

MRTU Workshop on Demand Response- November 2, 2006 *Post-it® Notes Feedback*

Listed below is the “Post-it® notes” feedback the CAISO received from the workshop participants. The comments have been compiled within each of the noted buckets as explained by the CAISO in the workshop. In a few cases, the CAISO took very minor liberty in clarifying some misspellings and missing words; for the most part, however, these notes are verbatim.

OPPORTUNITIES

- ISO should have mechanisms to address over-generation problems. When over-generation problems are solved, in some degree, the over-load problem will be mitigated assuming total load keeps the same.
- Better coordination between ISO and LSE's on how demand response will be used/incorporated into the RUC (Residual Unit Commitment) process. This should be coordinated and written down so there is no confusion.
- Research ISO's in other States and copy successful programs.
- Allow aggregators to participate in all DR programs.
- How to get automatic DR to happen?
- Permanent peak load shifting?
- Can CAISO notify of an emergency a day-ahead?
- CAISO and stakeholders can:
 - Define standards for the DR product
 - Integrate and synchronize DR with the MRTU (Market Redesign and Technology Upgrade) and RA (Resource Adequacy) processes... and more
- Develop different types of DR products – ISO specified.
- ISO could expand opportunities for DR to qualify as participating load.

CHALLENGES AND BARRIERS

- Demand response certainly seems like a burden and not an opportunity. Until this changes, can we expect wide spread adoption/use of demand response?
- What do we file on 11/20/06 (the date when the FERC filing is due)? A timeline for further work?
- What is the “end state” that parties see for DR?
- Ensuring DR products are least cost.
- How will load reductions that have a “shape” over a number of hours be accounted for in the ISO market? (e.g. a thermostat set-up for a large building or for a PCT program?)
- Market rules too complex.
- MRTU timeline designed for generator operations. Need to consider revisions to better align with demand response products.
- Process for qualifying new participating load/Dispatchable Demand Response (DDR)
- Considering the problem DR solves, that is, either peak load or a system emergency resulting from a technological failure (transmission line or generator outage), how can the ISO market redesign address the differences characterizing those needs yet utilize some the same DR resources?

BARRIERS

- Participating load inter-temporal constraints should include minimum down time.
- The ISO Day-Ahead Market and/or RT price alone in the few hours of the year where demand reduction is most beneficial is not sufficient to stimulate DR program participation by customers.
- Cost-effectiveness: need new approach to value DR at peak. Customer's value proposition is different than generator's. Incentives may need to exceed the avoided combustion turbine (CT) cost.
- The ISO model for participating load (i.e. resource ID for scheduling and reporting meter data) will be difficult, if not impossible to implement for Demand Response offered from Non-Participating load.
- Price cap imposed on demand response.
- Raise bid cap for all (load and generation).
- Damage control caps discourage DR participation. "Why bother if I'm protected from real high prices?"
- Develop markets without raising rates.
- Triggers for DR not transparent.
- Metering.
- Forecasting real time prices. Real time prices now have high variability.
- Load aggregation points (LAP's) versus nodal pricing.
- Limiting aggregation to a local area.
- Participating Load should be able to bid into the RTM.
- Telemetering requirements.
- SCADA, etc. requirements for participating load.

DISCONNECTS

- Price/Demand relationship is erratic.
- If there are no meter installed, DR will be hard to implement and it will be hard to track UFE.
- Side payments for cost-recovery (start-up etc.) dilute prices. All costs should be recovered from market prices.
- DR should count toward resource adequacy, always.
- How do real time settlements work for non-participating load?
- Why call the baseline program in MRTU "non-participating load" – even this is a resource participating in ISO markets.
- I don't think ISO "learning" software for forecasting DR use for RUC purposes can ever be as good as pre-coordination with LSE's.
- Time schedules and disconnects (e.g. demand bidding at 2:00 pm) after market clears.
- Is market power mitigation placed on load bids?
- Wholesale and retail markets disconnected.
- What is the real difference between price responsive and reliability type DR?
- The success of the demand response programs from non-participating load does not rely on specific settlement for demand reduction by ISO outside of normal settlement for load
- What will the procedure be to ensure LSE and ISO communications to allow for manual adjustments in the RUC processes.

GAPS

- Resource adequacy credit.
- Process for bundled and unbundled customers in MRTU – how to handle?
- What level of prices has been shown to produce large amounts of DR?
- ISO publishing the heat rates (so customers could know when they might be called).
- Posted real time price versus settled real time price.
- More data on system conditions but disaggregated geographically (by zone, load area, transmission line, etc.)

- ISO role is to facilitate demand response and the will of the LRA's (Load Regulating Agencies) and Load Serving Entities (LSE's).
- Wholesale prices don't reflect scarcity (gap).
- Does not appear that the potential for double payment has been properly thought out on days a DR program is called. Need more transparency in how DR activation is forecast in ISO load forecasts.
- How do you measure the DR you actually got?
- Integration of DR & resource adequacy under MRTU.
- Education – Bridge gap between MRTU and DR industry.
- There should be three parts for participating load: shut down, opportunity costs, and energy cost.
- Can DR resources be treated like generation resources in a resource planning framework in terms of order of dispatch – i.e. creation of a DR resource stack where the least cost resource is dispatched first.
- Price responsive DR needs price signal first. Without price signals, DR cannot respond to price signals.
- Long term price signal in TAC to shift load from peak to off-peak.