

***SmartGrid Prospects  
for  
New York's Bulk Power System Operations  
&  
Deregulated Wholesale Electricity Markets***

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# NYISO's Responsibilities & Mission

- The New York ISO's primary responsibilities are:
  - *Reliable operation of New York's bulk power grid, and*
  - *Administration of the Empire State's competitive wholesale electricity markets.*
  
- The Mission of the NYISO, in collaboration with its stakeholders, is to serve the public interest by:
  - *Maintaining and enhancing regional reliability*
  - *Promoting and operating a fair and competitive wholesale electricity market*
  - *Achieving these objectives in a cost-effective manner*
  - *Providing quality customer service*

# Achieving the Mission Through SmartGrid

- Maintaining and enhancing regional reliability
  - *Improved access to transmission grid performance data*
    - ▶ Reactive power management
    - ▶ Congestion management
  - *Enhanced state estimation*
  - *Access to small generation (< 1 MW) & demand-side resources*
    - ▶ Aggregation opportunities
    - ▶ Real-time, bi-directional communication & control
    - ▶ Real-time verification of performance by demand-side resources
  - *Improved planning & forecasting*
    - ▶ More timely access to system data enhances modeling capabilities

# Achieving the Mission Through SmartGrid

- Promoting & operating a fair & competitive wholesale electricity market
  - *Enables communication of price signals to end-users & suppliers*
  - *Facilitates development of market products that can effectively leverage resources embedded within sub-transmission & distribution systems*
    - ▶ Demand Response & Special Case Resources
    - ▶ Demand-side Ancillary Services
    - ▶ Small Generator Aggregation
    - ▶ Reactive Power Management
  - *Improved metering & more timely access to data minimizes exposure to Unaccounted-For-Energy.*

# Achieving the Mission Through SmartGrid

- Achieving these objectives in a cost-effective manner
  - *Improved access to meter data results in a shorter time to finalize wholesale market settlements.*
  - *Reduced time to final settlement or eliminating re-settlements reduces administrative costs & improves price certainty.*
  - *Shorter settlement cycles reduce the risk of default.*
  - *Reduced default risk facilitates reductions collateral requirements.*
  - *Reduced collateral requirements eases barrier to market entry.*
  - *Improved metering & access to data minimizes exposure to Unaccounted-For-Energy allocations. [Note – Mentioned Twice]*

# Achieving the Mission Through SmartGrid

- Providing quality customer service
  - *Access to customers' usage data enables timely resolution of billing concerns.*
  - *Access to customers' current & potential market volumes enables more timely identification of appropriate collateral requirements.*
  - *Customers that have access to their energy usage information & electricity market data can make informed decisions regarding their energy choices, AND be able to ask the right questions when making those choices.*
  - *A marketplace armed with their energy usage information & electricity market data can identify & introduce relevant market enhancements, improving market efficiency.*