

# NYISO System & Resource Planning Status Report

## April 28, 2023

### Comprehensive System Planning Process (CSPP):

#### Reliability Planning Process:

- The NYISO commenced the 2022 Reliability Needs Assessment (“RNA”) in April with completion targeted for November 2022. The final RNA report was presented to OC and MC at their October meetings with both groups recommending Board approval. The Board reviewed and approved the RNA at their November 2022 meeting. The final 2022 RNA and companion datasheet are now posted at: <https://www.nyiso.com/library>. (Current)
  - The margin to maintain reliability over the next ten years could be eliminated based upon likely changes in planned system conditions. However, this RNA finds no long-term actionable reliability needs for the New York State Bulk Power Transmission Facilities as planned from 2026 through 2032 for assumed system demand and with the assumed planned projects meeting their proposed in-service dates.
  - New York City reliability margins are very tight decreasing to approximately 50 MW by 2025 primarily due to the planned unavailability of simple cycle combustion turbines to comply with the DEC’s Peaker Rule. The reliability of the grid is heavily reliant on the timely completion of planned transmission projects, chiefly Champlain Hudson Power Express (CHPE). Increased demand, significant delays in projects, or additional generator deactivations could all cause deficiencies in New York City. Some generation affected by the DEC Peaker Rule may need to remain in service until CHPE or other permanent solutions are completed to maintain a reliable grid.
  - Demand forecast uncertainty or potential heatwaves of various degrees pose risks throughout the next ten years, especially in 2025. In fact, the long-term demand forecast for New York City, to be updated in early 2023, is expected to increase due to strong commercial and residential growth along with increased electrification of transportation and home appliances.
  - A winter reliability scenario was included in the RNA and found that if at-risk generation (*i.e.*, approximately 6,300 MW of existing gas-fueled generation) is unavailable for December through February in winter 2031-2032, reliability would be diminished but still within the loss-of-load-expectation criterion. However, this gas shortage condition would not meet statewide system reliability margins based on deterministic transmission security design criteria as early as winter 2031-32 for expected winter weather conditions. Under cold-snap conditions (reflective of a 1-in-10 year or 90/10 load forecast) the statewide system margins become deficient in winter 2030-31.
- The NYISO commenced the 2023-2032 Comprehensive Reliability Plan (“CRP”) with completion targeted for December 2023. While the system margins were very low, there were no Reliability Needs identified in the 2022 RNA, therefore a solicitation for solutions was not necessary at the time. The CRP will include discussions and analysis of the transition

to the grid of the future. **The NYISO initiated the discussions with ESPWG/TPAS in April with the CRP Key Topics presentation. (Updated)**

- **The 2023 Quarter 1 Short-Term Assessment of Reliability (“STAR”) was issued April 14, 2023 and did not identify any needs. The 2023 Quarter 1 STAR included an informational scenario evaluating the impact of an increased load forecast in New York City on the transmission security margin. Subsequent to the start of the 2023 Quarter 1 STAR, the NYISO presented updated demand forecasts that will be published in the 2023 Gold Book. Based on the findings of the informational scenario and the load forecast updates to be published in the 2023 Gold Book, it is anticipated that the 2023 Quarter 2 STAR will identify reliability needs starting in summer 2025. The 2023 Quarter 2 STAR commenced on April 15, 2023 and will be issued by July 14, 2023. (Updated)**

### **Economic Planning Process:**

- The NYISO published the final [2021-2040 System & Resource Outlook](#) report on September 22, 2022. The scope of the 2021-2040 System & Resource Outlook included development of advanced planning models to simulate 20-years of power system and energy market performance, and presentation of analytical findings through a comprehensive report. The Outlook has identified numerous transmission needs throughout New York State driven by public policy and economics. (Current)
- Some of the major findings of the Outlook include:
  - An estimated 20 GW of new renewable generation needed for 70% by 2030 goal
  - Total installed capacity must triple for 100% by 2040 Goal. At least 95 GW of new generation projects and/or modifications to existing plants will be needed.
  - As more wind, solar, and storage plants are added to the grid, Dispatchable Emission-Free Resources (DEFERs) must be developed and added to the system at scale to reliably serve demand when intermittent generation is unavailable.
  - Renewable generation pockets occur throughout the system as new renewable projects are added. The pockets result in local transmission congestion and renewable curtailment, which inhibit policy achievement. Four pockets will particularly benefit from transmission expansion. The Finger Lakes (Z1), Southern Tier (Z2), Watertown (X3), and Long Island.
- The 2023-2042 System & Resource Outlook will begin in Quarter 2, 2023. (Current)

### **Public Policy Transmission Planning Process:**

- The selected projects for the AC Transmission Public Policy Transmission Needs are a joint proposal by LS Power Grid New York and the New York Power Authority (NYPA) for Segment A (Central East), and a joint proposal by National Grid and New York Transco for Segment B (UPNY/SENY). Construction commenced on both projects in February 2021, with project components entering service in phases. The projects are targeting to fully commence service in December 2023. (Current)
- On March 18, 2021, the PSC issued an order finding that the state Climate Leadership and Community Protection Act (CLCPA) constitutes a Public Policy Requirement driving the need for:

- Adding at least one bulk transmission intertie cable to increase the export capability of the LIPA-Con Edison interface, which connects NYISO’s Zone K to Zones I and J, to ensure that the full output from at least 3,000 MW of offshore wind is deliverable from Long Island to the rest of the state; and
- Upgrading associated local transmission facilities to accompany the expansion of the proposed offshore export capability.
- Following completion of baseline and scenario assessments and cases, the NYISO issued the project solicitation in August 2021. The NYISO is evaluating 16 viable and sufficient transmission projects for efficiency or cost-effectiveness. Stakeholder presentations began in February and are expected to continue through an MC advisory vote on the report in May. The NYISO Board of Directors may then select the more efficient or cost-effective transmission solution to meet the Public Policy Transmission Need. (Current)
- The 2022-2023 cycle of the Public Policy Transmission Planning Process commenced on August 31, 2022, with a request for interested parties to submit proposed transmission needs being driven by Public Policy Requirements to the NYISO. Following the 60-day request window, the NYISO received 17 proposals for transmission needs driven by Public Policy Requirements. On November 7, 2022, the NYISO filed those proposals with the PSC for its consideration to identify one or more Public Policy Transmission Needs. The NYISO also filed with the Long Island Power Authority nine of the proposed needs that could require a physical modification of facilities in the Long Island Transmission District. In February 2023, thirteen entities filed comments on the proposed Public Policy Transmission Needs, mainly in support of the PSC declaring one or more needs to accommodate renewable development. Some comments suggest that certain development be undertaken by the utilities through the Joint Utilities’ Coordinated Grid Planning Process. (Current)

## **Interregional Planning:**

### **JIPC/IPSAC:**

- The Joint ISO/RTO Planning Committee (JIPC) is continuing to exchange data and information, review transmission needs in neighboring regions, review interconnection projects with interregional impacts, and maintain an interregional production cost database. JIPC members are participating in DOE’s Atlantic Offshore Wind Transmission Study, which started in December. The JIPC posted the final 2021 Northeast Coordinated System Plan in July 2022 after receiving no stakeholder comments on the draft. JIPC updated stakeholders on planning activities during the December 5, 2022 Interregional Planning Stakeholder Advisory Committee (IPSAC) meeting. (Current)
- ISO-NE sent a letter to JIPC requesting a study to determine whether the current limitation (as memorialized in a three-party joint operating agreement among ISO-NE, NYISO, and PJM) on ISO-NE’s largest single loss of source contingency can be increased from 1,200 MW to 2,000 MW. (Current)

### **EIPC:**

- EIPC has issued a white paper on “Planning the Grid for a Renewable Future” that identifies challenges and offers recommendations to ensure the reliability of the transmission grid as system operators work to integrate an increasing level of renewable resources. The paper is posted at:<https://eipconline.com/s/EIPC-Hi-Renewables-WHITE-PAPER-FINAL-FOR-POSTING-10-5-21.pdf> (Current)
- The Production Cost Task Force (PCTF) and Technical Analysis Working Group (TAWG) continue to evaluate the impacts of a high renewable scenario on generation and transmission performance. (Current)