

Attachment F

Smart Path Connect Project – Article VII Application

Exhibit 9 – Cost of Proposed Facility

PUBLIC VERSION

Privileged and Confidential Version Filed Under Separate Cover

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

Application of New York Power Authority and
Niagara Mohawk Power Company d/b/a National
Grid for a Certificate of Environmental
Compatibility and Public Need for the Rebuild of
approximately 100 linear miles of existing 230 kV
to either 230 kV or 345 kV along with associated
substation construction and upgrades along the
existing NYPA Moses-Willis 1&2, Willis-Patnode,
Willis-Ryan, a portion of Ryan-Plattsburgh and
National Grid's Adirondack-Porter 11, 12, and 13
in Clinton, Franklin, St. Lawrence, Lewis, and
Oneida Counties, New York.

Case No.: 21-T-XXXX

**NEW YORK POWER AUTHORITY AND NIAGARA MOHAWK POWER
CORPORATION d/b/a NATIONAL GRID
SMART PATH CONNECT PROJECT**

**EXHIBIT 9
COST OF PROPOSED FACILITY**

TABLE OF CONTENTS	PAGE
--------------------------	-------------

EXHIBIT 9: COST OF PROPOSED FACILITY	1
---	----------

9.1	Introduction	1
9.2	Capital Cost Estimate (<i>16 NYCRR § 86.10(a)</i>)	1
9.3	Source of Information (<i>16 NYCRR § 86.10(b) and § 86.10(c)</i>)	4

LIST OF TABLES

Table 9-1: Overall Estimated Capital Cost for Project	2
---	---

EXHIBIT 9: COST OF PROPOSED FACILITY

16 NYCRR § 86.10 (a): The applicant shall provide a detailed estimate of the total capital costs of the proposed facilities covered by the application. The estimate shall show the estimated cost of: (1) right-of-way; (2) surveys; (3) materials; (4) labor; (5) engineering and inspection; (6) administrative overhead; (7) fees for legal and other services; (8) interest during construction; and (9) contingencies. (b)(1) The applicant shall include a brief statement of the source of the information used as the basis for the estimates required by subdivision (a) of this section. (2) If not stated elsewhere, the applicant shall include data on preliminary bids, if any, for the proposed facilities, and recent experience cost data for similar facilities. (c) Upon the demand of any party or of staff counsel, the applicant shall supply the work papers from which the estimates required by subdivision (a) of this section were made.

9.1 Introduction

The Power Authority of the State of New York doing business as New York Power Authority (“NYPA”), and Niagara Mohawk Power Corporation doing business as National Grid (“National Grid”) (NYPA and National Grid, collectively, the “Applicant”), propose to construct and operate the Smart Path Connect Project (the “Project”). The Project consists of rebuilding approximately 100 linear miles of existing 230 kilovolt (kV) transmission lines to either 230 kV or 345 kV along with associated substation construction and upgrades. The Project includes rebuilding all or parts of the following transmission lines primarily within existing rights-of-way (“ROW”): NYPA’s Moses-Willis 1 & 2, NYPA’s Willis-Patnode and NYPA’s Willis-Ryan; and National Grid’s Adirondack to Porter (Chases Lake-Porter Line 11, Adirondack-Porter Line 12, and Adirondack-Chases Lake Line 13), the extension of the existing 230 kV Rector Road to Chases Lake Line 10, as well as connecting to NYPA’s Moses-Adirondack 1&2 (also known as “MA 1&2” or “Smart Path”) ROW.

9.2 Capital Cost Estimate (16 NYCRR § 86.10(a))

16 NYCRR § 86.10 (a): The applicant shall provide a detailed estimate of the total capital costs of the proposed facilities covered by the application. The estimate shall show the estimated cost of: (1) right-of-way; (2) surveys; (3) materials; (4) labor; (5) engineering and inspection; (6) administrative overhead; (7) fees for legal and other services; (8) interest during construction; and (9) contingencies.

For the cost estimate, the Applicant has assumed that the Project will begin construction in June 2022 and be completed in December 2025 with closeout and some restoration cost beyond that date. The cost estimate is in 2025\$.

Overall Project cost estimates are presented in Table 9-1.

Table 9-1: Overall Estimated Capital Cost for Project

	Total Project Cost
Right-of-Way Acquisition	████████
Surveys	████████
Materials	████████
Labor	████████
Engineering and Inspection	████████
Fees for Legal and Other Services	████████
Subtotal of Above	████████
Contingency	████████
Administrative Overhead	████████
Interest During Construction	████████
Total	\$1,119,551,457

Each of the cost categories contains the following:

- ROW: Limited additional transmission line ROW needs to be acquired and new property rights are being obtained for the Haverstock, Willis, Ryan, Adirondack, and Austin Road Substations. Off-ROW access roads are currently unknown; their costs are anticipated to be nominal and considered included within the contingency cost.
- Survey: All Project-specific aerial and land surveys and environmental and cultural surveys and studies.
- Materials: The cost of all major materials to be installed in construction of the Project.
- Labor: All labor and equipment costs for all above- and below-grade portions of deconstruction of existing facilities, construction of the proposed facilities, and installation of access roads and work areas (including laydown yards) to construct the Project. This also includes the labor to restore all temporary access roads and work areas, where required by license or permit, and contractor general conditions. Some contractor-furnished construction material (e.g., concrete) is included in this item.
- Engineering and Inspection: All professional services costs for licensing support, geotechnical investigations, engineering, project management, quality assurance inspections, material testing services, safety monitoring, and environmental compliance monitoring.
- Fees for Legal and Other Services: All legal services, community outreach services, and other miscellaneous services expended in support of the Project.

- Contingency: A reasonable provision to cover possible unforeseen conditions and unforeseen costs, errors, and omissions in the construction documents, inflation risk, and changes associated with the labor pool.
- Administrative Overhead: All NYPA & National Grid indirect costs of resources to be appropriated to this Project.
- Interest during Construction: Financing costs to support construction of the Project, commonly referred to as Allowance for Funds Used during Construction (“AFUDC”).

The capital cost estimate for the Project is provided in year 2025 U.S. dollars. Applicable sales tax on equipment and materials has been included.

9.3 Source of Information (16 NYCRR § 86.10(b) and § 86.10(c))

16 NYCRR § 86.10 (b)(1) The applicant shall include a brief statement of the source of the information used as the basis for the estimates required by subdivision (a) of this section. (2) If not stated elsewhere, the applicant shall include data on preliminary bids, if any, for the proposed facilities, and recent experience cost data for similar facilities.

(c) Upon the demand of any party or of staff counsel, the applicant shall supply the work papers from which the estimates required by subdivision (a) of this section were made.

The cost estimate provided in Table 9-1 is based upon the following assumptions:

- Pricing for equipment, materials, and labor is based on a combination of vendor unit price quotations, recent experience on similar transmission facilities, and in-house software of Burns & McDonnell, who was retained by NYPA and National Grid to provide engineering consulting services for this Project, using 2020 reference data.
- Labor rates are based on current local union rates or NY Prevailing Wage and include:
 - Supervision (foremen & below)

- Craft payroll burden and benefits
 - Small tools and consumables
 - Safety requirements
 - Overtime
 - Subcontractor overhead and profit
- Rates and productivities are based on a 50-hour work week for substations and a 60-hour work week for transmission lines. The direct costs include typical subcontractor build-up and pricing.
 - Transmission structure weights are based on preliminary tangent, running angle, strain and dead-end structure locations. The steel material cost was estimated using Burns & McDonnell procurement tracking data. Labor cost was calculated using Burns & McDonnell in-house metrics.
 - Transmission conductor material cost was estimated using recent supplier pricing, Labor cost was calculated using Burns & McDonnell in-house software.
 - The construction schedule and productivity assume normal weather conditions for the area of the site location. Work is assumed to be executed throughout the year.
 - The estimate does not include costs associated with hazardous or contaminated materials that may be encountered.
 - The estimate does not include costs to locate existing underground obstructions using hydroexcavation or ground-penetrating radar to remediate or avoid underground obstructions.
 - The estimate does not include costs to modify or replace existing equipment and materials that are not associated with the scope of this Project.

- Costs for temporary laydown yards are included in the estimate.
- Cost of equipment necessary to perform the work and off load equipment is included in the estimate.
- Start of construction is assumed to be June 2022.
- In-service date is assumed to be December 2025.
- Allowances have been made for administrative overhead based upon the anticipated scope and duration of required services including services to-date.
- Allowances for legal fees and other specialized services have been included to comply with New York State regulatory (e.g., New York State Public Service Commission and New York Independent System Operator) and Project financing requirements.
- Legal fees, costs of other specialized services, and finance costs were estimated by the Applicant based on its extensive experience in procuring such services.

Preliminary bids have not been obtained for the Project. Estimated costs are based on recent experience on similar transmission and substation facilities and Burns & McDonnell in-house software as described in the above assumptions.