

M271: Coordinated Grid Planning Process Support Project 2023 Finding Summary

Yachi Lin Director, System Planning

ESPWG/TPAS

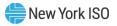
December 19, 2023

Business Need for the Project M271

Alignment of New York's Coordinated Grid Planning Process ("CGPP") with the NYISO's Comprehensive System Planning Process to coordinate for the New York Control Area and to facilitate achievement of the Climate Leadership and Community Protection Act ("CLCPA")

Such alignment includes, but not limited to:

- consideration of resource availability to support the CGPP;
- expansion of NYISO's tariff and manuals, if applicable; and
- utilization of NYISO databases, as applicable



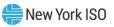
M271: CGPP Support Project

2023 project milestone: Issue Discovery

- Identify resources and process changes required to assist the state agencies and Utilities to perform the CGPP
- Project Timeline
 - Kickoff: October 24, 2023 ESPWG (completed)
 - Preliminary findings: November 21, 2023 ESPWG (completed)
 - Final presentation: December 19, 2023 ESPWG (today)

2024 project milestone: Define Study

- Adjust project scope, if needed, to accommodate changes to the CGPP from the Utilities' upcoming filing in mid-2024, which is required by the New York State Public Service Commission ("PSC") to reduce each cycle of the CGPP to two years
- Propose tariff and manual revisions to address the changes if needed



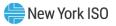
Notes

- NYISO continues to discuss with DPS, NYSERDA, and the Utilities in detailing NYISO's scope and process required to provide support for the CGPP.
 - The preliminary findings in these materials are based on the August 17, 2023 PSC order approving the CGPP process with modifications
 - In that order, the PSC directed the Utilities to collaborate with DPS, NYSERDA, and NYISO to reduce each CGPP cycle from three years to two years in order to achieve efficiency and to better align with the NYISO's two-year cycle.
- The resource estimates are estimated based on past project experience and assumes the full-time employee ("FTE") equivalents that are immediately available to contribute. The actual resource requirements will likely above the initial estimates
- Adjustment of the NYISO resourcing needs will be required in the future and will depend on any changes accepted by the PSC
- The CGPP timeline in the next stage is obtained from the DPS website dedicated to the Energy Policy Planning Advisory Council ("EPPAC"), available at: <u>coordinated-grid-planning-process-calendar.pdf (ny.gov)</u>



Summary of NYISO Process Coordination with CGPP

- Coordination with CGPP will be done through the NYISO's Economic Planning Process (i.e., through Requested Economic Planning Studies)
- Estimated tariff change: none
- Expected manual change: not expected at this stage but could consider in later cycles



Summary of Estimated Additional Resource Need Identified in 2023 for CGPP

Energy Policy Planning Advisory Council

- 1 FTE with diverse knowledge on system planning and market and grid operations
- Headcount allocated starting in 2024 for System & Resource Planning (SRP)

Stage 1: Data Collection and Determination of Scenarios

- 2–3 FTEs with knowledge and expertise in capacity expansion and production cost simulation
- SRP resource need starts in 2024, and the cost of these positions can be partially funded by revenue from Requested Economic Planning Studies

Stage 2: Network Model Development

- 3-4 FTEs with knowledge and expertise in transmission security model development and analysis as well as demand forecasting and analysis
- SRP resource need starts in 2027, and the cost of these positions can be partially funded by revenue from Requested Economic Planning Studies

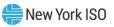


Summary of Estimated Additional Resource Need Identified in 2023 for CGPP

- Stage 3: Local Assessment N/A
- Stage 4: Review of Preferred Solutions N/A
- Stage 5: Least Cost Planning Assessment
 - 2–3 FTEs with diverse knowledge on system planning and market and grid operations
 - SRP resource need starts in 2025, and the cost of these positions can be partially funded by revenue from Requested Economic Planning Studies

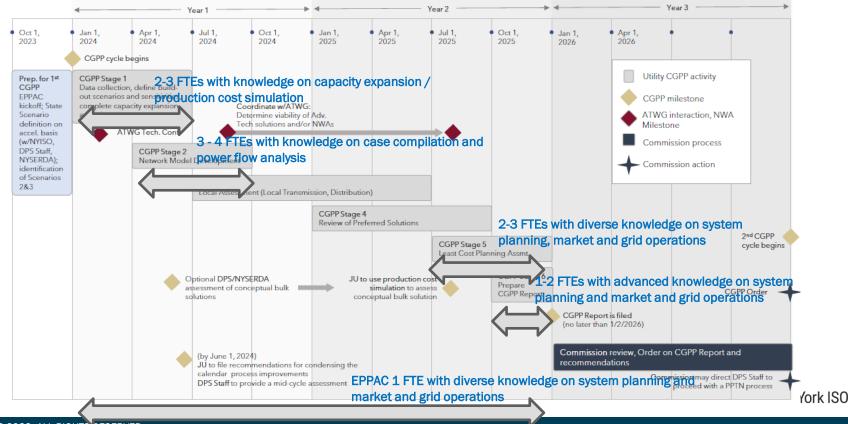
Stage 6: Least Cost Plan Report

- 1-2 FTEs with advanced knowledge on system planning and market and grid operations
- SRP resource need starts in 2025, and the cost of these positions can be partially funded by revenue from Requested Economic Planning Studies



2023 Estimated Resource Needs

CGPP Timeline (per Aug. 17, 2023 Order)



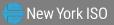
Next Steps

- Carry out identified tasks
- Continue collaboration with DPS/NYSERDA/Utilities on CGPP



Questions, Comments, & Feedback?

Email additional feedback to: YLin@nyiso.com



© COPYRIGHT NYISO 2022. ALL RIGHTS RESERVED.

Our Mission & Vision

 \checkmark

Mission

Ensure power system reliability and competitive markets for New York in a clean energy future



Vision

Working together with stakeholders to build the cleanest, most reliable electric system in the nation



Appendix: Anticipated NYISO Participation in CGPP by Stages

For more details, please see <u>ESPWG</u> presentation on Nov. 21, 2023



COPYRIGHT NYISO 2022. ALL RIGHTS RESERVED.

Energy Policy Planning Advisory Council: Anticipated NYISO Participation

Preliminarily Identified Tasks for the NYISO:

- Enhance collaboration of local transmission and distribution planning process and NYISO's planning processes throughout all stages
- Participate in EPPAC meetings and provide technical feedback as a member based on NYISO
 processes
- Provide feedback to other NYISO processes based on CGPP progress to facilitate alignment
- Recommend enhancements to the CGPP, including study methodology, lessons learned, and process improvement
- Estimated labor: collectively 1 FTE among NYISO efforts, critical in Stage 1, 5, and
 6
- Estimated tariff change: not expected
- Expected manual change: not expected

Stage 1 Anticipated NYISO Participation

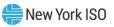
Preliminarily Identified Tasks:

- Provide feedback on the selection of appropriate study scenarios as a member of the EPPAC
- Develop the capacity expansion model for the "State Scenario" based on the assumptions received from DPS staff and the EPPAC
- Conduct capacity expansion modeling assessment for the State Scenario
- Following the determination of the remaining two scenarios by the EPPAC, develop and assess the capacity expansion models for these as well
- Conduct sensitivities of capacity expansion modeling assessment
- NYISO Planning process: Economic Planning Process (i.e., through the Requested Economic Planning Studies)
- Estimated tariff change: none
- Expected manual change: not expected at this stage, could consider in later cycles after Utilities file the updated plan
- Estimated labor: 2 3 additional FTEs during this stage (6-9 months) for the first cycle, and then beginning of 2027 for the second cycle



Stage 2 Anticipated NYISO Participation

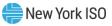
- Estimated Duration for the first CGPP cycle: Apr. 1, 2024 Sep. 30, 2024
- Preliminarily Identified Tasks for the NYISO : In total, 36 steady state cases and three short circuit cases would need to be developed
 - Utilities would hire a consultant to complete this stage in the first cycle of CGPP, and
 - NYISO would develop the cases after initial round if resources allow
- NYISO Planning process: System Modeling and Demand Forecasting and Analysis (i.e., through Requested Economic Planning Studies)
- Estimated labor: additional 3 4 FTEs for Stage 2 starting in 2027 (6 months)
- Estimated tariff change: none
- Estimated manual change: none is required but may be considered for better alignment with existing NYISO processes



Stage 3: Local Assessment

Each of the Utilities would evaluate conditions within its service territory to determine whether LT&D system upgrades are necessary to accommodate the integration of distributed energy resources ("DERs") and utility-scale generation resources included in the build-out scenarios. Under this step, the Utilities will also include headroom assessments and consider the sufficiency of advanced technologies and non-wires alternatives to address the identified CLCPA needs.

- Estimated duration for the first cycle: Jul. 1, 2024 Jun. 30, 2025
- Preliminarily Identified Tasks for the NYISO: None identified
- Subsequent rounds of the CGPP also have not identified tasks for the NYISO based on the current discussion



Stage 4: Review of Preferred Solutions

The Utilities will assess the aggregate impact of the LT&D upgrades identified in Stage 3 by including them as a portfolio of solutions in the database. The Utilities then will conduct a "Synergy Assessment" to qualitatively review the entire portfolio of solutions to identify potential interactions or conflicts and to made adjustment in the event of negative interactions. The power flow and short circuit cases for each scenario are then updated with the projects identified in the synergy assessment and statewide system impact review (i.e., power flow and short circuit analysis) to confirm that the inclusion of these projects does not result in any material adverse impacts on neighboring systems or the bulk transmission system.

- Estimated duration for the first cycle: Jan. 1, 2025 Sep. 30, 2025
- Preliminarily Identified Tasks for the NYISO: None identified
- Subsequent rounds of the CGPP also have no identified tasks for the NYISO



Stage 5 Anticipated NYISO Participation

Preliminarily Identified Tasks:

- Provide production simulation analysis of the State Scenario along with the capacity expansion planning analysis to the Utilities to help quantify the economic tradeoffs and deliverability benefits
- Conduct capacity expansion for post-project system conditions of the three scenarios and assess the results
- Assist the Utilities to identify the capacity expansion benefits due to the recommended system expansion
- NYISO Planning process: Economic Planning Process (i.e., through Requested Economic Planning Studies)
- Estimated tariff change: none
- Expected manual change: not expected at this stage but could consider in later cycles
- Estimated labor: on average 2–3 FTEs during this stage during the second half of 2025 for the first cycle



Stage 6 Anticipated NYISO Participation

Estimated duration for the first CGPP cycle: Oct. 1, 2025 - Dec. 31, 2025

• NYISO's participation:

- Review the report and provide feedback as an EPPAC member, as well as provide feedback on lessons learned
- Approximately 1–2 FTEs during this stage (3 months), collectively among all NYISO efforts



Discussion: Alternative Bulk Solution

"CGPP should produce information about potential PPTNs at the same time that it delivers proposals to the Commission for local transmission solutions. A process designed in this way would allow the Commission to consider the full scope of system needs and to determine, on an informed basis, whether to declare a public policy need and trigger a NYISO solicitation." (page 30, Aug. 17, 2023 PSC Order)

- The NYISO is in discussions with DPS, NYSERDA, and Utilities to understand how the CGPP will produce information about potential PPTNs and how the scope will be developed in the overall process.
- The additional resources that the NYISO may require and timeline is not included in today's materials

