

**STATE OF NEW YORK
PUBLIC SERVICE COMMISSION**

Application of the New York Power Authority for an
Amendment to the Certificate of Environmental
Compatibility and Public Need for the Moses to
Plattsburgh Transmission Facility for the Moses-Willis
Circuit Separation Project

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APPLICATION

The New York Power Authority (“NYPA” or “Applicant”), submits this application to the Public Service Commission (“Commission” or “PSC”) to amend the existing Article VII Certificate of Environmental Compatibility and Public Need issued by the Commission in Case 26680 on November 14, 1975 (“Certificate”)¹. The proposed amendment (“Amendment”) to the Moses to Plattsburgh Transmission Facility (“Facility”) would authorize construction of the Moses-Willis Circuit Separation Project (“Project”), described below.

For the reasons set forth in this Application, NYPA requests that the Commission amend the Certificate to incorporate the following new and existing facilities that constitute the proposed Project, including: (1) one new dead-end structure south of the Moses Switchyard; (2) eight existing structures (“Alcoa4”) that currently support the MAL4² circuit; (3) four new single steel pole structures in Dodge’s Field³; (4) one new 3-pole H-frame steel replacement structure for pole number MW-2-02/05; (5) 1.8 miles of new 230kV conductor for the MW-2 circuit on existing Alcoa4 structures; and (6) 2,213 feet of new 230kV conductor on the new structures within Dodge’s Field. Applicant requests an expedited review of this Application.

Pursuant to Section 130 of the Public Service Law and Section 401 of the Federal Water Pollution Control Act, 33 U.S.C. Section 1341, Applicant requests issuance of the requisite Water Quality Certificate for the Project by the Commission.

¹ The Certificate was issued to the Power Authority of the State of New York, referred to in this Application as the New York Power Authority (NYPA).

² The Alcoa4 structures currently support the MAL4 circuit, a 115kV non-Article VII transmission line less than 10 miles long, in one tower position with the other tower position being vacant, “spare.” The MAL4 circuit runs from the Moses Switchyard to the Alcoa West substation.

³ Dodge’s Field is an area bounded by Fregoe Road to the south and east, Kinnie Road to the west, and the Joint Transmission Corridor right-of-way to the north. The area was owned by Lester Dodge and operated as a pasture, hence the local name for the area is Dodge’s Field.

BACKGROUND

The Commission issued the Certificate for the Moses to Plattsburgh Transmission Facility to NYPA in November 1975. The Facility consists of two 230kV transmission circuits from the St. Lawrence-Franklin D. Roosevelt Power Project's ("STL") Moses switchyard located in the Town of Massena, St. Lawrence County, to the Willis substation in the Town of Chateaugay, Franklin County, to the Plattsburgh substation in the Town of Beekmantown, Clinton County, New York (Moses-Willis-Plattsburgh). The circuits from the Moses switchyard to the Willis substation are known as the Moses-Willis 1 ("MW-1") and the Moses-Willis 2 ("MW-2") lines. The circuits from the Willis substation to the Plattsburgh substation are known as the Willis-Plattsburgh 1 and the Willis-Plattsburgh 2 lines.

The Facility consists primarily of parallel single circuit lines on wood pole H-frame structures except for approximately 1.8 miles of double circuit steel lattice structures from the Moses switchyard south to Dodge's Field. The double circuit steel lattice structures support the MW-1 circuit in the east position and the MW-2 circuit in the west position. After the initial double-circuit segment, the single-circuit lines continue east for approximately 36 miles to the Willis substation and again continue east approximately 33 miles to the Plattsburgh substation.

This Application pertains to the initial 1.8 miles of the Facility from the Moses switchyard to Dodge's Field, and an additional 2,213 feet of new 230kV conductor within Dodge's Field. The MW-1 circuit will remain energized and in-place on the existing steel lattice structures of the Moses-Willis line, along with the corresponding de-energized segment of the (former) MW-2 conductor. The remaining 69 miles of the Moses-Willis-Plattsburgh lines, from the east side of Dodge's Field eastward, is not affected by this Amendment, nor is it addressed in this Application for an Amendment.

Currently, the double circuit segment of the MW-1 and MW-2 lines is subject to a double circuit contingency⁴ operational restriction which limits transmission capacity from the Moses to Plattsburgh Transmission Facility. The separation of the existing double circuit segment of the MW-1 and MW-2 lines onto different structures will allow the New York Independent System Operator ("NYISO") to operate the New York State Bulk Power System more efficiently by removing the double circuit contingency operational restriction.

This Amendment does not have a material effect on the Moses to Plattsburgh Facility. The affected distance (approximately 2.2 miles) is approximately 3 percent of the overall Facility distance of 71 miles. The 14 affected structures are less than 3 percent of the Facility's 558 total structures. The existing 230kV voltage will remain unchanged. Thus, this Amendment does not result in a substantial change in the location of all or a portion of the Facility. This Amendment also does not result in any material increase in any environmental impact of the Facility. As specified in Section 123(2) of the Public Service Law and Section 4.1 of the Commission's regulations, the Commission is not required to hold a hearing concerning this Application. Accordingly, Applicant requests that the Commission does not hold a hearing concerning the Amendment and also seeks expedited review of this Application.

⁴ A double circuit contingency is the simultaneous loss of two transmission lines.

As specified in Section 122 of the Public Service Law and Section 85-2.8 of the Commission's regulations, this Application contains the following information: (A) Description of Proposed Project; (B) Project Location; (C) Description of Reasonable Alternatives; (D) Summary of Environmental Studies and Environmental Impact; (E) Need for the Facility; and (F) Other Relevant Information.

A. Description of Proposed Project

The first 1.8 miles of the MW-1 and MW-2 lines from the Moses switchyard travel south across the St. Lawrence South Channel and the Wiley-Dondero Canal in a vertical configuration on double circuit galvanized lattice steel towers. This segment is within a joint right-of-way ("ROW") corridor with multiple circuits (MAL4, MAL5&6, Cedar Rapids 1&2, MW-1 & MW-2, MRG-1, MRG 2&3, Seaway 1&2, L33P and L34P). Within this joint corridor, there are a total of eight double circuit towers for the MW-1 and MW-2 lines ranging in height from 125 feet to 266 feet. Continuing southeast, the MW-1 and MW-2 transmission lines separate onto single circuit wooden H-frame structures. The MW-1 and MW-2 single circuit wooden H-frame structures are located on a 200 foot wide ROW with 100 feet between the centerlines of each circuit.

To eliminate the double-circuit contingency, the Applicant proposes to de-energize the existing MW-2 circuit and install a new MW-2 circuit on eight existing structures of the MAL4 circuit. This will result in the MW-1 circuit remaining in place on the Moses-Willis structures, and a segment of the MW-2 circuit being relocated onto a completely separate set of Alcoa4 structures.⁵ In order to complete the MW-2 circuit, four new single pole, steel structures will be constructed in Dodge's Field and one wooden 3-pole H-frame structure will be replaced with a steel 3-pole H-frame structure. There will also be one dead-end structure installed south of the Moses switchyard and connected to the existing MW-2 line to provide physical stability to the existing Moses-Willis structures.

Existing double-circuit structures on both the Moses-Willis and Alcoa4 facilities will be reinforced to strengthen the structures and allow for the MW-2 and the MAL4 line to be located on the existing Alcoa4 towers, and the MW-1 line and the de-energized segment of the (former) MW-2 line to remain on the existing Moses-Willis towers. The structures to be reinforced are identified as A3, B3, C3, MW-201, MW-205, A4, B4, C4, D4, 206, 207, 208, and 209.

B. Statement of Location

The Project begins at the Moses switchyard and proceeds approximately 1.8 miles within an existing joint ROW south to Dodge's Field. The proposed configuration of the new MW-2 segment in Dodge's Field will require the acquisition of two new ROW parcels totaling approximately 11.4 acres. The existing and proposed new ROW and all of the new and existing facilities are located in the Town of Massena, County of St. Lawrence, New York.

C. Summary and Description of Studies Made of the Environmental Impact of Proposed Project

⁵ Relocating the MW-2 circuit to the Alcoa4 structures will also require the relocation of the non-Article VII MAL4 line from the east to the west position on three of the Alcoa4 structures.

Applicant performed a wetland delineation, archeological assessment, threatened and endangered species review, invasive species assessment, electric and magnetic field calculation, and visual impact assessment to identify existing environmental resources and to determine the potential environmental impact of the Project. Exhibit 4 of this Application summarizes the results of the environmental studies that were prepared for the Project.

1. Wetland Delineation

Two wetland delineation investigations were performed in the Project area. The first wetland delineation investigation was conducted during May-June 2011 in the Dodge's Field area by Riveredge Associates, LLC. The second wetland delineation investigation was performed in April-May 2012 in the joint corridor area by Terrestrial Environmental Specialists, Inc. Copies of both wetland delineation reports are included in Appendix 1 of this application.

The wetland delineations were performed using the supplement to the United States Army Corps of Engineers ("USACE") Wetlands Delineation Manual⁶ and the Wetland Determination Data Forms for the Northcentral and Northeast Region (Interim Version Revised).⁷ Potential wetlands in the Project site were targeted based on the presence of wetland plant indicator species. The Project site was thoroughly surveyed for wetlands and wetland/upland transitional zones. At each sampling point a detailed examination of the hydrology, vegetation, and soil was conducted using the Wetland Determination Data Form. Specific methods for characterizing and evaluating the soils, vegetation, and hydrologic indicators at each sampling site are contained in the attached reports.

The wetland delineation investigations determined that there are no New York State Department of Environmental Conservation ("DEC")-regulated wetlands in the area affected by the Amendment. There will be minimal impacts to Waters of the United States under the jurisdiction of the Army Corps of Engineers to improve existing access roads. The proposed structures in Dodge's Field, the lay down areas, and the conductor pulling stations are all located outside of the delineated wetlands.

2. Archeological Assessment

In April 2012, Hartgen Archeological Associates Inc. conducted a Phase I archeological survey of previously undisturbed locations within the Project area. The survey was conducted in accordance with the New York Archeological Council's ("NYAC") *Standards for Cultural Resource Investigations and the Curation of Archeological Collections in New York State*.

A report entitled "Phase I Literature Review and Field Reconnaissance, New York Power Authority Moses Willis Double Circuit Contingency Project" detailing the survey and findings was prepared by Hartgen Archeological Associates Inc. in April 2012. Applicant submitted a Finding Document on May 7, 2012 to the New York State Office of Parks, Recreation and

⁶ Corps of Engineers Wetlands Delineation Manual, Wetlands Research Program Technical Report Y-87-1, Environmental Laboratory, Final Report (January 1987), *available at* atl.erdc.usace.army.mil/elpubs/pdf/wlman87.pdf

⁷ *Available at* www.usace.army.mil/Portals/2/docs/civilworks/regulatory/reg_supp/int_ncne_df.pdf

Historic Preservation (“OPRHP”) and received a concurrence letter from them on Applicant’s finding of No Historic Properties Effected. A copy of the concurrence letter from the OPRHP is included in Appendix 2 of this Application.

Additionally, the same report and finding document were submitted to the Tribal Historic Preservation Officer (“THPO”) and Director of the Environmental Division for the St. Regis Mohawk Tribe, the Mohawk Council of Akwesasne, and the Mohawk Nation Council of Chiefs as part of the consultation process required by The National Historic Preservation Act of 1966 (16 U.S.C. 470) and associated regulations.⁸ No response was received from the St. Regis Mohawk Tribe, the Mohawk Council of Akwesasne, or the Mohawk Nation Council of Chiefs within the regulatory 30-day response period or thereafter.⁹

3. *Threatened and Endangered (“T&E”) Species*

Applicant performed a review of the potential impact of the Project on T&E Species relative to the Endangered Species Act. Applicant receives annual T&E species data updates from the Natural Heritage Program (“NHP”) for the Applicant’s ROW corridor. Based on that data and a review of proposed Project construction, T&E species will not be impacted by this Project.

According to the NHP data, Bald eagles, a state listed threatened species, are known to occur in the Project area. There are no known nesting locations in the vicinity of the Project; however, they do concentrate around the open water downstream of the Robert Moses Power Dam during the winter months. Even though the MAL4 line and the MW-2 line will be replaced with new conductors, the height of these lines will be at the same elevation above the South Channel and shipping canal and within the existing ROW corridor. Therefore, temporary construction activities and continued operation of these facilities are not expected to impact this species.

Furthermore, the NHP dataset indicated potential habitat for Upland sandpiper (state threatened) and Short-eared owls (state endangered) within the vicinity of the Project; however, this data was from the early 1990s and the grassland bird habitat that was present in the Project vicinity has reverted into a scrub shrub type habitat and is no longer nesting/foraging habitat for this species.

Lake sturgeon, a state listed threatened species, are known to occur in the St. Lawrence River and South Channel. This Project does not involve any in-water work and will not affect lake sturgeon.

4. *Invasive Species Assessment*

Applicant performed a review of the impact of the Project on the potential spread of invasive species. For the Joint Transmission Corridor section of the Project, activities will be restricted to existing access roads and upland locations. For the Dodge’s Field section of the Project, Applicant has designed the Project to minimize its impact on the delineated wetlands by locating the new pole locations, temporary lay down areas, and pulling stations outside of the delineated wetlands. To minimize any spread of invasive species, the Project’s activities will conform to the requirements of the Environmental Energy Alliance of New York’s (“EEANY’s”), *Best Management Practice (“BMP”) for Preventing the Transportation of Invasive Plant Species*,

⁸ See 36 CFR § 800.2(c)(2).

⁹ See 36 CFR § 800.3(c)(4).

dated 4/26/2012 (Appendix 5). The EEANY BMP was developed over a period of twenty (20) months by representatives from the New York State Transmission Owners, the Department of Public Service (“DPS”), and the DEC.

5. Electric and Magnetic Field Calculation

Electric and magnetic field calculations were performed in June 2012 by CG Power Solutions USA Inc. according to the PSC’s Guidance (Opinion No.78-13 and PSC’S Interim Policy Statement on Magnetic Fields). The calculations determined that the electric field level is below the standard of 1.6 kV/m and the magnetic field level is below the standard of 200 mG. These calculations were performed based on the criteria outlined in the PSC’s guidance documents.

6. Visual Impact Assessment

Applicant performed a visualization of the Project and the findings are presented in Appendix 3. The stringing of the new 230 kV conductor on to the Alcoa4 towers does not have any discernable visual impact. The installation of the dead end structure south of the Moses switchyard, the four new monopoles in Dodge’s Field and the replacement of one wood H-frame structure with a steel H-frame structure have a minimal visual impact on the area.

D. Need for Transmission Facility

The double circuit contingency reduces reliability by potentially causing voltage, thermal and load shedding issues, and causes a reduction in the deliverability of power across the Moses-Willis-Plattsburgh transmission line. If a double circuit Moses-Willis structure were to be damaged, both circuits would be out-of-service. The time to repair and/or replace a damaged structure can be weeks or months.

The double circuit contingency restrictions are based on the Northeast Power Coordinating Council Reliability Reference Directory #1, Sections 5.4.1 b and 5.5.1 b guidance which states that more than five double circuit towers in the switchyard exit area is a risk which requires that NYISO plan for the simultaneous loss of the MW-1 and MW-2 lines. The Moses-Willis lines (MW-1 and MW-2) are on separate structures for the majority of the transmission facility, but the double circuit configuration for the initial 1.8 miles from the Moses switchyard causes the operational restrictions which affect the entire Facility.

E. Description of reasonable alternate locations or routes

The Applicant considered two alternatives: (1) relocating the MW-1 circuit onto eight new monopole structures to be constructed adjacent to the existing MW structures, and (2) replacing the double circuit segment of the MW-1 and MW-2 lines with a new underground facility. Neither alternative is preferred because of logistical, regulatory, financial, worker safety and environmental concerns. The alternatives are described in more detail in Exhibit 3 of this application.

F. Statement of other relevant information

Pursuant to Public Service Law § 121-3 and §122-4, the Applicant has consulted with DPS, OPRHP, and DEC, and has conducted all studies and included all relevant information in this Application in accordance with the Commission's regulations.

The specific details and methods to be used to construct the Project as described in this Application will be included in the Project-specific Environmental Management and Construction Plan ("EM&CP") which will be presented under separate cover to the Commission.

REQUEST FOR EXPEDITED REVIEW

The double circuit contingency constrains North Country operation, reduces reliability by potentially causing voltage, thermal and load shedding issues, and causes a reduction in the deliverability of power across the Moses-Willis-Plattsburgh line. If a double circuit Moses-Willis structure were to be damaged, both circuits would be out-of-service. The time to repair and/or replace a structure can be weeks or months.

NYPA seeks to address reliability concerns and to reinforce the bulk transmission system. Accordingly, the expedited approval of this Application is appropriate and no hearing is required pursuant to Public Service Law Section 123(2).