STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

At a session of the Public Service Commission held in the City of Albany on March 18, 2021

COMMISSIONERS PRESENT:

John B. Howard, Interim Chair
Diane X. Burman, concurring
James S. Alesi
Tracey A. Edwards

CASE 20-E-0497 - In the Matter of New York Independent System Operator, Inc.'s Proposed Public Policy Transmission Needs for Consideration for 2020.

CASE 18-E-0623 - In the Matter of New York Independent System Operator, Inc.'s Proposed Public Policy Transmission Needs for Consideration for 2018.

ORDER ADDRESSING PUBLIC POLICY REQUIREMENTS FOR TRANSMISSION PLANNING PURPOSES

(Issued and Effective March 19, 2021)

BY THE COMMISSION:

INTRODUCTION

On August 3, 2020, the New York Independent System Operator, Inc. (NYISO) commenced a new round of the biennial Public Policy Transmission Planning Process specified under Attachment Y of its Open Access Transmission Tariff (OATT) by requesting interested entities to identify potential transmission needs that may be driven by Public Policy Requirements. Under this process, the Public Service Commission (Commission) considers the input provided by interested entities and may identify any Public Policy Requirements that may be driving the need for additional transmission facilities within the State. In the event the Commission identifies such a Public

Policy Requirement, referred to as a Public Policy Transmission Need, the NYISO will solicit and evaluate potential solutions proposed by developers. After undertaking a full evaluation of the proposed solutions, the NYISO Board of Directors (NYISO Board) may select the most cost effective or efficient solution(s) to meet the Public Policy Transmission Need, which allows the developer(s) to receive cost recovery under the OATT.[1]

In response to the NYISO's recent request for potential Public Policy Requirements, it received various proposals from fifteen entities and filed them with the Commission on October 9, 2020, in Case 20-E-0497 (2020 NYISO Filing). In accordance with the coordinated planning process under the OATT, the NYISO provided the same proposals to the Long Island Power Authority (LIPA). Among the responses, PSEG Long Island, LLC (PSEG-LI) – LIPA's service provider – proposed a transmission need driven by the 9,000 megawatt (MW) mandate established pursuant to the Climate Leadership and Community Protection Act (CLCPA).[2] Specifically, PSEG-LI asserts that new transmission infrastructure would need to be built in the Long Island to New York City corridor to enable as much as 3,000 MW (of the 9,000 MW total) of offshore wind energy on the Long Island electrical network to be transmitted off of the island.[3] Several other interested entities, including the New York Power Authority (NYPA), the New York City Mayor's Office of

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[1] The capitalized terms used above are defined in the NYISO's OATT, Attachment Y, §31.1.1. The NYISO's Public Policy Transmission Planning Process is contained in Attachment Y of the OATT, §31.4, et seq.

[2] Ch. 106 of the Laws of 2019 (codified, in part, in Public Service Law (PSL) §66-p).

[3] See Response from PSEG-LI, dated October 2, 2020, p. 2.

Sustainability (NYC), Con Edison Transmission (Con Edison), New York Transco LLC (Transco), and Anbaric Development Partners LLC (Anbaric) also proposed the 9,000 MW offshore wind mandate established under the CLCPA as driving the need for transmission in the same general area.

On February 3, 2021, LIPA filed with the Commission its determination that a Public Policy Requirement exists with respect to the Long Island Transmission District.[4] Specifically, LIPA identifies the CLCPA as driving two related transmission needs, including:

1) Adding at least one bulk transmission intertie cable to increase the export capability of the LIPA-Con Edison interface, that connects NYISO's Load Zone K (Long Island) to Zones I and J (Westchester County and New York City, respectively); and

2) Upgrading associated local transmission facilities to accompany the expansion of the proposed offshore wind export capability which LIPA asserts should include increasing capacity on portions of the existing 138 kV transmission "backbone" on the Long Island system between the Ruland Road and East Garden City substations to 345 kV.

LIPA recommends that the Commission issue an order finding that the identified transmission needs are driven by a duly adopted Public Policy Requirement (i.e., the 9,000 MW target under the CLCPA) so that a solution to the needs can be solicited by the NYISO and be eligible for statewide cost allocation and recovery under the OATT.

[4] Id. §31.4.2.3. For any such proposed transmission needs, LIPA is required to first consult with DPS Staff and then "issue a written statement explaining whether a Public Policy Requirement does or does not drive the need for a physical modification to transmission facilities solely within the Long Island Transmission District, and describing" such consultation.

In this Order, the Commission finds that certain aspects of the CLCPA regarding offshore wind are driving the need for additional transmission facilities between Long Island and New York City, and therefore constitute a Public Policy Requirement. In particular, the CLCPA requires the Commission to establish programs whereby (1) a minimum of 70 percent of electricity is derived from renewable sources by 2030 (referred to as the 70 by 30 mandate), and (2) at least 9,000 MW of offshore wind is procured by 2035.[5] We refer the identified Public Policy Requirement to the NYISO for the solicitation of potential solutions and the preparation of analyses related to those solutions. As authorized under the OATT, this Order provides additional criteria for the evaluation of transmission solutions and identifies a preferred cost allocation approach.[6] This Order also addresses the other proposed transmission needs driven by potential Public Policy Requirements contained in the 2020 NYISO Filing, as well as those pending before the Commission in Case 18-E-0623 related to the NYISO's 2018 solicitation for suggested needs. As discussed below, the Commission declines to identify additional Public Policy Requirements driving the need for transmission facilities at this time.

BACKGROUND

The Public Policy Transmission Planning Process

The NYISO developed its Public Policy Transmission Planning Process to comply with the Federal Energy Regulatory Commission's (FERC) Order No. 1000, which required, in part, the

[5] See L. 2019, ch. 106, §4 (enacting Public Service Law §66-p(2), (5)).

[6] Id. §31.4.2.1.

development of a planning process for the consideration of public policy-driven transmission needs.[7] Through a series of compliance filings, the NYISO and New York Transmission Owners submitted tariff revisions to amend the OATT to include this new planning process, which is conducted on a two-year cycle.

As approved by FERC, the NYISO's Public Policy Transmission Planning Process commences with a 60-day solicitation period for any interested entities to identify proposed transmission needs that are potentially being driven by Public Policy Requirements.[8] The NYISO posts all submittals on its website and forwards them for the Commission's consideration. The Commission is assigned the role of identifying any Public Policy Requirements that may be driving the need for transmission facilities, while LIPA is responsible for identifying transmission needs driven by Public Policy Requirements within the Long Island Transmission District. The NYISO OATT also provides for the Commission to act "out-of-cycle" with the biennial process.

The NYISO OATT defines a Public Policy Requirement as:

> [a] federal or New York State statute or regulation, including [an order issued by the Commission] adopting a rule or regulation subject to and in accordance with the State Administrative Procedure Act, any successor statute, or any duly enacted law or regulation passed by a local governmental entity in New York State, that may relate to transmission planning on the [Bulk Power Transmission Facilities].[9]

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[7] See Docket No. RM10-23-000, Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities, Order No. 1000 (issued July 21, 2011), reh'g denied, Order No. 1000-A (issued May 17, 2012), reh'g denied, Order No. 1000-B (issued October 18, 2012).

[8] NYISO OATT, Attachment Y, §31.4.2.

[9] NYISO OATT, Attachment Y, §31.1.1.

The Commission's August 2014 Policy Statement established procedures for identifying any Public Policy Requirements that warrant the NYISO soliciting solutions for evaluation.[10] These procedures, which act in concert with the NYISO's process, include:

1) the NYISO submitting the proposed Public Policy Requirements that interested entities have identified regarding potential transmission needs, which the Commission will post on its website;

2) the Commission issuing a notice in the State Register, pursuant to SAPA, inviting comments on any proposals posted in Step 1, along with any subsequent additions identified by the Commission, and any proposed evaluation criteria the NYISO should apply and analyses it should perform;

3) Department of Public Service Staff (Staff) posting, when deemed appropriate, preliminary comments for interested parties to review and comment upon, addressing why any proposed Public Policy Requirements warrant, or do not warrant, the NYISO soliciting projects for evaluation;

4) the Commission issuing an order identifying the potential transmission needs, based on Public Policy Requirements, that warrant the NYISO soliciting solutions (along with an explanation of proposed Public Policy Requirements that do not warrant referral to the NYISO), and an identification of any proposed evaluation criteria the NYISO should apply and analyses it should perform;[11] and,

[10] Case 14-E-0068, Policies and Procedures Regarding Transmission Planning for Public Policy Purposes, Policy Statement on Transmission Planning for Public Policy Purposes (issued August 15, 2014) (August 2014 Policy Statement).

[11] The Commission may also find that none of the suggested policies constitute Public Policy Requirements, or that transmission is not needed to address them.

5) the Commission posting the Order, issued under Step 4, on its website and providing it to the NYISO.[12]

Following these steps, the NYISO holds a technical conference and then undertakes a second 60-day solicitation for proposed solutions to any Commission-identified Public Policy Requirements/Public Policy Transmission Needs. The NYISO then conducts a preliminary analysis regarding whether each proposed solution is viable and sufficient to meet the Public Policy Transmission Need. When evaluating proposed solutions to a Public Policy Transmission Need, the NYISO considers, on a comparable basis, all resource types, including generation, transmission, demand response, or a combination of these resource types. The NYISO presents the results of its Viability and Sufficiency Assessment to stakeholders, interested parties, and Department of Public Service Staff for review and comment.

The NYISO also files the final Viability and Sufficiency Assessment with the Commission. While the sixth and final step identified in the August 2014 Policy Statement required the Commission to confirm that a transmission solution should continue to be pursued before the NYISO proceeded to prepare further analyses, the NYISO tariff was subsequently amended to allow the NYISO to proceed directly to a full evaluation of transmission solutions deemed viable and sufficient. However, the NYISO tariff retained the ability of the Commission to still determine that a transmission need

[12] The NYISO's OATT indicates that the Commission's procedures should "ensure that such process is open and transparent, provide the ISO and interested parties a meaningful opportunity to participate in such process, provide input regarding the NYPSC's considerations, and result in the development of a written determination as required by law, inclusive of the input provided by the ISO and interested parties." NYISO OATT, Attachment Y, §31.4.2.1.

should no longer be evaluated or selected by the NYISO, so long as the Commission acts prior to the NYISO Board's selection of a more efficient or cost-effective transmission solution.

Absent Commission action terminating the Public Policy Transmission Planning Process, the NYISO proceeds to provide its analyses in a Public Policy Transmission Planning Report. The NYISO Board may also select the more efficient or cost-effective transmission solution to the identified Public Policy Transmission Need, based on various metrics specified under its OATT.[13] The NYISO would also include, to the extent it is feasible, any criteria or analyses specified by the Commission or contained within the Public Policy Requirement. Transmission projects selected by the NYISO are eligible for cost allocation and recovery under the NYISO's OATT.

The 2020 Public Policy Transmission Planning Cycle

As noted above, the NYISO commenced a new round of its biennial Public Policy Transmission Planning Process by soliciting, on August 3, 2020, proposed Public Policy Requirements from interested entities. The 2020 NYISO Filing, which was submitted to the Commission on October 9, 2020, identified various proposed Public Policy Requirements received from fifteen entities: PSEG-LI, NYC, New York Transmission

[13] In determining which transmission solution is the more efficient or cost-effective, the NYISO considers several metrics, including: cost estimates, cost per MW ratio, expandability of the project, flexibility in operating the system (such as generation dispatch, access to operating reserves and ancillary services, or ability to remove transmission for maintenance), utilization of the system (such as interface flows or percent loading of facilities), a developer's property rights, potential construction delays, and impacts on NYISO-administered markets. NYISO's OATT, Attachment Y, §31.4.5.1.

Owners (NYTOs),[14] Con Edison, Transco, LS Power Grid New York, LLC (LS Power), NYPA, Anbaric, H.Q. Energy Services (U.S.) Inc. (HQUS), Invenergy LLC (Invenergy), Avangrid, Inc. (Avangrid), NextEra Energy Transmission New York (NextEra), Transource Energy, LLC (Transource), Orsted U.S. Offshore Wind (Orsted), and EDF Renewables (EDF). Each of these parties' responses is summarized next.

1. PSEG-LI

PSEG-LI identified the 9,000 MW offshore wind mandate under the CLCPA, as well as the requirements of the Accelerated Renewable Energy Growth and Community Benefit Act (Accelerated Renewables Act)[15] as driving the need for enhancements on the Long Island system to enable energy from offshore wind generation facilities to be delivered to loads across Long Island and elsewhere in New York State. PSEG-LI identified two transmission needs driven by the 9,000 MW mandate:

1) The addition of at least one bulk transmission Phase Angle Regulator (PAR)-controlled intertie cable to increase the export capability of the LIPA-Con Edison interface, which connects NYISO Zone K to Zones I and J; and

2) Upgrading associated local transmission facilities to accompany the expansion of the proposed offshore wind export capability. Such upgrades would include portions of the existing 138 kV transmission "backbone" between the Ruland Road and East Garden City substations to 345 kV, as well as a need to enhance the ability to move power from eastern Long Island to western Long Island through the creation of a new 138kV bulk transmission path along the corridor connecting the Brookhaven and Ruland Road substations.

[14] The NYTOs include: Central Hudson Gas & Electric Corp.; Consolidated Edison Company of New York, Inc.; Niagara Mohawk Power Corporation d/b/a/ National Grid; NYPA; New York State Electric & Gas Corp.; Orange & Rockland Utilities; and Rochester Gas & Electric Company.

[15] L. 2020, ch. 58, Part JJJ, §7.

PSEG-LI notes that any delay with respect to these projects may impact the ability to achieve the State's renewable energy goals and timeline for transition, as mandated under the CLCPA.

2. New York City

NYC proposes several public policies that it asserts are driving the need for transmission into Zone J, including: (1) the 70 by 30 mandate under the CLCPA; (2) the requirement for the Commission to undertake a bulk transmission study under the Accelerated Renewables Act; (3) regulations adopted under 6 NYCRR Part 227-3 (the "Peaker Rule"), adopted on January 16, 2020, by the New York State Department of Environmental Conservation (NYSDEC), which limits the emissions of nitrogen oxides (NO_x) from power plants during the ozone season; and (4) the Climate Mobilization Act, enacted by NYC in 2019, which limits greenhouse gas (GHG) emissions from, among other sources, large buildings. As for associated transmission needs, NYC emphasizes the importance of building a transmission connection from large-scale dispatchable hydropower resources in Quebec, Canada into Zone J (i.e., New York City) to replace the significant capacity of fossil fuel generation expected to retire in the coming years. NYC also identifies a series of onshore transmission needs both in NYC and between NYC and Long Island to transmit to load the 9,000 MW or more of offshore wind capacity expected to come online over the next decade.

3. The NYTOs

The NYTOs point to CLCPA-based mandates, the NYC Climate Mobilization Act, the Accelerated Renewables Act, and NYSDEC Peaker Rule as potential Public Policy Requirements. As for specific transmission needs, the NYTOs cites to several recently completed studies, including the 70 by 30 mandate

scenario examined in the NYISO's Congestion Assessment and Resource Integration Study (2019 CARIS Study), dated July 24, 2020, which the NYTOs assert identified several load pockets across the State with various levels of energy curtailment due to transmission system constraints. The NYTOs note that absent transmission system enhancements, the Central East interface would continue to be the most congested interface in the New York Control Area, given the need to transfer power from the upstate nuclear power plants, NYPA's large hydropower plants in Niagara and St. Lawrence, and the significant amount of land-based wind interconnecting in the many remote regions of upstate New York, as well as the need for offshore wind to flow in the reverse direction. The NYTOs also recommend that the Commission act quickly to identify and authorize the development of transmission needed to integrate new offshore wind generation into New York City, Long Island, and potentially the mid-Hudson Valley and upstate regions.

4. Con Edison

Like other parties, Con Edison identifies the 9,000 MW offshore wind target under the CLCPA as a Public Policy Requirement driving transmission needs. As for specific transmission needs, Con Edison specified that shared offshore transmission facilities, as well as transmission to improve power flows between Zone K and Zone I and/or Zone J, are necessary to successfully and cost effectively meet the 9,000 MW offshore wind target under the CLCPA. Con Edison also notes that Long Island is well suited to receive offshore wind but does not have sufficient customer demand or transmission to allow that energy to flow through Zone J and further upstate.

5. Transco

Transco cites to the CLCPA as the basis for five separate transmission needs:

(1) Western New York: Improvements to alleviate constraints within the region and across the Dysinger East and West Central interfaces;

(2) North Country: Improvements to alleviate constraints within the region as well as across the Moses South and Central East interfaces;

(3) Southern Tier: Improvements to alleviate constraints within the region as well as the Volney East and Upstate New York (UPNY)/Southeast New York (SENY) interfaces;

(4) Capital Region: Improvements to alleviate constraints within the region as well as Central East and UPNY/SENY interfaces; and

(5) LIPA and Con Edison System: Improvements to alleviate constraints caused by significant amounts of offshore wind integration as well as needed increased export capability specifically across the Con Edison-LIPA and Dunwoodie South interfaces.

Transco notes that the proposed transmission needs are supported by the NYISO's 2019 CARIS Study, which identified several load pockets across the State with various levels of energy curtailment due to transmission system constraints.

6. LS Power

Like other parties, LS Power identifies the 70 by 30 and 9,000 MW offshore wind mandates under the CLCPA as driving several transmission needs. Citing several studies, LS Power stresses the need for the Commission to identify a series of Public Policy Transmission Needs from 2021-24, with each need targeting transmission improvements necessary for the delivery of energy from renewable resources with in-service dates from 2026-30. With respect to offshore wind, LS Power asserts that it

is inefficient for each developer to be responsible for connecting their resources into the bulk transmission system and that instead the Public Policy Transmission Planning Process should be used for overall interconnection and integration of offshore wind resources. LS Power also points to the need for inter-regional transmission based on the 2019 CARIS Study that it asserts identifies 21.7% to 25.5% of renewable energy generated in New York State being exported to other States.

7. NYPA

NYPA suggests several Public Policy Requirements driving transmission needs including the CLCPA, the Commission's 2016 Clean Energy Standard (CES) Order,[16] the City of New York's Local Law 97, and the Peaker Rule. NYPA cites to the 2019 CARIS Study issued by the NYISO as support for the need for transmission in five constrained areas that coincide with the areas identified by Transco in its response to the NYISO solicitation. Of these five areas, NYPA focuses on the need for a comprehensive build-out of transmission in the Southern Tier to accommodate renewable energy generation and connectivity between Western and downstate New York.

8. Anbaric

Anbaric identifies several of the CLCPA mandates and the transmission planning requirements specified under the Accelerated Renewables Act as potential Public Policy Requirements. As for transmission needs, the company asserts that additional onshore transmission upgrades are needed to prevent the occurrence of offshore wind curtailments once the full 9,000 MW of wind are operational, including investments in

[16] See Case 15-E-0302, Large-Scale Renewable Program and a Clean Energy Standard, Order Adopting a Clean Energy Standard (issued August 1, 2016) (2016 CES Order).

new transmission cables to move surplus offshore wind energy from Long Island to New York City and beyond on high wind, low demand days. Anbaric also notes that bolstering the interconnection between Staten Island and the rest of New York City and upstate would open up the 345 kV substations at Fresh Kills and Goethals as strong points of interconnection for offshore wind, easing the pressure on threading cables through the Narrows and Upper Bay of New York Harbor.

9. HQUS

HQUS also identifies the 70 by 30 mandate under the CLCPA as creating the need for new transmission to be developed between Quebec, Canada and New York City, which HQUS states represents an opportunity to provide up to 30% of New York City's remaining clean energy needs with a single project. HQUS notes that any Public Policy Transmission Need should also be designed in conjunction with the Tier 4 program included as part of the Commission's 2020 CES Order,[17] which applies to renewable energy delivered to New York City. HQUS notes that a Tier 4 contract paired with a Public Policy Transmission Need project could work jointly to ensure that the benefits of any new transmission project are fully captured, by ensuring that the renewable energy products that provide the most value to the State and New York City are delivered over the line. HQUS also identifies a transmission need related to increasing transmission capacity between Quebec, Canada and Upstate New York, which the company asserts would improve the ability of its resources to provide flexible deliveries and to act as a

[17] Case 15-E-0302, Large-Scale Renewable Program and a Clean Energy Standard, Order Adopting Modifications to the Clean Energy Standard (issued October 15, 2020) (2020 CES Order)

battery, allowing New York to more efficiently integrate higher penetrations of renewable generation into the State grid.

10. Other Responses

The remaining responses propose the same Public Policy Transmission Needs as those already summarized above. For example, Avangrid calls for the construction of offshore wind transmission infrastructure to allow for existing offshore wind projects to interconnect within a more robust network that avoids curtailments. Several parties, including NextEra, EDF, Invenergy, Orsted, and Transource support the finding of Public Policy Transmission Needs to address pockets of transmission constraints around the State that they assert were identified in the NYISO's 2019 CARIS Study.

The 2018 Public Policy Transmission Planning Cycle

On August 1, 2018, the NYISO solicited proposed Public Policy Requirements from interested entities. Fifteen entities provided responses to the NYISO's solicitation and were filed with the Commission on October 10, 2018 (2018 NYISO Filing). As noted below, the Commission sought public comments on these proposed Public Policy Requirements. The proposals submitted by each of the entities and the public comments received in relation to the 2018 NYISO Filing are summarized in Appendix A.

NOTICES OF PROPOSED RULEMAKING

In accordance with the State Administrative Procedure Act (SAPA) §202(1) and the Commission's August 2014 Policy Statement, a Notice of Proposed Rulemaking regarding the 2018 NYISO Filing was published in the State Register on November 21, 2018 [SAPA No. 18-E-0623SP1]. The time for submission of comments pursuant to the SAPA notice expired on January 22,

2019. The comments received in response to this notice are summarized in Appendix A and discussed below.

A separate SAPA notice regarding the 2020 NYISO Filing was published in the State Register on November 18, 2020 [SAPA No. 20-E-0497SP1]. The time for submission of comments pursuant to the SAPA notice expired on January 19, 2020. Timely public comments were filed by the NYISO, NYC, Con Edison, Transco, Avangrid, and Transource. The comments received in response to the notice are summarized and discussed below.

COMMENTS

NYISO

In its comments, the NYISO identifies the need to upgrade the bulk transmission system to deliver renewable energy from upstate generation pockets and offshore wind facilities connected to Long Island and New York City. The NYISO asserts that these transmission needs are demonstrated by numerous NYISO studies that have analyzed the system performance under different scenarios that meet the CLCPA goals, including the 2019 CARIS Study and a report prepared on behalf of the NYISO by the Analysis Group entitled "Climate Change Impact Phase II: An Assessment of Climate Change Impacts on Power System Reliability in New York State," dated September 2020.[18]

Based on these studies, the NYISO identified three broad transmission needs. First, the NYISO states that, even assuming completion of the transmission projects selected to address the Public Policy Transmission Needs identified by the

[18] The NYISO attached the two reports to its comments, which can be found along with all other filings made in this case at: http://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?MatterCaseNo=20-E-0497&CaseSearch=Search.

Commission for congestion relief over the UPNY/SENY and Central East interfaces and in Western New York, there is still a need for additional transmission capability throughout upstate New York to deliver energy from renewable resources to downstate load centers. The NYISO detailed the main findings of the 2019 CARIS Study, including that there are currently, or will be, a number of transmission-constrained "renewable generation pockets" around the State that would make it more difficult to meet the 70 by 30 mandate absent construction of new bulk transmission projects. Second, the NYISO notes the need for strengthening LIPA's 138 kV transmission backbone and transmission ties to New York City in order deliver up to 3,000 MW of offshore wind connected into the Long Island system to New York customers. Third, the NYISO acknowledged the proposals submitted by parties identifying transmission needs related to strengthening the existing New York City onshore "dry" transmission system, and the need for a new undersea "wet" transmission system to serve as the link between offshore wind farms and the bulk transmission system.

Other Comments

The remaining comments were filed by five parties that provided responses to the NYISO's 2020 solicitation – NYC,[19] Con Edison, Transco, Avangrid, and Transource. The parties mostly reiterate their proposals filed in response to the NYISO solicitation. For example, NYC strongly encouraged the Commission to declare that there are Public Policy Transmission Needs related to connecting New York City/Zone J with large sources of flexible, dispatchable, clean resources – such as

[19] To be clear, the New York City Mayor's Office of Sustainability responded to the NYISO's 2020 solicitation, while New York City provided comments.

hydropower from Canada, and to move forward with substantial commitments to strengthening transmission connections between Zone J and Long Island/Zone K to facilitate the delivery of energy from offshore wind. NYC also calls for the Commission to address constraints across the Central East and Total East transmission interfaces, which it asserts are preventing energy from upstate renewable resources from reaching downstate load centers.

For its part, Transource focuses its comments on the aggressive goals underlying the CLCPA and the improvements to New York's transmission infrastructure it asserts are needed in the near term to accommodate such goals. Transco highlights the several studies, including the 2019 CARIS Study, that it states identify system deficiencies extending to rural areas of Upstate New York and identifies existing and potential future curtailment issues associated with renewable generation. Avangrid reiterates its support for a finding of transmission needs based on the 9,000 MW offshore wind target under the CLCPA.

DISCUSSION

The Commission's role in the NYISO's Public Policy Transmission Planning Process is to "issue a written statement that identifies the relevant Public Policy Requirements driving transmission needs and explains why it has identified the Public Policy Transmission Needs for which transmission solutions will be requested by the [NY]ISO."[20] The Commission's statement shall also "explain why transmission solutions to other suggested

[20] NYISO OATT, Attachment Y, §31.4.2.1.

transmission needs should not be requested."[21] Finally, as noted, the Commission's statement "may also provide additional criteria for the evaluation of transmission solutions and non-transmission projects, and the type of analyses that it will request from the [NY]ISO."[22] In accordance with the NYISO OATT, this Order addresses the proposed Public Policy Requirements submitted in the 2018 and 2020 NYISO Filings.

Finding of Public Policy Transmission Needs

We start by examining whether to identify the mandates specified under the CLCPA as Public Policy Requirements driving the need for additional transmission facilities. Several responses to the 2020 NYISO Filing, as well as LIPA's referral letter, each proposed that the Commission make such a finding. The CLCPA requires the Commission to meet two targets that we find pertinent here, namely: (1) programs to require the procurement by the state's load serving entities (LSEs) of at least 9,000 MW of offshore wind energy by 2035; and (2) a program to require that "a minimum of [70] percent of the state wide electric generation secured by jurisdictional [LSEs] to meet the electrical energy requirements of all end-use customers in New York state in [2030] shall be generated by renewable energy systems."[23]

We note that the Commission, through issuance of the 2020 CES Order, aligned the State's existing Clean Energy Standard with the 70 by 30 mandate by requiring NYSERDA to procure and contract for a sufficient quantity of renewable

[21] Id.

[22] Id.

[23] PSL §§66-p(2) and (5) (enacted as part of §4 of the CLCPA).

energy credits (RECs).[24] With respect to the 9,000 MW offshore wind mandate, based on prior Commission orders, NYSERDA has already procured 4,316 MW of offshore wind RECs (ORECs).[25] The 2020 CES Order authorized NYSERDA to schedule solicitations that target between 750 MW to 1,000 MW of offshore wind capacity per year through 2027 to achieve the 9,000 MW target.[26] The Commission expects that much of this offshore wind capacity will be in operation by 2030, and contribute significantly to meeting the 70 by 30 mandate. This is on top of the 130 MW of the offshore wind capacity that LIPA procured in 2017 related to the South Fork Wind Farm,[27] which is expected to be in service within the next two to three years.

As noted by several of the responses to the 2020 NYISO Filing and the NYISO, these actions regarding the procurement of offshore wind illustrate an impending need for upgrades to onshore transmission facilities to assure that the offshore wind energy expected to be injected into New York City and Long Island can be distributed to the State at large. The NYISO solicitation process provides an existing opportunity to address the need for these improvements.

Under Attachment Y of the NYISO OATT, a Public Policy Requirement must be a "federal or New York State statute or regulation, including a [Commission] order adopting a rule or regulation subject to and in accordance with the State Administrative Procedure Act, any successor statute, or any duly

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[24] 2020 CES Order, pp. 26-28.

[25] See https://www.nyserda.ny.gov/All-Programs/Programs/Offshore-Wind/Focus-Areas/NY-Offshore-Wind-Projects.

[26] 2020 CES Order, pp. 45-46.

[27] See https://www.lipower.org/wp-content/uploads/2019/10/LIPA-First-Offshore-Wind-Farm-Doc-V19_102819-FINAL.pdf.

enacted law or regulation passed by a local governmental entity in New York State, that may relate to transmission planning on the" New York State bulk power system.[28] We find that the CLCPA – and specifically the 9,000 MW offshore wind and 70 by 30 mandates under the statute – squarely fits within the definition of a Public Policy Requirement as a duly authorized State statute passed by the legislature and enacted into law by the Governor.

As noted, several parties that participated in the 2020 NYISO solicitation process proposed onshore transmission needs that they believe would result from the 9,000 MW offshore wind mandate. For example, PSEG-LI identifies the transmission need that we address through this Order. NYC more generally proposed a transmission need along the Long Island-NYC interface to transmit to load the 9,000 MW or more of offshore wind capacity expected to come online over the next decade. The NYTOs recommend quick Commission action to authorize the development of transmission needed to integrate new offshore wind generation into New York City, Long Island, and to the rest of the State. Con Edison adds that Long Island lacks sufficient customer demand or transmission backbone to allow energy from offshore wind to flow through Zone J to the rest of the State.

Moreover, Section 7(2) of Accelerated Renewables Act, enacted as part of the 2020-21 State Budget, required Staff from the Department of Public Service and the New York State Energy Research and Development Authority (collectively, Staff), in consultation with other entities, to prepare a comprehensive "Power Grid Study" for the "purpose of identifying distribution upgrades, local transmission upgrades and bulk transmission

[28] NYISO OATT, Attachment Y, §31.1.1.

investments that are necessary or appropriate to facilitate the timely achievement of the CLCPA targets."[29] On January 19, 2021, Staff finalized an "Initial Report on the New York Power Grid Study," finding that under certain scenarios, adding a new 345 kV tie-line across the Long Island to New York City interface would result in several benefits, including (1) decreasing by 400 GWh the potential curtailment of offshore wind energy, (2) enabling potentially greater than 3,000 MW of offshore wind to connect in Zone K (i.e., Long Island), and (3) reducing congestion of imports to Long Island whenever offshore wind output is low.[30] Although it is currently subject to public comment, the Commission notes that the Power Grid Study also supports the need for the transmission enhancements identified in LIPA's letter.

Based on our review of the proposals made in response to the 2020 NYISO Solicitation, the public comments relating to the responses, and LIPA's referral letter, the Commission concludes that the CLCPA supports finding several Public Policy Transmission Needs. As LIPA note in its referral letter, "[a] common theme among these proposals [i]s the need to upgrade the Long Island transmission system to meet the [offshore wind] goal embodied in the CLCPA …."[31] LIPA also points to an offshore wind study considered as part of the broader Power Grid Study as further support for building new transmission on Long Island. As LIPA notes, the Offshore Wind Study concluded that

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[29] L. 2020, ch. 58, Part JJJ, §7.

[30] See Case 20-E-0197, Transmission Planning Pursuant to the Accelerated Renewable Energy Growth and Community Benefit Act, Initial Report on the New York Power Grid Study (filed January 19, 2021), p. 71.

[31] Letter from LIPA, dated Feb. 3, 2021, p. 1.

"additional transmission from Long Island (NYISO Zone K) to the mainland (Zones I and J) will be needed by 2035 to enable the interconnection of at least 3,000 MW (of the 9,000 MW total) of OSW [i.e., offshore wind] to LIPA's system. Notably, this identified need is independent of the specific locations where future OSW projects may be connected to the system."[32]

LIPA concluded that, based on its review of the studies, as well as the responses to the 2020 NYISO Solicitation, there are needs to: (1) increase the export capability of the LIPA-Con Edison interface, which connects Zone K to Zones I and J; and (2) upgrade the existing 138 kV transmission "backbone" between the Ruland Road and East Garden City substations to 345 kV to enable full deliverability of the offshore wind unforced capacity across LIPA's system.

Based on LIPA's referral letter, the studies outlined in the letter, the several proposals recommending the identification of a transmission need along the Long Island-New York City interface, and the NYISO's similar recommendation made in its comments, we find the CLCPA constitutes a Public Policy Requirement driving the need for:

1) Adding at least one bulk transmission intertie cable to increase the export capability of the LIPA-Con Edison interface, that connects NYISO's Zone K to Zones I and J to ensure the full output from at least 3,000 MW of offshore wind is deliverable from Long Island to the rest of the State; and

2) Upgrading associated local transmission facilities to accompany the expansion of the proposed offshore export capability.

Accordingly, the Commission refers this need to the NYISO to consider solutions for increasing transmission capability from

[32] Id. at 2.

Long Island into Southeastern New York, consistent with the findings herein. However, the Commission declines to adopt the specific local transmission upgrades proposed by LIPA as part of this referral. While needed upgrades to the existing 138 kV transmission "backbone" between the Ruland Road and East Garden City substations may ultimately be identified by the NYISO after a full analysis is completed, it is premature to conclude what local upgrades may be most efficient or cost effective.

In accordance with the NYISO OATT, we also prescribe criteria to assist that NYISO in its solicitation and evaluation of proposed solutions to the identified Public Policy Transmission Needs. The NYISO's analysis should ensure no transmission security violations, thermal, voltage or stability, would result under normal and emergency operating conditions. The analysis should also ensure the system would be maintained in a reliable manner. The NYISO shall also consider other metrics in its evaluation of this Public Policy Requirement, including: changes in production costs; Load-Based Marginal Prices; transmission losses; emissions; Installed Capacity costs; Transmission Congestion Contract revenues; transmission congestion; impacts on transfer limits; and, resource deliverability.

In order to establish an appropriate cost allocation methodology that is reflective of the Commission's public policy objectives, the NYISO should apply the "beneficiaries pay principle," and take into account the economic benefits associated with congestion relief and assign a 75% portion of

the project(s) costs to the beneficiaries.[33] However, the remaining portion of the costs should be allocated on a load-ratio share statewide given that increased access to renewables will reduce emissions and thus provide benefits statewide, consistent with the CLCPA's objectives.

We note that the NYISO's Public Policy Transmission Planning Process does not supplant the need for developers to obtain any necessary permits and approvals, such as siting approvals under PSL Article VII. However, developers do not need to await the outcome of the NYISO's process to start seeking such approvals. In order to ensure any necessary facility improvements are expedited, the Commission encourages initiation of the effort required for the submission of siting applications under PSL Article VII as soon as practicable. Moreover, applicants are encouraged to use existing rights-of-way if possible. Projects that can fall within existing rights-of-way may be able to qualify for the Commission's expedited Article VII process.[34]

Other Requested Public Policy Transmission Needs

The NYISO's 2018 and 2020 solicitations resulted in a range of proposed Public Policy Requirements in addition to the CLCPA, including the Accelerated Renewables Act, the Commission's CES Order, the NYSDEC's Peaker Rule, and the City of New York's Climate Mobilization Act and Local Law 97. In many ways, these other proposed Public Policy Requirements also

[33] Pursuant to Attachment Y, §31.5.2 of the OATT, the NYISO "shall allocate the cost of transmission facilities to those within the transmission planning region that benefit from those facilities in a manner that is at least roughly commensurate with estimated benefits."

[34] See PSL 123(3)(b) (enacted pursuant to L. 2020, ch. 58, Part JJJ, §9).

drive the transmission needs identified herein and thus identifying them as the basis for such needs is redundant and unnecessary. Moreover, the CLCPA establishes the broadest framework of Statewide clean energy requirements compared to other statutes and regulations noted in responses to the NYISO solicitation. For these reasons, we defer to the mandates established pursuant to the CLCPA in establishing the requisite basis for the transmission needs identified herein.

At this time, the Commission finds that further consideration of the Power Grid Study is necessary before identifying additional transmission needs, and therefore declines to take any action with respect to other proposed Public Policy Requirements identified in the 2018 and 2020 NYISO Filings. We note, however, that the Commission reserves the right to identify additional transmission needs in the future, which may be informed by the Commission's final action on the Power Grid Study that recommends several actions related to the local and bulk transmission systems.

CONCLUSION

As discussed herein, the Commission has identified certain aspects of the CLCPA as a Public Policy Requirement driving the need for additional transmission facilities related to the delivery of offshore wind facilities. In so doing, the Commission has complied with the requirements of the NYISO's Public Policy Transmission Planning Process, and accordingly refers the Public Policy Transmission Need to the NYISO to solicit and evaluate potential solutions and to ultimately select the more cost effective or efficient solution(s). No other transmission needs are referred to the NYISO at this time.

The Commission orders:

1. The Climate Leadership and Community Protection Act constitutes a Public Policy Requirement driving the need for additional transmission facilities to deliver the output of offshore wind generating resources and shall be referred to the New York Independent System Operator, Inc. to consider solutions to that need, as discussed in the body of this Order.

2. The New York Independent System Operator, Inc. shall evaluate the Public Policy Requirement identified in Ordering Clause No. 1 utilizing the evaluation criteria discussed in the body of this Order.

3. The New York Independent System Operator, Inc. shall utilize the cost allocation methodology discussed in the body of this Order.

4. These proceedings are closed.

By the Commission,

(SIGNED) MICHELLE L. PHILLIPS
Secretary

The 2018 Public Policy Transmission Planning Cycle

Fifteen entities provided responses to the NYISO's Solicitation, issued on August 1, 2018. Each of the responses and public comments to the responses are summarized next.

Summary of Responses to the NYISO's 2018 Solicitation

New York City

New York City proposes two public policies that it believes are driving the need for transmission into Zone J: (1) the Clean Energy Standard (CES) adopted by the Commission on August 1, 2016, to achieve the goal that 50 percent of New York's electricity is to be generated by renewable sources by 2030 (i.e., 50 by 30);[1] and (2) the adoption by the New York State Department of Environmental Conservation (NYSDEC) of State Implementation Plans related to compliance with National Ambient Air Quality Standards for, among other pollutants, ozone, particulate matter, sulfur dioxide, and nitrogen oxides (NOx). As for specific transmission needs, New York City points to a NYISO study presented in July 27, 2018 (2018 Transmission Constraints Study) and entitled "Public Policy Transmission Needs Study: Transmission Constrained Renewable Generation," which study New York City asserts demonstrates that implementation of the CES will result in widespread transmission needs across New York. [2] Based in part on results from the 2018 Transmission Constraints Study, New York City proposes a "holistic examination of the entire transmission system" with the goal of "improv[ing] the

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[1] Case 15-E-0302, et al., Large-Scale Renewable Program and a Clean Energy Standard, Order Adopting a Clean Energy Standard (issued August 1, 2016) (CES Order).

[2] The NYISO Constraints Study can be found at: http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_espwg/meeting_materials/2018-07-27/PPTN_genpockets_ESPWG_20180727.pdf.

flow of renewable energy from upstate to downstate" and ensuring the integration of "onshore transmission needed to allow at least 2,400 MW of offshore wind to interconnect into downstate load centers."[3]

New York Power Authority (NYPA)

NYPA also cites to the CES as a public policy driving transmission needs, as well as the City of New York's goal to achieve an 80% reduction in greenhouse gases by 2050 (80 by 50 goal), implementation by the NYSDEC of the Regional Greenhouse Gas Initiative (RGGI), and NYSDEC's then-draft regulations requiring a reduction in NOx emissions from peaking electric generators. NYPA notes that "[t]he most immediate Transmission Need is in northern New York ('Northern Transmission Need')" where it asserts "nearly 1,600 MW of local renewable generation, along with additional imports of Canadian hydropower, is bottled in NYISO Zone D and is frequently subject to negative pricing during periods of transmission congestion."[4] NYPA states that, to effectively leverage the use of "existing hydroelectric power in conjunction with incremental non-hydro renewable resources to meet these targets, new transmission connecting these resources (particularly those in northern New York) to load centers will be required."[5] In this respect, NYPA notes that the 2018 Transmission Constraints Study "confirmed the Northern

[3] New York City Letter, pp. 7-8. New York City also proposes a transmission need based on constraints consisting of voltage limitations at the Central East and Total East interfaces. Id., pp. 4-6.

[4] NYPA Letter, p. 2. NYPA also notes that the 2018 Transmission Constraints Study supports transmission needs in Southern Tier, Western and Capital regions of New York, as well as to tie in offshore wind. Id., pp. 11-13.

[5] Id., p. 4.

Transmission Need, finding that in both the Summer peak and Summer light load scenarios with baseline renewable additions transmission overloads occurred on the 230 kV system in zone D and in some cases zone E."[6]

New York Transco LLC (Transco)

Transco cites to the CES coupled with the 2018 Transmission Constraints Study as the basis for two transmission needs driven by public policy requirements:

- Northern NY Overloads ("Pocket X" in 2018 Transmission Constraints Study), including along the Zone D wind generation corridor (230 & 115 kV), North to South Moses South transfer path (230 and 115 kV), and Jefferson and Lewis Counties (115 kV);

- The Southern Tier ("Pocket Z" in 2018 Transmission Constraints Study), including the Finger Lakes Region Wind and Solar (115 kV) and Southern Tier Transmission Corridor (345 and 115 kV).

Transco asserts that addressing these transmission needs would unbottle collectively 1,200 MW of renewable generation from these two New York regions.

Indicated NYTOs

Indicated NYTOs[7] identify the CES as a public policy driving transmission needs, as well as the City of New York's energy objectives established as of 2018 that called for an 80% reduction in the City's greenhouse gas emissions by 2050 and a 40% reduction in such emissions from the City government by 2030. Indicated NYTOs otherwise rely on the 2018 Transmission Constraints Study to support its proposal for transmission needs to alleviate the Northern New York overloads and the overloads

[6] Id., p. 8.

[7] The Indicated NYTOs include Central Hudson, Con Ed, National Grid, NYPA, NYSEG, O&R, and RG&E.

on the 345 kV and 115 kV systems in the Southern Tier Corridor and on the 115 kV system in the Finger Lakes region. Indicated NYTOs also call for a transmission solution to meet the State's goal of injecting 2,400 MW of offshore wind into downstate New York as specified in the 2018 OSW Order.[8]

PSEG-Long Island, LLC (PSEG_LI)

Like other parties, PSEG-LI also identified the 2018 OSW Standard as a Public Policy Requirement driving Transmission Needs related to the goal in that Order to make operational by 2030 at least 2.4 GW of offshore wind capacity. PSEG-LI asserted that the offshore wind procurements that would result from the Order "will drive the need to construct transmission facilities in Zones J and K; in particular, "OSW will drive the need for construction of 'Transmission Backbone' facilities; i.e., facilities that are likely to be required to deliver OSW from interconnection points to major 345 kV hubs on Long Island and in New York City, over a broad range of possible project configurations and interconnection points."

NextEra Energy Transmission New York (NextEra)

NextEra relies on the CES as a public policy that drives several transmission needs, which NextEra asserts are supported by the 2018 Transmission Constraints Study, as well as its own studies of the powerflow impacts and the wholesale market impacts that new CES-driven renewable resources would have on the bulk transmission grid. Based on the results of these studies, NextEra proposes five separate transmission needs:

- Dysinger East Corridor: Transmission is needed to increase the Dysinger East interface by 900 MW to offset

[8] Case 18-E-007, In the Matter of Offshore Wind Energy, Order Establishing Offshore Wind Standard and Framework For Phase 1 Procurement (issued July 12, 2018).

the decrease in interface limits resulting from the interconnection of new renewable resources.

- West Central New York Corridor: New transmission is needed to increase the West Central interface by 900 MW to offset the decrease in interface limits resulting from the interconnection of new renewable resources.

- Northern New York Corridor: New transmission is needed to increase the Moses South interface by 900 MW to offset the decrease in interface limits resulting from the interconnection of new renewable resources.

- Central East Corridor: New transmission is needed to increase the Total East and Central East interface limits by at least 3000 MW to adequately address Demand Congestion.

- Southern New York Corridor: New transmission is needed to increase the UPNY-SENY and Dunwoodie South interfaces by 500 MW to offset the decrease in interface limits due to the interconnection of new renewable resources upstate. In addition to restoring the interface to its original limits, an incremental 1000 MW of transfer capability above the original limits across the UPNY-SENY, UPNY-CONED, and Dunwoodie South interfaces is necessary to adequately address Demand Congestion.

Although concluding that all five transmission needs should be addressed, NextEra states that Northern New York Corridor and the Central East Corridor need should be addressed first due to the amount of congestion and reliability issues anticipated along those corridors.

Anbaric and LS Power Grid New York, LLC (LS)

Anbaric and LS also point to the OSW Standard as a public policy driving transmission needs.[9] These parties note

[9] The Long Island Power Authority also filed comments by cover letter, requesting that the comments be maintained as confidential pursuant to Public Officers Law §§87(2)(d) and 89(5)(a)(1).

that transmission facilities are likely to be required to deliver offshore wind from interconnection points to major 345 kV hubs on Long Island and in New York City, over a broad range of possible transmission configurations. For its part, Anbaric notes that addressing transmission needs in these corridors will unbottle offshore wind capacity of up to 2,400 MW by 2030 and it may be appropriate to size the additional transmission capacity to allow for 4,800 MW in anticipation of future procurements.[10]

H.Q. Energy Services (U.S.) Inc. (HQUS)

HQUS – like other parties – points to the CES as the basis for a transmission need related to reliably delivering renewable energy in Northern New York to downstate load centers. HQUS notes that "[p]ersistent transmission congestion on the New York grid prevents [] upstate resources from being reliably delivered to downstate customers, and in some circumstances, even leads to curtailment of clean resources as wind and hydro generation compete against one another to serve declining load and access limited transmission capability."[11] It suggests that "[b]uilding out the transmission infrastructure in Northern New York, especially on the Moses South corridor, presents an obvious opportunity for New York to develop a coordinated transmission development strategy that maximizes overall customer value." HQUS asserts that the optimum approach is to identify a Public Policy Transmission Need (PPTN) that allows

[10] Anbaric also proposed a number of local transmissions solutions based on the results of the 2018 Transmission Constraints Study. Like several other parties, LS Power points to the CES as the basis for identifying transmission solutions based on the findings of the 2018 Transmission Constraints Study, including transmission upgrades in Northern New York, and in the Western and Southern Tiers.

[11] HQUS Letter, p. 2.

the NYISO "to broadly solicit transmission solutions" that access large volumes of clean and renewable energy supply.[12]

Other Parties

Finally, Invenergy LLC, ITC New York Development, LLC, Avangrid Networks, Inc., LS Power Grid New York, LLC, PowerBridge LLC, Transource New York, LLC., and PPL Translink generally identified one or more of the CES, the Orders issued in the Reforming the Energy Vision (REV) proceeding,[13] and the Order granting the Clean Energy Fund (CEF),[14] as public policies driving transmission needs. Invenergy, ITC and Avangrid also asserted support for the transmission needs identified pursuant to the 2018 Transmission Constraints Study. For its part, PowerBridge urges consideration of High Voltage Direct Current (HVDC) transmission as a solution on the grounds that it may offer important ancillary benefits to the grid, including controllability, voltage support, and black start capability.

Summary of Public Comments

New York Independent System Operator (NYISO)

In its comments, the NYISO explains that its 2018 Transmission Constraints Study supports the need for additional transmission capability due to curtailment of existing and future renewable resources. As noted by the NYISO, the study performed a screening assessment of transmission constraints on the bulk transmission system under summer peak and light load conditions, including consideration of local transmission system contingency events in the service territories of National Grid,

[12] Id., p. 5.

[13] See generally, Case 14-M-0101, Reforming the Energy Vision.

[14] Case 14-M-0094 et al., "Order Authorizing Clean Energy Fund Framework," dated January 21, 2016.

NYSEG and Central Hudson. Each case was evaluated with a mix of existing, planned, and additional renewable generation to achieve the CES. Based on these and other assumptions, the NYISO identified generation pockets in which transmission lines may overload as a result of the modeled renewable resource injections, as well as the levels of curtailments of renewable generation that would be required to mitigate these overloads. The resulting constraints were geographically grouped into four pockets to identify the transmission constrained renewable generation.

Based on the study assumptions, the NYISO asserts that to unbottle the existing and projected renewable generation, increased transmission capability would be needed in the following estimated amounts: (1) 25–125 MW in Pocket "W" on the Western New York 115 kV system; (2) 975–1,050 MW for Pocket "X" on the Northern New York 230 kV and 115 kV systems; (3) 400–500 MW in Pocket "Y" on Eastern New York 115 kV systems; and (4) 875–925 MW in Pocket "Z" on the Southern Tier 345 kV and 115 kV systems. The NYISO asserts that increased transmission capability at the bulk power transmission facility level could help to address or alleviate the potential constraints in these pockets.

The NYISO also cites its 2017 Congestion Assessment and Resource Integration Studies (CARIS), released in April 2018, as supporting the need for additional transmission capability due to the projected curtailment of existing and future renewable resources. The CARIS study assessed projected congestion patterns in the New York Control Area (NYCA) related to achieving the CES. Several scenarios were modeled, including the System Resource Shift (SRS) Case. Study results from the SRS Case identified two specific indicators that insufficient

transmission could restrict a large-scale buildup of renewable generation in New York State: (1) the study reported high levels of demand congestion across the NYCA; and (2) the study observed a pattern of congestion when analyzing the curtailment of approximately one TWh per year of solar and wind generation due to transmission constraints.

The NYISO concluded that, consistent with the structure of the NYISO's Public Policy Process, the Commission should determine the need for transmission at a higher level and allow developers to propose their own projects to fulfill the need for transmission. The NYISO asserts that this approach would allow the greatest potential for creative and innovative solutions to satisfy the identified need, for the NYISO's selection of the more efficient or cost-effective Public Policy Transmission Project eligible for regional cost allocation and cost recovery.

The NYISO's Market Monitoring Unit (MMU)

The MMU recommends in its comments that the Commission focus any order regarding a PPTN on the underlying public policy objective and avoid identifying the specific facilities or paths to be upgraded. The MMU asserts that the PPTNs identified in the last two NYISO solicitation cycles were very prescriptive about the specific transmission solutions that the NYISO should solicit and resulted in little variation across the proposed solutions. The MMU asserts that such an approach would limit the creativity of developers and likely foreclose opportunities for the most efficient and beneficial proposals to come forward in the Public Policy Transmission Planning process. Hence, the MMU notes its preference for the Commission to specify a set of generic criteria that would characterize a public policy objective and allow competition from projects across corridors.

Independent Power Producers of New York (IPPNY)

IPPNY focuses its comments on the aspects of HQUS's response to the 2018 NYISO Solicitation that IPPNY interprets as recommending that the Commission make changes to the resource eligibility requirements under the CES Standard, presumably to include large scale storage impoundment hydroelectric plants owned by Hydro Quebec. IPPNY asserts that HQUS's proposal, among other things, is far outside the scope of the Commission's implementation of the Public Policy Transmission Planning Process and that, even if considered, should be rejected.

, and three parties that filed proposals pursuant to the 2018 NYISO Solicitation – New York City, NextEra and Transource.[15] The comments received in response to the notice are summarized and discussed below.

oneGRID Corporation (oneGRID)

oneGRID submits comments to voice its specific support for two proposed needs proposed through the 2018 NYISO Solicitation process:

- Upgrading the upstate local transmission system to allow the interconnection of new renewable generation; and

- Upgrading the backbone transmission system to allow delivery of clean energy from upstate regions to load centers in the Lower Hudson Valley, New York City, and Long Island areas.

[15] The Utility Intervention Unit and a group of non-governmental entities identified as "Clean Energy Parties" filed comments after the expiration of the 60-day public comment period allowed under the State Administrative Procedure Act. For this reason, these comments are not being considered here.

oneGrid asserts, among other things, that the Commission should also direct the NYISO to apply evaluation criteria that favors transmission that results in guaranteed deliverability of upstate renewable resources directly into New York City and reduces the reliance on in-City thermal generation. generation.

New York City

New York City stressed the lack of bulk transmission infrastructure to deliver renewable energy to downstate load pockets. To emphasize this point, New York City cites the NYISO's 2018 Power Trends report, which shows that 64.8% of the upstate summer installed capacity, and 91.1% of upstate energy production in 2017, is from carbon-free resources, while only 15.5% of the downstate summer installed capacity, and only 30% of downstate energy production in 2017, is from carbon-free resources. NEW YORK CITY notes that with the exception offshore wind, construction of large-scale renewables in and near the City is not practical, and offshore wind alone is insufficient to meet carbon reduction goals established by both the State and New York City.

Outside of reiterating specific public policies driving transmission needs, New York City also summarized an assessment regarding changes it asserts are needed to the Bulk Power System to increase downstate access to upstate renewable resources. New York City noted that its analysis revealed that, while the AC Transmission project would address some of the thermal constraints that now exist, underlying voltage constraints would then become the limiting set of constraints. Specifically, New York City explained that inadequate reactive resources result in voltage limitations that will limit power flows across the Central East and Total East interfaces and,

because many renewable resources are located to the north and west of these interfaces, system voltage constraints would limit the ability of downstate areas from accessing the power generated at the facilities. New York City concluded that, without sufficient new transmission capacity, the full production potential from clean energy resources located in upstate New York may not be realized.

NextEra

NextEra summarizes the independent analysis of transmission constraints it undertook as part of its response to the 2018 NYISO Solicitation and reiterates its identification of transmission needs in several corridors. NextEra also calls on the Commission to create a process to allow all potential transmission developers to be provided access with system information in the event it determines that the NYISO should consider additional evaluation criteria in its evaluation process. Finally, NextEra expressed its support for the Commission including the NYISO's new cost containment procedures in the evaluation process of any Public Policy Transmission Need on the grounds that it would provide significant benefits to New York, and aid in the selection of the most cost effective and efficient transmission solution.

Transource

Transource also reiterated the position it took in response to the 2018 NYISO Solicitation, noting in particular that all fifteen responsive parties proposed that the Commission's CES be designated a Public Policy Requirement. Transource also pointed to the NYISO's interconnection queue, noting that a large number of proposed renewable energy projects are being proposed to be located in remote areas of New York far from the customers that must be served and energy from those

resource would not be able to be delivered to downstate load pockets absent transmission upgrades aimed at addressing existing constraints.

Transource recommends that the Commission adopt selection criteria as part of this order that would incentivize the use of advanced transmission technology such as BOLD®, which Transource asserts would limit energy losses and increase system efficiency. Transource proposes to include the following criteria to meet these goals:

- Substantially reducing electromagnetic field impacts;
- Avoiding costly series compensation equipment;
- Substantially reducing the turn-around time needed in the future for placing new and replacement circuits into service;
- Significantly streamlining siting and construction activities;
- Substantially reducing visual impacts by utilizing significantly shorter towers; and
- Significantly ameliorating environmental impacts by providing avian-friendly transmission lines and structures.

Transource also recommended that the Commission include selection criteria related to the nature and scope of the transmission upgrades that must be completed to deliver renewable energy to load.