

**BEFORE THE
PUBLIC SERVICE COMMISSION
STATE OF NEW YORK**

Application of New York Power Authority for a
Certificate of Environmental Compatibility and
Public Need for the Rebuild of the Existing Moses-
Adirondack 1&2 230 kV Transmission Lines
Extending approximately 86 miles from the Robert
Moses Switchyard in the Town of Massena, St.
Lawrence County to the Adirondack Substation in
the Town of Croghan, Lewis County, New York.

Case No.: 18-T-XXXX

**NEW YORK POWER AUTHORITY
MOSES-ADIRONDACK SMART PATH RELIABILITY PROJECT
MATTER OF APPLICATION**

APPLICATION

Pursuant to Article VII of the New York Public Service Law (“PSL”) and Part 85 of Title 16 of New York State’s Code of Rules and Regulations (the “Commission’s Regulations”), the Power Authority of the State of New York (“NYPA” or the “Applicant”) hereby petitions the New York State Public Service Commission (the “Commission”) for a Certificate of Environmental Compatibility and Public Need (the “Certificate”) to authorize NYPA to rebuild its existing 230 kilovolt (“kV”) Moses-Adirondack 1 & 2 (“MA1&2”) transmission lines, which extend approximately 86 miles from the St. Lawrence Power Project’s Robert Moses Power Dam Switchyard (“Moses Switchyard”) in the Town of Massena, St. Lawrence County, New York (“NY”) to the Adirondack Substation in the Town of Croghan, Lewis County, NY (the “Project”). In conformance with Section 85-2.8 of the Commission’s Regulations, NYPA states as follows:

1.0 DESCRIPTION OF THE PROPOSED PROJECT

The existing MA1&2 lines consist of approximately eight (8) miles of double-circuit lattice structures and approximately seventy-eight (78) miles of single-circuit predominantly wood H-frame structures. The MA1&2 transmission lines were built in 1942 and transferred to NYPA in 1950. Since that transfer, the MA1&2 lines have at all times been owned, operated and maintained by NYPA. The Project proposes to rebuild the MA1&2 lines as two single-circuit 345 kV lines on single-circuit steel monopoles, operated initially at 230 kV. The Project also includes the construction of a new 345 kV switchyard at the existing Moses Switchyard and a

new 345 kV switchyard at the Adirondack Substation. The Project would be constructed entirely within an existing right-of-way (“ROW”) maintained by NYPA with the exception of an approximate one-mile re-route on the State University of New York at Canton (“SUNY Canton”) campus.

The MA1&2 lines are co-located for approximately 53 percent of their 86-mile length with the adjacent Massena-Marcy 765 kV (“MSU-1”) transmission line and are co-located for approximately 24 percent of their length with 115 kV transmission lines owned by Niagara Mohawk Power Corporation d/b/a National Grid (“National Grid”).

NYPA will be phasing the construction of the Project. The first phase, Phase One, will involve rebuilding the existing 78-mile, single-circuit predominantly wood pole section of the MA1&2 lines with single-circuit steel monopoles. Phase Two will involve rebuilding the existing eight-(8) mile, double-circuit steel lattice section with single-circuit steel monopoles, rebuilding 0.4 miles of single-circuit steel lattice structures into Adirondack Substation with single-circuit steel monopoles, and constructing new 345 kV switchyards at the Moses Switchyard and the Adirondack Substation. The Project would involve the replacement of approximately 1,625 structures with approximately 860 monopole structures after the rebuild, resulting in approximately 765 less structures within the right-of-way (“ROW”).

2.0 THE LOCATION OF THE PROPOSED RIGHT-OF-WAY

For the majority of its proposed route, the Project is proposed to be constructed within the existing, maintained 250-foot-wide ROW on which NYPA has easements or which is owned by

NYPA, with the exception of an approximate one-mile re-route within SUNY Canton's campus (the "Proposed ROW").

No other change to, or expansion of, the existing ROW is required to accommodate the rebuilt facilities. As with the existing MA1&2 lines, the proposed rebuilt transmission lines would extend from the Moses Switchyard to the Adirondack Substation, with new 345 kV switchyards to be constructed partially within the fence line of, and adjacent, to the Moses Switchyard and immediately adjacent to the Adirondack Substation as part of Phase Two of the Project.

The Project's Proposed ROW traverses 12 towns from north to south: the Towns of Massena, Louisville, Norfolk, Madrid, Potsdam, Canton, Russell, Hermon, Edwards, and Pitcairn in St. Lawrence County and the Towns of Diana and Croghan in Lewis County. The Project also crosses the Village of Canton in St. Lawrence County. Exhibit 2 to the Application details how many miles the Project would traverse in each town and village. In addition, approximately 1.8 miles of the Proposed ROW is located in the Adirondack State Park.

The Project begins at the north end of the Proposed ROW, where NYPA proposes a new 345 kV switchyard at the existing Moses Switchyard in the Town of Massena. From there, the Proposed ROW leaves the Moses Switchyard and runs south, first crossing the St. Lawrence River, Barnhart Isle, and Wiley-Dondero Canal and later crossing the Massena Power Canal, the Grasse River, and the Sodom State Forest as well as certain state highways and county and local roads. In this area, the ROW is co-located with National Grid 115 kV transmission lines for

approximately 21 miles and begins its co-location with the MSU-1 line, for a total co-location of approximately 46 miles.

After crossing the Grasse River in the Village of Canton, approximately one mile of new ROW begins where the rebuilt lines would be constructed at a new location at the perimeter of, and within, the SUNY Canton campus. While the existing MA1&2 lines traverse the center of the college campus, the Project's Proposed ROW would route the rebuilt lines to the west to run along the western perimeter of the campus, at a location accepted by SUNY Canton, and then to the south, before reconnecting with the existing ROW south of campus. The easement for the existing ROW within the SUNY Canton campus will be exchanged for a new easement for the Proposed ROW within the campus, all on State-owned land.

Following this proposed re-routed section, the Proposed ROW continues to the southwest, crossing Bonnet Lake State Forest, Cold Spring Brook State Forest, the western edge of the Adirondack State Park, and Frank E. Jadwin Memorial State Forest as well as county and local roads before entering into the Adirondack Substation, where a new switchyard will be constructed adjacent to the existing substation.

Detailed maps, drawings, and explanations showing the Proposed ROW, which is the primary route for the Project, and configurations are set forth in Exhibits 2 and 5 to the Application.

3.0 DESCRIPTION OF REASONABLE ALTERNATIVE ROUTES AND TECHNOLOGY

Exhibit 3 of this Application provides a description and evaluation of alternatives, including a description of the comparative advantages and disadvantages of each alternative and an explanation of why the Proposed ROW is best suited for the Project. Although NYPA did not consider alternative routes for the entire MA1&2 lines, NYPA considered and evaluated potential alternative route segments within the SUNY Canton campus, including: (1) rebuilding the lines on the existing MA1&2 ROW without the one (1)-mile reroute within the SUNY Canton campus, and (2) rebuilding the lines on an alternative location within the SUNY Canton campus, along the SUNY property boundary line and partially abutting the MSU-1 765 kV transmission line ROW. All of the route segments considered within the SUNY Canton campus would be located on State-owned land, and if not on the existing ROW, would involve an exchange of property rights between the Applicant and SUNY Canton. Neither the Proposed ROW nor any alternative route segments would require the acquisition of additional property.

NYPA also considered alternative structure configurations (including guyed structures and other self-supporting structures such as single circuit H-frame structures) and alternative conductors for the Project, as well as alternative methods to fulfill energy requirements, such as a “no action” alternative and the alternative of energy efficiency, demand-side management, and distributed generation.

In evaluating these alternative route segments, configurations and methods, NYPA considered numerous factors such as the potential impacts to the environment, current land use, availability

of property, location of nearby residences, cost, and constructability. NYPA's evaluation determined that the Proposed ROW is the best alternative because it results in the least environmental impact and least impact on nearby residents, while maintaining the reliability of the New York State transmission grid and providing needed Blackstart capability as part of the New York Independent System Operator's ("NYISO's") System Restoration Program.

4.0 SUMMARY OF ENVIRONMENTAL STUDIES AND ENVIRONMENTAL IMPACT

The Project would be designed, constructed, and operated in a manner that avoids or minimizes impacts to environmental resources to the maximum extent practicable. NYPA, through its consultants, has conducted field investigations, environmental impact studies, literature reviews, and agency consultations (where appropriate) to identify and assess existing environmental conditions within the Project's Study Areas. A detailed description of these studies and the potential environmental impacts of the Project is set forth in the resource-specific sections of Exhibit 4 to the Application, including:

- Vegetative Communities;
- Fish and Wildlife;
- Hydrology;
- Topography, Geology, and Soils;
- Cultural Resources;
- Aesthetic, Visual, and Recreational Resources;
- Land Use; and
- Electromagnetic Field Strength and Noise.

These studies show that the environmental impacts of the construction and operation of the Project would be limited in both scope and duration and would occur primarily during the construction phase. Because NYPA has designed the Project to be constructed and operated almost entirely within an existing transmission line ROW (other than the approximate one-mile re-route on the SUNY Canton campus), and has proposed certain mitigation measures, it is not anticipated that construction and operation of the proposed electric transmission line would have a significant adverse impact to any environmental resources within the Proposed ROW. Below is a summary of the anticipated potential impacts of the Project with respect to each of the identified resources and, where applicable, mitigation strategies that would be employed to minimize any potential environmental impacts that cannot be avoided.

Vegetative Communities & Fish and Wildlife

Impacts to vegetation would be primarily temporary and otherwise minimized by using a previously disturbed, existing ROW and, to the maximum extent practicable, existing access roads. Some tree clearing will be required on the re-route area on the SUNY Canton campus, in the northern eight-mile section of the existing ROW, and in other small areas along the existing ROW. Vegetation removal would be largely confined to the existing, maintained ROW. There were no threatened and endangered plant species observed within the Proposed ROW and thus, no impacts to such species is anticipated to occur during construction of the Project, and potential impacts to any rare plant species would be temporary during construction. Long-term changes in vegetative character would be minimal because habitat (*i.e.*, the maintained ROW)

within the vicinity of these plant locations would remain the same post-construction, and only temporary impacts are anticipated during construction.

Construction-related impacts to vegetation may include clearing of brush and increased exposure or disturbance of soil along access routes and at structure sites and wire stringing areas. During construction, Best Management Practices (“BMPs”) would be employed to avoid or minimize impacts to vegetation, including procedures to reduce the potential introduction or spread of invasive plant species. Following construction, vegetation within the ROW would be limited in accordance with NYPA’s vegetative maintenance program.

Fish and wildlife habitat loss and alteration would be minimized by routing the Project within the existing maintained ROW and locating the 345 kV switchyards within and/or immediately adjacent to the fence lines of the existing Moses Switchyard and Adirondack Substation. Because the ROW is currently cleared and maintained for the operation of the existing MA1&2 lines, most of the Project’s potential impacts to fish and wildlife and wildlife habitat would be temporary and restricted to the period of construction. Human activity, soil disturbance, and loss of vegetation would end after construction is complete, other than for intermittent maintenance of the lines. Disturbed areas would then be restored. After restoration, habitat on the ROW would be maintained in low growing vegetation similar to the current conditions, continuing to provide food and cover for wildlife. Also, to the greatest extent practicable, structure locations, access road improvements and new access roads will be located outside of certain areas to minimize impacts to protected species that might occur within the Proposed ROW, such as potentially suitable nesting habitat areas for the Blanding’s turtle.

Hydrology

An assessment of the potential areas of impact, including surface water and groundwater features, wetlands, and aquatic life located in the Project's Study Area, was done in accordance with current regulatory standards using public data sources, including maps, reconnaissance-level field verification, and on-site wetland delineation. NYPA has sited proposed pole structures outside of wetlands to the maximum extent feasible. Temporary impacts to wetlands and streams would be mitigated by using existing crossing locations wherever possible and using low impact stream and wetland crossing techniques, equipment restrictions, and erosion and sedimentation control measures to reduce impacts to water quality, surface water hydrology, and aquatic habitat, through the use of a Stormwater Pollution Prevention Plan ("SWPPP") and erosion and sediment control BMPs. If required, a Joint Application for Permit would be submitted to the U.S. Army Corps of Engineers pursuant to Section 404 of the Clean Water Act for any unavoidable wetland and stream disturbances.

Land Use & Topography, Geology and Soils

Soil impacts associated with pole removal and replacement and access road improvements would generally be temporary. Using previously disturbed areas such as the existing ROW (and associated existing access roads and structure sites) significantly minimizes potential impacts to topography, bedrock, and soil conditions. Temporary disturbance to soils from pole removal and replacement within the Proposed ROW, temporary access roads, laydown areas and access road improvements would result from construction activities that could include grading for work

areas. Permanent disturbances would be limited to installation of new structures, new permanent access roads and the new 345 kV switchyards. Following construction, disturbed areas would be restored to pre-construction conditions.

Based upon aerial photo interpretation and field observations, approximately 16.35 miles of the Project's Proposed ROW traverse areas that are currently in agricultural production. In these areas, construction of new or improved access roads and work at structure sites would temporarily impact soils associated with agricultural production, but significant long-term impacts to active agricultural areas are not anticipated from the Project. Also, once built, the Project would result in a reduced number of structures within the ROW and thus, potentially benefit active farming operations within the ROW. Agricultural protection measures would be used during construction to limit soil erosion and compaction in agricultural areas as directed by New York State Department of Agriculture and Markets guidelines and/or site-specific landowner requests, in addition to any other agreements reached with owners of agricultural land. Specific measures are described in Exhibit 4 to the Application. Overall, the Project would have minimal adverse impacts on active farming operations.

No significant impact to existing geologic features is expected from Project construction. In limited areas where bedrock comprises more competent materials (*i.e.*, gneiss, marble, quartzite, or other crystalline rocks), blasting may be necessary. Blasting would only be used if other techniques, such as auguring or ripping, are not practical; however, widespread blasting is not anticipated and any necessary blasting activities would be conducted in accordance with

applicable safety regulations and codes and performed only by certified and licensed blasters, with prior notice to affected property owners and tenants.

With the rebuilt transmission lines routed primarily within the existing ROW and with new switchyards to be constructed within and/or immediately adjacent to the fence lines of the existing Moses Switchyard and Adirondack Substation, the Project would be consistent with current land uses. The one-mile re-route within the SUNY Canton campus would allow the college to make better use of the central portion of its campus, making the Proposed ROW the college's preferred location for the Project over the existing location of the MA1&2 lines. Impacts to nearby landowners elsewhere along the Proposed ROW are anticipated to be limited to short-term impacts during construction (noise, dust and local traffic inconvenience).

Cultural Resources

Based on the results of the archaeological and architectural surveys, the Project has the potential to affect a single archaeological resource, the Jerden Falls Cemetery, 14 historic resources determined eligible and 4 historic resources that are still pending review for listing in the State Register and National Register of Historic Places. No other historical or archaeological resources were identified within the Project. The Project would not result in any specific impacts to the Jerden Falls Cemetery, but NYPA has avoided impacts to such resource through Project design, including placing a 75-foot avoidance buffer around the cemetery. With respect to the 14 historic resources identified as eligible for listing, direct impacts are possible with respect to the St. Lawrence-FDR Power Project Historic District and the Moses-Adirondack Transmission Line

(the existing MA1&2 lines), but for the remaining 12 historic resources, only indirect effects, primarily visual impacts, are possible. The State Historic Preservation Office (“SHPO”) has reviewed the archaeological survey reports for the Project and has indicated that the Project will have no adverse impact on such historic resources.

Aesthetic, Visual & Recreational Resources

Although the increased height of the Project’s proposed structures may result in some increased visibility of the Project, the total number of structures would be reduced by approximately 54 percent, therefore improving the overall viewshed. The results of the visual impact assessment suggest there would be limited visual impact from the proposed Project, and the small increase in visibility is generally offset by replacement of the existing, cluttered appearance of the H-frame transmission structures with the less visually intrusive, cleaner steel monopoles structures, and the forest vegetation and other man-made structures that screen a large majority of sensitive sites from the Project. Locating the new lines within an existing transmission corridor, which includes the existing MA1&2 lines as well as the MSU-1 line and the National Grid lines, is considered the best means of reducing perceived visual contrast and change in land use.

Electromagnetic Field Strength and Noise

The analysis of the proposed designs for the Project, as operated at 345 kV, showed both magnetic and electric field levels at the edge of the ROW that comply with the Commission requirement. No additional mitigation measures are required or proposed.

Generally, noise impacts resulting from the Project will be temporary during construction and will be limited to noise generated by diesel engines powering construction vehicles, rock drills and jack hammers (if needed) and helicopters, which may be used during the following activities: site and vegetation clearing, foundation form installation, excavation and concrete placement (as needed), structure installation and wire stringing. Temporary noise levels will be mitigated by the attenuating effects of distance, the intermittent and short-lived character of the noise, the presence of existing vegetation, the presence of homes and buildings (particularly in the more suburban areas), and the use of functional mufflers on all construction equipment. Transmission line construction is of short duration because equipment is generally located at a structure site for three to five days, then shifted to the next pole structure site in the Project's Proposed ROW. No one residence would be exposed to significant noise levels for an extended period. No mitigation for corona noise is proposed because corona effect noise is not anticipated to change from current existing conditions.

5.0 NEED FOR THE FACILITY

Exhibit E-4, Engineering Justification, provides a description of the need for the proposed Project. NYPA's existing 230 kV MA1&2 transmission lines have been operational since 1942. The need for the MA1&2 lines has been apparent since their existence. They currently transmit power from the North Country to the statewide load, which such power includes that generated by hydropower, other renewable generation and fossil fuel facilities in Canada and Upstate New York.

Depending on system conditions, if the Project was out of service, there may be congestion on the other transmission lines along this North Country corridor, causing increased electricity prices. This congestion could also cause generation to be bottlenecked, forcing hydropower facilities to spill water and other renewable energy projects unable to transmit power.

Due to the age of the existing MA1&2 lines, frequency of failures, and original design criteria, NYPA proposes to rebuild the lines to be more resilient and less susceptible to failures, to withstand a higher ice loading, and to reduce maintenance. The Project, comprising these rebuilt facilities, is needed to continue to maintain reliability through the region, provide reliability benefits in the event of system-wide outages, and help meet long-term electric capacity needs and clean energy standard goals for New York State.

The rebuilt MA1&2 lines will be key to accommodating additional proposed renewable energy projects in Northern New York. Northern New York is a renewable resource rich region with the potential for significant renewable generation construction as evidenced by the list of projects in the NYISO interconnection queue. These future renewable energy projects are anticipated to be required for New York State to achieve the renewable goals identified in the Clean Energy Standard (“CES”). As such, the Project is proposed to be constructed to 345kV design standards, although initially operated at 230kV, which provides future expansion capability when the transmission corridor is built out to accommodate the future renewable generation.

6.0 OTHER RELEVANT INFORMATION

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

Exhibit 7 to the Application provides information on local laws, codes and ordinances (“Local Laws”) that are applicable, or potentially applicable, to the Project, and as indicated in Exhibit 7, NYPA requests that the Commission grant waivers of specified provisions of those Local Laws that NYPA believes would be unduly restrictive if applied to the Project. NYPA has also included a separate Motion for Waivers from Application Requirements in which it requests that the Commission grant waivers from certain Commission application requirements specified therein.

As an appendix to the Application, NYPA has also included a comprehensive Public Involvement Plan (“PIP”). Key features of the PIP include identifying key stakeholders in the Project area; advancing the public’s understanding of the Project; and encouraging and collecting input from, and disseminating information to, stakeholders and the communities surrounding the Project area. The PIP is intended to provide relevant information to the public and stakeholders, consider stakeholder input, and ensure consistent, frequent, and transparent outreach and communications with stakeholders. Various communication methods will be used as part of NYPA’s PIP, including, but not limited to: public information meetings, presentations, a website, direct mail, Project brochures or newsletters, news releases, and electronic mail. Various

community communications and agency consultations completed to date have also been provided as an appendix to the Application.

To date, as part of its comprehensive PIP, NYPA has:

- met with certain key stakeholders, such as State agency staff (including that of the NYS Department of Public Service, NYS Department of Environmental Conservation, NYS Department of Agriculture and Markets) and local elected leaders, informing them of the proposed Project;
- held three (3) public information sessions on February 27, 28, and March 1, 2018;
- published notice of the filing of the Article VII Application in a newspaper of general circulation once a week for two weeks;
- sent letters to the owners of property on which the Project would be located, notifying them of the Project;
- established a website at nypa.gov/smartpath, which will be updated regularly with Project information; and
- established a toll-free phone number to receive calls regarding the Project.

7.0 CONCLUSION

For the reasons set forth above, NYPA respectfully requests that the Commission:

- i. issue an order to grant a Certificate to authorize NYPA to rebuild the MA1&2 transmission lines as two single circuit 345 kV lines on steel monopoles, operated initially at 230 kV, to construct the new switchyards at the Moses Switchyard and

Adirondack Substation, and to otherwise construct the proposed Project as described herein and in the attached exhibits and appendices;

- ii. grant a waiver of those Commission rules and regulations specified in the Motion for Waivers from Application Requirements attached to this Application;
- iii. grant a waiver of those applicable Local Laws specified in Exhibit 7 pursuant to Section 126 1(f) of the Public Service Law and 16 N.Y.C.R.R. § 86-8; and
- iv. grant any other and further authorizations, consents, permissions, approvals, waivers, and permits, as necessary, for the construction, operation, and maintenance of the Project described herein.

Dated: April 5, 2018

Respectfully submitted,

/s/ George Pond

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