Virtual Bidding and Scheduling Requirements in MRTU

Gary A. Stern, Ph.D.
Director of Market Strategy & Resource Planning
Southern California Edison
Virtual Bidding – SCE’s Position

- Virtual bidding (VB) should not be implemented in California until MRTU has demonstrated proper functioning for a period

- Appropriate oversight must be in place to prevent market manipulation when VB will be implemented

- A potential significant asymmetry would exist absent rules from CPUC for VB use by IOUs
Virtual Bidding (VB)

- **Definition of Virtual Bidding (Cal ISO White Paper)**
  - Engage in purely financial transactions in the ISO day-ahead market
  - Energy purchased or sold in the day-ahead market is not intended for actual consumption or delivery in real-time

- **What are legitimate uses of VB?**
  - Traders use VB to speculate on day-ahead and real-time prices
    - Sometimes they profit, other times they lose
  - Generators use VB load to hedge against real-time price spikes in case of a forced outage
  - Sell day-ahead power at the real-time price
  - FERC wants price convergence between the day-ahead and real-time
Virtual Bidding - Continued

- What VB is not
  - In MRTU comments to the FERC several parties fundamentally mischaracterize VB
  - Parties such as IEP/WPTF claim MRTU already has VB because load can “under-schedule”
    - They then demand VB for generators for “symmetry”
  - However, load submitting a price responsive bid in the day-ahead market (aka “underscheduling”) is not VB
  - Likewise, supply that submits a price responsive bid day-ahead is not VB
  - Rather, price responsive supply and demand is the norm of any functioning market
Virtual Bidding - Continued

- Who can use VB?
  - Can IOUs use it? Not today - requires CPUC’s approval and rules, modification to procurement plans

- How to implement VB in California?
  - PJM Model: on a nodal basis
  - New York Model: on a zonal basis
  - Alternative: match VB sales and purchase bids at the price established by the day-ahead IFM

- Should RUC Costs be allocated to VB in real-time settlement?
  - VB may cause RUC costs in some case, not in others

- Market Information on VB
  - How much information will be available after the fact, and when
Virtual Bidding - Continued

- VB has potential impacts on markets
  - Both prices of the day-ahead and real-time markets
  - Physical generation commitment/dispatch to serve load
  - Physical usage of transmission lines (virtual congestion)
  - Increased dependence and cost of RUC
  - Impacts may depend on implementation details

- Potential games – examples
  - VB load at a congested node with CRRs
  - VB load in a uncompetitive load pocket
    - By supplier to trigger price increase, or
    - By buyer to induce local market power mitigation
  ➔ Effective market monitoring and rules are essential
Forward Load Scheduling Requirement

- SCE’s position: A day-ahead scheduling requirement is unnecessary and inappropriate
  - Fear of load underscheduling not well founded
  - MRTU rules discourage purchases in real-time
  - Resource Adequacy ensures adequate supply in the day-ahead market
  - RUC process gives ISO ability to fix any day-ahead under-commitment problems
  - If CAISO observe problem resulting from overusing the real-time market, the situation should be analyzed and a proper solution should be implemented at that time

- Is MRTU a market or not?
  - A market has both sellers and buyers making choices
  - If we don’t want to run a market, and instead want to force buyers to be price takers, then we must require sellers to bid at marginal operating cost
  - If a 95% price taker rule is implemented, sellers have an economic withholding incentive
Comparing to August 99, the three IOUs were willing to pay higher prices to purchase more power in the PX day-ahead market.
Sellers’ Bidding Strategy in the PX for Summer 2000

- Comparing to August 99, sellers reduced the supply offers by about 8,000 MW at reasonable prices in the PX day-ahead market.
Virtual Bidding and Scheduling Requirements in MRTU

Gary A. Stern, Ph.D.
Director of Market Strategy & Resource Planning
Southern California Edison