Reliability Needs Assessment Conference

Primer on the Comprehensive Reliability Planning Process

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Contained in the NYISO’s Tariff

- Comprehensive Reliability Planning Process (“CRPP”)
- Approved by the Federal Energy Regulatory Commission (“FERC”)
- Effective October 19, 2004
- Contained in Attachment Y to the NYISO’s Open Access Transmission Tariff (“OATT”)
Objectives of the CRPP

- Evaluate the reliability needs of NY Bulk Power Transmission System
- Study and identify factors and issues that might adversely impact the reliability of the System
- Provide a process whereby solutions to identified needs are proposed, evaluated and implemented in a timely manner to maintain System reliability
- Provide opportunity to development of market-based solutions
- Coordinate the NYISO’s reliability assessments with Neighboring Control Areas
- *Not a substitute for Transmission Owners’ plans for their bulk and non-bulk (local distribution) power systems.*
The NYISO prepares a RNA to identify Bulk Power System Reliability Needs

“Reliability Need” defined as a violation or potential violation of a Reliability Criteria

“Reliability Criteria” are the electric power system planning and operating policies, standards, criteria, rules, etc. of the
- North American Electric Reliability Council (“NERC”)
- Northeast Power Coordinating Council (“NPCC”)
- New York State Reliability Council (“NYSRC”)

For example: Loss of Load Expectation (“LOLE”), or the probability that customers will lose electric service, shall not exceed one day in ten years (or .1 days per year)
RNA Preparation

- RNA identifies reliability needs and analyzes historic “congestion” costs
  - “congestion” occurs when a transmission facility cannot carry all of the power generators seek to sell or customers seek to purchase at the lowest price
- RNA designates the Transmission Owner(s) responsible for meeting each Reliability Need
- NYISO develops RNA in consultation with Market Participants, at working group meetings
RNA Preparation -2

- RNA evaluates bulk power system needs over a five-year period, and a ten-year period.
- Base Case model represents New York System and assesses whether facilities meet all reliability criteria for resource adequacy and transmission adequacy in each year for five years.
- Considers changes on the system, such as growth in consumption over time.
- Studies facilities’ thermal, voltage, stability, and short circuit characteristics.
- RNA does not identify specific facilities needed, but states needs in terms of failure to meet reliability criteria, such as 1 day in 10 years LOLE.
- Evaluates System over second five years to see if reliability criteria are met. More hypothetical given forecasting uncertainties.
RNA Preparation - 3

- Market Participants provide data inputs for NYISO studies
- Transmission Owners submit plans for their own bulk and non-bulk power systems to the NYISO
- NYISO considers Transmission Owners’ plans in preparing the RNA, and ultimately the Comprehensive Reliability Plan
- NYISO develops and studies alternative scenarios that account for unexpected, but possible changes. E.g., additional growth in consumption beyond forecast.
RNA Review

- Review of draft RNA by NYISO Working Groups
- Operating Committee Vote
- Management Committee Vote
- Board of Directors’ Approval (with or without modifications)
Solutions Phase

- Three types of solutions:
  1. Market-Based Solutions
  2. Regulated Backstop Solutions
  3. Alternative Regulated Responses.
Market-Based Solutions

Preferred by CRPP and regulators.

With proper signals from the market and needs identification by the NYISO, the market can respond to reliability needs with new projects.

- Subject to confidentiality, NYISO and TO to provide any party who wishes to develop a market-based response access to needed data.
- Market Participants may suggest “at any time” changes to NYISO procedures or rules that could result in additional market alternatives.
Market-Based Solutions – Types

CRPP Neutral as to Resource Type:

- Demand side resources (e.g., conservation measures to reduce consumption)
- Supply side resources: generators, including base-load, peaking units, renewable resource-based generation
- Merchant transmission facilities (new transmission lines or upgrades)
- *NYISO determines qualifying criteria and reviews viability of market solutions to determine whether they qualify to meet identified reliability needs.*
Regulated Backstop Solutions

- Usually solicited only if market solutions not available.

- First RNA, NYISO may, and did, solicit market-based and regulated backstop solutions at the same time.

- Responsible TOs must propose solutions to all reliability needs identified by NYISO.

- Implemented as “backstop” only if market solutions not proposed.
Regulated Solution Types

CRPP Neutral as to resource types:

- Demand Side resources (TO’s conservation programs)
- Transmission facilities; new lines, upgrades to lines, devices to increase capability of existing lines (e.g. capacitor banks to maintain voltage levels)
- Generation facilities; new generators to meet peak load, base load generators, upgrades to existing generators
Alternative Regulated Solutions

- In the event that no market solution is proposed that qualifies to meet reliability needs.

- Proposed by third parties to Transmission Owners and/or NYISO.

- Transmission or generation facility or demand-side resource.
NYISO Evaluates Solutions

- To determine whether Reliability Needs in RNA would be met
- Market-based and regulated backstop solutions
- Alternative regulated responses if market-based solutions do not resolve a Reliability Need
- Results reported in Comprehensive Reliability Plan ("CRP")
Gap Solutions

- Neither market-based nor regulated solutions satisfy Reliability Needs in a timely manner

- NYISO determines in CRP that a gap solution is necessary to maintain system reliability

- Imminent threat to system reliability, NYISO Board after consulting New York Department of Public Service may request TOs to propose gap solution outside of normal annual CRPP

- TOs to propose solution “as soon as reasonably possible”

- Any party may submit alternative gap solution
Comprehensive Reliability Plan ("CRP")

- Contains NYISO’s findings, including whether regulated solution is necessary to maintain system reliability
- Considers all solutions and plans
  - market-based
  - regulated backstop
  - alternative regulatory solutions
  - Transmission Owners’ plans
- *Transmission Owners continue to plan for their own bulk and local system needs, and NYISO considers those plans in crafting CRP*
CRP – Determination of Necessity

- NYISO determines whether it is necessary for TOs to proceed with a regulated solution
- NYISO requests TOs to submit proposal to state agencies to begin approval process
- TOs make regulatory filing
- Developers of alternative regulatory solutions may file with state agencies to begin approval process
- NYISO may determine that regulated solution should parallel market-based solution
CRP Process

- Draft CRP reviewed by NYISO Working Groups
- Operating Committee vote
- Management Committee vote
- Board of Directors approval
- CRP provided to regulatory agencies for consideration in review of proposals
Market Monitor Review

- NYISO has independent Market Monitor, Potomac Economics, to identify whether competitive markets are working properly.

- Market Monitor reviews RNA and CRP.

- Determines “whether market rule changes are necessary to address an identified failure, if any, in one of the NYISO’s competitive markets.”
Other NYISO Roles

- Monitor progress of all solutions
- Develop principles for allocating costs of regulated responses among responsible TOs
  - TOs recover costs of regulated responses under NYISO’s tariff
- Establish procedures for administering CRPP
- Remember, the CRPP is a process that repeats every year