



Joint Board Meeting on Security Constrained Economic
Dispatch – Northeast Region
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Background on Economic Dispatch in the Northeast

- Security Constrained Economic Dispatch predates the ISO's in the Northeast
 - New York Power Pool administered centralized economic dispatch going back to the 1960's.
 - NEPOOL operated a least cost economic dispatch without regard to ownership that included features that do not exist in the ISO markets today
 - Optimization of maintenance outages
 - Pumped Storage Optimization
 - Economic transfers over the LIPA/NU 1385 cable
- ISO Markets introduced changes to Security Constrained Economic Dispatch
 - Recognize increased independent ownership of generation
 - Optimization of energy, regulation and reserves based on bid prices (NY)
 - Introduction of Locational Marginal Pricing
- Changes under ISOs have also presented some hurdles
 - Increased complexity of software /Increased cost of development
 - Difficult to modify for market requirements
 - Pricing errors/anomalies from software upgrades

Areas for Future Progress

- Generator Unit Representation
 - Improved Combined Cycle Modeling
 - Gas Turbine Dispatch
 - Reliability in NY requires that GT capability be available in summer peak periods
 - SMD2 implementation continued over-reliance on GT's through reserve pick-ups
 - Reduction in Impact of Unit Base Point Dragging
 - Generators off basepoints have led pricing and dispatch issues (contributes to excessive use of GT's) and require continued consideration of additional incentives/enforcement
- Optimization of PARs
 - Simulating PARs correctly will improve efficiency of dispatch
- Improved Transactions/Dispatch Between the Markets
 - Improved flexibility to accommodate scheduling over new inter-ties
 - When interface capability is limited over multiple scheduling nodes, capability should be allocated on the basis of economic value of flows
 - Scheduling lead times should be reduced

Controllable Line Scheduling – Example of 1385

- Key Shortcoming is inability to allow economic scheduling over additional inter-ties
- Cross Sound Cable multi-party scheduling implemented in June 2005
- Scheduling over the 1385 Cable between Long Island and Southwest Connecticut is still pending:
 - Under NYPP/NEPOOL operation economic energy was regularly scheduled over 1385 in both directions
 - After introduction of the ISOs schedule was set at zero for 1385
 - Introduction of NYISO Controllable Line Scheduling Software in June 2005 should have facilitated timely economic scheduling over 1385 and new external transmission facilities
 - ISOs continue to delay implementation impeding reliability and market efficiencies.
- Inability to integrate new external facilities into the market on a timely basis is one of the remaining seams issues that suggest further efforts at integration or consolidation of dispatch systems may be warranted.