

**STATE OF NEW YORK
PUBLIC SERVICE COMMISSION**

**Proceeding on Motion of the Commission to
Implement Transmission Planning Pursuant to the
Accelerated Renewable Energy Growth and
Community Benefit Act**

Case No. 20-E-0197

**Petition Requesting Adoption of Criteria for Guiding Evaluation of Whether
a Bulk Transmission Investment Should Be Designated as a Priority Transmission Project,
and for Designation of Certain Transmission Investments in Northern New York
as a Priority Transmission Project**

**New York Power Authority
New York State Department of Public Service**

Dated: July 2, 2020

**BEFORE THE
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The Accelerated Renewable Energy Growth and Community Benefit Act (the “Act”),¹ signed into law by Governor Cuomo on April 3, 2020, provides for the “timely and cost effective construction of new, expanded and upgraded distribution and transmission infrastructure as may be needed to access and deliver renewable energy resources”² to achieve clean energy and environmental targets established in the Climate Leadership and Community Protection Act (“CLCPA”).³ The CLCPA requires the Department of Environmental Conservation to establish a program to achieve a 40% reduction in greenhouse gas emissions from 1990 levels by 2030 and an 85% reduction by 2050, and requires the Public Service Commission (“Commission”) to adopt programs to achieve a renewable electric generation target of 70% by 2030 (the “70 x 30 Target”); a 100% emissions-free electric demand system by 2040; and the procurement of at least 9 gigawatts (“GW”) of offshore wind by 2035, 6 GW of photovoltaic solar generation by 2025, and 3 GW of energy storage resources by 2030 (referred to herein collectively as the “CLCPA Targets”).⁴

¹ L. 2020, ch. 58, Part JJJ, § 7(5).

² *Id.*, § 2(2)(b).

³ L. 2019, ch. 106.

⁴ Act, §§ 2(1)(a) and 7(a); Energy Conservation Law § 75-0107(1); Public Service Law (“PSL”) § 66-p(2), (5).

This Petition seeks Commission action relating to the role of the New York Power Authority (“NYPA”) in supporting achievement of the State’s aggressive climate goals under key provisions of the Act. Specifically, Section 7(4) of the Act directs the Commission to identify projects for which “there is a need to proceed expeditiously to promote the [S]tate’s public policy goals,” including the CLCPA Targets, and Section 7(5) of the Act identifies NYPA, by itself or in collaboration with other parties as appropriate, as the appropriate entity “to develop those bulk transmission investments found by the [C]ommission to be needed expeditiously”⁵ (referred to herein as “Priority Projects”).

In Part I of this Petition, Department of Public Service (“DPS”) Staff proposes criteria for the Commission’s use in carrying out its statutory duty to evaluate and prioritize transmission needs, and to determine which bulk transmission investments qualify as Priority Projects under Section 7(5) of the Act. In Part II, NYPA proposes a set of bulk transmission investments – collectively referred to herein as the “Northern NY Project” – as a project that is “needed expeditiously” within the meaning of the Act and that should be designated as a Priority Project by the Commission. Together, Staff and NYPA request that the Commission determine (i) how it will interpret Section 7(4) and (5) of the Act by acting on the criteria proposed herein by Staff, and (ii) that the Northern NY Project is a Priority Project to be undertaken in cooperation with NYPA under Section 7(5) of the Act.

Statutory Background

In the Act, the Legislature recognized that the development and construction of transmission and distribution infrastructure are and will be necessary for the State to meet its ambitious climate goals. As noted above, the Act declares the need for action to “provide for timely and cost effective construction of new, expanded and upgraded distribution and transmission infrastructure as may be needed to access and deliver renewable energy resources.”⁶ Beginning with Sections 7(3) and (4), the statute directs the Commission to establish planning and capital investment programs for the local transmission and distribution systems and the bulk transmission system. The aim of these programs is to identify projects that “are necessary or

⁵ Act, § 7(4) and (5).

⁶ *Id.*, § 2(2)(b).

appropriate to achieve the CLCPA [T]argets.”⁷ In particular, the Act requires the Commission to develop a state-wide bulk transmission plan and to establish a prioritized schedule for its implementation.⁸

Section 7(4) identifies two avenues for implementing such projects. First, it directs the Commission to refer to NYPA “those projects for which the Commission has determined there is a need to proceed expeditiously to promote the [S]tate’s public policy goals.”⁹ Second, it requires other projects that the Commission finds are “necessary” to the bulk transmission plan to be submitted to the public policy planning process administered by the State’s grid operator, the New York Independent System Operator (“NYISO”).¹⁰

In Section 7(5), the Legislature characterized NYPA’s role in implementing Priority Projects as follows:

The Legislature further finds and determines that [NYPA] owns and operates backbone electric transmission assets in New York, has rights-of-way that can support in whole or in part bulk transmission investment projects, and has the financial stability, access to capital, technical expertise and experience to effectuate expeditious development of bulk transmission investments needed to help the state meet the CLCPA [T]argets, and thus it is appropriate for [NYPA] . . . by itself or in collaboration with other parties as it determines to be appropriate, to develop those bulk transmission investments found by the commission to be needed expeditiously to achieve CLCPA [T]argets.¹¹

Thus, the statute requires the Commission to determine which bulk transmission investments are “needed expeditiously” to advance the State’s goals, and recognizes particular capacities that make NYPA the appropriate entity to take on the development and construction of those projects. Under the Act, the Commission has discretion to determine how to prioritize projects and which projects are “needed expeditiously.”

⁷ Act, § 7(3) and 7(4). The Commission initiated work on the local transmission and distribution planning requirements in its May 14, 2020 order commencing this proceeding. *See* Case No. 20-E-0197, Order on Transmission Planning Pursuant to the Accelerated Renewable Energy Growth and Community Benefit Act (May 14, 2020) (“May 14 Order”). This Petition seeks the Commission’s determination on issues relating to the bulk planning process contemplated in the Act.

⁸ *Id.*, § 7(4).

⁹ *Id.*

¹⁰ *Id.*

¹¹ *Id.*, § 7(5).

Part I—Proposed Criteria

In its May 14, 2020 Order commencing this proceeding, the Commission noted it would seek input on key issues to be resolved to develop its bulk transmission plan, including the scheduling and prioritization of projects, with the intent of timely establishing decisional processes needed to support bulk system investments.¹² DPS Staff has reviewed the statute and consulted with NYPA and other parties concerning its interpretation. DPS Staff has concluded that the Legislature clearly gave responsibility to the Commission to determine what a Priority Project is; that is, to identify what project, in the context of the bulk transmission plan, is “needed expeditiously” to support the CLCPA Targets. Once the Commission makes such a determination, the Act also contemplates NYPA’s development of the project, subject to the approval of its trustees, in conjunction with any other parties NYPA deems appropriate.¹³ Thus, DPS Staff believes that the Commission’s role is to select from among the projects that are needed to meet CLCPA Targets the project or projects that require priority treatment.¹⁴ Both the language and the intent of the Act support this approach.

However, while the Commission’s authorization to make the determination is expressly established in the Act, the statute does not specifically state what factors should drive the Commission’s decision. DPS Staff’s examination of the statute suggests that the Commission should consider the issue as part of its overall responsibility for establishing a “prioritized schedule” for the projects included in the bulk transmission plan. Viewing the plan as the program for transforming the State’s bulk transmission electric infrastructure, some individual projects may offer substantial benefits to the entire effort that are unique and justify the application of NYPA’s resources and capabilities. Thus, in devising the schedule, the Commission may want to identify transmission investments for early construction that, among other things, enable the full capture of benefits from renewable energy investments the State has already made, or that increase the value of other transmission projects contemplated in the plan.

¹² May 14, 2020 Order at 10.

¹³ Act, § 7(5).

¹⁴ Note again that projects that are not needed expeditiously are referred to the NYISO process, which involves a competitive solicitation for solutions to the identified public policy need.

Staff believes these concepts provide an appropriate construction of Sections 7(4) and (5), reflective of the Legislature's intent.

Consistent with this approach, DPS Staff proposes that the Commission consider the following factors when evaluating whether a transmission investment qualifies for designation as a Priority Project that should be developed by NYPA under Section 7(5) of the Act:

1. The transmission investment's potential for unbottling existing renewable generation for delivery to load centers in the State;
2. The transmission investment's potential for avoiding future congestion that could impede delivery of expected renewable energy to load centers in the State;
3. The transmission investment's potential for increasing the deliverability of existing and anticipated baseload renewable or low carbon generation in the State, thereby reducing the amount of new generation that must be constructed to meet demand and/or the CLCPA Targets;
4. Whether an early in-service date for the transmission investment would: (a) increase the likelihood that the State will meet the CLCPA Targets; and/or (b) enhance the value of recent, ongoing or anticipated distribution, local transmission, and/or bulk transmission investments, and/or help the State realize benefits from such investments;
5. The ability of the transmission investment to progress expeditiously based on such factors as the planning and design status of the transmission investment, and the transmission investment's eligibility for expedited review under Article VII and its implementing regulations;
6. The ability of NYPA (alone or with other participants) to expedite development, considering such factors as:
 - Availability of NYPA rights of way;
 - Availability of other rights of way and transmission assets;
 - Access to other property for siting of the transmission investment, including State-owned or controlled property;
 - NYPA's financial resources and access to capital; and
 - Other potential benefits flowing from NYPA's participation;
7. Whether designating the transmission investment as a Priority Project will advance other State policy goals, including those expressed in the Act and the CLCPA; and
8. Such other criteria deemed by the Commission to be in the public interest.

Adoption of these criteria would provide the Commission – and its stakeholders – with a transparent, predictable, and reasoned framework for designating Priority Projects under Section 7(5) of the Act.

Part II—The Northern NY Project

NYPA respectfully requests that the Commission designate the Northern NY Project as a Priority Project subject to development under Section 7(5) of the Act, for two primary reasons. First, Northern New York is already the site of significant renewable energy development, and the need for increased deliverability of existing renewable energy resources in Northern New York has been widely acknowledged since even before enactment of the CLCPA. According to NYISO data, curtailments of wind generation in the New York Control Area due to transmission constraints have been steadily increasing since 2010, with 70 GWh of wind energy curtailed in 2019 alone – the most to date.¹⁵ The NYISO has also identified a series of renewable generation pockets throughout the New York Control Area, particularly in upstate New York, where transmission constraints could prevent full utilization of existing and planned renewable generation without additional transmission expansion.¹⁶ The failure to timely resolve these curtailments and expand transmission capacity in the area means the State’s ratepayers have not received the full benefits of their investments in these generating resources, and has the potential to make CLCPA compliance difficult, if not impossible.

Second, the already-rapid growth of renewable energy in the State is projected to further accelerate as a result of the Act, with a large slate of major renewable energy facilities likely to be approved as early as 2022. The Act created a new Office of Renewable Energy Siting (“ORES”), which will assist the State in siting certain generating projects to meet the CLCPA Targets. The Act provides the ORES with exclusive authority to issue siting permits for renewable generation facilities of 25 megawatts (“MW”) or greater (“major facilities”), and

¹⁵ See NYISO Power Trends 2020 at 16 (Figure 7), available at <https://www.nyiso.com/documents/20142/2223020/2020-Power-Trends-Report.pdf/dd91ce25-11fe-a14f-52c8-f1a9bd9085c2>. See also *id.* at 17 (“Additional transmission capability is necessary to alleviate constraints and maximize the potential contribution of the renewable resources to meeting electric demand and to achieving public policy goals.”).

¹⁶ *Id.*, 48-49.

requires ORES to implement a new, expedited process for siting these facilities.¹⁷ The Act requires that within one year, the ORES must issue uniform standards and conditions for the siting of major facilities and standards governing the siting process.¹⁸ Under the new siting process, the ORES will be required to make a final decision on an application for a siting permit for a major facility within one year from the date that the application is deemed complete.¹⁹

Developers that have already begun the application process under DPS's current siting procedures are permitted to transfer their applications into the new, expedited approval process.²⁰ As of May 2020, there are 57 major renewable energy projects (solar, wind, solar + storage) in the Article 10 siting process totaling over 9,700 MW of generating capacity.²¹ The majority of this future generation is located in the Western and Northern regions of the State, which provide the necessary environs (e.g., wind and open space) for large renewable facilities.

With ORES's new siting procedures to be in place by April 2021, and over 16,000 MW of projects available for immediate transfer into the new expedited siting process, it is likely that ORES will begin to grant siting permits to new renewable generation projects beginning in 2022. Although the streamlined ORES siting process for major facilities will be critical to achieving the CLCPA Targets, the targets can only be achieved if the renewable power from these new facilities can be delivered to load centers around the State, which in turn requires timely expansion of the State's existing transmission system.²²

The Northern NY Project is critical to realizing the full potential of renewables in the Northern New York area and meeting the CLCPA Targets and needs to be permitted and developed as rapidly as possible. As explained below, the Northern NY Project squarely fits the

¹⁷ Act, § 4(3). Projects from 20 MW to 25 MW may opt into the new process.

¹⁸ *Id.*, § 4(3)(b).

¹⁹ *Id.*, § 4(5)(f). Failure by the ORES to act within this statutory prescribed deadline will result in an approval of the application by default. For repurposed sites, ORES must complete its review even more quickly, within six months of the filing of a complete application.

²⁰ *Id.*, § 4(4)(e)(iii).

²¹ *See* DPS, Board on Electric Generation Siting and the Environment, Active Article 10 Queue (Updated: June 10, 2020),

<http://www3.dps.ny.gov/W/PSCWeb.nsf/All/763B187DD5A792DE8525847400667D6B?OpenDocument>.

²² Additionally, many proposed major facilities may be delayed or cancelled if insufficient transmission exists to ensure that power from the facilities can be reliably delivered to load centers, because project developers need certainty about the availability of transmission to move forward with their substantial investments.

statutory objectives of the Act and meets the criteria proposed herein for designation as a Priority Project under the Act. Accordingly, designation of the Northern NY Project as a Priority Project subject to development under Section 7(5) of the Act is appropriate and necessary.

A. The Existing Northern New York Transmission System

The Northern New York bulk transmission system is constrained into east-west and north-south orientations due to the physical boundaries of the Adirondack State Park and historical limitations on construction of transmission projects within its boundaries. Both the east-west and north-south elements of the local bulk transmission system currently consist of 230 kilovolt (“kV”) infrastructure, with the exception of a NYPA 765 kV transmission line that runs from Chateaugay to Massena to Utica paralleling the north-south 230 kV circuits.

The east-west transmission circuits are known as NYPA’s Moses-Willis-Plattsburgh circuits (“MWP 1&2”) and consist of two single circuit horizontal wood H-frames built in the 1950s and 1970s currently rated at 230 kV that cover approximately 70 miles between Massena and Plattsburgh. The north-south 230 kV circuits are commonly referred to as the “Moses South” corridor. The Moses-South corridor consists of NYPA’s Moses-Adirondack transmission circuits 1&2 (“MA 1&2”), spanning for 86 miles from Massena to Croghan; and (ii) south of Croghan, National Grid’s Adirondack-Porter transmission circuits 1&2, which span approximately 55 miles to the Porter Substation in the Utica area (“NG AP 1&2”). The NG AP 1&2 circuits are similarly constructed as two single circuit horizontal wood H-frames.

NYPA is currently rebuilding MA 1&2 with the capability to convert to 345 kV upon rebuild of the existing National Grid circuits south of Adirondack Substation to Central NY. This rebuild, known as the “Smart Path” rebuild, has been approved in two phases, with Phase 1 currently under construction. Phase 1 will retire and rebuild approximately 78 miles of single circuit 230 kV wood H-frames in a horizontal configuration with single circuit tubular steel poles in a delta configuration at 345 kV capability but energized at 230 kV. Phase 2 of the Smart Path rebuild will consist of retirement of the remaining 8 miles of existing MA 1&2 transmission line and conversion of the circuits to 345 kV via construction of new substations at Moses and Adirondack.

In its transmission planning studies, NYPA has found that the Northern NY Project would accommodate an additional 1,000 MW of firm transfer capability for renewable energy generation in the region.

B. Description of the Proposed Northern NY Project

The Northern NY Project complements and expands upon both NYPA's Smart Path rebuild of the Moses-Adirondack circuits, which is currently under construction and is anticipated to be completed in Q2/2023, and the AC Transmission Project recently selected by the NYISO. The AC Transmission Project (Segments A & B) is currently in the regulatory permitting phase and will introduce transmission improvements at the southern end of the proposed Northern NY Project and complete an upgraded transmission system spanning from the Canadian border southward and across the Central East Interface with an anticipated completion date of December 2023. With the addition of the Northern NY Project, these investments will establish a continuous 345 kV path that greatly expands the deliverability of renewable generation from northern and western New York to load centers.

Specifically, the Northern NY Project consists of the following components:

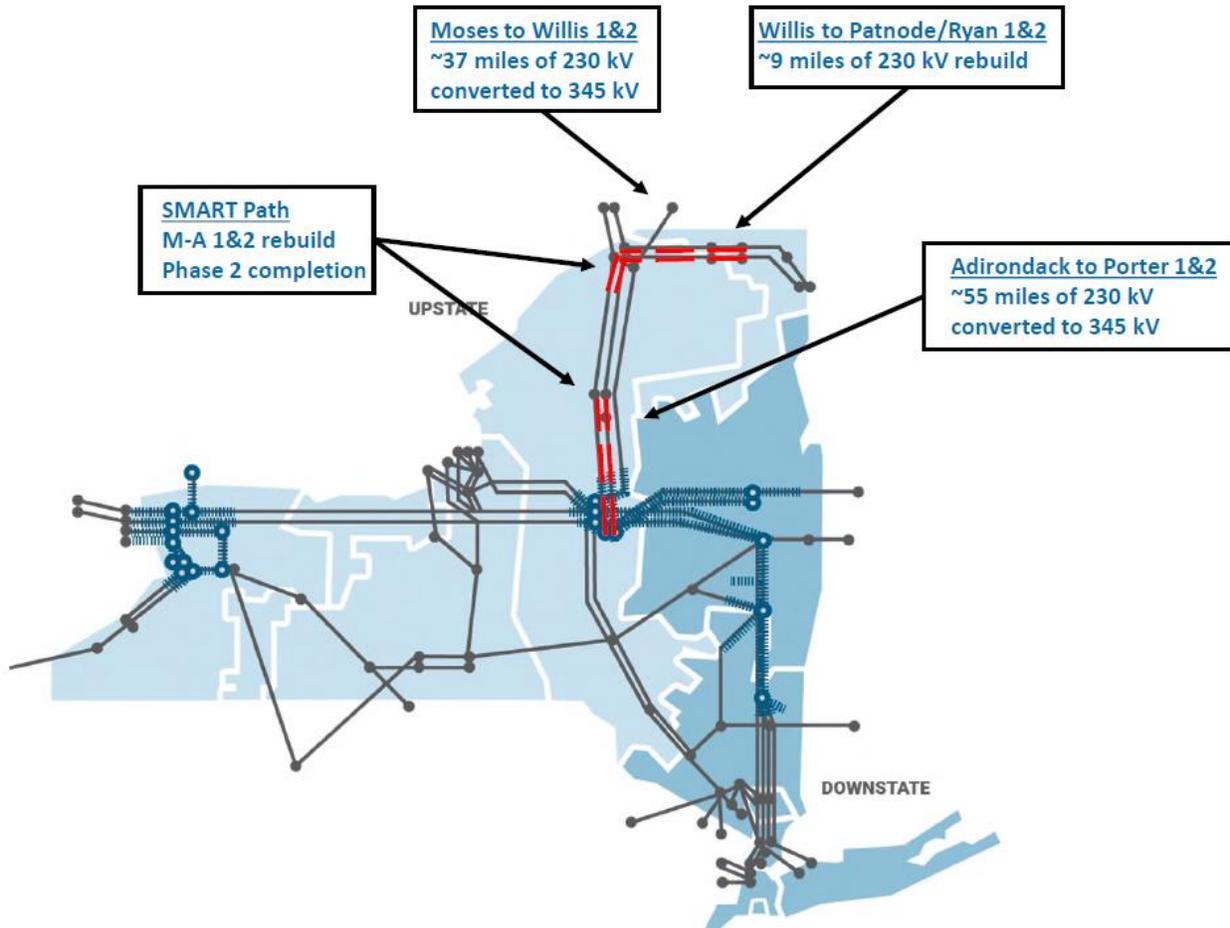
- Phase 2 completion of NYPA's Smart Path Moses-Adirondack Rebuild as outlined in NYPA's Article VII application.²³
 - The remaining portion of double circuit 230 kV lattice structures in Massena and the remaining connection to Adirondack Substation in Croghan (approximately 8 miles in total) will be retired and rebuilt with single circuit tubular steel poles at 345 kV, as contemplated under the project's Article VII certificate.
 - Rebuild and/or expansion of the existing Moses and Adirondack substations from 230 kV to 345 kV.
- Rebuild and upgrade of NG AP 1&2 (National Grid's Adirondack to Porter 230 kV transmission lines #1 & 2) to 345 kV.
 - For each circuit, the existing 230 kV horizontal wood H-frames spanning approximately 55 miles are proposed to be rebuilt with single circuit tubular steel poles in a delta configuration at 345 kV with a double bundle conductor and optical ground wire ("OPGW") functionality.
 - Rebuild and/or expansion of the existing Chases Lake, and Porter substations from 230 kV to 345 kV.
- Rebuild and upgrade of NYPA's Moses to Willis 230 kV transmission lines #1 & 2 to 345 kV.

²³ Case No. 18-T-0207, *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* at 2 (filed April 5, 2018).

- For each circuit, the existing 230 kV horizontal wood H-frames spanning approximately 37 miles are proposed to be rebuilt with single circuit tubular steel poles in a delta configuration at 345 kV with a double bundle conductor and OPGW functionality.
- Rebuild and/or expansion of the existing Moses and Willis substations from 230 kV to 345 kV.
- Rebuild and upgrade of NYPA's Willis to Patnode 230 kV circuit.
 - The existing 230 kV horizontal wood H-frames spanning approximately 8.75 miles are proposed to be rebuilt at 230 kV utilizing tubular steel poles.
- Rebuild and upgrade of NYPA's Willis to Ryan 230 kV circuit.
 - The existing 230 kV horizontal wood H-frames spanning approximately 6.5 miles are proposed to be rebuilt at 230 kV utilizing tubular steel poles.
- Additional Scope items and Substation Improvements.
 - Additional affected substations and improvements to be identified during the project's facilities study. Anticipated ancillary upgrades include but are not limited to protection and control upgrades at interconnecting substations, terminal and equipment upgrades, and other affected system upgrades as anticipated with this type of transmission investment.

The figure below shows the location of each of the proposed transmission segments in the Northern NY Project within the New York Control Area.

Figure 1 - Northern NY Project – Proposed Transmission Elements



C. Preliminary Project Cost Estimate

Table 1 below contains a Class 4 cost estimate for the Northern NY Project, which shows a project cost estimate of \$ million in 2019 dollars. This cost estimate represents a preliminary estimate that is based on 30% preliminary engineering project design, and is subject to change as additional project engineering and site evaluation is conducted. As such, this estimate is offered only for the Commission’s reference, and not as a binding estimate for completion of the Northern NY Project.

**Table 1 – Preliminary Project Cost Estimate
for Northern NY Project**

Project Component	Cost (2019 USD\$)¹
Right of Way Acquisition	
Surveys	
Materials	
Labor	
Engineering and Inspection	
Fees for Legal and Other Services	
Subtotal	
Contingency	
Administrative Overhead	
Interest During Construction	
Total	

¹ Cost escalation is not included in these estimates.

The cost categories listed in Table 1 include the following:

- **Right of Way Acquisition:** The vast majority of the project will be built on existing rights-of-way. The estimated costs of additional land acquisitions are included here.
- **Surveys:** The cost of all project-specific aerial and land surveys and environmental and cultural surveys and studies.
- **Materials:** The cost of all above- and below-grade materials to be installed during project construction.
- **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 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.
- **Engineering and Inspection:** The cost of relevant professional services, including 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:** The cost of all legal services, community outreach services, and other miscellaneous services procured in support of the project.

- Contingency: Allowance for changes in project cost due to unknown or unforeseen conditions, unforeseen costs, errors and omissions in the construction documents, inflation risk, and changes associated with the labor pool.
- Administrative Overhead: All direct and indirect costs of NYPA resources to be allocated to the project.
- Interest during Construction: Financing costs to support construction of the project; commonly referred to as Allowance for Funds Used during Construction.

The capital cost estimate for the project is provided in year 2019 U.S. dollars. Any applicable sales tax has not been included.

D. Projected Project Benefits

NYPA is proposing the Northern NY Project for designation as a Priority Project because it is necessary to timely facilitate State compliance with the CLCPA Targets. Consistent with this purpose, and as shown in the Evaluation of Project Viability conducted by NYPA's Resource Planning Group included as Attachment A hereto, NYPA estimates the project will result in approximately 7.5 terawatt-hours ("TWh") of avoided renewable curtailments annually, starting in 2025. This estimate is significantly larger than the NYISO's estimate of wind curtailments for 2019 and shows that, if renewable generators continue to interconnect to the transmission system without additional transfer capability in the Northern New York region, curtailments of renewable generation will dramatically increase by 2025.

NYPA's analysis also projects that the Northern NY Project will result in significant production cost savings, emissions reductions, and decreases in congestion. Specifically, as shown in Attachment A, NYPA calculates that the project would result in production cost savings of approximately \$99 million per year, resulting in a project net present value of approximately \$1.05 billion over a twenty-year period. Counting only production cost savings, the project has a positive 1.0 benefit/cost ratio.

The environmental and congestion relief benefits of the project are even more substantial than the production cost savings, even without considering the project's necessity to comply with the CLCPA Targets. The project would result in over 1.16 million tons of CO₂ emissions avoided annually on a statewide basis, and an annual reduction of approximately 160 tons of

NO_x emissions from downstate emissions sources, providing a significant air quality benefit to New York City residents. Finally, NYPA estimates the project would result in over \$447 million in annual congestion savings in Northern New York. When accounting for these benefits, the all-in benefit/cost ratio would be dramatically greater.

E. The Project is Consistent with the Criteria Proposed Herein for Designation as a Priority Project

The Northern NY Project is consistent with the criteria proposed herein for designation of Priority Projects and should be designated as a Priority Project.

1. The transmission investment's potential for unbottling existing renewable generation for delivery to load centers in the State.

Existing renewable generation in the upstate region – particularly including wind generation in Zones D and E, but also including other types of renewables generation – is currently vulnerable to periodic curtailment. As noted above, NYISO data show that wind curtailments alone are significant in nature, totaling 70 GWh in 2019, and increasing. Further, according to NYISO, periods of high curtailment of renewables have been coincident with transmission outages in upstate New York, which suggests that renewable generation in upstate New York could be more fully utilized.²⁴

The need for the unbottling of existing renewable generation capacity has been consistently recognized by the NYISO and other stakeholders. In the past three Commission proceedings to consider proposed public policy transmission needs, NYISO has noted the importance of expanding transmission facilities to enable the delivery of renewable resources from the constrained upstate and northern New York regions to customers statewide.²⁵ In its comments in the 2018 proceeding, NYISO noted that “[e]ven with the Western New York Transmission Need and AC Transmission Needs initiatives already underway, additional transmission capability is needed to deliver energy from renewable resources to New York

²⁴ Case No. 18-E-0623, *Comments of the New York Independent System Operator, Inc.* at 12-13 (Jan. 22, 2019) (“NYISO Jan. 22, 2019 Comments”).

²⁵ NYISO Jan. 22, 2019 Comments at 6 (citing previous comments in Case No. 14-E-0454, et al, *Matter of New York Indep. Sys. Operator, Inc.’s Proposed Public Policy Transmission Needs for Consideration*, and Case No. 16-E-0588, *In the Matter of New York Indep. Sys. Operator, Inc.’s Proposed Public Policy Transmission Needs for Consideration for 2016*).

consumers in order to achieve New York’s environmental and energy policies.”²⁶ NYISO cited in particular the comments of the New York Transmission Owners that “bottling of existing renewable resources is already occurring on the Moses South transfer path and will only be exacerbated by future growth of renewables in the northern New York region.”²⁷ NYISO also pointed to its Renewable Generation Pockets Study as a basis for transmission expansion to “unbottle existing renewable generation in upstate New York.”²⁸

In its Renewable Generation Pockets Study, which it conducted in 2018 at the request of DPS, NYISO found generation pockets in Northern New York in the areas in which the Northern NY Project would be constructed – i.e., along the MWP 1&2 circuits and the Moses South corridor – and “the study results support the need for additional transmission capability to transmit the full output of renewable resources in the identified generation pockets to New York load areas.”²⁹ NYISO’s graphical depiction of the renewable generation pockets is included as Figure 2. According to the study, NYISO found that between 975 and 1,050 MW of increased transmission capability would be needed on the Northern NY 230 kV and 115 kV systems to unbottle the potentially curtailed renewable generation.³⁰

²⁶ *Id.* at 5.

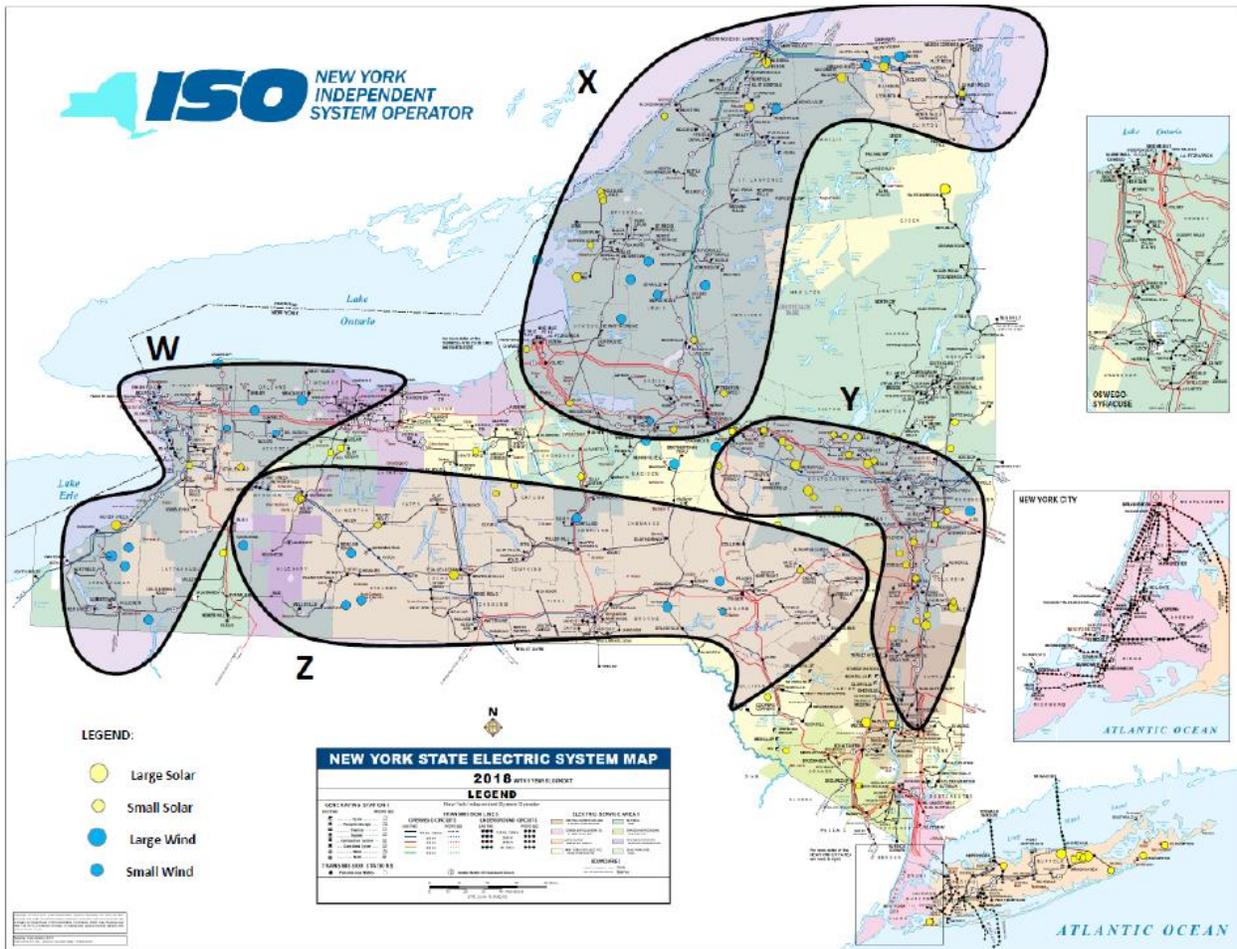
²⁷ *Id.* at 6-7.

²⁸ *Id.* at 7.

²⁹ *Id.* at 8-9.

³⁰ *Id.* at 10.

Figure 2 - Renewable Generation Pockets - NYISO Jan. 22, 2019 Comments



The Northern NY Project would be constructed in the same corridors in Northern New York in which NYISO found renewable generation pockets to exist. NYPA’s analysis in Attachment A projects that the Northern NY Project would eliminate curtailments of deliveries from existing renewable generators in upstate New York, resulting in 7.5 TWh of avoided renewable generation curtailments annually.

2. The transmission investment’s potential for avoiding future congestion that could impede delivery of expected renewable energy to load centers in the State;

The Northern NY Project would also facilitate the delivery of renewable generators that are expected to come online in the near future by avoiding potential congestion that could

impede their delivery. As shown in Attachment B hereto, the NYISO interconnection queue³¹ currently contains more than 2,460 MW of planned renewable generation in the Northern New York region that will not be deliverable to the downstate region on a firm basis without significant expansion of the transmission network in Northern New York. To meet the CLCPA Targets, all of these proposed renewable generation projects will need to be brought online without delay, and a significant portion of their output will need to be delivered to downstate load. Without adequate expansion of the transmission system, interconnecting these proposed renewable generating facilities to the grid will in all likelihood *exacerbate* curtailment of renewable generation, rendering renewable generators less efficient in meeting the CLCPA Targets – an issue of particular concern to DPS and the New York State Energy Research and Development Authority (“NYSERDA”).³²

The need for additional transmission capacity to enable delivery of additional upstate renewables to the downstate region has been broadly and consistently recognized by stakeholders. DPS and NYSERDA recently noted the relevance of upstate transmission constraints to meeting the CLCPA Targets to the Commission as follows:

Due to various factors, including the availability of developable sites new land-based renewable generation [to meet the CLCPA Targets] has, to date, resulted principally in upstate development. These projects increase the percentage of renewable energy imported into New York City. But, without new transmission capacity, the addition of new upstate renewables will not on its own increase the penetration of renewable energy consumed in [] New York City to a level that enables statewide compliance with the 70 by 30 Target.³³

In its comments in the 2018 Commission proceeding to consider proposed public policy transmission needs, NYISO noted that it supported additional transmission capability in Northern New York “to accommodate the additional renewable generation that would be required to

³¹ See NYISO Interconnection Queue 5/31/20, posted June 10, 2020, *available at* <https://www.nyiso.com/interconnections>.

³² See Case No. 15-E-0302, DPS and NYSERDA White Paper on Clean Energy Standard Procurements to Implement New York’s Climate Leadership and Community Protection Act at 27 (June 18, 2020) (“As the penetration of [renewable] resources increases cumulatively, NYSERDA will need to pay increased attention to the interactive effects among them, including the potential for curtailment . . . Of particular concern is the prospect for renewable generation to cause the curtailment of, or to be itself curtailed by another renewable resource.”).

³³ *Id.* at 46.

achieve the [State's] clean energy goals.”³⁴ NYISO citing its finding that insufficient transmission could restrict a large-scale buildup of renewable generation in the State and that, in particular, “lower-priced renewable generation would be bottled in upstate New York.”³⁵

In addition to resolving curtailments of existing renewable resources, the construction of the Northern NY Project would enable a significant amount of currently proposed renewable projects in the NYISO interconnection queue to be fully deliverable to the downstate region. The project would add 1,000 MW of transfer capability from Northern New York to downstate regions, which would attract further proposals to develop upstate renewable generation.

3. *The transmission investment's potential for increasing the deliverability of existing and anticipated baseload renewable or low carbon generation in the State, thereby reducing the amount of new generation that must be constructed to meet demand and/or the CLCPA Targets.*

As noted above, the Northern NY Project would increase the deliverability of existing renewable generators in the Northern region of the State, making their output available for consumers in the downstate region and facilitating efficient compliance with the CLCPA Targets. In the event this Northern NY Project is not built, and renewable generators in the North cannot deliver all of their output for use in compliance with the CLCPA Targets, additional renewable generation that would not otherwise be needed to meet the CLCPA Targets will need to be constructed. Development of the Northern NY Project will result in reduced curtailment of existing renewable generation, which can be used for compliance with the CLCPA Targets, including carbon-free hydropower resources, further lessening the need for the construction of new generation.

4. *Whether an early in-service date for the transmission investment would: (a) increase the likelihood that the State will meet the CLCPA Targets; and/or (b) enhance the value of recent, ongoing or anticipated distribution, local transmission, and/or bulk transmission investments, and/or help the State realize benefits from such investments.*

An early in-service date for the Northern NY Project would increase the likelihood that the State meets the CLCPA Targets. Without early construction of the Northern NY Project, it is

³⁴ NYISO Jan. 22, 2019 Comments at 7.

³⁵ *Id.* at 11.

unlikely the proposed renewable generation in the NYISO interconnection queue will be able to be fully utilized to reach the CLCPA Targets. Further, the unavailability of firm transmission to downstate locations could put the financial viability of at least some of these proposed projects at risk, which could make compliance with the CLCPA Targets even more difficult. Given the ambitious nature of the near-term 70 x 30 Target, it is imperative that the Commission encourage the construction of *all* upstate renewable generating projects currently proposed in the NYISO interconnection queue, and facilitate the addition of even more proposed projects to the queue. This will only be possible if renewable developers perceive there will be sufficient transmission available to ensure reliable delivery to load and avoid curtailment.

Additionally, the project would enhance the value to the State of the Smart Path project currently under construction and the AC Transmission Upgrade project anticipated to commence construction upon approval of pending Article VII applications under review in terms of meeting the CLCPA Targets. Both of those projects upgrade the 345 kV infrastructure, and the Northern NY Project would establish a 345 kV link between them, resulting in a continuous 345 kV path that greatly expands the deliverability of renewable generation from northern and western New York to load centers.

The Commission has undertaken proceedings to identify public policy requirements in 2016 and 2018.³⁶ In the 2016 proceeding, the Commission recognized that additional transmission facilities would support the deployment of renewable resources in the Northern part of the State needed to meet clean energy objectives.³⁷ Although the Commission stated it was “cognizant of the long lead-times in analyzing, selecting, siting, and constructing new transmission facilities,” it elected not to identify a public policy requirement for which a transmission need could be identified in the NYISO process, so that further input could be provided.³⁸

Given that there is no actively pending proceeding before the NYISO to address the need for additional transmission for Northern New York to meet the CLCPA Targets, expedited action

³⁶ See Case No. 16-E-0558, *In the Matter of New York Independent System Operator, Inc.'s Proposed Public Policy Transmission Needs for Consideration for 2016*; Case No. 18-E-0623, *In the Matter of New York Independent System Operator, Inc.'s Proposed Public Policy Transmission Needs for Consideration for 2018*.

³⁷ Case No. 16-E-0558, Order Addressing Public Policy Requirements for Transmission Planning Purposes at 2, 24 (Mar. 16, 2018) .

³⁸ *Id.* at 23-24.

by the Commission is necessary.³⁹ Significant additional renewable generation must be brought online in Northern New York to meet the 70 x 30 Target, and given the short amount of time remaining to meet this goal, an earlier in-service date for the Northern NY Project will increase the likelihood the State meets the CLCPA Targets. Timely development of the Northern New York project will enable New York’s transmission grid to be expanded in time to facilitate the addition of sufficient renewable generators in upstate New York to meet the CLCPA Targets.

5. *The ability of the transmission investment to progress expeditiously based on such factors as the planning and design status of the transmission investment, and the transmission investment’s eligibility for expedited review under Article VII and its implementing regulations.*

The Northern NY Project is a project that can be ready to enter the permitting process on a compressed timeframe, and that could be permitted under Article VII of the PSL and developed on a rapid basis. First, approximately 30 percent of the preliminary engineering project design work for the project has already been completed, and this work will continue to be completed on an expeditious basis. Additionally, NYPA is ready to meet the development requirements of Section 7(5) of the Siting Act on an expeditious basis and prepare an Article VII application on a tight timeframe. Section 7(5) of the Siting Act provides that for Priority Projects, NYPA shall, “through a public process, solicit interest from potential co-participants in each project it has agreed to develop and assess whether any joint development would provide for significant additional benefits in achieving the CLCPA [T]argets.”⁴⁰ NYPA estimates that, for the proposed Northern NY Project, it could undertake and complete this process in six months. When compared with the conventional process for selecting transmission projects to address NYISO-identified public policy transmission needs, which requires identification of a relevant public policy requirement by the Commission and a subsequent RFP process by NYISO to select a project developer, NYPA estimates that designation of the Northern NY Project as a Priority

³⁹ Such Commission action is expressly called for in Section 4(2) of the Siting Act, which notes that a public policy purpose would be served by “expediting the regulatory review of . . . transmission infrastructure necessary to meet the CLCPA [T]argets.” There may be circumstances in which it is appropriate for the Commission to expedite a project initially designated as a public policy transmission need in order to meet the CLCPA Targets. *See* Act, § 7(4)(providing that the Commission “shall periodically review and update the state bulk transmission investment plan, and its designation of projects in that plan which shall be completed expeditiously.”) In the case of the Northern NY Project, however, there is no prospect of NYISO action on the near horizon, which makes the need for prompt Commission action compelling and clear.

⁴⁰ Act, § 7(5).

Project would shave approximately 18 months off the project selection timeline that would otherwise be undertaken to get the project to the permitting phase.

The Northern NY Project would be subject to streamlined review under Article VII of the PSL, including for other components of the project for any NYPA co-applicants. NYPA estimates that, upon selection of any co-participants in the project, an Article VII application could be prepared in six months. If proceeding under streamlined review under Article VII, NYPA further estimates that the application could be deemed complete and reviewed and approved by the Commission within as little as a year.

6. *The ability of NYPA (alone or with other participants) to expedite development.*

A key reason the proposed Northern NY Project can be expedited is its use of existing rights of way in the region. As currently proposed, approximately 50 percent of the upgraded circuit miles would be constructed on existing NYPA rights of way, and all rights of way that would be used are held by existing NY State transmission owners. (Additional land rights would be required only for substation expansions.) In its planning and development, NYPA has been conducting engineering analyses with National Grid, and expects that the project could utilize substantial portions of National Grid's existing rights of way.⁴¹ The use of existing rights of way is particularly essential to the successful and expeditious development of any significant transmission investment in Northern New York because of the historical difficulty in obtaining new rights of way in the region due to the presence of Adirondack Park.

7. *Whether designating the transmission investment as a Priority Project will advance other State policy goals, including those expressed in the Act and the CLCPA.*

In addition to facilitating the deliverability of existing and anticipated renewable generation in Northern New York, the Northern NY Project will provide other benefits that are consistent with the State policy goals of the goals of the Act and the CLCPA. As noted above, and shown in Attachment A hereto, NYPA estimates that the project would result in production

⁴¹ If the Northern NY Project is designated as a Priority Project, NYPA envisions soliciting interest in the project to assess whether joint development would provide for additional significant benefits in achieving the CLCPA Targets. Such benefits could come from parties controlling available rights of way and/or parties able to bring other forms of value to the project.

cost savings of approximately \$99 million per year and a net present value of approximately \$1.05 billion over a twenty-year period for the project. When considering production cost savings and no other benefits, NYPA estimates the project has a benefit/cost ratio of 1.0. When other environmental and congestion relief benefits are considered, the benefit/cost is much higher.

The environmental benefits of the project are substantial, even when not considering the project's necessity to comply with the CLCPA Targets. The project would result in over 1.16 million tons of avoided CO₂ emissions annually on a statewide basis, and an annual reduction of approximately 160 tons of NO_x emissions from downstate emissions sources, providing a significant air quality benefit to New York City residents.

NYPA also estimates the project would result in over \$447 million in annual congestion savings in Northern New York.

The project would also produce other positive impacts that advance State public policy goals. In the near-term, construction of the Northern NY Project would create needed jobs in the upstate region, a region that has faced economic challenges in recent years. The project would also promote economic development more broadly by facilitating "green jobs" and other employment in connection with the construction of renewable generating facilities. As noted above, it is imperative that the renewable generating facilities currently in the NYISO queue be constructed to meet the State's CLCPA Targets, particularly including the 70 x 30 Target. The construction of those renewable generating facilities, and many more renewable projects not yet in the NYISO queue that will be also be needed to meet the CLCPA Targets, will bring additional construction and maintenance jobs to the region. However, those generating facilities will not be built if project developers are not confident that sufficient transmission exists on the New York transmission system to make their generation deliverable. Accordingly, these projects, and the positive employment impacts associated with them, are directly related to the development of the Northern NY Project.⁴²

⁴² The list of criteria proposed herein includes an eighth criterion - other criteria deemed by the Commission to be in the public interest. NYPA defers to the Commission on the applicability of this criterion to the Northern NY Project.

Conclusion

For the reasons set forth above, (1) together Staff and NYPA recommend that the Commission clarify how it will interpret Section 7(4) and (5) of the Act by acting on the criteria proposed herein by Staff for identification of Priority Projects, and (2) NYPA requests that the Commission determine that the Northern NY Project is a Priority Project subject to development under Section 7(5) of the Act.

Respectfully submitted,

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July 2, 2020

ATTACHMENT A

ATTACHMENT B

NYISO Interconnection Queue - Proposed Renewable and Energy Storage Projects in Northern New York (May 2020)

NYISO Queue Pos.	Project Name	Summer Nameplate Capacity (MW)	Winter Nameplate Capacity (MW)	Generation/Facility Type	County	NYISO Zone	Interconnection Point	Proposed Commercial Operation Date
0474	North Slope Wind	200	200	Wind	Franklin-Clinton	D	Patnode 230kV	10/2021
0497	Bull Run Wind	303.6	303.6	Wind	Clinton	D	Patnode 230kV	12/2022
0521	Bull Run II Wind	145.4	145.4	Wind	Clinton	D	Patnode-Duley, Ryan-Platts 230kV	12/2022
0526	North Ridge Wind	100	100	Wind	St. Lawrence	D	Malone - Colton 115kV	12/2020
0531	Number 3 Wind Energy	105.8	105.8	Wind	Lewis	E	Taylorville - Boonville 115kV	12/2020
0546	Roaring Brook Wind	79.7	79.7	Wind	Lewis	E	Chases Lake Substation 230kV	12/2020
0620	North Side Solar	180	180	Solar	St. Lawrence	D	Massena - Moses 230kV	11/2022
0624	Franklin Solar	150	150	Solar	Franklin	D	Malone 115kV Substation	12/2020
0686	Bull Run Solar Energy Center	170	170	Solar	Clinton	D	Patnode - Duley 230kV	12/2020
0709	Alder Creek Solar	205	205	Solar	Oneida	E	Chases Lake & Porter 230kV	12/2020
0769	North County Energy Storage	20	20	Energy Storage	Franklin	D	Willis Substation 115kV	04/2020
0800	Rich Road Solar Energy Center	240	240	Solar	St. Lawrence	E	Moses - Adirondack 230kV	12/2024
0866	North Country Wind	298.2	298.2	Wind	Franklin	D	Willis Substation 230kV	12/2023
0880	Brookside Solar	100	100	Solar	Franklin	D	Chateaugay Substation	11/2023
0953	Sugar Maple Solar	165.1	174.8	Solar	Lewis	E	Coffeen St - Taylorville 115kV	12/2023

Total Generation in Queue (MW)

2,463 MW

2,473 MW

Range of Commercial Operation Dates - 12/2020 – 12/2024