



Comments on the Need for Public Policy Transmission Need Declarations

October 31, 2022

Submitted to: The New York Independent System Operator

*Submitted by: The Alliance for Clean Energy New York and
the New York Offshore Wind Alliance*

SUMMARY

The Alliance for Clean Energy of New York (ACE NY) and the Offshore Wind Alliance (NYOWA) are pleased to respond to the solicitation¹ from the New York Independent System Operator (NYISO) for suggestions for Public Policy Transmission Needs (PPTN). We recommend three areas for PPTN declaration by the New York Public Service Commission (NYPSC). Our recommendations have been informed by NYISO studies, including the 2021-2040 System and Resource Outlook (Outlook)², New York Transmission Owner (TO) plans to address Areas of Concern (AOC)³, and analysis by our member companies. The three areas are:

- 1) **Downstate**, to accommodate significant amount of offshore wind;
- 2) **Southern Tier**; and
- 3) **North Country**.

¹ The NYISO Notice: Request for Proposed Transmission Needs Being Driven by Public Policy Requirements for the 2022-2023 Transmission Planning Cycle can be found at <https://www.nyiso.com/documents/20142/1406936/2022-2023-Notice-Requesting-Proposed-PPTNs.pdf/248b1c15-d54f-cb81-0ae5-ce153e5b8e84>

² NYISO 2021-2040 System and Resource Outlook: <https://www.nyiso.com/documents/20142/33384099/2021-2040-Outlook-Report.pdf/a6ed272a-bc16-110b-c3f8-0e0910129ade>

³ Plans filed with NYPSC by National Grid, Avangrid and Central Hudson in Case 20-E-0197; dated March 8, 2022 <https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={4BAD2A2F-9C14-4D1D-9C83-FDD2C2346F13}>

INTRODUCTION

The landmark *Climate Leadership and Community Protection Act* (CLCPA)⁴ sets forth New York’s nation-leading goals for renewable resources in the State. The CLCPA establishes overarching targets of 1) assuring New York derives 70 percent of its electricity from renewable energy sources by 2030; 2) decarbonizing the electric grid by 2040; and 3) achieving economy-wide decarbonization of 85% from 1990 levels by 2050. In the “Contract Case,” the NYISO Outlook models 9,500 MW of new renewables capacity, including 4,262 MW of solar, 899 MW of land-based wind, and 4,316 MW of offshore wind that is under contract and projected to come on-line prior by 2030. It also studies two Policy Cases over a longer time horizon. The Outlook estimates that a minimum of 5 TWh of renewable energy in 2030 and 10 TWh in 2035 will likely be curtailed due to transmission limitations, equating to roughly 5% less renewable energy that can be counted toward the CLCPA targets.⁵ It further identifies that the Finger Lakes, Southern Tier, Watertown, and Long Island will experience persistent and significant limitations to deliver the renewable power from these pockets without further transmission upgrades.⁶

Moreover, as the Outlook underscores that the need for new renewables will grow exponentially over the NYISO’s planning horizon. The NYISO projects a need for 95 GW of new emissions-free generation and associated transmission by 2040 to fulfill the CLCPA’s mandate. As the Outlook underscores, “The scope of the renewable resource need is both substantial and unprecedented.”⁷ Therefore, New York’s transmission needs should be defined not only by the Contract Case, but by the Policy Cases that the NYISO models.

The NYPSC also recognized the need for upgrades in the AOC and required the TOs to file transmission project upgrades to alleviate the bottlenecks. The TO filings are pending NYPSC action. We believe the TO proposals, while helpful, do not solve the complete need the NYISO identified in the Outlook and further transmission upgrades are warranted and hence our recommendation for the PSC to declare PPTN in these areas.⁸ That is, ACE NY and NYOWA are not recommending a declaration of PPTN *instead of* the NYPSC’s approval of transmission projects in the AOCs or instead of the approval of Phase 1 transmission upgrades in Case 20-E-0197, but as *additive* to those actions.

⁴ Chapter 106 of the laws of 2019.

⁵ Outlook at 14.

⁶ *Id.* at 15.

⁷ *Id.* at 16.

⁸ While not specifically the subject of the NYISO’s request for comment, ACE NY and NYOWA would note that the daunting scope and timing of the transmission need warrants a more comprehensive reexamination of the PPTN process. While New York’s PPTN process has proven to be a flexible and effective tool in addressing public policy driven transmission needs, there may be opportunities to streamline the rather lengthy, multi-stage process, currently taking upwards of two years, and bring transmission projects online more quickly and with the more efficient use of staff resources. We would recommend that the NYISO and NYPSC jointly initiate a review of the PPTN process. This review should invite stakeholder input.

1) OFFSHORE WIND PPTN

NYOWA and ACE NY strongly recommend that a PPTN be designated for offshore wind in the downstate area as identified in the NYISO Outlook. This will help bring forth transmission solutions for integrating the full amount of offshore wind power into New York’s grid that is necessary to achieve the CLCPA goals.

The CLCPA sets forth New York’s ambitious goal of 9 GW offshore wind (OSW) by 2035. Accomplishment of the full CLCPA mandates will nevertheless require growing amounts of offshore wind over this planning horizon. This is due to, among other factors, this resource’s technical and economic potential, scale, high capacity factor, and proximity to New York’s downstate load centers. Indeed, the Climate Action Council’s Draft Scoping Plan, laying out a recommended path for achieving the CLCPA targets, contemplate at least 20 GW of offshore wind by 2050 under all scenarios.⁹ Meeting these CLCPA targets through a massive OSW build-out will also require significant new investment in additional offshore and onshore grid infrastructure and constitutes a classic case of policy-driven transmission needs under the OATT.

This was most recently recognized in the 2020 PPTN Biennial Review. In its Order on the 2020 biennial Public Policy Transmission Planning Process (PPTN Order), the Public Service Commission concluded that the recently enacted CLCPA - mandating that a minimum of 70% of New York’s energy supply be derived from renewable energy sources, and that of this, at least 9,000 MW be procured by 2035 - “squarely fits within the definition of a Public Policy Requirement”.¹⁰

Moreover, the Commission concurred with the Long Island Power Authority (LIPA) and several other parties that New York’s offshore wind procurements in satisfaction of the CLCPA targets were driving 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.”¹¹ Accordingly, the Commission concluded that there was a pressing public policy and technical imperative for increasing the export capability of the interface between the LIPA and Con Edison territories (Zones K and J, respectively) 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”.¹²

⁹ Climate Action Council Draft Scoping Plan at 74, <<https://climate.ny.gov/Our-Climate-Act/Draft-Scoping-Plan>>.

¹⁰ Case No. 20-E-0497 and Case No. 18-E-0623, *Order Addressing Public Policy Requirements for Transmission Planning Purposes* (March 19, 2021) (hereinafter “PPTN Order”) at 21.

¹¹ *Id.* at 20.

¹² *Id.* at 22. The Commission also found a public policy need for the development of associated local transmission facilities in support of the new intertie capability.

On the basis of this finding, the NYISO issued a solicitation on August 12, 2021 seeking proposals to address the LI PPTN.¹³ The grid operator subsequently received eighteen separate PPTN project proposals, as well as one Other Public Policy Project¹⁴, of which sixteen proposals and the Other Public Policy Project were deemed viable and sufficient.¹⁵ On September 21, 2022, the Commission issued a notice seeking comment pursuant to the State Administrative Procedures Act (SAPA) as to whether the NYISO should proceed to select a solution to the LI PPTN.¹⁶

The Outlook “provides a comprehensive overview of potential resource development over the next 20 years in New York and identifies and quantifies the existing and pending constraints revealed throughout the New York transmission system.”¹⁷

The Outlook looks at plausible trajectory of renewable resource development, and examines their impact on system performance, most specifically around potential congestion, and associated curtailment. The Outlook offers several key findings bearing on OSW development and associated policy-driven transmission needs.

- The Outlook finds that the introduction of large amounts of renewable generation will exacerbate existing deliverability challenges, resulting in growing levels of resource curtailment. This disproportionately impacts new offshore wind development. As the report concludes, “Most of the curtailments are experienced by offshore wind projects connected to Long Island due to inadequate transmission capacity.”¹⁸
- Among the “most significant and urgent needs” that are driven by recent public policy mandates, the Outlook identifies the Long Island Public Policy Transmission Need (LI PPTN), a tie-line designed to increase the export capability of the interface between the LIPA and Con Edison territories (Zones K and J, respectively). The Outlook concludes that the selection of a viable and cost-effective solution pursuant to the ongoing solicitation would reduce congestion of OSW resources “significantly”.¹⁹

¹³NYISO, available at < <https://www.nyiso.com/documents/20142/22968753/Long-Island-Offshore-Wind-Export-Public-Policy-Transmission-Need-Project-Solicitation.pdf/51b8fdeb-1a66-2938-f116-38f1be486e0d>> (August 12, 2021).

¹⁴ See <https://www.nyiso.com/documents/20142/22968753/LI-PPTN-Project-Summary-Public-20211018.pdf/1b36c8b6-6df5-510e-44bc-a2c970d04390> for a listing of these projects.

¹⁵See Viability and Sufficiency Assessment at 20.

¹⁶New York State Register, September 21, 2022, at 7. The Open Access Transmission Tariff provisions governing consideration of PPTN projects explicitly reserve to the Commission the discretion to determine at any juncture up to NYISO board resource selection that a PPTN no longer exists, or that a modified PPTN exists such that the NYISO should suspend consideration and selection of the most cost-effective solution to meeting the identified need. OATT, §31.4.6.7.3.

¹⁷ Outlook at 4.

¹⁸ NYISO, *2020-2040 System & Resource Outlook (Draft Report)*, available at < https://www.nyiso.com/documents/20142/32663964/2021-2040_System_Resource_Outlook_Report_DRAFT_v15_ESPWG_Clean.pdf/99fb4cbf-ed93-f32e-9acf-ecb6a0cf4841> (August 8, 2022) at 6.

¹⁹ Outlook at 18.

- While the Outlook concluded that the LI PPTN will mitigate congestion associated with already contracted renewables, the Outlook points to active discussions to increase the OSW procurement to up to 20 GW²⁰ as potentially necessitating additional transmission to ensure deliverability.

Indeed, should the LI PPTN process ultimately result in the selection of a viable and cost-effective solution to the bottling of offshore wind resources interconnecting to Zone K, this is a necessary but not sufficient step. As the Outlook recognizes, “Even with the potential benefits provided by these bulk system projects, several renewable generation pockets across the state are projected to persist, which could constrain output from renewable resources, including production from offshore wind.”²¹

ACE NY and NYOWA contend that the 2022 PPTN review cycle should prioritize new transmission investment in Zone J to facilitate the proposed integration of at least 6,000 MW of fully deliverable offshore wind. This is consistent with recent Commission findings highlighting the urgency and magnitude of the need. Given potential barriers to the integration of offshore wind and the threat to the achievement of the CLCPA’s OSW targets, the Commission has recently concluded that further action is warranted: “Because of the need to act expeditiously to meet CLCPA mandates, and the timeframes involved in both transmission and offshore wind development, it is incumbent upon the Commission to address the feasibility challenges as soon as practicable.”²²

Specifically, the Commission identified “a potential solution”²³ in the form of the Con Edison Brooklyn Clean Energy Hub (“Clean Energy Hub” or “Hub”). The Hub was first advanced by Con Edison in its Utility Report filed pursuant to the Renewable Growth Act, and contemplates *inter alia*, the construction of a new, dedicated substation in the Vinegar Hill section of Brooklyn

²⁰ The Outlook references the Climate Action Council’s Draft Scoping Plan to support this proposition. Outlook at 18.

²¹ Outlook at 32.

²² Case 20-E-0197 et. al., *Order on Power Grid Study Recommendations* (issued and effective January 20, 2022) (hereinafter “OSW Order”) at 23. The OSW Order also reviews in detail the findings of the 2021 Power Grid Study and accompanying DPS Staff and NYSERDA-led analysis, and recommendation set (“Initial Report”)²². The Power Grid Study was commissioned under the *Accelerated Renewable Energy Growth and Community Benefit Act*²² (“Renewable Growth Act”) to assess the adequacy of the New York grid in meeting the state’s renewable development targets. The study concluded that the integration of 6,000 MW of offshore wind into Zone J (NYC), and 3,000 MW injection into Zone K (Long Island), respectively, would be “achievable” within the current system. Order at 20. However, this conclusion was predicated on an idealized development “that optimizes POIs with the capabilities of the existing transmission system”, Id. at 20 (citing Initial Report at 66), and on some rather optimistic baseline assumptions including, but not limited to the injection points “hav[ing] the physical space necessary to accommodate the upgrades for the planned injections.” Id. at 20 (citing Initial Report at 66). Among the other factors leading the Commission to question the continuing validity of the Initial Report’s finding of transmission adequacy is the recent approval of the Clean Path transmission project, slated to bring 1,300 MW of capacity to the same Rainey substation identified as a potential POI for future OSW projects. Id. at 20-1. Indeed, the Commission itself has more recently opined that such an assumption may be “questionable”. Id. at 20.

²³ Id. at 22.

for the interconnection of up to 6,000 MW of offshore wind.²⁴ In its OSW Order, the Commission invited the company to flesh out this project concept.²⁵

On April 15, 2022, Con Edison duly filed a petition further describing the Hub, its potential benefits and costs, and seeking cost recovery. Several parties, including ACE NY and NYOWA, have intervened in the proceeding. The process has comprised two rounds of comments, the submission of data requests and responses from the company, and a technical conference. The ACE NY/NYOWA position on the Hub is summed up in our Commission filing as follows:

While NYOWA appreciates the urgency and priority with which the Commission is acting to address the potential barriers to offshore wind injection...we believe it is important that the Commission not rush to judgment on this singular option. NYOWA submits that the best means of testing the merits of the Brooklyn Clean Energy Hub is through an open-source competitive solicitation, examining the viability and cost-effectiveness of alternative solutions for creating headroom for the integration of OSW into Zone J or for the integration of OSW in New York more broadly. One potential avenue is New York's Public Policy Transmission Needs process pursuant to FERC Order 1000. We would note that the next window for PPTN designation will open in the third quarter of 2022.²⁶

Other parties have similarly urged the Commission to declare a PPTN and/or conduct a competitive solicitation.²⁷

Indeed, since the Con Edison filing with the PSC, several developers of transmission have stepped forward with proposed alternatives for accommodating the integration of varying amounts of OSW into Zone J. These concepts were presented at a September 28, 2022, technical conference hosted by NYSERDA.²⁸

Lastly, ACE NY and NYOWA would note that New York's stringent rules prohibiting the use of HVAC cables in certain New York jurisdictional waters further constrain the options for integrating OSW with the grid in Zone J and necessitate a PPTN to elicit viable solutions.

²⁴ See 20-E-0197, Order on Local Transmission and Distribution Planning Process and Phase 2 Project Proposals (issued September 9, 2021) (Phase 2 Order).

Phase 2 Order, p. 2 (citing Utility Transmission and Distribution Investment Working Group Report (filed November 2, 2020)).

²⁵ OSW Order at 21-3.

²⁶ ACE NY/NYOWA Comments on Proposed Brooklyn Clean Energy Hub, *Case 20-E-0197 -- Proceeding on Motion of the Commission to Implement Transmission Planning Pursuant to the Accelerated Renewable Energy Growth and Community Benefit Act*, filed July 11, 2022, at 3-4.

²⁷ See, e.g., the comments submitted by the following parties to PSC Case No. 20-E-0197: LS Power Grid New York, Rise Light and Power, NextEra Transmission New York, Anbaric Development Partners, and Multiple Intervenor.

²⁸ NYSERDA, *New York Offshore Wind Public Technical Webinar on Proposed Interconnection Projects*, September 28, 2022, available for viewing at <<https://www.youtube.com/watch?v=xEt-GcDJ6-8>>.

Specifically, in a recently issued clarification around the third offshore wind solicitation (ORECRFP22-1), NYSERDA specified that bidders may not use HVAC cables (including cables connecting a converter station to a point of interconnection) in the Narrows or the East or Hudson River.²⁹ This effectively restricts offshore approaches to the Hub and makes the Hub a more challenging technical proposition by forcing routing to onshore through densely populated Brooklyn communities.

Declaration of a PPTN downstate will likely elicit additional proposals. For all the above reasons, downstate should be designated as an area needing a PPTN to facilitate offshore wind.

2) NORTH COUNTRY PPTN

The Outlook finds that the introduction of large amounts of renewable generation will exacerbate existing deliverability challenges, resulting in growing levels of resource curtailment in the North Country.”³⁰ It states that “The Watertown/Tug Hill Plateau renewable generation pocket (X3): the 115 kV network is expected to limit the availability of the already-contracted wind and solar generation in this area, and the limitation will become more severe when more renewable resources are interconnected. Additional transmission is necessary to provide the resources access to the bulk grid.”³¹ Figures 31-36 in the Outlook depict the amount of renewable energy that may be curtailed in the Contracts and Policy Case Scenarios 1 and 2, for the years and 2030 and 2035³². For example, under the Policy Case Scenario 2, solar resources can be curtailed by about 20% and 40% respectively for years 2030 and 2035 in pocket X3.

In its Areas of Concern (Phase 2A) filing, National Grid proposed certain local transmission upgrades. The Watertown Area of concern will benefit from the Phase 2a upgrade proposals if approved, and ACE NY supports NYSPC approval of these Area of Concern Phase 2A projects. However, there are substantially more queued MWs in the Watertown AOC than are supported by the Phase 2A proposed upgrades. Additionally, bulk power alternatives for some portions of the Phase 2A upgrade scope may well provide greater total transmission capacity expansion at lower unit and overall cost. These alternatives will be revealed through a PPTN solicitation and evaluation process for that region.

²⁹ See NYSERDA, ORECRFP22-1 Response to Questions, available at < <https://www.nyserdera.ny.gov/offshore-wind-2022-solicitation>>, Question and Answer #172.

³⁰ NYISO, *2021-2040 System & Resource Outlook (Draft Report)*, available at < https://www.nyiso.com/documents/20142/32663964/2021-2040_System_Resource_Outlook_Report_DRAFT_v15_ESPWG_Clean.pdf/99fb4cbf-ed93-f32e-9acf-ecb6a0cf4841> (August 8, 2022) at 6.

³¹ *Id.*, page 65.

³² *Id.*, pages 73-78.

As of this filing, the NYPSC has not acted on the National Grid Phase 2A filing. To avoid further delay to the advancement of Phase 2A projects, ACE NY recommends that the NYPSC approve the Grid proposed projects but, if a PPTN is declared, consider a “halting provision”³³ that would allow for supplanting elements of the Phase 2A solutions if the PPTN solutions emerge as superior to the solutions proposed in the Phase 2A proposal. Specifically, there are elements of the Phase 2A proposal which support transmission within the generation pocket and other elements that mainly serve to provide export and transfer capacity to the bulk power system. It is these “export” supportive elements that appear most ripe for supplantation by a PPTN.

In any case, ACE strongly supports approval of the Phase 2A projects, and also recommends that the North Country be designated as an area needing a PPTN.

3) SOUTHERN TIER PPTN

The Outlook designated the Southern Tier as vulnerable to curtailment of renewable resources and a high priority area for transmission upgrades. It also states that *“The land and natural resource availability in this region (wind and solar) attract renewable generation buildout in this area. Transmission expansion from this pocket to the bulk grid would benefit New York consumers statewide.”*³⁴

The Southern Tier region was also designated an Area of Concern by the NYPSC and has been identified by a broad range of stakeholders as a region deserving of a declaration of a public policy transmission need in prior NYISO PPTN cycles. While the proposed Phase 2A upgrades by Avangrid, currently under Commission review, are designed to unbottle the most advanced clean energy resources in the region, there are a lot more renewables in the queue or that could be further developed if a bulk solution is deployed in Southern Tier.

Furthermore, Southern Tier is an important west-to-east highway with the potential to also enable additional Western NY clean energy resources for delivery eastwards to loads, which in turn will reduce the strain on the main Central East interface. Because the infrastructure in this region is a combination of bulk and low voltage transmission assets, there are further opportunities for

³³ The halting provision would still allow Grid with making progress with its transmission projects until the PPTN evaluation is completed. It is expected that the funds expended by Grid in that period will be minimal and subject to full prudent cost recovery. Should the PPTN reveal better solutions, the Grid projects will be halted; if not, they will proceed as planned. This would prevent losing time on moving forward with transmission upgrades yet allow for examination of alternatives that may be better. There is precedence for the Commission using the halting concept; it used it in the context of transmission upgrades proposed by Con Edison and O&R in the context of Indian Point contingency plan. See NYPSC Order in Case 12-E-0503: Proceeding on Motion of the Commission to Review Generation Retirement Contingency Plans.” Issued April 19, 2013; <https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={345684E9-79AF-4ECA-99D5-FCF80A39C436}> .

³⁴ Outlook at Page 60.

optimization and expansion of the grid without making Phase 2a a redundant investment. For instance, Avangrid noted in its Phase 2a filing that *“the future development of an additional 345 kV line, parallel to the existing 230 kV corridor, could help unlock even more headroom in the Area of Concern. A project like this is expected to be highly synergistic with the Reinforcement Solution Set because such a line would be very effective at offloading the 115 kV system, thus creating headroom for 115 kV interconnections which could facilitate future generation development”*³⁵.

For the above reasons, the Southern Tier should be designated as an area needing a PPTN.

CONCLUSION

As the NYISO has recognized, New York’s path to achieving the ambitious climate-reduction mandates embodied in the CLCPA will require unprecedented investment in renewable generation resources and New York’s bulk transmission grid. The Outlook highlights the deliverability challenges that will be posed by adding new renewable resources without commensurate investment in the New York grid and identifies the regions of the state’s bulk system topology that would benefit most from congestion relief – Downstate (Zones J and K), North Country, and the Southern Tier. ACE NY and NYOWA wholeheartedly endorse these findings and support the designation of these three areas for the next biennial PPTN cycle.

³⁵ Case 20-E-0197; AOC Filing, Attachment B, Page 40;
<https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={3FF0BF0F-4B04-4831-A09F-281E9935B201}>