines. A ten foot width of permanent easement is required on this segment to construct the Facility and to operate and maintain it in a safe and reliable manner.

For the purposes of minimizing the duration of outage to a specific transmission-level customer during construction of the Facility, the Company proposes to construct a temporary by-pass line at approximately Mile 1.0 (between existing structures 93.5 and 94 and proposed structures 11 and 12). This temporary by-pass line will consist of two wood pole structures, one structure located in line with the existing Line 15 conductors slightly south of existing structure 93.5 and the other structure located between the existing Line 15 tap to the transmission-level customer and the adjacent 34.5kV Hudson Falls – McCrae Street Line 17. The total length of this proposed by-pass line is approximately 250 feet and would require temporary property rights permitting the conductor to be located above a small parcel of land.

In order to safely construct the Facility, a minor reconfiguration of existing sub-transmission assets in the area approximately between Mile 12.6 (existing structure 199 and proposed structure 117) and Mile 13.3 (existing structure 202 and proposed structure 120) is required. The existing phase spacing on the sub-transmission assets will be condensed by changing structure types from horizontally-configured structures to predominantly vertically-configured structures, and the new structures will be slightly relocated on the same circuit centerline relative to the existing structures.

APPENDIX C PROPOSED COMMISSION FINDINGS

After due consideration of all the information set forth in the Joint Proposal and its appendices, the Commission finds as follows:

1. The project for which Niagara Mohawk Power Corporation d/b/a National Grid (“National Grid”) seeks certification in the instant proceeding (the “Project”), which is the proposed rebuilding and reconductoring of the Mohican-to-Battenkill Line 15 and the portion of the Mohican Luther Forest Line 3 (formerly known as Mohican-to-North-Troy Line 3) between the Mohican Substation in Saratoga County and the Battenkill Substation in Washington County (collectively, as National Grid proposes to rebuild and reductor them in the Project, the “Facility”), is needed to relieve the thermal and projected load constraints in National Grid’s Northeast Region.
2. The nature of the probable environmental impacts resulting from the Project includes: (a) minimal and temporary construction impacts on active agricultural lands; (b) minimal incremental visual impacts from the reconstruction of the existing lines; (c) construction impacts on certain State-regulated wetlands and protected streams and waterbodies; (d) selective clearing of undesirable woody species or saplings on some segments of the Facility’s right-of-way; (e) selective vegetative clearing within 50 feet of watercourses and wetlands; (f) temporary disturbance and inconvenience associated with construction activities; (g) noise and debris due to construction activities; and (h) maximum calculated electromagnetic fields at the edge of the Facility’s right-of-way that comply with the Commission’s guidelines.
3. The Facility, as proposed by the Signatory Parties to the Joint Proposal, represents the minimum adverse environmental impact, considering the state of available technology and the nature and economics of the various alternatives, and other pertinent considerations including but not limited to the effect on agricultural lands, wetlands, parklands, and river corridors traversed.
4. No part of the Facility shall be located underground. An underground alternative to the Project was examined on a screening level; undergrounding of the Facility would have significantly increased: costs, environmental and construction impacts, and system operating impacts.
5. Construction of the Facility conforms to the State’s and the New York Independent System Operator’s energy policies and long-range planning objectives and strategies, and is consistent with National Grid’s transmission plans.
6. The location of the Facility conforms to applicable state laws and regulations issued thereunder, including Articles 9, 15 and 24 of the Environmental Conservation Law and 6 NYCRR §§ 608.8 and 663.5 and Parts 701 and 703.
7. The location of the Facility conforms to the substantive provisions of the applicable local laws and regulations issued thereunder, except those local laws and regulations which the

Commission refuses to apply because it finds, based on the justifications set forth in Third Restated Exhibit 7 (as filed with the Commission on May 29, 2013), that as applied to the Facility, such are unreasonably restrictive in view of the existing technology, or of factors of cost or economics, or of the needs of consumers whether located inside or outside of such municipality.

8. Based upon all information set forth in the record as listed in Appendix A, the Facility will serve the public interest, convenience, and necessity.

APPENDIX D
PROPOSED CERTIFICATE CONDITIONS

A. Conditions of the Order

The Commission orders:

1. Subject to the conditions set forth in this Order, Niagara Mohawk Power Corporation d/b/a National Grid (the “Certificate Holder”) is granted a Certificate of Environmental Compatibility and Public Need (the “Certificate”), pursuant to Article VII of the New York Public Service Law (“PSL”), authorizing the reconstruction and reconductoring over a distance of approximately 14.2 miles (the “Project”) of two of its 115 kV electric transmission lines, the Mohican-to-Battenkill Line 15, and the portion of the Mohican Luther Forest Line 3 (formerly known as Mohican-to-North Troy Line 3) between the Mohican and Battenkill Substations (collectively, as they exist prior to the Project, the “Existing Lines,” and as National Grid proposes to rebuild and reductor them in the Project, the “Facility”).

2. 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.

3. 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.

4. 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.

5. The Secretary may extend any deadlines established by this order for good cause shown.

B. Description of Route

6. The proposed location of the Facility as set forth in Appendix B entitled “Description and Location of Facility” attached to the Joint Proposal, is approved.

7. The Facility shall be located on the centerline of the existing ROW at the following three (3) locations (as detailed in Appendix B): (a) between Mile 1.9 and Mile 2.1 (existing structures 102 to 104 and proposed structures 20 to 22); (b) between Mile 2.9 and Mile 3.5 (existing structures 113 to 118 and proposed structures 31 to 36); and (c) between Mile 8.0 and Mile 8.1 (existing structures 159 to 160 and proposed structures 77 to 78).

C. Laws and Regulations

8. a) Each substantive Federal, State and local law, regulation, code and ordinance applicable to the Facility authorized by the Certificate shall apply, except and to the extent

that the Commission has expressly refused to apply any substantive local law or regulation as being unreasonably restrictive as discussed herein.

b) No State or municipal legal provision purporting to require any approval, consent, permit, certificate or other condition for the construction or operation of the Facility authorized by the Certificate shall apply, except (i) those of the PSL and regulations and orders adopted thereunder, (ii) those provided by otherwise applicable state law for the protection of employees engaged in the construction and operation of the Facility, and (iii) those permits issued under a federally-delegated or -approved environmental permitting program.

c) The Certificate Holder shall construct the Facility in a manner that conforms to all 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, 2012 Edition, and any stricter standards adopted by the Certificate Holder. Upon completion of the Project, the Certificate Holder shall send a letter to the Secretary certifying that the Facility was constructed in full conformance with the NESC.

9. The Certificate Holder shall maintain the Facility right-of-way (“ROW”) in accordance with the Certificate Holder’s Commission-approved *Transmission Right-of-Way Management Program* adopted pursuant to 16 NYCRR Part 84.

10. a) The Certificate Holder shall coordinate all work performed at state and municipal road and highway crossings 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.

c) A copy of each permit or approval received from the issuing agencies shall be provided to the Secretary by the Certificate Holder promptly after receipt by the Certificate Holder of such permit or approval and before commencement of construction across any affected area.

11. 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, 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 five (5) business days, to address the reasonableness of any requirement or delay.

D. Public Health and Safety

12. 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.

13. 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 proposed 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.

14. The Certificate Holder shall notify persons who own properties that abut the Facility ROW, and persons who reside on such properties (if different from the owner), of the planned construction activities and schedule affecting their residences at least seven days, but no more than thirty days, prior to the commencement of construction. The Certificate Holder may give such notices by affixing them to the doors of residences. The Certificate Holder shall provide a copy of the generic form of such notice to the Secretary prior to the commencement of construction.

15. 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.

16. In accordance with New York State Department of Environmental Conservation (“DEC”) regulations and guidance, the Certificate Holder shall immediately notify DPS Staff and DEC of any fuel or chemical spills.

17. The Certificate Holder shall comply with the requirements for the protection of underground facilities set forth in 16 NYCRR Part 753 “Protection of Underground Facilities.”

18. 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.

19. 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 areas shall be designated in the proposed EM&CP.

20. Direct disturbance to properties shall be avoided by accessing the Facility ROW from existing roadways or approved off-ROW access roads.

21. For each road crossing and location where construction vehicles will access the Facility ROW frequently from local roadways, 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. At a minimum, signs shall be placed at the following distances:

- i) Signs announcing construction at 500 feet and 1,000 feet;
- ii) Signs depicting workers at 300 feet;

iii) Where blasting is to take place within 50 feet of a road, a blast-warning sign at 1,000 feet.

b) Flagmen 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.

22. To the extent required in connection with the delivery of oversized components, the Certificate Holder or its suppliers shall obtain any necessary permits from applicable state or local agencies.

23. 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.

E. Environmental Management and Construction Plan

24. 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 proposed EM&CP. These environmental protection measures shall be applied during construction, operation and maintenance of the Facility. Applicable provisions of the Certificate, proposed EM&CP, and orders approving the proposed EM&CP shall be accommodated in any design, construction, ownership, or maintenance contracts associated with the Facility.

25. The proposed EM&CP shall be organized and developed in accordance with these Certificate Conditions and with Appendix E entitled "Specifications for the Development of Environmental Management and Construction Plan" attached to the Joint Proposal, and shall not be inconsistent with the Certificate Holder's Commission-approved *Transmission Right-of-Way Management Program* except where a conflict with a provision of the Certificate would be created.

26. If the Certificate Holder includes in the proposed EM&CP any environmental protection or mitigation measure(s) not set forth in the Certificate Holder's Best Management Practices for Article VII Electric Transmission Line Projects, attached as Exhibit 21 in Appendix A of the Joint Proposal, the Certificate Holder shall also include with such proposed EM&CP a listing of each such measure, where the Certificate Holder proposes to use such measure, and an explanation as to why the Certificate Holder selected that measure rather than a measure in the Best Management Practices for Article VII Electric Transmission Line Projects.

27. During the preparation of the proposed EM&CP, the Certificate Holder shall contact the DEC Regional Supervisor, NYS Natural Heritage Program and USFWS to check for any updates or changes of known RTE species or habitat or Significant Natural Communities in the Project area.

28. Except as provided in Certificate Condition number 7, deviations from the certified centerline, design height, location, number of structures, and structure types as described in Appendix B shall be allowed for appropriate environmental or engineering reasons, except where a conflict with a provision of the Certificate would be created. An explanation for the proposed deviation and supporting documentation shall be provided in the proposed EM&CP.

29. The Certificate Holder shall not begin site preparation or construction with respect to any portion of the Facility (except for surveying, soils testing and such other related activities as are necessary for preparation of the final design plans) and shall not commence any proceedings under the Eminent Domain Procedure Law to acquire permanent ROW, temporary ROW, or off-ROW access with respect to any portion of the Facility until the Commission has approved the proposed EM&CP for such portion of the Facility. To calculate the three-year period for acquisition of property pursuant to the Eminent Domain Procedure Law, the date of Commission approval of the proposed EM&CP covering the affected parcel shall be regarded as the date on which this Article VII proceeding was completed.

30. The Certificate Holder shall file copies of its proposed EM&CP as directed by the Secretary and, unless otherwise directed by the Secretary, serve two electronic copies and one hard copy on the staff of the DEC, Central Office in Albany, one electronic copy and one hard copy on the Region 5 office of the DEC, one hard copy on the staff of the New York State Department of Agriculture & Markets (“Ag&Mkts”), one hard copy on the Region 1 office of the NYSDOT; one hard copy on any other New York State agency (and its relevant regional offices) that requests the document; and one hard copy on any party on the service list who requests the document. Service upon state agencies shall be in the same manner and at the same time as filing with the Secretary. The Certificate Holder also shall place one electronic copy and one hard copy for inspection by the public in at least one public library or other convenient location in each municipality in which construction will take place.

31. Contemporaneously with the filing and service of the proposed EM&CP, the Certificate Holder shall provide notice, in the manner specified below, that the proposed EM&CP has been filed.

- a) The Certificate Holder shall serve written notice(s), in language reasonably understandable to the average person, of filing the proposed EM&CP on all parties to this proceeding, on each person on the Commission’s service list considered potentially affected by the subject matter in the proposed EM&CP, and on all parties required to be served with the Application by statute or regulation, and on each person from whom property rights are required and shall attach a copy of the notice to each copy of the proposed EM&CP. Further, the Certificate Holder shall publish the notice in a newspaper or newspapers of general circulation in the vicinity of the Facility.
- b) The written notice(s) and the newspaper notice(s) of filing the proposed EM&CP pursuant to clause (a) above and clause (c) below shall contain, at a minimum, the following:
 - (1) a statement that the proposed EM&CP has been filed;
 - (2) a general description of the certified Facility, the need for the Facility, and the proposed EM&CP;
 - (3) a listing of the locations where the proposed EM&CP is available for public inspection;
 - (4) a statement that any person desiring additional information about a specific geographical location or specific subject may request it from the Certificate Holder;
 - (5) the name, address, and telephone numbers of an appropriate Certificate Holder representative;
 - (6) the e-mail and physical address of the Secretary; and

(7) 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 45 days of the date the proposed EM&CP was filed with the Commission, or within 45 days of the date of the newspaper notice, whichever is later.

c) For all ROW to be acquired for the Facility in fee, and for all off-ROW access to be acquired for the Facility in fee, the Certificate Holder shall cause an examination of title (title search) to be conducted in the same manner as would be conducted by a reputable title insurance company to identify all of-record owners, mortgagees, lienholders, leaseholders or others with a recorded interest in such property rights it intends to acquire. For all ROW to be acquired for the Facility by easement, and for all off-ROW access to be acquired for the Facility by easement, the Certificate Holder shall identify the last owner of record. The Certificate Holder shall provide written notice of filing the proposed EM&CP to: (i) each person identified by a title examination as described in the first sentence of this paragraph or by a last-owner-of-record identification as described in the second sentence of this paragraph, or the attorney of record for such person, (ii) each person with a recorded ownership interest in the underlying land right to an existing easement the Certificate Holder uses for the Facility, and (iii) each person who is a lessee of a portion of any existing ROW to be used for the Facility. Such written notice shall contain the information set forth in clause (b) above and it also shall contain a specific description of the right(s) to be acquired for the Facility with respect to the applicable property.

32. A certificate of service indicating upon whom all proposed EM&CP notices were served shall be filed with the Secretary within three (3) business days after the time the proposed EM&CP is filed, and shall be a condition precedent to approval of the proposed 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.

33. 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, 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 Director of the Office of Energy Efficiency and the Environment (“OEEE”) for approval. DPS Staff will refer all other proposed changes to the Commission for approval; the Certificate Holder shall not execute any proposed change until it receives written notification from the Director of OEEE or the Commission.

b) Upon being advised that DPS Staff will refer a proposed change to the Commission, the Certificate Holder shall notify all parties to the Joint Proposal 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, and (3) state that persons may comment by writing or calling (followed by written confirmation) to the Commission within twenty-one (21) days of the notification date. 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 DPS Staff, except in emergency situations threatening personal injury, property damage, or severe adverse environmental impact, or as specified in the approved EM&CP.

F. Notices and Public Complaints

34. a) 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 Facility, be available to receive complaints, if any, from the public about the construction of the Facility. 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.

b) The Certificate Holder shall report to DPS Staff every complaint that cannot be resolved after reasonable attempts to do so. Such report shall be made within ten (10) business days after receipt of the complaint.

35. a) No less than two weeks before commencing site preparation, the Certificate Holder shall notify the public of the anticipated date that site preparation will commence, as follows:

- (1) provide notice to local officials and emergency personnel along the entire Facility route;
- (2) provide notice to local media for dissemination;
- (3) provide notice for display in 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:

- (1) a map of the Facility;
- (2) a brief description of the Project;
- (3) the anticipated date for start of site preparation;
- (4) 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 Facility, be available to receive complaints, if any, from the public about the construction of the Facility; and,
- (5) a statement that the Facility 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.

36. The Certificate Holder shall provide all contractors providing services for construction of the Facility ("Contractors") with complete copies of the Certificate, the approved EM&CP, the order(s) approving the EM&CP, updated construction drawings, any site-specific plans, the State Pollutant Discharge Elimination System ("SPDES") General Permit for Stormwater Discharge from Construction Activity (Permit No. GP-0-10-001) ("SPDES General Permit"), any permit issued pursuant to Section 404 of the Federal Clean Water Act and the Section 401 Water Quality Certification. To the extent that the listed

documents are available before contracts for construction services are executed, such copies shall be provided to the Contractors prior to the execution of such contracts.

37. 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.

38. The Certificate Holder shall inform the Secretary in writing at least five days before commencing construction or clearing for the Facility.

39. The Certificate Holder shall provide DPS Staff, Ag&Mkts, and DEC with weekly status reports summarizing construction and indicating construction activities and locations scheduled for the next two weeks.

40. Within ten (10) days after the Facility is in service, the Certificate Holder shall notify the Secretary in writing of that fact.

41. Within ten days of the completion of final restoration, 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.

G. ROW Construction, Operation, Maintenance and Restoration

42. a) At least two (2) weeks prior to the start of construction, the Certificate Holder shall hold a preconstruction meeting to which it shall invite DPS Staff, Ag&Mkts, NYSDOT, and DEC. An agenda, the location, and an attendee list shall be agreed upon between DPS Staff and the Certificate Holder.

b) The Certificate Holder shall supply draft minutes from this meeting to all attendees, the attendees may offer corrections or comments, and thereafter the Certificate Holder shall issue the finalized meeting minutes to all attendees.

c) If, for any reason, the Contractors cannot finish the construction of the Facility, and one or more new contractors are needed, there shall be another preconstruction meeting with the same format as outlined above.

43. The Certificate Holder shall confine construction and subsequent maintenance to the Facility ROW as certified and approved additional work areas as detailed in the approved EM&CP.

44. The Certificate Holder shall not commence construction of any part of the Project until the Certificate Holder holds all of the real property rights along the Facility ROW that are required for the Certificate Holder to construct the Project on at least 11.36 contiguous miles of Facility ROW.

45. A detailed construction schedule and location timeline shall be provided to DPS Staff prior to construction. Each construction activity shall be described in detail in the proposed EM&CP.

46. At least two weeks before Facility construction begins in any area both edges of the Facility ROW as certified shall be delineated and any known danger trees shall be marked. Also, the Certificate Holder shall stake and/or flag all off-ROW access roads and extra work areas.

47. Construction activities on the Project shall be confined to the hours of 7:00 a.m. and 6:00 p.m. Monday through Saturday. If, due to safety or continuous operation requirements, construction activities are required to occur on Sundays or after 6:00 p.m., the Certificate Holder shall notify DPS Staff and the affected municipality. Such notice shall be given at least 24 hours in advance unless the Sunday or after 6:00 p.m. construction activities are required for safety reasons that arise less than 24 hours in advance. The Certificate Holder shall implement noise mitigation measures set forth in Section 4.9 of Exhibit 4 of the Application.

48. In connection with the felling of trees, the Certificate Holder shall:

- a) not clear or alter any area outside the boundaries of the fee-owned Facility ROW and permanent easement without prior notice to the owner(s) of the land to be cleared or altered, and the Certificate Holder also shall cause Contractors in its employ to comply with this prohibition;
- b) negotiate in good faith with each landowner appropriate compensation for the merchantable logs the Certificate Holder has determined it shall remove from such landowner's property;
- c) comply with the provisions of 6 NYCRR Part 192, Forest Insect and Disease Control, and ECL § 9-1303 and any quarantine orders issued thereunder;
- d) note the disposal of all woody material resulting from clearing the ROW for the Facility on the EM&CP drawings;
- e) not create a maximum chip depth greater than three (3) inches, except for chip roads or for invasive species control; and,
- f) not store chips in wetlands, active agricultural fields, or within 25 feet of streams.

49. Unless described otherwise in the approved EM&CP, all trees over two inches in diameter breast height or shrubs over four feet in height damaged or destroyed by activities during construction, regardless of where located, shall be replaced within the following year by the Certificate Holder with the equivalent type of trees or shrubs, except if:

- a) equivalent type replacement trees or shrubs would interfere with the proper clearing, construction, operations or maintenance of the certified Facility;
- b) replacement would be contrary to sound ROW management practices, or to any approved long-range ROW management plan applicable to the Facility or adjoining transmission facilities; or,
- c) the owner of land where the damaged or destroyed trees or shrubs were located declines replacement (or other recorded easement or license holder with the right to control replacement declines replacement).

50. The proposed EM&CP shall include a plan for removal, re-use, recycling and disposal of all existing equipment (*e.g.*, transformers, wood poles, conductors, etc.). Existing transmission facility components removed or replaced as part of construction of the Facility shall be removed from the Facility ROW to appropriate destinations and handled appropriately for re-use as available based on conditions.

51. Neither the Certificate Holder nor any Contractors in its employ shall construct any new, or improve any existing, access road unless such road is: (i) located on the ROW

authorized for the Facility; (ii) located on other utility ROW to be utilized in the construction or operation and maintenance of the certified Facility; or, (iii) described in the approved EM&CP. Should the need arise for additional off-ROW access, the Certificate Holder shall follow the procedures recited in Certificate Condition number 33.

52. a) The Certificate Holder shall adhere to NYSDEC's then effective "New York State Standards and Specifications for Erosion and Sediment Control," also known as the "Blue Book" ("NYSSESC").

b) The Certificate Holder shall include in the proposed EM&CP the approved Stormwater Pollution Prevention Plan ("SWPPP") for the Project .

c) The Certificate Holder shall install temporary erosion control devices as soon as practicable and appropriate as indicated in the proposed EM&CP, but in any event no later than the end of the work day in which site disturbance occurs.

53. 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.

54. The Certificate Holder shall be responsible for checking all culverts and assuring that they are not crushed or blocked during construction and restoration of the Facility; if a culvert is blocked, crushed, or otherwise damaged, the Certificate Holder shall repair the culvert or replace it with alternative measures appropriate to maintaining proper drainage.

55. The Certificate Holder shall, upon completion of the Project:

- a) conduct an assessment of the need for landscape improvements, including vegetation planting, earthwork or installed features to screen or landscape the Facility with respect to road crossings, residential areas, and substations;
- b) prepare plans for any visual mitigation found necessary, and, in connection therewith, removal, rearrangement and supplementation of existing landscape improvements or plantings should be considered, as appropriate;
- c) consult with DPS Staff on the content and execution of its assessment, resultant landscaping plan specifications and materials list; details shall include measures for third party or wildlife damage to any landscape and vegetation plantings; and,
- d) present draft assessments and plans to DPS Staff for review, and file a final plan with the Secretary within one year after the date the Facility is placed in service.

56. The proposed EM&CP shall include plans to prevent unauthorized access to and along the Facility ROW. Plans shall include the following:

- a) posting signs at the ROW edges in those locations where the ROW intersects public roads;
- b) performing outreach to educate and inform the public concerning the risks and impacts of unauthorized access;
- c) working with local law enforcement officials in an effort to prevent future trespassing;
- d) identifying construction and material details of gates and berms; and,

- e) identifying existing and proposed gate locations on the Plan and Profile drawings. Final determination of locations of gates and berms shall be made during a post-construction assessment of the Facility, in consultation with DPS Staff.

H. Herbicide Use

57. Only herbicides specified in the Commission-approved EM&CP may be used in any Federal wetland, State-regulated wetland, or State-regulated wetland 100 foot adjacent area (collectively “Regulated Wetlands”).

58. The application of herbicides shall be made under the direct supervision of a NYS Certified Applicator who shall own or be employed by a New York State-registered business. The supervising certified applicator shall be familiar with and understand the provisions of this Certificate and shall be present in the field to ensure compliance.

59. Herbicide spraying within Regulated Wetlands shall be performed only by backpack or squirt bottle treatment.

60. No equipment wash water or excess herbicide shall be allowed to enter Regulated Wetlands, streams, or waterbodies. Empty containers shall be disposed of in accordance with label instructions and applicable regulations.

61. The ROW and adjoining properties shall be posted and notified by using the DEC-approved format (ECL Part 33 and 6 NYCRR Part 325).

I. Environmental Supervision

62. The Certificate Holder shall use at least five (5) inspectors on the Project (or at least four (4) if the Certificate Holder elects to use the same individual as both environmental monitor and agricultural inspector): (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 agricultural inspector employed part-time on the Project; (d) at least one safety inspector who will inspect the work site from time to time; and (e) 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.

63. The environmental monitor(s) and the construction inspector(s) shall be equipped with sufficient documentation, 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, Environmental Conservation Law, §401 Water Quality Certification and the approved EM&CP.

64. The names and qualifications of the environmental monitor(s) and the construction inspector(s) shall be submitted to the Secretary at least two weeks prior to the start of construction. The environmental monitor’s qualifications shall satisfy those of a “Qualified Inspector” pursuant to the SPDES General Permit.

65. The Certificate Holder’s employees, contractors and subcontractors assigned to the construction of the Facility and inspection of such construction work shall be properly trained in their respective responsibilities.

66. The authority granted in the Certificate and any subsequent order in this proceeding is subject to the following conditions necessary to ensure compliance with such order:

- a) The Certificate Holder shall regard DPS Staff representatives (authorized pursuant to PSL §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.
- b) A stop work order shall expire 24 hours after issued unless confirmed by a single Commissioner. If a stop work order is confirmed, the Certificate Holder may seek reconsideration from the confirming Commissioner or the whole Commission. If the emergency prompting the issuance of a stop work order is resolved to the satisfaction of the Commissioner or the Commission, the stop work order will be lifted. If the emergency has not been satisfactorily resolved, the stop work order will remain in effect.
- c) 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 Department of Public Service's Director of the OEEE. 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;
- d) 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;
- e) 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.

- f) DPS Staff will promptly notify the appropriate DEC representative of any activity that is a significant environmental threat to a State-regulated wetland or its adjacent area, a protected stream or other water body, or a threatened or endangered species, or that may become a violation of the Certificate or other order as described in subparagraph (d) of this paragraph.

67. The Certificate Holder shall organize and conduct site-compliance audit inspections for DPS Staff as needed, but not less frequently than once per month during the site preparation, construction, and restoration phases of the Project. Inspections shall conclude upon the final sign-off of the SWPPP by the SWPPP inspector.

- 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:
 - (1) review of all complaints received, and their proposed or actual resolutions;
 - (2) review of any significant comments, concerns or suggestions made by the public, local governments, or other agencies;
 - (3) review of the status of the Project in relation to the overall schedule established prior to the commencement of construction; and,
 - (4) 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.

J. Roads and Highways

68. The Certificate Holder shall delineate on the proposed EM&CP drawings, the locations of proposed temporary roads, proposed permanent roads and existing access roads. Proposed access road improvements and measures for environmental impact minimization and access control shall be included in the proposed EM&CP.

69. The Certificate Holder shall minimize the impact of the construction of the Facility 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.

70. The Certificate Holder shall consult periodically with municipal highway transportation agencies about traffic conditions near the Facility 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.

71. 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 crossed by the certified Facility, or used for direct access to the Facility ROW. If the access road takes direct access from, or lies within the limits of, such

roads, the Certificate Holder shall notify each relevant transportation department or agency of the approximate date when work will begin.

72. NYSDOT shall have authority to place inspectors on site to monitor and observe the Certificate Holder's activities on state highways, or to request the presence of state or local police to ensure the safety of freeway travelers, at such times and for such periods as NYSDOT deems appropriate. All costs thereof shall be borne by the Certificate Holder.

73. The Certificate Holder shall coordinate all State Highway crossings and longitudinal occupations with NYSDOT. The Certificate Holder shall obtain the necessary permits from NYSDOT, including, as appropriate, a Highway Work Permit and Use and Occupancy Permit pursuant to 17 NYCRR Part 131, including, if necessary, the filing by NYSDOT of a request with the Federal Highway Administration for an exception to the Accommodation Plan for Longitudinal Use of Freeway Right-of-Way by Utilities, for the construction, operation and maintenance of the Facility in the right-of-way of State highways. Said Use and Occupancy Permit shall include payment of a fair market value-based fee for use of State property.

74. 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.

75. All work within State highway rights-of-way shall be designed and performed according to the traffic and safety standards and other substantive requirements contained in 17 NYCRR Part 131, entitled *Accommodation of Utilities Within State Highway Right-of-Way*, and applicable design standards of the American Association of State Highway Transportation Officials, the Manual of Uniform Traffic Control Devices, the Highway Design Manual, the Policy and Standards for Entrances to State Highways, the Requirements for the Design and Construction of Underground Utility Installations within the State Highway ROW, the Accommodation Plan, and the NYSDOT 2008 Standard Specifications.

76. In preparing the proposed EM&CP, the Certificate Holder shall consult with NYSDOT regarding any State highways and/or related structures in the Project vicinity that will be crossed by the Facility or used for direct access to the Facility ROW. If the access road takes direct access from, or lies within the limits of, such roads, the Certificate Holder shall notify NYSDOT of the approximate date when work will begin.

K. Cultural Resources

77. The Certificate Holder shall not undertake construction in previously undisturbed areas where archeological surveys have not been completed and 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.

78. 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 twenty-four (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 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.

79. 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 twenty-four (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.

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

81. The Certificate Holder shall have a continuing obligation during the duration of Facility 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.

L. Terrestrial and Wildlife Resources

82. For the portion of the Facility located in Washington County, the Certificate Holder shall limit tree clearing to between October 1 and March 31 when the Indiana bats are in their hibernacula. Tree clearing between mile 4.1 (existing structure 124 and proposed structure 42) and mile 6.3 (existing structure 144 and proposed structure 62) (the "Existing Structures 124-144 Area") shall be further limited to between October 1 and November 30 to minimize disturbance to a raptor winter concentration area known to occur in this area.

83. Immediately prior to all construction phases occurring from April 23 through August 15 on the portion of the Facility in Washington County in the Existing Structures 124-144 Area, the Certificate Holder shall survey the Facility ROW, access roads and marshaling yards in such portion of the Facility for nesting activity of the northern harrier and the upland sandpiper. The survey procedures and the proposed avoidance or mitigation measures to minimize impacts to the subject species if they are found to be nesting on the ROW shall be included in the proposed EM&CP. Only qualified individual(s) shall perform the avian survey, and each individual's qualifications shall be included in the proposed EM&CP.

84. Immediately prior to all construction phases occurring from December 1 through April 15 on the portion of the Facility in Washington County in the Existing Structures 124-144 Area, the Certificate Holder shall survey the Facility ROW, access roads and marshaling yards in such portion of the Facility for the presence of wintering populations of the northern harrier and the short-eared owl. The survey procedures and the proposed avoidance or mitigation measures to minimize impacts to the subject species if they are found to be wintering on the ROW shall be included in the proposed EM&CP. Only qualified individual(s) shall perform the avian survey, and each individual's qualifications shall be included in the proposed EM&CP.

85. The Certificate Holder shall promptly notify DPS Staff and the DEC Regional Natural Resources Supervisor if any threatened or endangered plant or animal species or special concern species listed in New York (the Certificate Holder shall refer to 6 NYCRR Part 182 and <http://www.dec.ny.gov/animals/7494.html> for lists of RTE species) is encountered on the Facility ROW, access roads and marshaling yards 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 area and cease construction in the area.

86. The Certificate Holder shall develop a survey and action plan for the northern harrier, upland sandpiper, and short-eared owl to be included in the proposed EM&CP.

M. Waterbodies and Wetlands

87. The Certificate Holder shall minimize adverse effects to streams, waterbodies, wetlands, and the one hundred (100) foot adjacent area associated with any State-regulated wetland during the construction, operation, and maintenance activities of the Facility.

- a) Wetland locations, and wetland adjacent areas located within the ROW or crossed by the ROW or any off-ROW access road constructed, improved or maintained for the Project, shall be delineated in the field as indicated on the proposed EM&CP drawings.
- b) Any activities which may affect wetlands shall be designed and controlled to minimize adverse impacts, giving due consideration to the environmental features and functions of the wetlands.
- c) The Certificate Holder shall, to the maximum extent practicable, avoid direct impacts on wetlands and construct access roads outside wetlands and adjacent areas.
- d) Construction through wetlands shall be done with tracked equipment or on temporary mats or geotextile/gravel access roads and shall be restricted to access roads and work areas set forth in the approved EM&CP.
- e) Equipment shall not be washed in any stream, waterbody, or wetland.
- f) Any excess excavated material resulting from structure installation that is to be removed from any stream, waterbody, or wetland shall not be stored inside wetlands or the one hundred (100) foot adjacent areas associated with any State-regulated wetlands. Excavated excess material shall be disposed of in approved upland locations.
- g) In wetlands, slash that is cut may be left in place (drop and lop). Any slash that is not left in place shall be removed from the wetland. No slash shall be collected and permanently piled in the wetland, whether adjacent to an access road or not.

- h) Construction vehicle access across streams and waterbodies shall be limited to existing bridges and culverts and to temporary crossings installed in accordance with the provisions set forth in the approved EM&CP.
- i) Vehicular access shall be prohibited where alternative access can be provided.
- j) During periods of work activity, flow immediately downstream of the worksite shall equal flow immediately upstream of the worksite.
- k) There shall be no increase in turbidity downstream of the construction activity that will cause a substantial visible contrast to natural conditions.
- l) Unless otherwise specified in the approved EM&CP, work in streams, when necessary, shall be prohibited between October 1 and May 31 for cold water fisheries habitat, and between March 1 and July 15 for warm water fisheries habitat.
- m) Water from dewatering operations shall be pumped into a temporary straw bale/silt fence barrier or filter bag to settle suspended silt material prior to discharge. Direct discharge to wetlands, streams, and waterbodies shall be avoided.
- n) Where direct impacts to State-regulated wetlands cannot be avoided, such impacts shall be minimized and appropriately mitigated as described in the Wetland Mitigation Plan included in the approved EM&CP. The Certificate Holder shall work with DEC to develop the Wetland Mitigation Plan, following DEC's mitigation guidelines, and include the Wetland Mitigation Plan in the proposed EM&CP.

88. A Wetland Delineation Report shall be delivered for review to DPS Staff and DEC at least thirty (30) days prior to the filing of the proposed EM&CP.

89. The Certificate Holder shall secure and provide copies of the following documents to the Secretary prior to commencement of construction: all U.S. Army Corps of Engineers ("USACE") permits for construction in federal wetlands affected by the Facility, if any, necessary for construction in such Segment; the permit pursuant to §404 of the Federal Clean Water Act, if any, necessary for construction; the permit pursuant to §10 of the Rivers and Harbors Act; the SPDES General Permit; and evidence of a Federal Aviation Administration ("FAA") determination that the final design of the structures proposed for the Facility will have no impact (or will have impacts mitigated by FAA-directed modifications to such final design) on the three public-use airports that are within 20,000 feet of the Facility ROW.

90. The Certificate Holder shall inform USACE of any changes in the design of the Facility that have the potential to impact any water resources under USACE jurisdiction and shall provide a copy of such correspondence to the Secretary.

91. DEC Staff field representatives shall be permitted on the Facility site. DEC Staff field representatives will notify the DPS Staff representative and the Certificate Holder's appropriate representative of any activities that violate or may violate either the terms of the Certificate, any permits issued by DEC, and/or the Environmental Conservation Law. DPS Staff and DEC staff field representatives will cooperate in assessing site conditions and determining whether stop work authority should be exercised, or whether directing the Certificate Holder to take action to minimize further impacts to State-protected streams and State-regulated wetlands is appropriate.

N. Agricultural Resources

92. The Certificate Holder shall retain a qualified Agricultural and Soil Conservation Specialist/Inspector (“Agricultural Inspector”) for each phase of Facility development, including: proposed EM&CP development and design, construction, initial restoration, post-construction monitoring and follow-up restoration. The Agricultural Inspector shall be available to provide site-specific agricultural information as necessary for proposed EM&CP development through field review as well as to have direct contact with affected farm operators, County Soil and Water Conservation Districts, Ag&Mkts and others. The Agricultural Inspector shall maintain regular contact with the Environmental Monitor or the Construction Inspector throughout the construction phase. The Agricultural Inspector shall remain on site during all Project activities on agricultural lands. The Agricultural Inspector also shall maintain regular contact with the affected farmers and County Soil and Water Conservation Districts concerning farm resources and management matters pertinent to the agricultural operations and the site-specific implementation of the approved EM&CP. Whenever the Certificate Holder submits a request for a change to the approved EM&CP that might affect agriculture, it shall consult with Ag&Mkts.

93. The Certificate Holder shall identify Black Cherry trees located on the Facility ROW near active livestock use areas during preparation of the proposed EM&CP. During the clearing phase, such vegetation shall be disposed of in a manner which prevents access by livestock.

94. In agricultural areas, logs, stumps, brush, or chips shall not be piled or buried in active agricultural fields or improved pasture.

95. As part of the line-location surveys conducted during the preparation of the proposed EM&CP, the Certificate Holder shall locate all commercial sugarbushes maintained for maple syrup production within the Facility ROW. The Certificate Holder shall attempt to adjust the centerline location to avoid such operations.

96. The Certificate Holder shall design the Facility to the extent possible to avoid or limit the placement of structures on crop fields or on other active agricultural land where the structures may significantly interfere with normal agricultural operations or activities. Where the location of a structure on such agricultural land is unavoidable, the Certificate Holder shall attempt to site the structure in a location that minimizes impact to normal farming operations.

97. During preparation of the proposed EM&CP, a detailed drainage line repair procedure shall be developed, in consultation with the local Soil and Water Conservation District, for the repair of crushed/severed clay tile and plastic drain lines. Drawings showing the generic technique to be implemented for drain line repairs shall be provided by the Certificate Holder. All new plastic drain tubing shall meet or exceed the AASHTO M252 specifications. The plan for the replacement of functional stone drainage systems severed during construction shall be prepared during the restoration phase, in consultation with Ag&Mkts and the local Soil and Water Conservation District.

98. Where construction entrances are required from public roadways to the Facility ROW in agricultural fields, an underlayment of durable, geotextile fabric shall be placed over the exposed subsoil surface prior to the use of temporary gravel access fill material. In locations where underground utilities are located within 10 feet of the shoulder of the roadway, the Certificate Holder may elect, in order to minimize disturbance and protect the

underground utilities, to place the geotextile fabric directly over the surface without stripping topsoil. In locations where underground utilities are located 10 feet or more from the shoulder of the roadway but still within the limits of the construction entrance, the Certificate Holder may elect to mat over the underground utilities instead of placing geotextile fabric and gravel access fill material. Complete removal of the construction entrance upon completion of the Facility and restoration of the affected site is required prior to topsoil replacement, except where retention of the construction entrance would be more conducive to the existing land use than removal.

99. Segments of farm roads utilized for access shall be improved as required following consultation with the farm operator and Ag&Mkts prior to use. Such improvements shall include the installation of geotextile fabric and crushed stone.

100. The Certificate Holder shall rebuild to as-good or better condition, at or prior to completion of construction, any of the following that is damaged by construction: (i) fences and gates on the Certificate Holder's fee-owned ROW that are not incompatible with the Facility; (ii) fences and gates off of the Certificate Holder's fee-owned ROW; and (iii) any farm drainage features. The base of all new posts shall be secured to a reasonable depth below the surface to prevent frost heave.

101. Where repeated temporary access is necessary across agricultural portions of the Facility ROW, topsoil shall be removed, including all of the "A" horizon down to the beginning of the subsoil "B" horizon, generally not to exceed a maximum of 12 inches. Topsoil removal up to a depth of 16 inches may be required in specially-designated soils encountered along the route. All topsoil shall be stockpiled directly adjacent to the travel way on the Facility ROW and separated from other excavated materials. The Agricultural Inspector shall determine depth of topsoil stripping on each affected farm by means of the County Soil Survey and on-site soil augering, if necessary. All topsoil material shall be stripped, stockpiled, and uniformly returned to restore the original soil profile. During the clearing/construction phase, site-specific depths of topsoil stripping shall be monitored by the Agricultural Inspector.

102. Mats may be installed as an alternative to topsoil stripping. If so, the mats shall be layered where necessary to provide a level access surface. Once access is no longer required across agricultural areas, the mats shall be removed and the Agricultural Inspector shall use a soil penetrometer to determine if soil compaction has occurred as a result of construction activities. All compacted areas shall be remediated as specified below.

103. In agricultural areas of till over bedrock where blasting is required, the Certificate Holder shall use matting or controlled blasting to limit the dispersion of blast rock fragments. All blasted rock not used as backfill shall be removed from croplands, hay lands and improved pastures. The till and topsoil shall be returned in natural sequence to restore the soil profile. Farm owners/operators shall be given timely notice prior to blasting on farm property.

104. Temporary work space in agricultural areas shall be of sufficient size to allow for positioning of conductor reels, tensioners, pullers, wire spools and other mechanized equipment required during pulling activities.

105. In all agricultural sections of the Facility ROW disturbed during construction, the Certificate Holder shall break up the subsoil compaction to a depth of 18 inches (unless bedrock is encountered at a depth less than 18 inches) with deep tillage by such devices as a

deep-ripper (subsoiler). Final soil compaction results shall not be more than 250 pounds per square inch (PSI) as measured with a soil penetrometer. Following the deep ripping, all stone and rock material 4 inches and larger in size which has been lifted to the surface shall be collected and taken off site for disposal. The topsoil that has been temporarily removed for the period of construction shall then be replaced. Finally, deep subsoil shattering shall be performed with a subsoiler tool having angled legs. Stone removal shall be completed, as necessary, to eliminate any additional rocks and stones brought to the surface as a result of the final subsoil shattering process. Should subsequent construction and/or restoration activities result in compaction, then restoration activities shall include additional deep tillage.

106. All structures and guy anchors removed from agricultural areas as part of the construction activities shall be removed to a minimum depth of 48 inches below the soil surface. All holes or cavities created by the removal of the old facilities shall be filled to the same level as the adjacent area, plus 6 to 12 inches of additional soil to allow for settling. All material used for fill shall be similar to native soil. All fill material shall be compacted.

107. Wherever existing structures are removed from agricultural fields, the area shall be restored to allow agricultural activities. Such restoration shall include the removal of all vegetation from the structure area and grading of the ground surface to match the adjacent field. All rocks 4 inches and greater in size shall be removed from the surface.

108. Excavated subsoil material and stockpiled topsoil shall be used to restore the original soil profile at new structure locations. All holes or cavities created by structure installation shall be filled to the same level as the adjacent area, plus 6 to 12 inches of additional soil to allow for settling. Excess substratum material not used for backfill shall be removed from agricultural areas.

109. At the end of all construction, the Facility ROW and respective work areas, including guying wire assembly and disassembly sites, shall be thoroughly cleared of debris such as nuts, bolts, spikes, wire, pieces of steel, and other assorted items.

110. The Certificate Holder shall provide a monitoring and remediation period of two growing seasons following completion of Facility ROW restoration in active agricultural areas. The Certificate Holder shall retain the services of an Agricultural Inspector on at least a part-time basis through this period. The monitoring and remediation phase shall be used to identify any remaining agricultural impacts associated with Project construction that are in need of mitigation and to implement the follow-up restoration. During this phase, the Agricultural Inspector shall maintain a list of invasive species observed on the Facility ROW in agricultural areas. In locations where invasive species are documented, the Certificate Holder will determine whether such species were present during the pre-construction survey of invasive species on the ROW. If the species were not noted prior to construction, the Certificate Holder shall consult with the farm operator, DPS Staff and Ag&Mkts to determine the appropriate control measures to implement.

111. During the monitoring and remediation period, on-site monitoring shall be conducted at least three times during each growing season and shall include a comparison of growth and yield for crops on and off the Facility ROW. When the subsequent crop productivity within the affected ROW is less than that of the adjacent unaffected agricultural land, the Agricultural Inspector, in conjunction with the Certificate Holder and other appropriate organizations, shall help to determine the appropriate rehabilitation measures for

the Certificate Holder to implement (soil de-compaction, topsoil replacement, etc.). During the various stages of the Project, all affected farm operators shall be periodically apprised of the duration of remediation by the Agricultural Inspector. Because conditions which require remediation may not be noticeable at or shortly after the completion of construction, the signing of a release form prior to the end of the remediation period shall not obviate the Certificate Holder's responsibility to fully redress all Facility impacts. After completion of the specific remediation period, the Certificate Holder shall continue to respond to the reasonable requests of the farmland owner/operators to correct Facility-related effects on the impacted agricultural resources.

112. The Certificate Holder shall provide all farm owners/operators with a toll-free or local telephone number to facilitate direct contact with the Certificate Holder and the Agricultural Inspector(s) through all of the stages of the Project. The farm owner/operators shall also be provided with a toll-free or local telephone number to facilitate direct contact with the Certificate Holder's Project Manager for the Facility during operation and maintenance of the transmission line.

113. The Agricultural Inspector shall work with the farm operators during the planning phase to develop a plan to delay the pasturing of the Facility ROW, following construction until pasture areas are adequately revegetated. The Certificate Holder shall be responsible for maintaining the temporary fencing on the Facility ROW until the Agricultural Inspector determines that the vegetation on the ROW is established and able to accommodate grazing. At such time, the Certificate Holder shall be responsible for removal of the fences.

114. On affected farmland, restoration practices shall be postponed until favorable (workable, relatively dry) topsoil/subsoil conditions exist. Restoration shall not be conducted while soils are in a wet or plastic state. Stockpiled topsoil shall not be regraded until plasticity, as determined by the Atterberg field test, is significantly reduced. No restoration activities shall occur in agricultural fields between the months of October through May unless favorable soil moisture conditions exist. The Certificate Holder shall monitor and advise Ag&Mkts and DPS Staff regarding tentative restoration planning. Potential schedules shall be determined by conducting the Atterberg field test at appropriate depths into topsoil stockpiles, and below the traffic zone for a mutual determination of adequate field conditions for the restoration phase of the Project.

115. Following restoration of all disturbed areas, excess topsoil shall be distributed in agricultural areas of the site, provided this is practicable and can be accomplished without having any adverse impact on site drainage. All such activity shall be as directed by the Agricultural Inspector, based on guidance provided by the landowner.

116. After the moisture of the soil profile on the affected portion of the Facility ROW has returned to equilibrium with the adjacent off-ROW land, subsoil compaction shall be tested using an appropriate soil penetrometer or other soil-compaction measuring device.

117. Topsoil stockpiles on agricultural areas left in place prior to October 31 shall be seeded with Aroostook Winter Rye or equivalent at an application rate of 3 bushels (168 #) per acre and mulched with straw mulch (or another material acceptable to the Agricultural Inspector) at a rate of 2 to 3 bales per 1000 Sq. Ft. Topsoil stockpiles left in place between October 31 and May 31 shall be mulched with straw mulch (or another material acceptable to the Agricultural Inspector) at a rate of 2 to 3 bales per 1000 Sq. Ft. Straw mulch (or

another material acceptable to the Agricultural Inspector) shall be used to prevent soil loss on stockpiled topsoil from October through May.

118. After topsoil replacement, seedbed preparation (final tillage, fertilizing, liming) and seeding shall follow either Ag&Mkts recommendations as contained in *Fertilizing, Lime and Seeding Recommendations for Restoration of Construction Projects on Farmlands in New York State* (revised 9-25-2012) or landowner specifications.

O. Petroleum and Hazardous Substances

119. The proposed EM&CP shall include Fuel and Chemical Handling Procedures, and a spill response and route emergency plan, including the DEC spill reporting 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.

120. The Certificate Holder shall comply with §175 of the Navigation Law, 6 NYCRR §613.8 (petroleum spills) and 6 NYCRR §595.3(b) (hazardous substance spills).

P. Contractors and Contractor Supplies/Materials

121. At least two weeks prior to construction, the Certificate Holder shall submit a report to the Secretary confirming that all required construction materials are available. For purposes of this paragraph, an item of construction material is available (i) if it is located at a marshaling yard, (ii) if it's in a Certificate Holder warehouse or other routine Certificate Holder inventory stocking location, or (iii) if it's on order from a vendor with a scheduled delivery date prior to the time scheduled for its use in the Project.

122. All equipment shall be located at the marshaling yard(s) or on the Facility ROW, provided, however, that if a local contractor is used for the work, the local contractor's facility shall be considered an acceptable marshaling yard.

123. DPS Staff will provide the name of a contact person(s) ("DPS Staff Representative") and the contact information (mailing address, phone number, e-mail, etc.) of that individual for purposes of this ordering clause and ordering clause numbers 124 through 128 of this Certificate. If a reportable accident occurs in connection with work on the Project, the Certificate Holder shall report any such accident to the DPS Staff Representative as soon as possible. A copy of the accident report, if any, shall be provided to the DPS Staff Representative after it has been finalized.

124. The Certificate Holder shall provide the DPS Staff Representative with a monthly audit report reflecting material inventory and usage.

125. The Certificate Holder shall provide the DPS Staff Representative with a copy of any police report and any insurance claim filed in connection with any theft of Project-related materials, as well as a list of the stolen items. Subsequently, the Certificate Holder shall provide the DPS Staff Representative with an accounting of all replacement materials.

The accounting of replacement materials shall include documentation of the insurance company's coverage and the contractor's costs for replacement.

126. Within six (6) months following completion of Project restoration, the Certificate Holder shall provide to the DPS Staff Representative a full accounting of all Project costs incurred to date, including an explanation of variances, if any, between projected and actual costs.

127. A field review shall be conducted by the Certificate Holder to determine compliance with its design on a bi-weekly basis and prepare a written report of the firm's findings on whether the Project is being constructed in accordance with the approved EM&CP design for the Project. The Certificate Holder shall provide a copy of each such report to the DPS Staff Representative within three (3) business days after the Certificate Holder receives the report. The Certificate Holder shall notify the DPS Staff Representative of when the field reviews will occur.

128. If the Contractor installs incorrect materials, structures, or components, the Certificate Holder shall, within one month after becoming aware of such incident, prepare and deliver to the Secretary a summary report detailing the incident, the steps to be taken to rectify the mistake, the material and labor costs associated with rectifying the incident, and the manner in which such costs will be accounted for separately from other Project costs.

129. The Certificate Holder shall develop a quality control plan ("Quality Control Plan") for inclusion in the EM&CP describing how it will ensure that the transmission line structures and components it purchases for the Project conform to the specification for structures and components described in the approved EM&CP. At a minimum, the Quality Control Plan shall include: (i) the name(s) and qualifications of the individual(s) who will conduct audits under the Quality Control Plan ("Quality Control Audits"); and (ii) the frequency with which the Quality Control Audits will be performed.

130. Within 5 days following completion of each Quality Control Audit, the Certificate Holder shall provide to Staff a report of such audit that includes: (i) a description of the results of the audit, particularly with respect to results that identify that one or more structures or components the Certificate Holder purchased for installation in the Project did not conform to the specification for structures or components described in the approved EM&CP; and, (ii) any notes pertinent to the subject matter of such audit which were made at audit meetings by Certificate Holder personnel and contractors who performed the audit.

131. If any Quality Control Audit conducted by the Certificate Holder identifies that one or more structures or components the Certificate Holder purchased for installation in the Project did not conform to the specification for structures and components described in the approved EM&CP, the Certificate Holder shall: (i) provide written notification to the Secretary within 24 hours of the Certificate Holder's discovery of such non-conformity; and (ii) describe the steps the Certificate Holder will take to correct the non-conformity, including whether any components must be dismantled and sent back to the manufacturer, as well as a detailed estimate of all costs and expected delays in construction resulting from such non-conformity.

132. All costs incurred by the Certificate Holder as a result of its purchase of a structure or component for installation in the Project that did not conform to the specification for structures and components described in the approved EM&CP shall be accounted for separately from the Certificate Holder's overall Project costs.

133. To better ensure a safe working environment for all persons at each Project work site, the Certificate Holder shall require its contractors or subcontractors, before any person who is authorized by the Certificate Holder to be present at the site that day, or any representative of a regulatory agency present on official business, commences performing or observing Project activities, to give such person an on-site tailboard safety briefing. The Certificate Holder shall ensure that: (a) any document that a person participating in a tailboard safety briefing is required to sign at such briefing is legible; and (b) the person conducting the briefing shall use his/her best efforts to give accurate and complete responses to all requests by such persons for clarification of the scope of work, construction methodology, and other pertinent personal safety information. If a person participating in a tailboard safety briefing who signed such a document desires a copy thereof, he/she shall request it in writing and the Certificate Holder shall provide a copy thereof to the requester within 48 hours of the request.

Q. Invasive Species

134. The Certificate Holder shall perform the following activities to identify and address potential invasive species hazards:

(a) Meet with the appropriate representatives of DPS Staff, DEC's Regional Natural Resource Section and Ag & Mkts to determine plant and insect species of special concern i.e. invasive species which present an environmental or human health hazard that warrants the prescription of measures to control the spread or eradication, of such species during construction ("Invasive Species of Special Concern"). Each invasive species is to be considered in its landscape context, such as whether a species is contributing positively to vegetation management of the ROW and whether the same species has been observed, or is otherwise known to be abundant, on adjacent lands. Minutes of such meeting(s) shall be included in the proposed EM&CP.

(b) The previously-conducted invasive species survey shall be updated by a new field survey that inventories only the Invasive Species of Special Concern along or within the existing or proposed ROW.

(c) Include on the proposed EM&CP drawings the locations of Invasive Species of Special Concern.

(d) In order to prevent the potential introduction of invasive species from other areas or regions to the Project area: require that vehicles, equipment, and materials (including mats) be inspected for, and cleaned of, any visible soils, vegetation, insects, and debris before bringing them to the Project area. On a site-by-site basis and as prescribed on the approved EM&CP drawings, equipment and material shall be cleaned prior to leaving the ROW. The cleaning method shall include, but not be limited to, brushing, scraping and/or the use of compressed air to remove visible soils and vegetation. Any matter cleaned from equipment and material shall remain within the infested area.

(e) Where practicable, in upland areas identified for invasive species control, brush and wood shall be chipped into a layer of at least six (6) inches over access pathways on the ROW, thus providing a barrier between plant material and equipment. Areas where this shall be implemented shall be noted on the proposed EM&CP drawings. The condition of this access shall be monitored by the Environmental Monitor during construction. Provided this barrier

remains intact, the Environmental Monitor may exempt specific types of potential transporters, *e.g.*, pickup trucks and pedestrians, from cleaning requirements.

(f) Project contractor(s) and subcontractor(s) shall be trained on the various cleaning methods to be used on the Project.

(g) Minimize ground disturbances and vegetation removal as much as possible. The contractor(s) and subcontractor(s) shall be instructed to stay within access paths and work areas that are designated on the approved EM&CP drawings.

(h) Any transported fill materials, topsoil, and mulches shall come from sources visibly free of invasive species.

(i) Stabilization and re-vegetation of disturbed sites shall utilize seed and other plant materials that have been checked and certified as noxious-weed-free and that have a labeled weed content that does not exceed the weed content maximums for such seeds under Agriculture and Markets Law Section 138(A)(4).

(j) Removal of any wood from the ROW shall be pursuant to the DEC's firewood regulations to protect forests from invasive species found in 6 NYCRR Part 192, and any applicable DEC quarantine orders and/or Ag&Mkts quarantine regulations.

(k) Clearing crews shall be trained to identify the Asian Longhorned Beetle, the Emerald Ash Borer, and any other insects that the DEC identifies as a potential problem. If evidence of the existence of these insects is found, they shall be reported immediately to the appropriate DEC regional forester.

(l) The Certificate Holder shall monitor DEC-regulated Wetland HF-1 for two growing seasons following completion of Facility ROW restoration. The monitoring phase shall be used to identify any wetland impacts associated with Project construction, including noting (i) the presence in such wetland of invasive species not present during the pre-construction surveys on the ROW, and (ii) any increase in such wetland in the density of invasive species present during the pre-construction surveys on the ROW. If the species were not noted prior to construction, or their density has increased, the Certificate Holder shall consult with DEC's Regional Natural Resource Section, DPS Staff, and Ag&Mkts to determine whether appropriate control measures are warranted to preserve wetlands functions and values for such wetland.

R. Water Quality Certification

135. Concurrent with Commission approval of the EM&CP for this Project, the Director of the OEEE, pursuant to §401 of the Federal Water Pollution Control Act, as amended, 33 U.S.C. §1341, and PSL Article VII, will execute the certification, substantially in the form of Appendix F to the Joint Proposal, that the Facility will comply with the applicable requirements of §§301, 302, 303, 306, and 307 of the Federal Water Pollution Control Act, as amended, and will not violate New York State water quality standards and requirements.

APPENDIX E

SPECIFICATIONS FOR THE DEVELOPMENT OF ENVIRONMENTAL MANAGEMENT AND CONSTRUCTION PLAN

Section A of the Specifications for the Development of Environmental Management and Construction Plan (“Specifications”) addresses the development of the plan and profile drawings, and maps portion of the Environmental Management and Construction Plan (“EM&CP”).

Section B addresses the description and statement of objectives, techniques, procedures, and requirements, i.e. the textual portion of the EM&CP.

If any particular requirement of the Specifications is not applicable, so indicate and briefly explain.

A. EM&CP Plan and Profile Drawings and Maps

The EM&CP maps, charts, photostrip maps, and illustrations shall include, but need not be limited to, all of the following information:

1. Plan and Profile Details

A Line¹ Profile (at an appropriate scale) and plan drawings (scale minimum 1 inch = 200 feet)² showing:

¹ The lowest conductor of an overhead design shall be shown in relation to ground at the maximum permissible conductor temperature for which the line is designed to operate, i.e., normally the short-time emergency loading temperature specified by the New York ISO. If a lesser conductor temperature is used for the line profile, the maximum sag increase between the conductor temperature and the maximum conductor temperature shall be indicated for each ruling span. For underground Project design, show relation of Project to final surface grade, indicating design depth-of-cover.

² Contour lines (preferably at 5-foot intervals) are desirable on the photostrip map if they can be added without obscuring the required information.

- a. The boundaries of any new, existing, and/or expanded right-of-way (ROW)³ or road boundaries, and where cables are to be constructed overhead or underground; plus areas contiguous to the ROW or street within which the Certificate Holder will obtain additional rights.
- b. The location of each Facility structure (showing its height, material, finish and color, and type), structural foundation type (*e.g.*, concrete, direct bury), fence, gate, down-guy anchor, and any counterpoise required for the Facility (typical counterpoise drawings will suffice recognizing that before field testing of installed structures the Certificate Holder may be unable to determine the specific location of all required counterpoise), conductors, insulators, splices, and static wires and other components attached to Facility structures.
- c. Existing utility and non-utility structures on the ROW, and indicate those to be removed or relocated (include circuit arrangements where new structures will accommodate existing circuits, indicate methods of removal of existing facilities, and show the new locations, types and configurations of relocated facilities). Depict each Facility conductor's clearance from the nearest overhead distribution or communications facility.
- d. Any underground utility or non-utility structure.
- e. The relationship of the Facility to nearby fence lines; roads; railways; airfields; property lines; hedgerows; fresh surface waters; wetlands; other water bodies;

³ The term "right-of-way" in these *Specifications* includes property, whether owned in fee or easement, to be used for substations, disposal sites, underground terminals, storage yards, and other associated facilities. Where such properties cannot reasonably be shown on the same plan or photo-strip, maps, or plan drawings used for the transmission line, additional maps or drawings at convenient scales should be used.

significant habitats; associated facilities; flowing water springs; nearby buildings or structures; major antennas; oil or gas wells, and blowdown valves.

- f. The location of any proposed new or expanded switching station, substation, or other terminal or associated utility or non-utility structure (attach plan⁴ - plot, grading, drainage, and electrical - and elevation views with architectural details at appropriate scales). Indicate the type of outdoor lighting, including design features to avoid off-site illumination and minimize glare; the color and finish of all structures; the locations of temporary or permanent access roads, parking areas, construction contract limit lines, property lines, designated floodways and flood-hazard area limits, buildings, sheds, relocated structures, and any plans for water service and sewage and waste disposal.
- g. The location and boundaries of any areas whether located on- or off- ROW proposed to be used for fabrication, designated equipment parking, staging, access, lay-down, and conductor pulling and splicing. Indicate any planned fencing, surface improvements, and screening of storage and staging areas.
- h. The locations for ready-mix concrete chute washout and any other cleaning activities (e.g., control of invasive species).

2. Stormwater Pollution Prevention

- a. Include on the plan and profile drawings the approved Storm Water Pollution Prevention Plan (SWPPP) details. Include the locations of soil erosion and sediment control measures developed in accordance with the latest version of the

⁴ Preferably 1" = 50' scale with 2-foot contour lines.

- New York Standards and Specifications for Erosion and Sediment Control (e.g., stabilized construction entrances, silt fences, check dams, and sediment traps).
- b. Include on the plan and profile drawings the approved SWPPP locations of all permanent stormwater management controls that are required based on site-specific conditions or conditions of the Certificate.

3. Vegetation Clearing and Disposal Methods

Identify on the plan and profile drawings:

- a. the locations of sites requiring trimming or clearing of vegetation and the geographic limits of such trimming or clearing;
- b. the specific methods for the type and manner of cutting and disposition or disposal method for cut vegetation (e.g., chip; cut and pile; salvage merchantable timber, etc.);
- c. the methods for management of vegetation to be cut or removed at each site;
- d. any geographical area bounded by distinctly different cover types requiring different cut-vegetation management methods;
- e. any geographical area bounded at each end by areas requiring distinctly different cut-vegetation methods due to site conditions such as land use differences, population density, habitat or site protection, soil or terrain conditions, fire hazards, or other factors;
- f. different property-owners requesting specific vegetation treatment or disposal methods;
- g. desirable vegetation species;
- h. areas requiring (off-ROW) danger tree removal; and,

- i. the location of any areas where specific vegetation protection measures will be employed and the details of those measures to avoid damage to specimen tree stands of desirable species, important screening trees, or hedgerows.

4. Building and Structure Removal

Indicate the locations of any buildings or structures to be acquired, demolished, moved, or removed.

5. Waterbodies

- a. Indicate the name, water quality classification and location of all rivers and streams, (whether perennial and intermittent) and drainages crossed by, the proposed ROW or any off-ROW access road constructed, improved or maintained for the Facility. On the plan and profile drawings, indicate:
 - 1) stream crossing method and delineate any designated streamside “protective or buffer zone” in which construction activities will be restricted to the extent necessary to minimize impacts on rivers and streams;
 - 2) the activities to be restricted in such zones; and,
 - 3) identify any designated floodways or flood hazard areas to be traversed by the Facility or access roads, or otherwise used for Facility construction or the site of associated facilities.
- b. Show the location of all potable water sources, including springs and wells on the ROW or within 100 feet of the ROW or access roads indicating on a site-by-site basis, precautionary measures to be taken to protect each water source.

6. Wetlands

- a. All wetlands and wetland 100-foot adjacent areas (“adjacent areas”) located within the ROW or crossed by the ROW or any off-ROW access road constructed, improved, or maintained for the Facility shall be depicted on EM&CP drawings.
- b. Indicate the location and type (i.e., identification code for regulated town, state, or federal wetlands) of any wetland (e.g., marsh, meadow, bog, or scrub-shrub or forested swamp) within or adjoining the ROW or any access road, as determined by site investigation and delineation.
- c. Indicate type and location of precautionary measures (e.g., mats) to be taken to protect all wetlands, associated drainage patterns and wetland functions.

7. Land Uses

- a. Agricultural Areas
 - 1) Indicate the locations of sites under cultivation or in active agricultural use including rotational pasture, pasture, hayland, and cropland.
 - 2) Indicate the location of any unique agricultural lands including maple sugarbushes, organic muckland and permanent irrigation systems, as well as areas used to produce specialty crops such as vegetables, berries, apples, and grapes.
 - 3) Indicate the location of vulnerable soils in agricultural areas that are more sensitive than other agricultural soils to construction disturbance due to slope, soil wetness, and shallow depth to bedrock.

- 4) Indicate the location of all land and water management features including subsurface drainage, surface drainage, diversion terraces, buried water lines, and water supplies.
- 5) Designate the site-specific techniques to be implemented to minimize or avoid construction-related impacts to agricultural resources.

b. Sensitive Land Uses and Resources

Indicate the location and identification of sensitive land uses and resources that may be affected by construction of the Facility or by construction-related traffic (e.g., hospitals, emergency services, sanctuaries, schools, and residential areas).

c. Geologic, Historic, and Scenic or Park Resources

Indicate the locations of geologic, historic, and existing or planned scenic or park resources and specify measures to minimize impacts to these resources (e.g., fencing, signs).

d. Recreational

Indicate the locations where existing or planned recreational use areas, would affect or be affected by the Facility location, construction or other ROW preparation.

8. Access Roads, Lay-down Areas and Workpads

Indicate the locations of temporary and permanent on- and off-ROW access roads, lay-down areas and workpads. Provide construction type, material, and dimensions. Indicate provisions for upgrading any existing access roads.

9. Noise Sensitive Sites

Show the locations of noise-sensitive areas along the proposed ROW.

10. Ecologically and Environmentally Sensitive Areas

Indicate the general locations of any known ecologically and environmentally sensitive sites (e.g., archaeological sites; fish and wildlife habitat; rare, threatened, and endangered species or habitats; forest and vegetation; open space; areas of important aesthetic or scenic quality; deer winter yards, etc.), within or nearby the proposed or existing ROW or along the general alignment of any access roads to be constructed, improved or maintained for the Facility. Specify the measures that will be taken to protect these resources (e.g., fencing, flagging, signs “Sensitive Environmental Areas, No Access”).

11. Invasive Species of Special Concern

Identify the location(s) of Invasive Species of Special Concern and the prescribed method to control the spread and/or eradicate the identified species.

12. Herbicide

On the plan and profile drawing notes, indicate areas where herbicides will not be used.

B. Description and statement of objectives, techniques, procedures and requirements

The textual portion of the EM&CP for the Facility shall include, but need not be limited to, all of the following information:

1. Facility Location and Description

Describe the location and limits of the site or ROW and explain the need for any additional rights. For each structure type, indicate the GSA—595A Federal standard color designation or manufacturer’s color specification to be used for painted structures. State any objections raised by Federal, State or local transportation (highways, waterways, or aviation) officials to the final location or manner of installation of, or access to, the certified Facility. Provide a rationale for the inclusion of any splice locations proposed.

2. Stormwater Pollution Prevention

- a. The information included in the approved SWPPP.
- b. In areas of coastal erosion hazard, include plans to demonstrate compliance with the standards for coastal erosion hazard protection as required by 6 NYCRR Part 505 - Coastal Erosion Management.

3. Vegetation Clearing and Disposal Methods

- a. Describe the specific methods and rationale for the type and manner of cutting and disposition or disposal methods for cut vegetation.
- b. Detail specific measures employed to avoid damage to specimen tree stands of desirable vegetation, rare, threatened and endangered species, important screening trees, and hedgerows.

- c. Identify the factors such as the attributes of the site, outcome of landowner negotiations, and attributes of the logs, upon which Certificate Holder's removal of the merchantable logs resulting from clearing the ROW for the Facility will be based.
- d. Describe methods of compliance with 6 NYCRR Part 192 – Forest Insect and Disease Control, applicable DEC quarantine orders, and New York State Department of Agriculture and Markets (“Ag&Mkts”) regulations.

4. Building and Structure Removal

Indicate the locations of any buildings or structures to be acquired, demolished, moved, or removed. Provide the rationale for the acquisition and removal of buildings or structures.

5. Waterbodies

- a. Describe the measures to be taken to protect stream bank stability, stream habitat, and water quality including, but not limited to: crossing technique; crossing structure type; timing restrictions for in-stream work; stream bed and bank restoration measures; vegetation restoration measures; and other site-specific measures to minimize impacts, protect resources, and manage Facility construction.
- b. Indicate the procedures that were followed to inventory such resources and provide copies of any resulting data sheets and summary reports.
- c. Develop a table of waterbodies crossed by the Facility and include: Town (location), Existing Structure Span (mileposts), Stream Name, Field/Map Identification Name, Perennial or Intermittent, New York Stream Classification, Water Index Number, Crossing Method and Length, Fishery Type, and GPS coordinates.

6. Wetlands

- a. For each State-regulated wetland, indicate the following: town (location); existing Structure Span (milepost); wetland field designation; NYSDEC classification code; wetland type; proposed structure located within wetland; total area of temporary disturbance/impact; total area of permanent disturbance (sq. ft.); area crossed by Facility (sq. ft.); and conversion of State-regulated forested wetlands (sq. ft.).
- b. Describe all activities that will occur within State-regulated wetlands or adjacent areas (e.g., construction, filling, grading, vegetation clearing, and excavation) and assure that the activity is consistent with the weighing standards set forth in 6 NYCRR 663.5(e) and (f). Describe how impacts to wetlands, adjacent areas, associated drainage patterns and wetland functions will be avoided, and how impacts will be minimized.
- c. Describe the precautions or measures to be taken to protect all other wetlands (e.g., town, federal wetlands) associated drainage patterns, and wetland functions.

7. Land Uses

a. Agricultural Areas

- 1) Describe programs, policies, and procedures to mitigate agricultural impacts such as soil compaction. Explain how construction plans either avoid or minimize crop production losses and impacts to vulnerable soils.
- 2) Indicate specific techniques and references to appropriate agricultural protection measures recommended by Ag&Mkts.

b. Sensitive Land Uses

Describe the sensitive land uses (e.g., hospitals, emergency services, sanctuaries, schools, residential areas) that may be affected by construction of the Facility or by

construction-related traffic and specify measures to minimize the impacts on these land uses.

c. Geologic, Historic and Scenic or Park Resources

Describe the geologic, historic, and scenic or park resources that may be affected by construction of the Facility or by construction-related traffic and specify measures to minimize impacts on these resources. Indicate the procedures that were followed to identify such resources and specify the measures that will be taken to protect or preserve these resources. Reports prepared to identify and analyze such sites shall be made available to Staff upon request.

d. Recreation Areas

Explain how proposed or existing recreation areas will be avoided or accommodated during construction, operation, and maintenance of the Facility.

8. Access Roads, Lay-down Areas and Workpads

- a. Discuss the necessity for access to the ROW, including the areas where temporary or permanent access is required; and the nature of access improvements based on natural features, equipment constraints, and vehicles to be used for construction and maintenance, and the duration of access needs through restoration and the maintenance of the Facility.
- b. Discuss the types of access which will be used and the rationale for employing that type of access including consideration of:
 - 1) temporary installations (e.g., corduroy, mat, fill, earthen road, geotextile underlayment, gravel surface, etc.);
 - 2) permanent installations (e.g., cut and fill earthen road, geotextile underlayment, gravel surface, paved surface, etc.);
 - 3) use of roads, driveways, farm lanes, rail beds, etc.; and,
 - 4) other access, e.g. helicopter or barge placement.

For each temporary and permanent access type, provide a figure or diagram showing a typical installation (include top view, cross section and side view with appropriate distances and dimension). Where existing access ways will be used, indicate provisions for upgrading for Facility construction.

- c. Indicate the associated drainage and erosion control features to be used for access road construction and maintenance. Provide diagrams and specifications (include plan and side views with appropriate typical dimensions) for each erosion control feature to be used, such as:
 - 1) staked straw bale or check dam (for ditches or stabilization of topsoil);

- 2) broad-based dip or berm (for water diversion across the access road);
 - 3) roadside ditch with turnout and sediment trap;
 - 4) French drain;
 - 5) diversion ditch (water bar);
 - 6) culvert (including headwalls, aprons, etc.);
 - 7) sediment retention basin (for diverting out-fall of culvert or side ditch); and,
 - 8) silt fencing.
- d. Indicate the type(s) of stream crossing method to be used in conjunction with temporary and permanent access road construction. Provide diagrams and specifications (include plan and side view with appropriate dimensions) for each crossing device and rationale for their use. Stream crossing devices may include but not be limited to:
- 1) timber mat;
 - 2) culverts including headwalls;
 - 3) bridges (either temporary or permanent); and,
 - 4) fords.
- e. All diagrams and specifications should include material type and size to be placed in streams and on stream approaches.
- f. If access and workpad areas cannot be limited to upland areas, provide justification for any access and workpad areas which are proposed to be located in a wetland or stream or waterbody.

9. Noise Sensitive Sites

Specify procedures to be followed to minimize noise impacts related to ROW clearing, and construction and operation of the Facility. Indicate the types of major equipment to be used in construction or Facility operation; sound levels at which that equipment operates; days of the week and hours of the day during which that equipment will normally be operated; any exceptions to these schedules; and any measures to be taken to reduce audible noise levels caused by either construction equipment or Facility operation.

10. Ecological and Environmentally Sensitive Sites

Indicate the procedures that were followed to identify ecological and environmental resources (e.g., archaeological sites; fish and wildlife habitat; rare, threatened, and endangered species or habitats; forest and vegetation; open space; areas of important aesthetic or scenic quality; deer winter yards) and specify the measures that will be taken to protect or preserve these resources. Reports prepared to identify and analyze such sites shall be identified, and made available upon request.

11. Invasive Species of Special Concern

- a. Provide an invasive species prevention and management plan for Invasive Species of Special Concern, prepared in consultation with DPS, DEC and Ag&Mkts, based on the pre-construction invasive species survey of invasive species within the ROW.
- b. The plan shall include measures that will be implemented to minimize the introduction of Invasive Species of Special Concern and the spread of existing invasive species of special concern, during construction (e.g., soil disturbance,

vegetation clearing, transportation of materials and equipment, and landscaping/revegetation).

12. Herbicides

Include a herbicide use plan for all vegetation clearing that:

- a. Specifies the locations where herbicides are to be applied. Provide a general discussion of the site conditions (e.g., land use, target and non-target vegetation species composition, height and density) and the choice of herbicide, formulation, application method and timing.
- b. Describes the procedures that will be followed during application to protect non-target vegetation, streams, wetlands, potable waters and other water bodies, and residential areas and recreational users on or near the ROW.

13. Fugitive Dust Control

Specify appropriate measures that will be used to minimize fugitive dust and airborne debris from construction activity.

14. Petroleum and Chemical Handling Procedures

- a. Include a plan for the storage, handling, transportation, and disposal of petroleum, fuels, oil, chemicals, hazardous substances, and other potentially harmful substances which may be used during, or in connection with, the construction, operation, or maintenance of the Facility. Address how to avoid spills and improper storage or application in the vicinity of any wetland, river, creek, stream, lake, reservoir, spring, well, or other ecologically sensitive site, or existing recreational area along the ROW and access roads.

- b. Include a plan for reporting, responding to and remediating the effects of any spill of petroleum, fuels, oil, chemicals, hazardous substances, and other potentially harmful substances in accordance with applicable State and Federal laws, regulations, and guidance, and include proposed methods of handling spills of petroleum, fuels, oil, chemicals, hazardous substances, and other potentially harmful substances which may be stored or utilized during the construction and site restoration, operation, and maintenance of the Facility.

15. Environmental Supervision

- a. Describe protocols for supervising demolition, vegetation clearing, use of herbicides, construction, and site restoration activities to ensure minimization of environmental impact and compliance with the environmental protection provisions specified by the Certificate.
- b. Specify the titles and qualifications of personnel proposed to be responsible for ensuring minimization of environmental impact throughout the demolition, clearing, construction and restoration phases, and for enforcing compliance with environmental protection provisions of the Certificate and the EM&CP. Indicate the amount of time each supervisor is expected to devote to the project.
- c. Specify responsibilities for personnel monitoring all construction activities, such as clearing, sensitive resource protection, site compliance, EM&CP change notices, etc.
- d. Explain how all environmental protection provisions will be incorporated into contractual specifications, and communicated to those employees or contractors engaged in demolition, clearing, construction, and restoration.

- e. Describe the procedures to “stop work” in the event of a Certificate violation.
Identify the company’s designated contact including 24/7 emergency phone number, for assuring overall compliance with Certificate conditions.

16. Clean-up and Restoration

Describe the Certificate Holder’s program for ROW clean-up and restoration, including:

- a. the removal of any temporary roads; restoration of lay-down or staging areas; the finish grading of any scarified or rutted areas; the removal of waste (e.g. excess concrete), scrap metals, surplus or extraneous materials or equipment used;
- b. plans, standards and a schedule for the restoration of vegetative cover; include, but not limited to, specifications to address:
 - 1) design standards for ground cover:
 - a) species mixes and application rates by site;
 - b) site preparation requirements (soil amendments, stone removal, subsoil treatment, or drainage measures);
 - c) acceptable final cover % by cover type;
 - 2) planting installation specifications and follow-up responsibilities;
 - 3) a schedule or projected dates of any seeding and/or planting; and,
 - 4) plans to prevent unauthorized access to and along the ROW.

17. Visual Impact Mitigation

Provide details of screening or landscape plans prescribed at road crossings and for adjacent property owners. Discuss existing or proposed landscape planting, earthwork, or installed features to screen or landscape substations and other Facility components.

18. ROW Encroachment Plan

Provide detailed plans for identifying and resolving potential encroachments to the existing and proposed ROW.

19. Wetland Mitigation Plan

Provide detailed plans for mitigating all permanent impacts to State-regulated wetlands and Federally-regulated wetlands, if prescribed by the Army Corps of Engineers, including, but not limited to, the permanent conversion of forested wetland to scrub/shrub wetland. For State-regulated wetlands, mitigation plans shall separately address impacts to each of the wetlands benefits described in ECL § 24-0105(7). Plans shall provide for wetland mitigation in the same watershed to the maximum extent possible.

**APPENDIX F
PROPOSED 401 WATER QUALITY CERTIFICATION**

**NEW YORK PUBLIC SERVICE COMMISSION
WATER QUALITY CERTIFICATION**

Pursuant to: §401 of the Federal Water Pollution Control Act, 33 U.S.C. §1341, and Article VII of the New York Public Service Law

Certification Issued to: **Niagara Mohawk Power Corporation
d/b/a National Grid
300 Erie Boulevard West
Syracuse, New York 13202**

Location of Project

Niagara Mohawk Power Corporation, d/b/a National Grid (“National Grid” or “the Company”) proposes to reconstruct and reconductor two of its 115 kV electric transmission lines, the Mohican-to-Battenkill Line 15 (“Line 15”) and a portion of the Mohican Luther Forest Line 3 (formerly known as Mohican-to-North Troy Line 3) (“Line 3 Segment”) (the “Project”), over a distance of approximately 14.2 miles. In general terms, the proposed route will traverse from North to South the Town of Moreau in Saratoga County, and the Towns of Fort Edward, Greenwich and Easton in Washington County.

Project Description

National Grid’s Article VII Application has fulfilled the requirements necessary to determine whether the Project will qualify for issuance of a Water Quality Certification pursuant to §401 of the Federal Water Pollution Control Act (33 U.S.C. §§ 1251 through 1387). Several different structure types will be used for the Project. All structure types will be self-weathering tubular steel pole structures, a material which weathers over time to a brown color. The predominant structure proposed for Line 15 and the Line 3 Segment is phase-over-phase configured davit arm monopole structures. This structure type is proposed for dead-end and suspension applications alike. A total of 117 structures are proposed. Of these, 109 are to be phase-over-phase configured steel monopole double circuit davit arm suspension structures and eight (8) are to be phase-over-phase configured steel monopole double circuit davit arm dead-end structures. There are two (2) single circuit steel vertical dead-end structures, two (2) single circuit steel delta davit arm suspension structures, one (1) single circuit vertical switch structure, and one (1) wood three pole dead-end pull-off structure. The remaining structure types consist of three (3) double circuit steel two pole vertical dead-end pull-off structures, one (1) special double circuit steel two pole vertical dead-end pull-off structure, and one (1) double circuit steel three pole vertical dead-end pull-off structure. (Note: The foregoing description of the proposed structure types, if different from the final design set forth in the approved Environmental Management & Construction Plan (“EM&CP”), should be changed to conform to such final

design.) The average structure height proposed for the Project is approximately 85 feet and the average span length is proposed to be approximately 600 feet.

The Project Right-of-Way (“ROW”) traverses 17 streams (two C(T) streams, one C(TS) stream and fourteen C streams), seven (7) of which are named rivers: the Hudson River, Black House Creek, Dead Creek, Moses Kill, Slocum Creek, Van Antwerp Creek, and the Battenkill River. Mitigation measures will be employed to minimize water quality impacts on and near the ROW. Tracked vehicles and swamp mats will be used as necessary when working in wetlands and near stream banks to protect vegetation root systems, reduce compaction, and minimize ruts. Appropriate temporary erosion and sediment controls also will be installed to prevent erosion of soils into streams and any associated wetlands. In addition, if possible, work activities in wetlands will be scheduled during dry or frozen periods to facilitate access and minimize disturbance. The EM&CP will specify the work procedures in wetlands and at stream crossings and appropriate restoration and mitigation measures.

Construction, operation and maintenance of the Project will be in accordance with the Certificate of Environmental Compatibility and Public Need (“Certificate”), the EM&CP, and National Grid’s Transmission Right-of-Way Management Program approved by the Commission in Case 27605.

Certification

The New York State Public Service Commission hereby certifies, pursuant to §401 of the Water Pollution Control Act (33 U.S.C. §1341) and Article VII of the New York Public Service Law that the Project, as conditioned herein, complies with applicable requirements of §§ 301, 302, 303, 306 and 307 of the Federal Water Pollution Control Act, as amended, and applicable New York State water quality standards, limitations, criteria and other requirements set forth in 6 NYCRR §608.9(a) and Parts 701 through 704, provided that all of the conditions listed herein are met. This certification (“Certification”) is issued in conjunction with the Article VII Certificate sought by National Grid in, and based on the record of, Case 11-T-0068.

Conditions

1. No in-water work shall commence until all pre-construction conditions relating to such work contained in the Certificate and any Order approving the EM&CP have been met to the satisfaction of the Department of Public Service.
2. Construction and operation of the Project shall at all times be in conformance with (a) the Application (as amended and supplemented) and Joint Proposal of Settlement filed in Case 11-T-0068, to the degree not superseded by the Certificate, (b) all conditions of approval contained in the Certificate, (c) the EM&CP, and (d) all conditions incorporated in any order approving the EM&CP in Case 11-T-0068, to the extent such documents referenced in (c) and (d) above pertain to National Grid’s compliance with New York State Water Quality Standards necessary and appropriate for issuance of, and compliance with, this Certification.

3. National Grid shall provide a copy of this Certification to the U.S. Army Corps of Engineers, along with a copy of the Application, Joint Proposal, Article VII Certificate, EM&CP, and order(s) approving the EM&CP in Case 11-T-0068, so that the U.S. Army Corps of Engineers will have a complete record of the conditions that apply hereto.
4. National Grid shall provide to all construction contractors performing work on the Project complete copies of this Certification, the Article VII Certificate, the approved EM&CP, and order(s) approving the EM&CP.

Certified by:

_____, Director
Office of Energy Efficiency and the Environment
New York State Department of Public Service
Three Empire State Plaza
Albany, New York 12223