



Long Island Offshore Wind Export Public Policy Transmission Need

Supplemental FAQ

September 1, 2021

Introduction

On August 12, 2021, the NYISO solicited Public Policy Transmission Projects and Other Public Policy Projects to address the Long Island Offshore Wind Export Public Policy Transmission Need (LI PPTN) for evaluation in the NYISO's Public Policy Transmission Planning Process.

The NYISO held a Technical Conference with Developers and other interested parties on July 8, 2021, and issued a frequently-asked-questions (FAQ) document on August 11, 2021, that summarizes questions that were received after the Technical Conference. This document is a supplemental FAQ to address questions received since posting of the August 11 FAQ. Please refer to the following references which provide more detail on the topics related to these questions:

August 11, 2021, FAQ

<https://www.nyiso.com/documents/20142/22968753/LIPPTN-FAQ-08112021.pdf/9ea835b4-4343-be80-cdc2-c932a067e5cd>

LI PPTN Project Solicitation

<https://www.nyiso.com/documents/20142/22968753/Long-Island-Offshore-Wind-Export-Public-Policy-Transmission-Need-Project-Solicitation.pdf/51b8fdeb-1a66-2938-f116-38f1be486e0d>

Technical Conference Presentation:

<https://www.nyiso.com/documents/20142/22968753/LI-PPTN-TechConference.pdf/c9ab8cbb-9104-b145-3b43-d5b0de929114>

Case Assumptions

Q1. Will the renewable buildout assumptions in the Evaluation and Selection cases be the same as in the Viability & Sufficiency Analysis (VSA) cases?

NYISO Response:

For land-based renewable resources, the VSA cases used assumptions similar to the 2020 RNA “70 x 30” scenario, which were also similar to the assumptions used in the 2019 CARIS “70 x 30” scenario. In the Evaluation & Selection phase, the land-based renewable resource buildout assumptions will be updated mainly based on the assumptions being developed for various scenarios in the 2021-2040 System & Resource Outlook and updated if necessary. The offshore wind assumptions will be consistent with the VSA Baseline and Alternate Scenarios, but other offshore wind scenarios may be considered as well.

Q2. Can the schedule of the external tie lines with PJM and ISO-NE be adjusted in the base case or after a first level contingency? Similarly, can the schedules of the 901 and 903 Jamaica 138 kV tie lines with Con Edison be adjusted?

NYISO Response:

In the VSA, the schedules of the external ties lines will not be adjusted, even after first level contingency. The scheduled flows on the 901 and 903 lines can be adjusted in the base case or after the first level contingency, provided the schedule is not greater than 75% of the facility rating and at least 300 MW is scheduled into Jamaica (see Q10 of August 11, 2021, FAQ). However, NYISO will evaluate if any change on the 901 and 903 schedules in combination with the project results in additional reliability or operability concerns during the VSA and the evaluation and selection phases.

Contingency Analysis Criteria

Q3. Did NYISO use TARA’s Security Constrained Dispatch (SCD) in the Baseline Analysis?

NYISO Response:

Yes, the NYISO enabled certain SCD automated system adjustments when performing the analysis at N-0 and N-1 contingency levels. The options files have been provided to developers along with the baseline cases. Given the severity of constraints that SCD algorithms attempted to mitigate, the results could change with different SCD options. Developers may modify the SCD options to best optimize the results for their post-project cases. However, the SCD options must be consistent with the LI PPTN sufficiency criteria. See the August 11, 2021, FAQ for more details on allowable system adjustments.

Q4. Which contingencies should be included in the N-1-1 analysis?

NYISO Response:

VSA will consider NERC TPL and LIPA N-1-1 criteria for the Bulk Electric System (BES) facilities and NPCC and NYSRC N-1-1 criteria for the Bulk Power System (BPS) facilities. Please refer to the file

“TS2021_Yr_2031S_L1_PPTN_v0.con” for first level contingencies and “TS2021_Yr_2031S_L2_PPTN_v0.con” for second level contingencies.

Note, the provided contingency files contain contingencies, e.g., multiple element contingencies, for the second level which are applicable to BPS facilities, but not applicable for non-BPS facilities (including LIPA’s 138 kV system). For the purpose of meeting the sufficiency criteria, a developer may ignore any N-1-1 constraints that are beyond criteria. Developers may modify the auxiliary files the NYISO provided, specifically the N-1-1 exclude file, to change which facilities are monitored for different contingency types – provided that the analysis respects all applicable criteria.

Developers are reminded to account for contingency modifications related to system changes associated with their LI PPTN projects.

Q5. Should lines be secured to LTE ratings (Rate B) for N-1-1 analysis?

NYISO Response:

Yes, most elements should be secured to the LTE rating with notable exceptions contained in the exclude file. Con Edison’s N-1-1-0 criterion requires that certain facility loadings return to normal rating (Rate A), but this analysis will not be required as part of the VSA.

Q6. How will Con Edison’s N-1-1-0 criteria be used in the evaluation?

NYISO Response:

Con Edison’s N-1-1-0 planning criteria will not be considered under the sufficiency criteria in the VSA. N-1-1-0, along with all other applicable reliability criteria, will be evaluated in the interconnection process and considered in the evaluation and selection phase. To the extent possible, any Network Upgrade Facilities and cost estimates identified in the interconnection process will be incorporated in the evaluation and selection phase.

Q7. Is non-consequential load loss (i.e., load shedding that is not a direct consequence of a contingency event) allowed in the VSA?

NYISO Response:

No, load shedding will not be permissible to resolve any violations in VSA.

Q8. Can Barrett 138 kV contingencies be excluded given the anticipated Empire 2 Wind’s upgrades?

NYISO Response:

Certain identified overloads near Barrett 138 kV are expected to be resolved by the Empire Wind 2 upgrades. However, there is no indication that these future upgrades will affect the Barrett 138 kV contingency definitions. Therefore, these contingencies will be included in the VSA.

Q9. NYISO indicated that minimal output changes to renewables is possible based on inclusion in the “Default Inertia” subsystem. Does this mean that curtailment of Zone K solar is allowed in the VSA?

NYISO Response:

Curtailment of Zone J & K renewable resources, both solar and wind, is not allowed in the VSA. The “Default Inertia” subsystem allows power balancing following a loss of generation contingency to be spread across the entire Eastern Interconnection. The resulting minimal post-contingency generation changes are consistent with NYISO planning processes, but pre-contingency reduction of Zone J & K renewable resources is not allowed under the sufficiency criteria.

Q10. Is there any limit to the allowable amount of offshore wind curtailment allowed in the Alternate scenario?

NYISO Response:

No. Although curtailment is not allowed in the Baseline scenario with 3 GW of Zone K offshore wind, there is no such requirement for the Alternate scenario with 6 GW of Zone K offshore wind. The Alternate scenario, among other potential scenarios, will be used to evaluate and compare the PPTN projects’ ability for the system to export more than the minimum of 3 GW. All else being equal, a PPTN project that results in less curtailment in the Alternate scenario will perform better in the expandability and other metrics. Such project performance will be considered in the comprehensive evaluation of all categories of metrics to select the more efficient or cost-effective solution.

Sufficiency Criteria

Q11. Can a PPTN solution include an offshore transmission system which would connect to the offshore wind generator collector systems and divert some of the output from offshore wind farms from their respective points of interconnection (POIs)?

NYISO Response:

The NYISO would consider such a project provided that it meets all the sufficiency criteria, including at least one new intertie cable connecting Zone K and the rest of the NYCA. However, Developers should be aware that offshore wind generation feeders are typically considered Generator owner attachment facilities and are subject to FERC’s precedent on open access and priority rights interconnection customers’ interconnection facilities. Developers proposing to interconnect to a Generator owner’s attachment facility should consider also submitting any agreements, if applicable, for the use of the attachment facility pursuant to Section 31.4.5.1.4 of Attachment Y.

Q12. Are 138/69 kV and 138/34.5 kV transformers part of the sufficiency criteria?

NYISO Response:

None of the LIPA 138/69kV and 138/34.5kV transformers are classified as BES and therefore those transformers are excluded from the sufficiency criteria.

Q13. Do the Valley Stream to East Garden City 138 kV constraints need to be addressed in the VSA given the anticipated Empire Wind 2 upgrades?

NYISO Response:

Many of the overloads identified in the Baseline Assessment are driven entirely by the Empire Wind 2 farm pushing power from Valley Stream to East Garden City and are expected to be resolved by the Empire Wind 2 upgrades. These overloads that are specific to Empire Wind 2 can be excluded from the sufficiency criteria, similar to the treatment of the Barrett – Valley Stream and Barrett – New Bridge Rd 138 kV overloads identified in the Baseline Assessment.

However, the East Garden City – Valley Stream 138 kV lines are a part of the overall export path of offshore wind power from Long Island to the rest of the New York Control Area. There could be constraints on these lines that are not driven solely by Empire Wind 2. Developers are advised to not simply ignore all overloads on the East Garden City – Valley Stream 138 kV lines as there could be constraints identified in the VSA or in other scenarios in the evaluation and selection phase that are relevant to addressing the LI PPTN.

General Questions

Q14. Can NYISO provide the details to P5 (fault plus relay failure) contingencies?

NYISO Response:

LIPA, the facility owner, will provide a general description of the relay schemes to be shared with developers.

Q15. Can NYISO provide breaker-level diagrams of Zones I-K?

NYISO Response:

NYISO has provided NYISO's system one-line and breaker diagrams. For more detailed system information, you may request this directly from the respective TOs.

Q16. What level of detail is required from the PPTN Developer for the cost estimates of the upgrades to existing transmission facilities?

NYISO Response:

Developers are required to provide adequate detail for all facilities that are a part of their project, including upgrades to existing facilities, for NYISO to do a thorough evaluation of all metrics in the evaluation and selection. The data submission attachments outlined in Attachment C of the Public Policy Transmission Planning Manual, including cost estimate attachments C.4.1-C.4.4, are required for both new facilities and upgrades to existing facilities.

Note that the NYISO recently proposed tariff changes to provide a mechanism to implement the TO's right-of-first-refusal over upgrades to their existing transmission facilities. If those tariff changes are accepted by FERC, the NYISO would rely on its independent consultant's cost estimates for those facilities during the evaluation and selection phase.