

**STATE OF NEW YORK  
PUBLIC SERVICE COMMISSION**

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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 : Case No. \_\_\_\_\_  
Double-Circuit Electric Transmission :  
Facilities from the Mohican Substation in :  
Saratoga County to the Battenkill :  
Substation in Washington County :  
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**APPLICATION**

Niagara Mohawk Power Corporation d/b/a National Grid (“National Grid” or the “Applicant”) submits this application (“Application”), pursuant to Article VII of the Public Service Law (“PSL”) and the Commission’s regulations thereunder, for a Certificate of Environmental Compatibility and Public Need (“Certificate”) for the reconstruction and reconductoring of two of its 115 kV electric transmission lines, the Mohican-to-Battenkill Line 15 (“Line 15”) and a portion of the Mohican-to-North-Troy Line 3 (“Line 3 Segment”) (collectively, Line 15 and the Line 3 Segment are referred to as the “Existing Lines”), over a distance of approximately 14.2 miles (the “Project”).

As specified in section 122 of the PSL and section 85-2.8 of the Commission’s Regulations, this Application contains the following information:

- (a) Description of the Project;
- (b) Project Location;
- (c) Description of Reasonable Alternative Routes and Technology;
- (d) Summary of Environmental Studies and Environmental Impact;
- (e) Need for the Project; and
- (f) Other relevant information.

**A. Description of the Project**

The Project consists of rebuilding and reconductoring the Existing Lines. The Existing Lines are located in an approximately 14.2 miles of right-of-way (“ROW”) from

the Mohican Substation in the north to the Battenkill Substation in the south (“Existing ROW”). Some additional ROW immediately adjacent to one or both sides of the Existing ROW will be required to expand the Existing ROW for this Project (the “Project ROW”). The Applicant proposes, where possible, to construct Line 15 and the Line 3 Segment as they are proposed to be modified by the Project (“Proposed Lines”) on a new double circuit structure line in a location on the Project ROW offset from the line of structures for the Existing Lines.

In order to facilitate the reconstruction of the Existing Lines, the centerline of the lines will be relocated laterally towards the east inside the Project ROW from Mile 0.1 to Mile 11.9 (measured from north to south). This will permit installation of the new structures and conductors along this section of the Project 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 and the Battenkill Substation, a distance of 2.3 miles, the Existing Lines will be rebuilt along the same centerline as the existing structures, as the existing centerline is the only viable place within the bounds of the Project ROW to accommodate the proposed new lines. At the northernmost section of the Existing ROW, between Mile 0.0 and Mile 0.1, Line 15 is located on the centerline of the Existing ROW, supported by a three-pole, wooden cross-arm structure. This structure will be replaced by a cor-ten steel, monopole, delta-configured structure. Line 3, located 29.5 feet from the western edge of the Existing ROW, currently is supported by a steel lattice flex structure. This structure will be replaced in its current location by a cor-ten steel, monopole, vertically-configured dead-end structure.

The Proposed Lines are designed to operate at a nominal system voltage of 115 kV alternating current. Their voltage of initial operation will also be 115 kV.

The conductor type proposed for the Proposed Lines is 795 MCM 26/7 ACSR “Drake” conductor. The Proposed Lines are designed with a single 795 ACSR “Drake” wire for 14.2 circuit miles from the Mohican Substation to the Battenkill Substation, except in the area of the span across the Battenkill River on each line. The conductor over the Battenkill River is to be 1113 MCM 54/19 “Finch”.

Several different structure types will be used for the Project. All structure types will be tubular steel pole structures, a material which maintains a brown color due to the

weathering. Structure types are described in more detail in Exhibit E-1 – Description of Proposed Transmission Facilities.

The structure designs for the Project have been developed in accordance with the latest edition of the National Electric Safety Code (“NESC”), the National Grid Transmission Line Design and Structure Loading criteria, and ROW considerations such as ROW width, the location of existing facilities, and environmental conditions. The NESC, latest edition, as well as other, more stringent criteria imposed by National Grid will be used to determine specific structural loading design. In addition, the Project will employ two types of foundations for steel structures: direct embedded steel poles and reinforced caisson foundations.

## **B. Project Location**

National Grid is proposing to reconstruct and reconductor the Existing Lines between the Mohican Substation in Saratoga County and the Battenkill Substation in Washington County over a distance of approximately 14.2 miles. The Project is proposed to take place primarily along the Existing ROW. With the exception of 5,000 feet at the northern end of the Existing ROW which National Grid holds by easement, National Grid owns the Existing ROW in fee.

The Applicant proposes, where possible, to construct the new double circuit structure line in a location on the Project ROW offset from the line of structures for the Existing Lines, allowing the Existing Lines to remain in service while the Project is underway, thus minimizing the need for long-term outages.

Detailed maps, drawings and explanations showing the proposed primary route for the Project (“Primary Route”) and configurations are set forth in various exhibits to this Application. In general terms, the Primary 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.

## **C. Description of Reasonable Alternative Routes and Technology**

Exhibit 3 of this Application provides a description of the project routing and an evaluation of alternatives, including a description of the comparative merits and

detriments of each location or route segment and an explanation of why the Primary Route is best suited for the Project. This exhibit also addresses alternative technologies and explains why the Project best meets the public necessity.

#### **D. Summary of Environmental Studies and Environmental Impact**

The environmental studies and environmental impact assessment for the Project were conducted by National Grid and its consultant ESS Group, Inc. A detailed description of these studies and the potential environmental impacts of the Project are set forth in the resource specific sections of Exhibit 4. In sum, these studies concluded that the construction and operation of the Project will result in limited, temporary adverse environmental effects, which will occur primarily during the construction phase. Because National Grid has designed the Project to be constructed and operated within existing transmission corridors and has proposed certain mitigation measures, National Grid has minimized the potential for the Project to result in adverse impacts in the following areas: Land Uses, Visual Resources, Cultural Resources, Terrestrial and Wildlife Resources, Wetlands and Water Resources, Topography and Soils, and Noise. The information used to prepare each of the existing conditions sections includes extensive field investigations, literature reviews, and agency consultations.

Nearby residences may experience short term disturbance and traffic inconvenience associated with construction activities. To minimize potential construction effects to adjacent landowners, National Grid will provide timely information to adjacent property owners and tenants regarding the planned construction activities and schedules, and will coordinate with NYSDOT, county officials, and local police departments to develop and implement traffic control measures.

#### **E. Need for the Project**

Exhibit E-4 of the Application, entitled Engineering Justification, explains how this Project (among others) is needed to relieve the thermal and projected load constraints in the Northeast Region. This Project is among the most immediate of a number of planned reinforcements that will address the current and long-range needs of the Northeast Region. 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.

**F. Other Relevant Information**

Exhibit 1 provides the name, address and phone number of the Applicant; the principal officer name and address for the Applicant; and the names and addresses of those persons upon whom documents and correspondence are to be served.

**G. Conclusion**

National Grid respectfully requests that the Commission issue an order pursuant to Article VII of the Public Service Law granting the following:

- 1) A Certificate of Environmental Compatibility and Public Need for the reconstruction, operation and maintenance of the Project described herein; and
- 2) Such other and further authorizations, consents, permissions, approvals, waivers and permits, as necessary, for the construction, operation and maintenance of the Project described herein, including but not limited to, the issuance of a Water Quality Certification pursuant to Section 401 of the Federal Water Pollution Control Act, 33 USCA section 1341.

Dated: February 16, 2011