New York State Energy Planning Board

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The New York Independent System Operator (NYISO)
April 2, 2012
The New York Independent System Operator (NYISO) is a not-for-profit corporation that began operations in 1999. The NYISO operates New York’s bulk electricity grid, administers the state’s wholesale electricity markets, and performs comprehensive reliability planning for the state’s bulk electricity system.

www.nyiso.com
The NYISO’s Major Roles

- Reliable operation of New York’s bulk electricity grid
- Fair and open administration of New York’s wholesale electricity markets
- Comprehensive reliability and resource planning for New York’s bulk power system
- Unbiased, independent source of information on the grid and the markets
Reliability Regulation

North American Electric Reliability Corporation (NERC)
- Independent, self-regulatory, not-for-profit organization with mission to improve the reliability and security of the bulk power system in the U.S., Canada and part of Mexico
- Established in response to the 1965 blackout
- Compliance with NERC Reliability Standards became mandatory and enforceable in the U.S. in 2007
- NERC was named as the ERO by FERC

Northeast Power Coordinating Council (NPCC)
- Includes New York, New England, Ontario, Québec, and the Maritimes
- Formed as voluntary, not-for-profit, regional reliability organization in 1966
- Restructured in 2007 as the ERO Regional Entity for the Northeast

New York State Reliability Council (NYSRC)
- Not-for-profit organization established in 1999
- Responsible for Reliability Rules specific to the New York State Power System
- U.S. law authorizes New York State to impose more stringent reliability standards
NYISO
Comprehensive System Planning Process (CSPP)
NYISO Proposed Comprehensive System Planning Process (CSPP) - Reliability Planning Process -

NYISO Formulates Comprehensive Reliability Plan (CRP)

Transmission Owner Plans

NYISO Performed Reliability Needs Assessment (RNA)

NYISO to Publicize Reliability Needs Assessment

NYISO Issues Request for Solutions

Market-Based Responses
- Generation
- DSM
- Merchant Transmission

Regulated Responses
- Transmission
- May consider alternatives
- TO & non-TO proposals

NYISO Evaluates Market-Based Responses, Regulated Responses and TO Updates To Determine Whether They Will Meet the Identified Reliability Needs

NYISO Formulates Comprehensive Reliability Plan (CRP)

Board Approval of Plan (CRP)

No viable/timely market or regulated solution to an identified need

“Gap” Solutions by TOs

Board Approval of Plan (CRP)

NYISO Triggers Regulated Backstops if Required
Transmission Owner Planning Responsibilities

- Responsible for planning for the reliability of their local systems
- TO plans are submitted to the NYISO for review
- TO plans are used as input to the NYISO’s CRPP & Interconnection System Impact Studies
  - An enhanced Local Transmission Planning Process was included in NYISO’s Order 890 Compliance Filing
- TOs assist NYISO with respect to modeling of their local systems
- TOs assist NYISO in performance of Facilities Studies for interconnections
- TOs also have responsibility for reliability under NYS Public Service Law
Reliability Needs Assessment (RNA)

- NYISO Staff performs a Reliability Needs Assessment over the 10-year planning horizon based upon existing reliability criteria
  - NERC, NPCC and NYSRC (New York State Reliability Council)
  - Includes transmission security and resource adequacy requirements
- Scenario analysis is employed to test the robustness of the base case assumptions
  - E.g. – load growth, energy efficiency, retirements, environmental regulations
- RNA identifies violations of reliability criteria, but does not identify specific facilities to meet the identified needs
- Provision for MP input & review of RNA
  - Through ESPWG & TPAS
  - Vote at OC and MC
- Provision for coordination with adjacent regions
- NYISO Board has final approval of RNA
- The final approved Reliability Needs Assessment is widely distributed
  - Posted on NYISO website
NYISO Proposed Comprehensive System Planning Process (CSPP) - Reliability Planning Process-

1. NYISO Performs Reliability Needs Assessment (RNA)
2. NYISO to Publicize Reliability Needs Assessment
3. NYISO Issues Request for Solutions
   - Market-Based Responses
     - Generation
     - DSM
     - Merchant Transmission
   - Regulated Responses
     - Transmission
     - May consider alternatives
     - TO & non-TO proposals
4. NYISO Evaluates Market-Based Responses, Regulated Responses and TO Updates To Determine Whether They Will Meet the Identified Reliability Needs
5. NYISO Formulates Comprehensive Reliability Plan (CRP)
6. NYISO Triggers Regulated Backstops if Required
7. Board Approval of Plan (CRP)
8. “Gap” Solutions by TOs
9. Board Approval of Plan (CRP)
CARIS Phase I: Study Phase

Base Case Assumptions:
Most recently approved CRP

Congestion Assessment: Historic and 10-year forecasted
Identification of the three most congested elements and selection of the three studies

Cost Benefit Analysis
Three studies agreed to by the stakeholders
Additional studies paid by MPs and/or requested by PSC

CARIS Report
Approved by the NYISO Board
CARIS Phase II: Project Phase

Transmission Project Proposals

Project Cost/Benefit Analysis
to identify project beneficiaries and allocate costs

Beneficiaries Determination and Cost Allocation Report
Approved by the NYISO Board

Voting
80% or more of the beneficiaries vote

FERC Approval of projects’ costs

PSC Siting and Permitting