

# Updates on NYISO's Comprehensive System Planning Process

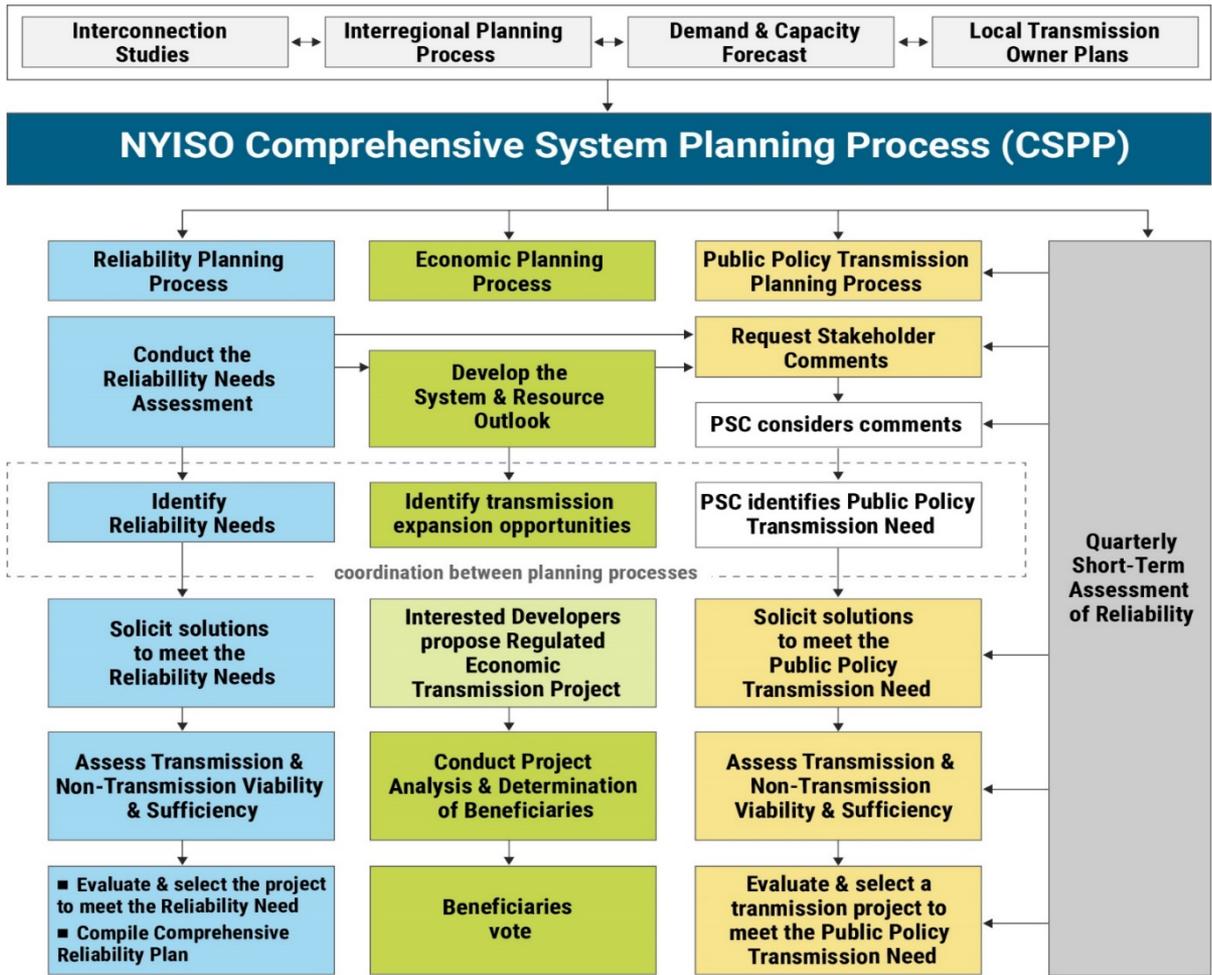
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**Interregional Planning Stakeholder Advisory Committee (IPSAC) Meeting**

December 10, 2021



# Reliability Planning Process (RPP)

# Reliability Planning Process

- **Two-year process starting in even years**
- **Reliability Needs Assessment (RNA)**
  - Evaluates the adequacy and security of the Bulk Power Transmission Facilities (BPTF) over a seven-year Study Period (years four through ten of the next ten years), and identifies Reliability Needs
  - Reliability Needs are defined as violations of Reliability Criteria (*i.e.*, NERC, NPCC and NYSRC)
  - Identifies risks to the plan, and includes scenarios simulated for informing the risks
- **Comprehensive Reliability Plan (CRP)**
  - Develops a plan to satisfy the Reliability Needs identified in RNA, if any
  - Identifies risks to the plan, and could include additional scenarios simulated for informing the risks

# 2020 Reliability Needs Assessment

- **Final 2020 RNA report is available [\[link\]](#).**
  - The 2020 RNA identified violations or potential violations of reliability criteria (“Reliability Needs”) in the base case throughout the entire study period (2024-2030) due to dynamic instability, transmission overloads, and resource deficiencies. The issues identified are primarily driven by a combination of forecasted peak demand and the assumed unavailability of certain generation in New York City affected by the “Peaker Rule”
- **Post-RNA study incorporated base case updates for load forecast, TO Local Transmission Plans, and solutions addressing the 2023 short-term need; all detailed in the 2021-2030 Comprehensive Reliability Plan (CRP) [\[link\]](#)**
  - After incorporating updates, there are no remaining BPTF Reliability Needs in the 2020 RNA, and the NYISO did not solicit solutions in the 2020-2021 cycle of the Reliability Planning Process

# 2021-2030 Comprehensive Reliability Plan

- Final Report, Appendices, and Press Release available: [[Report link](#)] [[Appendices link](#)] [[Press Release link](#)]
- The CRP identified key risk factors to system reliability:
  - Resource adequacy margins are tightening across the New York grid through time and the system would experience even smaller margins if additional power plants become unavailable or if demand is greater than forecasted.
  - New York City transmission security margins would be very tight starting in 2025 and would be deficient beginning in 2028 if forced outages are experienced at the historical rate.
  - If planned transmission projects were delayed for any reason, the grid's ability to reliably serve customer demand would be jeopardized.
  - Extreme events such as heatwaves or storms could result in deficiencies to serve demand statewide, especially in New York City considering the plans included in the CRP.

# Generator Status Update

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Generator Status Updates from March 15, 2021 through November 1, 2021

<i>Generating Unit</i>	<i>Zone</i>	<i>Current Generator Status</i>	<i>Date of Generator Status Change, if applicable</i>	<i>Initial Testing Date, if applicable</i>	<i>Generator Deactivation Assessment/Short-Term Assessment of Reliability Start</i>	<i>Generator Deactivation Assessment/Short-Term Assessment of Reliability</i>	<i>PSC Retirement/Mothball Notice Date, if applicable</i>	<i>Proposed Retirement/Mothball Date, if applicable</i>	<i>Rescinded Notice Date, if applicable</i>	<i>Notes</i>
CASSADAGA_WT_PWR	A	In Service	04/01/2021							
Ravenswood GT 2-1	J	Retired	04/01/2021		04/01/2018		03/21/2018			
Ravenswood GT 2-2	J	Retired	04/01/2021		04/01/2018		03/21/2018			
Ravenswood GT 2-3	J	Retired	04/01/2021		04/01/2018		03/21/2018			
Ravenswood GT 2-4	J	Retired	04/01/2021		04/01/2018		03/21/2018			
Ravenswood GT 3-1	J	Retired	04/01/2021		04/01/2018		03/21/2018			
Ravenswood GT 3-2	J	Retired	04/01/2021		04/01/2018		03/21/2018			
Ravenswood GT 3-4	J	Retired	04/01/2021		04/01/2018		03/21/2018			
RED_ROCHESTER	B	In Service	04/05/2021							
INDIAN POINT_3	H	Retired	04/30/2021		11/13/2017	12/13/2017	10/30/2019	04/30/2021		
Albany LFGE	F	ICAP Ineligible Forced Outage	07/01/2020		07/15/2020	10/13/2020			06/30/2021	On June 30, 2021 the NYISO received notice of the withdrawal of the intent to deactivate (Retire) Albany LFGE provided to the NYISO in July of 2019. However, this plant remains in IIFO.
ROARING_BROOK_WT	E	In Service	08/30/2021	08/30/2021						
ORANGEVILLE_ESR	A	In Service	10/19/2021	10/19/2021						

Status of generators is reviewed and updated on a monthly basis:

<https://www.nyiso.com/ny-power-system-information-outlook?folderPath=public/planning/NY-Power-System-Information-and-Outlook/Generator-Status-Updates>

# Local Transmission Owner Plans (LTP)

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- The NYISO's Comprehensive System Planning Process (CSPP) begins with the Local Transmission Owner Planning Process (LTPP). The LTPP allows interested parties to examine the transmission system plans of each of the New York Transmission Owners individually.
- **Local Transmission Owner Planning Process (LTPP) link:**
  - <https://www.nyiso.com/documents/20142/3632262/Local-Transmission-Owner-Planning-Process-LTPP.pdf>
- **2021 Load and Capacity Data Report (Gold Book) containing BPTF LTPs and firm non-BPTF LTPs (Section VII)**
  - <https://www.nyiso.com/documents/20142/2226333/2021-Gold-Book-Final-Public.pdf>

# Short-Term Reliability Process (STRP)

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- The STRP uses quarterly Short-Term Assessments of Reliability (STAR) studies to assess the reliability impacts of generator deactivations on both BPTF and non-BPTF transmission facilities, in coordination with the responsible transmission owner(s)
- The STAR is also used by the NYISO, in coordination with the responsible transmission owner(s), to assess the reliability impacts of other system changes on the BPTF
- Each STAR assesses a five-year period with a particular focus on needs that are expected to arise in the first three years of the study period
  - Needs that arise in years four or five may be addressed in the STRP or RPP
- **Short-Term Reliability Process webpage:**  
<https://www.nyiso.com/short-term-reliability-process>

# Short-Term Reliability Process (STRP)

## ■ 2021 Quarter 3 STAR

- The assessment did not identify any Short-Term Reliability Needs
- The report is available [[link](#)]

## ■ 2021 Quarter 4 STAR

- Study period October 15, 2021 - October 15, 2026
- Study Assumptions can be found at [[link](#)]
- Anticipated completion by January 13, 2022

# Economic Planning Process (EPP)

# Economic Planning Process

- **System & Resource Outlook, “The Outlook”**
  - Performed in alternate years to the RNA
  - 20-year study of system and congestion
  - Identifies, ranks, and groups congested elements
  - Assesses the potential benefits of addressing the identified congestion
  - Provide information to developers and marketplace
- **Economic Transmission Project Evaluation (ETPE)**
  - Evaluation by the ISO of a regulated economic transmission project
    - Transmission projects seeking regulated cost recovery under NYISO Tariff
    - Eligibility threshold: Cost over \$25M, benefit/cost ratio over 1.0, load payment savings over cost, 80% beneficiary vote
- **Requested Economic Planning Study (REPS)**
  - Study performed solely for informational purposes by the ISO at the request of a stakeholder or other interested party at their expense
    - Assumptions and scenarios customizable
    - Confidential except for posting of limited information about the study request

# 2021-2040 System & Resource Outlook

- **Evaluating 3 Reference Cases:**
  - **Base Case:** assumptions consistent with reliability base case inclusion rules
  - **Contract Case:** includes high-probability generation and transmission projects that don't yet meet the reliability base case inclusion rules
  - **Policy Case:** additional assumptions pertaining to public policies (e.g., CLCPA)
- **Analyses performed using reference cases include: transmission congestion evaluation, renewable generation pocket identification, energy deliverability calculations, operational analysis, and more.**
- **Currently discussing assumptions and results with stakeholders, study completion and report publication expected in Q2 2022**

# Public Policy Transmission Planning Process (PPTPP)

# Public Policy Transmission Planning Process (PPTPP)

- **Two-year process performed in parallel with RNA/CRP**
- **Phase I: Identify Needs and Assess Solutions**
  - NYISO solicits transmission needs driven by Public Policy Requirements
  - PSC identifies transmission needs and defines additional evaluation criteria
  - NYISO holds Technical Conference and solicits solutions (transmission, generation, or EE/DR)
  - NYISO performs Viability and Sufficiency Assessment (VSA)
- **Phase II: Transmission Evaluation and Selection**
  - NYISO staff evaluates viable and sufficient transmission solutions and recommends the more efficient or cost-effective solution
  - Stakeholder review and advisory votes at BIC and MC
  - NYISO Board may select a transmission solution for purposes of cost allocation and recovery under the NYISO Tariff

# Long Island Offshore Wind Export Public Policy Need

- **“The 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, that connects NYISO’s Zone K to Zones I and J to ensure 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...
  - Ensure no transmission security violations, thermal, voltage or stability, would result under normal and emergency operating conditions”

# Long Island Offshore Wind Export Update

- **Baseline analysis identified constraints on the existing system**
- **19 projects were proposed by four Developers**
- **NYISO is currently conducting Viability & Sufficiency Assessment**

# Interregional Coordination

- **Through the NYISO's Transmission Interconnection Procedures, the NYISO also coordinates with neighboring regions to identify the impact, if any, of the Public Policy Transmission Projects on the neighboring regions**
  - System Impact Studies have been completed for the selected Western NY and AC Transmission projects
  - Facilities Study has been completed for the selected Western NY project
  - Facilities Studies are being performed for the selected AC Transmission projects to finalize the Network Upgrade Facilities including the upgrades to address New York-New England transfer degradation

# Stakeholder Material

- **The NYISO Comprehensive System Planning Process is regularly discussed at the Electric System Planning Working Group (ESPWG) and Transmission Planning Advisory Subcommittee (TPAS).**
  - <https://www.nyiso.com/espwg>
  - <https://www.nyiso.com/tpas>
- **Study documentation is available at:**
  - <https://www.nyiso.com/cspp>

# Questions?

# Our mission, in collaboration with our stakeholders, is to serve the public interest and provide benefit to consumers by:

- Maintaining and enhancing regional reliability
- Operating open, fair and competitive wholesale electricity markets
- Planning the power system for the future
- Providing factual information to policymakers, stakeholders and investors in the power system

