Markets & Planning: The NYISO Perspective

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Transmission Investment Panel Discussion
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The Value of Planning

“You gotta be careful if you don't know where you're going...
Otherwise you might not get there.”

-- Yogi Berra
Overview

- NYISO Market-based Orientation
- Existing Reliability Planning
- Proposed Economic Planning
Market-based Orientation

- NYISO’s focus on market-based solutions
- Approach supported by regulators, stakeholders, and market participants
- Market signals have fostered investment and development
- Market risk / Regulatory risk
NYISO Market Success

- 6,500+ MW of generation added since 2000
- Nearly 1,000 MW of merchant transmission developed
- Renewable resources expanding
- Generator availability has increased
- Installed Reserve Margin has been reduced
- Demand-side resources growing
- Reliability planning process has produced market-based resources and avoided need for regulated solutions
New Transmission

Legend:
- 765 kW
- 345 kW
- 230 kW

Con Ed Upgrades
Neptune
Cross Sound Cable
Growing Windpower

Existing Wind Farms in New York State
As of April 2008

Wind Farms in New York State
Total Expected Installed Megawatts by end of 2011

Figures are based on the NYISO April 15, 2008 Interconnection Queue for projects with a status greater than 4 and on the NYISO 2008 Gold Book.
Reliability Planning Process

- NYISO Planning Process is anchored in its market-based orientation

- FERC said:
  - “It [the NYISO planning process] is certainly a substantial improvement over planning processes that have traditionally depended upon TO-developed regulated solutions.”
A Multi-staged Process

- Reliability Needs Assessment (RNA)
- Requests for Solutions (Market-based & Regulatory)
- Comprehensive Reliability Plan (CRP)
2008 Reliability Plan

2008 Comprehensive Reliability Plan

A Long-Term Reliability Assessment of New York’s Bulk Power System

FINAL REPORT

July 15, 2006
Planning Process Results

- The 2008 CRP is the culmination of the NYISO’s third planning cycle. In each cycle, the market has responded with project proposals to meet identified reliability needs.

- Approximately 3,000 MW of market-based projects, submitted during the NYISO’s first two planning process cycles, are moving forward on schedule.
FERC Order 890: NYISO Response

- Congestion Assessment and Resource Integration Study (CARIS)
- Unique feature -- 80% beneficiary voting requirement
- Pending FERC approval, implementation scheduled to begin in the 2009 planning cycle
CARIS: A Two-Step Process

Congestion Study → Review of Specific Proposals
Transmission Assessment

New York Transmission Owners -- State Transmission Assessment and Reliability Study (STARS)
Summary

- NYISO Comprehensive Reliability Planning Process (CRPP) is established and effective
- NYISO is working with stakeholders to implement economic planning process (CARIS)
- NYISO is supporting New York Transmission Owner long-range assessment of transmission infrastructure
Planning for the Future

“It’s difficult to make predictions... especially about the future.”

-- Yogi Berra
Appendix

- Planning Process Flow Charts
  - **Comprehensive Reliability Planning Process (CRPP)**
  - **CRPP Stakeholder Process**
  - **Proposed Economic Cost Allocation Process (For a Specific Economic Transmission Project)**
Comprehensive Reliability Planning Process (CRPP)

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)

   - Board Approval of Plan

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

   - “Gap” Solutions by TOs

   - Board Approval of Plan
CRPP Stakeholder Participation

Input Stage
- TPAS
  - Reliability
  - Existing Studies
- ESPWG
  - Commercial Info
  - Scenarios

Analysis Stage
- NYISO Staff Performs Needs Assessment for Reliability (RNA)
  - NYISO Staff Evaluates Proposed Solutions (CRP)
- TPAS
  - Reliability
  - Scenarios
- ESPWG
  - Congestion
  - Scenarios

Initial Review Stage
- NYISO Staff Issues Draft Report (RNA/CRP)

Final Review Stage
- TPAS
- ESPWG
- OC/MC Vote on Final Draft Report
- NYISO Board Action on Final Report
- Issue Report

Committee Vote
- Board Action
Proposed Comprehensive System Planning Process (CSPP)
Economic Planning Process (CARIS)

- Approved Comprehensive Reliability Plan (CRP)
  - NYISO Develops System Model for CARIS Studies
    - NYISO Identifies Congestion and Proposed Solutions
      - Considers All Resource Types
    - NYISO Performs Benefit/Cost Analysis
      - NYCA-Wide Production Cost Savings
  - NYISO Issues Draft CARIS Report
    - Benefit/Cost Results
    - Additional Metrics
    - Scenarios
  - Committee Review and Action
  - Board Approval of CARIS
  - NYISO to Publicize CARIS
Proposed Economic Cost Allocation Process
(For a Specific Economic Transmission Project)

1. Developer Proposes an Economic Transmission Project In Response to CARIS

2. NYISO Conducts Initial Eligibility Analysis
   - NYCA-Wide Production Cost Savings

3. NYISO Determines Beneficiaries and Cost Allocation
   - LBMP Load Savings

4. Committee Review and Action

5. Board Approval of Beneficiaries and Cost Allocation

6. Super-Majority Vote of Beneficiaries
   - ≥ 80% of actual Weighted Votes Cast

7. Developer Files with FERC for Approval of Project Costs
   Developer Files with Appropriate Agencies for Siting and Permitting

8. Cost Recovery to Begin If and When Project Begins Commercial Operation
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 conducts comprehensive reliability planning for the state’s bulk electricity system.

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