



**Western New York
Public Policy Transmission Need Phase 2
FAQ**

January 31, 2017

Introduction

This frequently-asked-questions (FAQ) document summarizes questions received and answers provided by the NYISO with regard to the Western New York Public Policy Transmission Need (WNY PPTN) Phase 2 evaluation.

Key References

NYISO point of contact for the Public Policy Transmission Planning Process:

PublicPolicyPlanningMailbox@nyiso.com

NYISO point of contact for developer qualification:

DeveloperQualification@nyiso.com

Public Policy Transmission Planning Process Manual (PPTPP Manual) and attachments (Manuals > Planning):

http://www.nyiso.com/public/markets_operations/documents/manuals_guides/index.jsp

Project Solicitation:

http://www.nyiso.com/public/webdocs/markets_operations/services/planning/Planning_Studies/Public_Policy_Documents/Western_NY/Western_NY_PPTN_Solution_Solicitation_Letter_2015-11-01.aspx

Baseline Results Presentation:

http://www.nyiso.com/public/webdocs/markets_operations/services/planning/Planning_Studies/Public_Policy_Documents/Western_NY/Western_NY_PPTN_Baseline_ESPWG_2015-10-29.pdf

Baseline Results with series reactors bypassed:

http://www.nyiso.com/public/webdocs/markets_operations/services/planning/Planning_Studies/Public_Policy_Documents/Western_NY/Western_NY_PPTN_Baseline_Results_2015-10-27_SR-bypassed.xls

Baseline Results with series reactors in-service:

http://www.nyiso.com/public/webdocs/markets_operations/services/planning/Planning_Studies/Public_Policy_Documents/Western_NY/Western_NY_PPTN_Baseline_Results_2015-10-27_SR-in.xls

WNY PPTN Viability and Sufficiency Assessment report:

http://www.nyiso.com/public/webdocs/markets_operations/services/planning/Planning_Studies/Public_Policy_Documents/AC_Transmission_PPTN/NYISO_AC_Transmission_PPTN_VSA_Final_Report.pdf

January 2017 Updates

1. Can NYISO provide the assumption matrix for the Phase 2 database?

NYISO Response:

At the December 7, 2016 and January 24, 2017 ESPWG/TPAS meetings, NYISO presented the starting database, updates, and extensions for each database to be used in Phase 2 evaluation of the WNY PPTN. Attached are links to the meeting materials:

http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_espwg/meeting_materials/2016-12-07/WNY_PPTN_Ph2_Assumptions.pdf

http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_espwg/meeting_materials/2017-01-24/2_Updates_WNY_PPTN_Ph2_Assumptions.pdf

The starting database for production cost simulation is the 2016 CARIS Phase 2 database. Please refer to the linked presentation for detailed assumptions.

http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_espwg/meeting_materials/2016-07-05/CARIS%202%20Database.pdf

The starting databases for the power flow and resource adequacy databases are based on the RNA/CRP databases. Please refer to the below link for the reports containing detailed assumptions.

http://www.nyiso.com/public/markets_operations/services/planning/planning_studies/index.jsp

2. Will NYISO consider scenarios such as the following retirement scenarios?

- Somerset and Ginna in-service
- Somerset out of service and Ginna in-service
- Somerset and Ginna out of Service

NYISO Response:

NYISO will consider conducting scenario analyses if the NYISO believes they will reveal information useful to the selection process.

3. The baseline assumes that national carbon pricing will begin in 2024. How will NYISO address the uncertainty related to carbon pricing in light of the current political environment?

NYISO Response:

The baseline carbon pricing is consistent with that used in the most recent 2016 CARIS Phase 2 database. NYISO will consider undertaking carbon pricing scenario analysis with information available, including pricing through New York's participation in the Regional Greenhouse Gas Initiative ("RGGI"). As described in Section 6.1 of the PPTPP Manual, the NYISO "may develop scenarios which modify assumptions to evaluate the proposed Public Policy Transmission Projects according to the selection metrics and the impact on NYISO wholesale electricity markets."

4. What are the assumptions regarding nuclear units in New York, given that the study will model conditions out to 2035? If they are assumed retired at the end of their licenses, what replaces them, if anything? Please confirm the following units will be retired in the MAPS analysis: Fitzpatrick, Ginna, and Dunkirk 2, 3, and 4.

NYISO Response:

Assumptions for nuclear units in the baseline are the same as those used in the starting databases. The baseline MAPS analysis does not assume that nuclear units will deactivate at the end of their licenses. In the baseline MAPS database, Fitzpatrick, Ginna, and Dunkirk 2, 3, and 4 are all modeled out of service based upon their retirement notifications and related agreements and information consistent with the 2016 CARIS Phase 2 database. NYISO will consider conducting scenario analyses regarding generator status. As described in Section 6.1 of the PPTPP Manual, the NYISO “may develop scenarios which modify assumptions to evaluate the proposed Public Policy Transmission Projects according to the selection metrics and the impact on NYISO wholesale electricity markets.”

5. What assumptions are being made about in-state renewable generation additions to comply with the Clean Energy Standard (CES), if any?

NYISO Response:

The baseline load forecast reflects the forecasted impact of behind-the-meter Solar Photovoltaic installations. The forecast methodology is consistent with that used in the 2016 Gold Book. No additional renewable resources are assumed in the baseline to comply with the CES. The NYISO will consider conducting scenario analyses if the NYISO believes they will reveal information useful to the selection process.

6. Can NYISO provide more information about the generation assumptions for other regions, particularly for Ontario and PJM? What resources are assumed to replace the Pickering and maybe some other nuclear units in Ontario? What resources are assumed to replace the significant coal retirement in PJM?

NYISO Response:

External resources are modeled consistent with the 2016 CARIS Phase 2 database. NYISO will post a summary of the generation assumptions for the external regions on the NYISO Western NY Public Policy Transmission Need website. Specifically, Pickering is modeled as in service. PJM coal retirements are reflected in the model. Units from the PJM interconnection process were used in the CARIS model to maintain at least a 15% reserve margin for PJM.

7. Why does the PJM load forecast rise substantially in the NYISO’s analysis?

NYISO Response:

The load forecast for PJM is from the “PJM Load Forecast Report” published in January 2016. On Page 94, the report shows the PJM RTO annual net energy forecast. The forecast used includes the reduction that PJM expects due to energy efficiency.

<http://www.pjm.com/~media/library/reports-notice/load-forecast/2016-load-report.ashx>

8. What is the source or methodology to forecast the natural gas price? What natural gas price will be used for different parts of NY, PJM, ISO-NE and Ontario? Will the NYISO conduct any scenario analysis on natural gas prices?

NYISO Response:

The natural gas price was forecasted consistent with the CARIS methodology. See the following link:

http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_espwg/meeting_materials/2015-06-11/Natural%20Gas%20Price%20Forecast%20Methodology.pdf

Slide 9 of CARIS presentation linked below provides the natural gas region mapping.

http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_espwg/meeting_materials/2016-07-05/CARIS%20%20Database.pdf

NYISO will consider scenarios to capture the impact of natural gas prices on WNY PPTN Phase 2 analyses.

9. What is the peak load and annual energy usage in the MAPS model outside of New York? Can such data be provided in the same format as Table C-6 in the 2015 CARIS Phase 1 report?

NYISO Response:

The PJM forecast is from the below linked report.

<http://www.pjm.com/~media/library/reports-notice/load-forecast/2016-load-report.ashx>

The ISO-NE forecast is from the below linked report.

https://www.iso-ne.com/static-assets/documents/2016/04/isone_fcst_data_2016.xls

NYISO cannot provide the IESO forecast because it is proprietary information.

10. Can NYISO provide the hourly profiles used to model wind and solar in CARIS 2?

NYISO Response:

NYISO cannot provide unit level profiles for solar and wind units because that would disclose unit-specific Confidential Information. However, the NYISO will post the zonal solar profiles for distributed solar resources that were used in the 2016 CARIS Phase 2 on the NYISO Western NY Public Policy Transmission Need website.

11. Can NYISO provide the monthly hydroelectric energy used in CARIS 2 outside of New York? Can NYISO provide the energy and ancillary service availability for the Niagara plant?

NYISO Response:

NYISO cannot provide monthly hydroelectric energy data because NYISO uses proprietary information from third party sources. NYISO cannot disclose energy and ancillary service availability for Niagara plant because it is unit-specific Confidential Information.

12. Can NYISO provide the outage schedules used in CARIS 2? If outage schedules cannot be provided, can you provide us with generator outage rates by unit type?

NYISO Response:

NYISO cannot release the generator-specific outage schedules used in CARIS 2 database because they are Confidential Information. Generator forced outage rates by unit type are available from other sources, such as the NERC GADS database.

13. Can NYISO provide the seasonal import and export limits between NYISO and adjacent regions used in CARIS 2, and updates to these limits when Western New York transmissions projects are in service?

NYISO Response:

The import and export limits used in CARIS database are consistent with those used in the NYISO energy market. Please see the following link:

http://www.nyiso.com/public/markets_operations/market_data/power_grid_data/index.jsp

NYISO will report the impact of the Western NY transmission projects on these limits when the results are available.

14. Can NYISO provide a list of the transmission constraints (including monitored facility and contingent element combinations, nomograms, and interfaces) modeled in CARIS 2?

NYISO Response:

The interface limits used by MAPS database are available at below link

http://www.nyiso.com/public/markets_operations/market_data/power_grid_data/index.jsp

The requested contingency element details are Critical Energy Infrastructure Information ("CEII"). To obtain CEII, the requestors should submit CEII/NDA form to the NYISO.

The nomograms in the MAPS database contain Confidential Information and proprietary information and therefore cannot be provided.

15. How will the Packard-Huntley series reactors be modeled in the MAPS analysis?

NYISO Response:

The series reactors on Packard – Huntley 230kV lines will be modeled in-service or bypassed depending on the status specified in each project submittal.

16. At the December 7, 2016 ESPWG meeting, NYISO presented that the power flow cases used for transfer analysis is based on the 2014 CRP database. How will the NYISO consider subsequent updates to the power flow?

NYISO Response:

The most recent power flow cases that were available when NYISO started the WNY PPTN process in 2015 were the cases from the 2014 CRP database. Several updates, including the series reactors on Packard to Huntley 230kV lines, were made to the 2014 CRP power flow cases. The Viability and Sufficiency Assessment (VSA) was performed based on the updated power flow cases.

In order to maintain consistency for the same type of analysis as much as possible, WNY PPTN Phase 2 baseline transfer analysis will use the same power flow cases used in VSA with two additional updates. First, the terminal upgrades on Stolle Road – Gardenville 230kV line #66 will be included, as they have been already put in service and will impact the Phase 2 analysis significantly. Second, the LTP related to the Gardenville – Depew 115kV line #54 will be included, as it is required to be addressed by the PSC Order.

NYISO will consider performing a scenario analysis to use the most recent power flow cases to evaluate the impact on selection. As described in Section 6.1 of the PPTPP Manual, the NYISO “may develop scenarios which modify assumptions to evaluate the proposed Public Policy Transmission Projects according to the selection metrics and the impact on NYISO wholesale electricity markets.”

17. As the non-BPTF upgrades recommended by the NYISO are not common to all proposals, please clarify whether the costs of these non-BPTF upgrades are to be added to the developers’ original proposed costs estimates or if the NYISO will not add the cost of the upgrades to the original project cost.

NYISO Response:

The NYISO described in its January 24, 2017 ESPWG presentation how it will model the three recommended non-BPTF upgrades on lines #54, #193, and #194 in evaluating Public Policy Transmission Projects.

http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_espwg/meeting_materials/2017-01-24/2_Updates_WNY_PPTN_Ph2_Assumptions.pdf

The three non-BPTF upgrades recommended in the WNY PPTN Viability and Sufficiency Assessment will be modeled the same across all the viable and sufficient projects. The NYISO will implement the NYPSC’s directive that the costs of these non-BPTF upgrades not be a distinguishing factor.

18. Will NYISO provide developers more details around the non-BPTF upgrades (e.g. IDEV files, ratings changes, etc.) so that developers can assess the impacts to their overall proposals?

NYISO Response:

Yes; NYISO will provide details of the recommended non-BPTF upgrades once they are available from National Grid.

19. In addition, if a proposed solution requires unique additional non-BPTF and/or BPTF upgrades (not common to all proposals), please confirm that the NYISO will add the corresponding costs and schedule impact.

NYISO Response:

If an identified project requires upgrades, other than those to meet the non-BPTF overloads identified in the PSC's order, to meet interconnection requirements, the NYISO will consider those projects and the associated costs in making its selection.

20. Does the NYISO intend to include the assessment work being performed in the interconnection process required for the Western New York PPTN proposals, with the reliability and economic analyses in the Phase 2 process of the Western New York PPTN? If so, how will that be incorporated?

NYISO Response:

The NYISO's selection process will consider the status and any available results of the interconnection studies. See OATT Attachment Y Section 31.4.8. Developers of proposed solutions to the WNY PPTN must demonstrate that they have an executed System Impact Study ("SIS") Agreement or System Reliability Impact Study ("SRIS") Agreement in order for the NYISO to be able to consider their projects in the evaluation and selection phase of the Public Policy Transmission Planning Process. Please see the following link:

http://www.nyiso.com/public/webdocs/markets_operations/services/planning/Planning_Studies/Public_Policy_Documents/Public_Policy_Notices/Western%20NY%20Extension%20-%20Developer%20Notice%20SIS-SRIS%20Agreement.pdf

Developers are strongly encouraged to proceed diligently through the interconnection process.

21. If the NYISO intends to replace the set of non-BPTF upgrades proposed by developers, if any, with the three non-BPTF upgrades proposed by NYISO:
- a. Will NYISO reassess all proposals against the viability and sufficiency criteria established for the Western New York PPTN process?
 - b. Will projects not found to be viable and sufficient by the NYISO be reassessed with the new non-BPTF upgrades?
 - c. It would appear that the Western New York PPTN projects under review in the interconnection process, which may include non-BPTF upgrades, may be different than the projects that are under evaluation in the Public Policy Transmission Planning Process. What is the benefit of continuing with the interconnection study if the projects

being studied in the interconnection process could be different from the project that is being considered in the Western New York PPTN solicitation?

NYISO Response:

The NYISO has set forth in its January 24, 2017 ESPWG presentation how it will model the three recommended non-BPTF upgrades identified by the NYPSC in evaluating Public Policy Transmission Projects.

http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_espwg/meeting_materials/2017-01-24/2_Updates_WNY_PPTN_Ph2_Assumptions.pdf

NYISO will not revisit the WNY PPTN Viability and Sufficiency Assessment, which is based on whether the proposed projects address all the BPTF violations.

The NYISO expects the developers to have the same project components in both Public Policy Transmission Planning Process and the interconnection process.

22. Do developers have opportunities to update the project design without changing the electrical characteristics? Can developers update the cost estimates and schedules?

NYISO Response:

No; the NYISO will consider the project design, including cost estimates and schedules, provided by Developers in response to the NYISO's November 1, 2015 request for solutions. In accordance with Section 31.4.4.3.1 of the NYISO OATT, Developers were required to submit all project information within the 60 days of the NYISO request for solutions to a Public Policy Transmission Need. If NYISO deems necessary, NYISO may request additional project information in accordance with OATT Att. Y Section 31.4.4.3.3. NYISO's independent consultants will consider the information submitted by Developers and the NYISO's own updated information to develop an independent estimate of each project's cost and schedule.

23. Will NYISO's independent consultants assess each Developer's history of on-time and on-budget performance as part of its review of cost?

NYISO Response:

NYISO's independent consultants will review all the information submitted by the Developers and provide independent cost estimates for each project. The NYISO will consider the accuracy of the cost estimates of the projects it received, and all other information available to the NYISO, including Developers' qualifications.

24. Will NYISO consider cost containment in Western NY PPTN? How will NYISO consider it?

NYISO Response:

NYISO will not consider cost containment in selection of more efficient or cost-effective Public Policy Transmission Project because such consideration is not provided for in its tariffs. OATT Attachment Y Section 31.4.8.2 states that "Actual project cost recovery, including any issues related to cost recovery and project cost overruns, will be submitted to and decided by the Commission."

25. Please provide an update regarding the timing of the evaluation process, including when you expect NYISO to complete its evaluation. To the extent possible, can NYISO please also include a schedule or the expected timing for any later stage approval steps involving the NYISO Board, NYDPS, the NYPSC, and any other applicable parties?

NYISO Response:

NYISO public policy planning team and our independent consultants are working diligently and are committed to delivering quality results as soon as possible. If work proceeds as anticipated, NYISO expects to deliver the draft Public Policy Transmission Planning Report to stakeholders at TPAS and ESPWG (without revealing Confidential Information) in mid-2017.

Pursuant to OATT Attachment Y Section 31.4.11.1, "the draft report shall be submitted to both TPAS and the ESPWG for review and comment. Concurrently, the draft report will be provided to the Market Monitoring Unit for its review and consideration. The Market Monitoring Unit's evaluation will be provided to the Management Committee prior to the Management Committee's advisory vote. Following completion of that review, the draft report reflecting the revisions resulting from the TPAS and ESPWG review shall be forwarded to the Business Issues Committee and the Management Committee for discussion and an advisory vote." Following the Management Committee's vote, the draft report will be forwarded to the NYISO Board for its review and action. See OATT Attachment Y Section 31.4.11.2.

26. Will NYISO be issuing a preliminary report or analysis of each proposal for each Developer to review prior to NYISO selecting the winning project? Can NYISO please provide a schedule for the issuance of such preliminary reports or initial analyses, including any review and comment period?

NYISO Response:

NYISO will provide each Developer the opportunity to review the draft analysis for their own project prior to posting the analysis to the ESPWG/TPAS.

27. What's the role of the NYDPS in the evaluation process? Please explain how you anticipate incorporating the input of the NYDPS.

NYISO Response:

OATT Attachment Y Section 31.4.8.1 states that “In determining which of the eligible proposed regulated Public Policy Transmission Projects is the more efficient or cost effective solution to satisfy a Public Policy Transmission Need, the ISO will consider, and will consult with the NYDPS regarding, the metrics set forth below in this Section 31.4.8.1 and rank each proposed project based on the quality of its satisfaction of these metrics.” OATT Attachment Y Section 31.4.11 states that “The draft Public Policy Transmission Planning Report will reflect any input from the NYDPS.” Accordingly, the NYISO will share the draft evaluation and selection report with the members of the Department of Public Service staff for their feedback.

28. Can NYISO provide any additional details regarding how each of the evaluation metrics will be weighed? In other words, will some metrics be given greater weight than others or will they all be valued equally?

NYISO Response:

As described in Section 6.1 of the PPTPP Manual, “the NYISO’s selection of the more efficient or cost effective Public Policy Transmission Project will be based on the totality of its evaluation of the eligible Public Policy Transmission Projects using the metrics set forth in Section 31.4.8.1 of Attachment Y based on the project information provided by the Developer . . . and all other information available to the NYISO.” There are no formulaic rates or weighting factors to be used in the selection process. NYISO will consider each project’s total performance under all of the metrics defined by the Tariff, and NYISO will rank each project based on the quality of its satisfaction of the metrics. The Public Policy Transmission Planning Report will describe the basis for the overall ranking of the projects and will specify why the highest ranked project was selected over others.

29. With respect to Cost per MW, NYISO has said it will use the incremental Ontario Import capability from each project. Is the baseline Ontario Import capability in the base case zero, or some other value? Under what conditions is the Ontario Import capacity for the project defined, *i.e.* Dispatch 1, Dispatch 2 or the higher of Dispatch 1 or Dispatch 2?

NYISO Response:

For the purpose of calculating Cost per MW, the starting point of the incremental Ontario import capability is zero as described in the previous FAQ document published on December 15, 2015. NYISO will consider the Ontario import capability under both the Niagara Dispatch 1 and 2.

30. Given that certain Western New York PPTN proposals may be affected by the proposed set of non-BPTF upgrades, will NYISO give developers an opportunity to revise their original Western New York PPTN proposals?

NYISO Response:

The NYISO does not agree with the premise that any of the Western New York PPTN proposals are adversely affected by the proposed set of non-BPTF upgrades. In accordance with Section 31.4.4.3.1

of the NYISO OATT, Developers were required to submit all project information within 60 days of the NYISO request for solutions to a Public Policy Transmission Need.

31. Will any consideration be given to proposals that meet in part or in full the transmission security violations that NYISO noted as “beyond criteria”? If so, how will this be factored into the proposal selection?

NYISO Response:

Yes, the NYISO will consider the full incremental transfer limits calculated for each project in making its selection.