

2022 RNA Scenarios And Schedule

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Agenda

- **2022-2023 Reliability Planning Process (RPP) Background**
- **2022 RNA Scenarios List – updated from the March 24 LFTF/ESPWG/TPAS presentation**
- **Schedule**

2022-2023 RPP Background and Scenarios

2022-2023 RPP Background

- **The 2022 Reliability Planning Process (RPP) starts with the 2022 Reliability Needs Assessment (2022 RNA) followed by the 2023-2032 Comprehensive System Plan (CRP)**
 - 2022 RNA Study Period: year 4 = 2026 through year 10 = 2032
 - Note: year 1 through year 5 are assessed quarterly in the Short-Term Reliability Process (STRP)
- **The RPP is part of the Comprehensive System Planning Process and is performed pursuant to the Attachment Y of the NYISO OATT; see Section 31.2.**
 - Additional implementation details, including recently updated RNA Base Case inclusion rules, are captured in the RPP Manual
- **2022 RNA will be based on the information from the Gold Book 2022, the 2022 FERC 715 filing (power flow cases and auxiliary files), historical data, and market participant data**
- **Reliability evaluations on the 2022 RNA Base Case: transmission security and resource adequacy**
 - NERC, NPCC, NYSRC Reliability Rules application on the Bulk Power Transmission Facilities (BPTFs)

2022 RNA: Scenarios Background

- **One of the objectives of the Reliability Planning Process is to identify, through the development of appropriate scenarios, factors and issues that might adversely impact the reliability of the Bulk Power Transmission Facilities (BPTF)**
 - The scenarios results are for information only
 - Generally, the scenarios will be built off the preliminary (“1st pass”) RNA Base Case, unless specifically identified
- **This presentation identifies a number of scenarios for the 2022 RNA**
- **Scenarios will be performed if time permits: *e.g.*, if we have Reliability Needs, may need to focus our resources on addressing or further analyzing those**

2022 RNA: Potential Scenarios

1. High Load Forecast: Resource Adequacy

- High load forecast from the 2022 GB

2. Tipping Points: Resource Adequacy - Zonal Resource Adequacy Margins (ZRAM)

- Identification of the maximum MW level of zonal “perfect capacity” that can be removed from each zone without either causing NYCA LOLE violations, or exceeding the zonal capacity
 - “Perfect capacity” is capacity that is not derated (e.g., due to ambient temperature or unit unavailability), not subject to energy durations limitations (*i.e.*, available at maximum capacity every hour of the study year), and not tested for transmission security or interface impacts

3. Tipping Points: Transmission Security

- Identification of the impact of plausible changes in conditions or assumptions that might adversely impact the reliability of the BPTF or “tip” the system into violation of a transmission security criterion

Note: Tipping points offer a relative measure of how close the system is from not having adequate resources to reliably serve load

2022 RNA: Potential Scenarios, cont.

4. “Status-quo”: Transmission Security and Resource Adequacy

- Removal of proposed major transmission and generation projects assumed in the RNA Base Case based on application of the inclusion rules

5. CLCPA: Resource Adequacy

- Based on input from the System & Resource Outlook

6. Retaining various levels of operating reserves: Resource Adequacy

Preliminary Schedule

2022 RNA “1st Pass”: Preliminary Schedule

- **Pre-RNA schedule: January-April 2022:**
 - Most of the input needed for the RNA and other planning studies is developed, such as: 2022 Gold Book, FERC 715 filing (e.g., power flow models and auxiliary files), short circuit models, inclusion rules application, etc.
- **March, April ESPWG/TPAS:**
 - Preliminary timeline: March 1 TPAS/ESPGW, with updates at April 1, April 26
 - Preliminary scenarios list: March 24 LFTF/ESPGW/TPAS and April 26 ESPGW/TPAS
 - Demand-side forecasts presentation: March 24 LFTF/ESPGW/TPAS
 - RNA assumption matrix, major modeling changes presentations (if any), MARS topology, and/or updated scenarios list: April 1 TPAS/ESPGW
 - Inclusion rules application presentation: April 1 TPAS/ESPGW and April 26 ESPGW/TPAS

2022 RNA “1st Pass”: Preliminary Schedule, cont.

- **May, June**
 - RNA transmission security and resource adequacy Base Cases finalization
 - RPP Manual updates, as necessary
 - RNA “1st pass” evaluations
 - Present preliminary (“1st pass”) RNA results
 - Start scenarios development starting from the 1st pass Base Case, unless otherwise specified
- **2-weeks window for status updates -> target closest ESPWG/TPAS in July, as needed:**
 - Transmission Owners presentations of LTPs/projects updates, if any
 - NYISO updates of projects that meet inclusion rules
- ***Lock down assumptions for final RNA : 2 weeks from the 1st pass results presentation***

2022 RNA Final: Preliminary Schedule

- **Mid July - end September:**
 - Finalize 2022 RNA Base Cases with the applicable status updates, and update results
 - Finalize scenarios models, tipping points, results
 - Prepare/present draft RNA reports
- **End September ESPWG/TPAS:** recommendation for approval of the RNA
- **October 13 OC:** OC vote
- **October 26 MC:** MC vote and Market Monitoring Unit review
- **November 2022:** NYISO Board of Directors approval and publishing of the Final RNA Report

Questions?

Roles of the NYISO

- **Reliable operation of the bulk electricity grid**
 - Managing the flow of power on 11,000 circuit-miles of transmission lines from hundreds of generating units
- **Administration of open and competitive wholesale electricity markets**
 - Bringing together buyers and sellers of energy and related products and services
- **Planning for New York's energy future**
 - Assessing needs over a 10-year horizon and evaluating projects proposed to meet those needs
- **Advancing the technological infrastructure of the electric system**
 - Developing and deploying information technology and tools to make the grid smarter

Our Mission & Vision



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