Squaring the Circle of Resources Adequacy: The NYISO Perspective

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Investment with Energy and Capacity Markets*

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NYISO Capacity Market

- Installed Capacity (ICAP) Requirements are set by the NYS Reliability Council for the upcoming capability year.
- Load Serving Entities (LSEs) can meet their ICAP requirements by:
  - Self-Supply
  - Bilateral Transactions with Suppliers
  - Forward Auctions (6-month strip and monthly)
  - Deficiency/Spot Market Auctions
Locational ICAP

- Due to transmission constraints into certain localities, areas or zones, some LSEs must procure at least some of their ICAP requirements from resources electrically located within that locality

- New York has locational requirements for two transmission-constrained zones
  - **New York City**
    - New York City capacity market is subject to both buyer side and supply side market mitigation measures
  - **Long Island**
Demand Curve

- Demand Curve used as proxy for LSE Bids
- Improves traditional ICAP market
- Increases system reliability by valuing additional ICAP above the requirements
- Reduces price volatility & sends more stable revenue signal for new resources
- Continues to ensure a competitive, fair, and non-discriminatory market for capacity
Emerging Reliability Needs

• Two years ago, the 2010 Reliability Needs Assessment (RNA) found no reliability needs over the ten-year study horizon.

• The 2012 RNA identified reliability needs related to resource adequacy by 2020, as a result of:
  - Lower generating capacity (~1,000 MW decline)
  - Slightly higher baseline load forecast for 2020 (200 MW increase)
  - Slightly lower projections of demand response resources for 2020 (~100 MW decline)
Regulated Backstop Solution Implementation

• If market-based solutions are insufficient to meet Reliability Needs by need date, then:
  - NYISO can “trigger” a regulated backstop solution
  - NYISO requests Responsible TO(s) to seek NYS PSC approval of backstop solution
  - NYS PSC and other regulatory agencies proceed with their review & approval
Draft study findings:

“There are no compelling benefits to implementing a forward capacity market at this time.”

- Has potential to increase costs out of a proportion to any improvements in reliability (by being conservative in projecting forward requirements)
- Does not guarantee resources clearing in the forward market will present to meet near time reliability needs
- Current market design allows loads to contract forward for capacity
- Implementation would take too long to address near-term uncertainties related to retirements
Market Outcomes

Since 2000, New York State has added:

- **9,000+ MW of new generation**
- **1,600+ MW of new transmission**
- **~ 2,000 MW of demand response**
80% of new generation sited in New York City, Long Island & Hudson Valley.
Future Market Enhancements

• New Locational Capacity Zone
  ▪ Preliminary study results indicate Lower Hudson Valley

• Improvements in scarcity pricing
The New York Independent System Operator (NYISO) is a not-for-profit corporation responsible for operating the state’s bulk electricity grid, administering New York’s competitive wholesale electricity markets, conducting comprehensive long-term planning for the state’s electric power system, and advancing the technological infrastructure of the electric system serving the Empire State.

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