



New York City Public Policy Transmission Need FAQ #3

**A Document from the New
York Independent System
Operator**

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DRAFT – FOR DISCUSSION PURPOSES ONLY

Introduction

On June 22, 2023, the New York State Public Service Commission (PSC) issued an order identifying a Public Policy Transmission Need.* The Order declared that the Climate Leadership and Community Protection Act (CLCPA), which requires the Commission to develop a program for at least 9,000 megawatts (MW) of offshore wind energy by 2035, constitutes a Public Policy Requirement driving the need for additional transmission facilities to deliver the output of offshore wind generating resources to New York City interconnection points. The Order calls for complete end-to-end solutions that will accommodate the full output of at least 4,770 MW of incremental offshore wind generation injected into New York City (Zone J) with all permitting and construction activities necessary to achieve an in-service date no later than January 1, 2033 (hereinafter the “NYC PPTN”).

Key References

NYISO NYC PPTN Solicitation:

- [NYC PPTN Solicitation](#)

NYISO NYC PPTN Technical Data:

- [See slide 71 for instructions to request CEII study data & Developer Guide](#)

NYISO Technical Conference Presentations:

- [New York City PPTN November 6 Technical Conference Presentation](#)
- [New York City PPTN December 7 Technical Conference Presentation](#)

Other NYC PPTN References:

- [PSC Order](#)
- [DPS/NYISO PSC Order Q&A Document](#)
- [NYISO FAQ \(dated November 6, 2023\)](#)
- [DPS PSC Order Q&A Document \(dated January 17, 2024\)](#)
- [DPS PSC Order Q&A Document \(dated February 14, 2024\)](#)
- [DPS Staff Letter to NYISO](#)

Planning Manuals:

- [Public Policy Transmission Planning Process Manual and Attachments B and C](#)
- [Transmission Expansion & Interconnection Manual](#)
- [Economic Planning Process Manual](#)

Planning Reports:

- [Long Island Offshore Wind Export Public Policy Transmission Planning Report](#)
- [AC Transmission Public Policy Planning Report](#)
- [Western NY Public Policy Planning Report](#)

Relevant Tariff Sections: <https://www.nyiso.com/regulatory-viewer>

- Section 22 – Transmission Interconnection Procedures
- Section 31.4 – Public Policy Transmission Planning Process

* *Capitalized terms that are not otherwise defined in this document shall have the meaning specified in Attachment Y of the OATT, and if not defined therein, in other sections of the OATT.*

Frequently Asked Questions (FAQs)

Viability & Sufficiency Assessment

1. Can a solution propose a multi-terminal HVDC design as part of its proposed Project?

Answer: The Public Policy Transmission Planning Process does not restrict the technology that may be included in project proposals to address the NYC PPTN. However, Developers should consult the definitions of Public Policy Transmission Project and Other Public Policy Project when developing a solution to the NYC PPTN. Regardless of the proposed technology, all submitted solutions are required to provide evidence that the proposed technology is commercially viable consistent with Sections 31.4.5.1.1 and 31.4.5.2.1 of the OATT and satisfies the viability and sufficiency requirements.

2. For a bi-pole HVDC transmission facility with cables that run in separate trenches, would the loss of only one pole be considered a N-1 event due to a cable failure? Or, would the NYISO consider a cable failure resulting in the loss of both poles be considered due to a fault on the connection between the poles inside the converter hall?

Answer: Loss of a single pole of a bi-pole facility and loss of a both poles of a bi-pole facility will be studied as per the NERC, NPCC and NYSRC criteria irrespective of the cause leading to the loss of the single or both poles of a bi-pole line. Please refer to Figure 2 of the Developer Technical Guidance document for more information.

3. For the New York State Reliability Council (NYSRC) performance requirement in Table B-2, post-contingency thermal rating of underground circuits, would the loss of transformers, bus ties, shunts, series reactors, or capacitor banks be considered “loss of transmission facilities”?

Answer: Underground cable circuits can be loaded to their STE ratings for the loss of components or facilities (other than loss of generation) provided that phase angle regulation is available to reduce the loading of the underground cable circuits to their LTE ratings within 15 minutes and not cause any other facility to be loaded beyond its LTE rating. Please refer to the NYSRC performance requirements and the Developer Technical Guidance Document.

4. What is the status of the second phase angle regulator (PAR) at Vinegar Hill in the power flow model provided for the NYC PPTN?

Answer: The second PAR at Vinegar Hill is operated in normally open position.

5. Can the Vinegar Hill PAR (DSS PAR 1 PSSE Bus 126560- 126561) be adjusted to reduce loading on underground circuits from STE rating (or above LTE rating) to LTE rating within 15 minutes?

Answer: The Vinegar Hill PAR is used as a radially connected distribution facility to balance loadings on the 138 kV/27 kV transformers that supply the Water Street 27 kV Distribution Area Substation. Vinegar Hill PAR should not be used for any transmission-related issues as it would unbalance loadings on the 138 kV/27 kV transformers that supply Water Street 27 kV Distribution Area Substation.

6. Can the Syosset to Shore Road 138 kV line proposed by Propel Alternate Solution 5 be modeled as a free-flowing line by bypassing the PAR, which was identified as a potential interconnection facility, controlling the Syosset-Shore Road 138 kV line in NYC PPTN baseline cases?

Answer: Since the Propel Alternate Solution 5 project identified the PAR as a potential interconnection facility which will be finally determined through the Facilities Study under the Transmission Interconnection Procedures, Developers may propose to bypass the PAR modeled on the Syosset to Shore Road 138 kV line, if needed to meet the Viability and the Sufficiency Assessment.

7. For purposes of the NYISO's Viability and Sufficiency Assessment, will loss of parallel circuits in a single duct bank be considered a P7 category event under NERC TPL standard?

Answer: The loss of parallel circuits in a single duct bank is not considered a P7 category event under the NERC TPL-001-5 standard.

8. For the steady state thermal N-1 and N-1-1 analysis, if a facility is already overloaded in the pre-project case (i.e., VSA baseline) by 120% and in the post-project case that facility becomes overloaded by 140%, are projects required to address the 20% overload to meet the sufficiency criteria?

Answer: Projects solutions are responsible to address significant increased flow on the overloaded facilities. Proposed projects are required to resolve the additional 20% of overload referenced in the above example. Developers should list and explain, if needed, the impact of the solution on the overloads identified in the VSA baseline case in their planning report as part of the project submittal.

9. Will the 300 MW wheel (flow requirement) from LIPA to Con Edison wheel-through contract be enforced under all contingency conditions?

Answer: The existing LIPA to Con Edison wheel-through contract will be enforced for analyses. However, flow on the tie lines between Zones J and K (other than the

901 and 903 lines which remain at 300 MW) can be optimized. The wheel-through contract will not be enforced for contingency conditions that result in loss of transmission elements along the Dunwoodie to Shore Road to Lake Success path.

Evaluation and Selection

The NYISO will evaluate any proposed Public Policy Transmission Projects that are eligible for selection using the metrics set forth in Section 31.4.8.1 of Attachment Y to the OATT. The following Questions and Answers provide further directional guidance to project evaluation and potential selection.

10. The Order identifying the NYC PPTN specifies that “scenarios representing up to 8,000 MW of incremental offshore wind generation injected into New York City should be used to evaluate the performance of proposed solutions.” Will the NYISO use a generic offshore wind generation scenario to evaluate up to 8,000 GW or will the NYISO use offshore wind generation scenarios that the developer includes in its proposal?

Answer: As required by the Order and further explained by the New York State Department of Public Service, a Public Policy Transmission Project must have a minimum of 4,770 MW of incremental offshore wind injected into New York City. Developers are required to identify the specific offshore points, as well as the associated facilities, to inject 4,770 MW of offshore wind into Zone J.

In addition to the proposed injection(s) described above, Developers may specify an offshore point(s) and onshore point(s) that can accommodate offshore wind generation injection(s) above 4,770 MW and up to 8,000 MW, along with the total amount of offshore wind generation injection for each point.

In evaluating the expandability of proposed Public Policy Transmission Projects, the NYISO will use those identified offshore and/or onshore points and the corresponding offshore wind generation injection amounts.

11. How will the escalation rate be utilized to develop the overnight cost estimate for Public Policy Transmission Projects?

Answer: Independent cost estimates will assume that all project costs occur in the same year that the estimates are prepared. Therefore, the NYISO will not apply an escalation rate in the development of the independent overnight cost estimates.

12. What data/information will the NYISO use to model the system beyond 2042 when it performs its evaluation over 20 years?

Answer: In its production cost model that will be used in the evaluation of proposed Public Policy Transmission Projects, the NYISO will use modeling data and

methodologies based upon the 2023-2042 System & Resource Outlook models as the starting point. Details on the 2023-2042 System & Resource Outlook models are available in the preliminary production cost model assumption matrix ([link](#)) and the capacity expansion model matrix ([link](#)). Developers are encouraged to follow the presentation and discussion of the 2023-2042 System & Resource Outlook study in the stakeholder process to stay up to date with model developments through study completion, which is targeted for the second quarter of 2024.

13. What offshore wind generation profiles will be used in the NYISO's production cost simulations for the purpose of evaluating and selecting the more efficient or cost-effective solution to the NYC PPTN?

Answer: In its production cost model that will be used in the evaluation of proposed Public Policy Transmission Projects, the NYISO will use modeling data and methodologies based upon the 2023-2042 System & Resource Outlook models as the starting point. The offshore wind generation profiles can be found at the following [link](#). Developers are encouraged to follow the presentation and discussion of the 2023-2042 System & Resource Outlook study in the stakeholder process to stay up to date with model developments through study completion, which is targeted for Q2 2024.

14. How will the substations be modeled in the production cost simulations? For instance, will a double-ring configuration be modeled as two buses or will they be collapsed into a single bus?

Answer: The production cost model that will be used in evaluating proposed Public Policy Transmission Projects will reflect the topology of the baseline case in addition to the modifications to the existing system to accommodate the proposed solution.

15. In production cost simulations, what applicable ratings will be used for proposed transmission lines under N-1 conditions?

Answer: The production cost model database that will be used evaluating proposed Public Policy Transmission Projects to address the NYC PPTN will use LTE ratings under N-1 conditions for proposed cables.

16. In the production cost simulations, what will be the curtailment order of downstate renewables, such as offshore wind generation and Champlain Hudson Power Express?

Answer: The curtailment order of downstate renewables is generally set by the Offshore Wind Renewable Energy Certificate (OREC) and/or Renewable Energy

Certificate (REC) prices for each project or resource type. This price is modeled as a negative bid price for a renewable resource, so resources with higher OREC/RECs will have lower bid prices. Please see the 2023-2042 System and Resource Outlook production cost model assumption matrix ([link](#)) for assumed REC prices.

17. Will increased or decreased curtailment of offshore wind generation connected to Zone K, Champlain Hudson Power Express, or upstate resources be considered when evaluating curtailment savings?

Answer: Yes, changes in curtailment throughout the New York Control Area (NYCA) and the dispatch of Champlain Hudson Power Express will be considered when evaluating various performance or other metrics.

18. How will the impact of an HVDC link that exceeds the largest single loss of source on the NYCA system of 1,310 MW on Operating Reserve be studied in the evaluation process?

Answer: The NYISO will evaluate the cost and system operation implications of projects that may require an increase in reserve requirements driven by a change to the largest single loss of source on the NYCA system. Please refer to the [March 21, 2024 ESPWG presentation](#) for more details on the evaluation.

19. Where will the 1,310 MW or higher single loss of source will be measured?

Answer: The largest loss of source determination will be measured at the onshore point of interconnection. Please refer to the [March 21, 2024 ESPWG presentation](#) for more details on the evaluation.

20. Will the NYISO evaluate a reduction in the New York City LCR based on proposed transmission additions?

Answer: If a proposed Public Policy Transmission Project impacts the LCR of one or more locality, the NYISO may consider and include an adjustment in simulations and analyses as part of its evaluation of solutions to the NYC PPTN.

21. If the NYISO performs an avoided capital cost benefits analysis based on increased transfer limits from Zone J to either Zones K or I, what cost assumptions for dispatchable emission free resource (DEFER) will the NYISO use?

Answer: The NYISO plans to reference the DEFER assumptions published in the 2023-2042 System & Resource Outlook, which can be found [here](#) as the starting point, if the avoided capital cost benefits are assessed.

22. How will the change in transfer capability between different zones due to the proposed Public Policy Transmission Projects be captured while studying the impact of the projects?

Answer: To the extent that a proposed project has a significant impact on the transfer capability between zones with the NYCA, the impact will be captured in zonal/interface-based models (e.g., capacity expansion model and resource adequacy models).