Background

- Multi-stage generating units
  - Multiple units under one resource id
  - Combined Cycle units (gas / gas x steam)
  - Pump storage hydro units (off-line / generating / pumping)

- Forbidden Operating Regions
  - Must be dispatched \textit{through} ranges
  - Functionality does not optimize with respect to embedded generators or associated constraints or costs
Additional Background

- Forbidden Region functionality led to stability and performance issues in Market Simulation
- Suspended per October 2008 BOG meeting
- FERC mandated implementation of combined cycle modeling within three years of MRTU go live
- Highly ranked in the Market Initiatives Roadmap
- Timeline for implementation is being shortened
More accurately models multi-stage units so that…

- Participants don’t have incentive to deviate from dispatches
- Participants don’t need staff monitoring dispatches 24/7
- ISO operators don’t have to use Exceptional Dispatch to guard against infeasible dispatches
- Participants can effectively offer the flexibility of these units into the market
- Multi-stage units are kept in the market!
The Straw Proposal

- Configuration-based modeling of MSG units in the IFM
- Participants may submit bids for configurations of their MSG units
  - Possibly need to limit number of configurations
- If a configuration is chosen in the IFM, it is fixed in RT
- If no configuration is chosen in the IFM, a bid for one configuration of the Participant’s choice may be submitted into the RTM
The Straw Proposal, part 2

- Ancillary Services
  - Configuration-level certification of AS capability
- Information Submittal
  - Comments on ERCOT’s RARF?
- Bid Cost Recovery and Settlements
  - BCR will be calculated using configuration level costs
  - Net revenue will be at the resource level
  - Settlements statements will be at the resource level
Market Power Mitigation – an example

- MPM will take place at the configuration level
  - MSG with a resource ID = A, and two configurations 1 and 2
  - In CC run, we have (A, 1) producing 100 MW
  - In AC run we have (A, 2) producing 120 MW
  - Thus, A has received an incremental dispatch of 20 MW
  - Consequently, both (A,1) and (A,2) have their energy bids flagged for mitigation
Next Steps…

- Your comments due March 4
- Draft final proposal to be posted March 10
- Presentation to BOG for approval March 24-25
- Target for implementation is November 2009
Questions, comments and concerns…

Please submit comments on the Straw Proposal by March 4, 2009

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