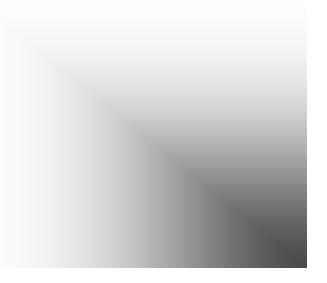


Resource Adequacy Market: RAM Update

By John Charlton

NYISO PRLWG Meeting November 7, 2003



Background

- NYISO, PJM and ISO-NE (and IMO) began meeting in December 2001 as the Joint Capacity Adequacy Group (JCAG)
- JCAG process developed the concept of a Centralized Resource Market Model (CRM) in mid-2002.
- JCAG was renamed to the Resource Adequacy Model (RAM) group later in 2002.
- > NYISO, PJM and ISO-NE made a Joint FERC Filing January 10, 2003
- An independent study of the CRM Model was proposed to optimize the design and recommend an auction model to minimize market power/gaming potential.
 - An RFP was issued in April 2003
 - Contract was awarded to NERA in June 2003
 - Sept 8th RAM Meeting (Hartford) Initial NERA presentation
 - Oct 29th RAM Meeting (Wilmington) Second NERA presentation

RAM/CRM Proposal

- A centralized auction was proposed on behalf of all load to commit Resources & set LSE prices for a future commitment period.
 - Coordinated auctions for each Northeast ISO region
 - *Minimize, but allow for, area differences*
- UCAP will used throughout the region
- Resource requirements set well in advance
- Supply and Demand Resources to be included
- Support retail access programs
- Bilateral agreements encouraged
- All three Northeast ISOs would transition existing capacity markets to CRM

Preliminary NERA Recommendations

Planning Horizon – 3 years is recommended

- One and two year horizons do not assure adequacy, are biased toward short lead-time resources, increase price volatility and preclude more efficient resources
- Risks are greater with shorter (less than one year) planning horizons
- Four or Five year planning horizon is marginally better but not enough to overcome other considerations
- Three year horizon represents the best balanced choice.

Preliminary NERA Recommendations (cont.)

Commitment Period – 3 years is recommended

- 3-year rolling option with a fixed 3-year commitment period
- A 1 or 2-year commitment period could meet the objectives — but at potentially higher prices and without as much protection from transition events
- Will provide improved revenue certainty and induce providers to bid at lower prices
- Differing commitment periods would be preferred by some resource providers
 - Longer periods desired by those with capital investments
 - Shorter commitment periods preferred by those without significant investment but with need for flexibility

Preliminary NERA Recommendations (cont.)

> Auction Model – Descending Clock

- Among Open Auctions, Clock Has Strong Advantages
 Strategic Simplicity, can learn rules easily, more likely to enter
- Most sensible design when products are very similar
- Clock Preserves Other Important Benefits of Open Auctions
 Bidders learn during the auction. Additional information lessens risk
- Clock Auction with careful design on information revealed to bidders provides strong protection against withholding and against coordination

Offer Cap Tied to Auction Format and Linked to Mitigation Measures

- A starting price must be set and is effectively an offer cap.
- Link to mitigation measures: if qualification indicates a lack of competition at the auction, NERA recommends that one course of action is a specific offer cap called a reserve price

An offer cap as a starting price is an intrinsic part of a clock auction. NERA makes recommendations to:

- Set an administered price when qualified supply is inadequate
- Possibly set a reserve price when qualification indicates concerns that competitiveness will not discipline price

Variable Resource Requirement

- NERA's preliminary proposal does not integrate VRR but could be made compatible with VRR
- VRR is compatible with the clock auction format
- Both alternatives address and provide solutions to the same issues in different ways
 - Both should be effective at ensuring that price is not too low with moderate oversupply
 - Both require some estimates of a competitive standard for entry
 - Both require periodic updates of standards to reflect market information

Next Steps

- Meeting/conference call to complete NERA presentation from October 29th - TBD
- NERA to submit Final Report
- RAM Meeting with NERA– Date TBD
- > ISOs/Stakeholders begin to develop tariff proposals
- February 28, 2004 File Status Report with FERC
- Individual ISO Tariff Filings
- Hold Initial Forward Auction(-s)