IMM Revised ORDC Proposal

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PJM ORDC Proposal

- PJM’s ORDC procures too many reserves and pays the reserves too much.
- The PJM approach is not similar to those used by other FERC jurisdictional RTOs.
- With nesting of products and zones, PJM’s ORDC includes higher prices than ERCOT’s ORDC that is meant to substitute for a capacity market.
- The IMM proposes a more conservative ORDC than PJM’s approach.
Review of Other RTO ORDCs

- ISO New England
  - Vertical demand up to penalty factor, no sloped curve
    - 30 Minute Reserves $2,000 per MWh
    - 10 Min. Not Synchronized $3,500 per MWh
    - 10 Min. Synchronized $3,550 per MWh
  - Escalating penalty factors for reserve subzones
- New York ISO, California ISO, Southwest Power Pool
  - Stepped demand curves for shortages only
- Midcontinent ISO
  - Sloped and stepped curve for shortages only
MISO and MISO IMM Proposed ORDCs

Source: Potomac Economics, 2016 State of the Market Report for MISO, Analytical Appendix, Section V.F.

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SPP Contingency Reserve Demand Curve

IMM Revised ORDC Proposal

• Simple ORDC: vertical demand with penalty factor
  • Consistent with precedent of other RTOs
  • Used for both synchronized and primary reserve
• No sloped curve, no extension beyond MRR
• Identical curves in day ahead market
• Max price equal to energy offer cap
  • $1,000 per MWh, unless PJM has approved a higher cost-based offer, per FERC rules
  • Increases at $250 per MWh increments with higher approved cost-based offers, up to $2,000 per MWh
• Note: Further development needed for consideration of IMM’s previous proposal, Intertemporal ORDC based on operator actions.
Operator Actions

• Operators may increase the minimum reserve requirements under predefined conditions.
  • Change in the largest contingency (Synch., Primary)
  • Extreme weather (Synchronized, Primary)
  • Gas contingencies (Secondary)
• The increased requirements will have defined start and end times.
• PJM will post on its website:
  • The active minimum reserve requirements
  • The reason for any increased reserve requirements
  • The beginning and end times for the increased reserve requirements
Secondary (30 Minute) Reserves

- Eliminate Day Ahead Schedule Reserves
- Default requirement is zero
  - Consistent with no NERC requirement
- Secondary reserves may be created with an ORDC based on a PJM defined contingency
  - such as a gas contingency
  - defined under the operator actions provisions for increasing a minimum reserve requirement
- Penalty factor is $1,000 to $2,000 per MWh, as with synchronized and primary reserves.
- Demand Response should participate under the same rules as generators.
IMM Proposed Default ORDCs

- **Secondary**
- **Primary**
- **Synchronized**
IMM Proposed ORDCs with Approved Cost Offer of $1,100 per MWh and Defined Gas Pipeline Contingency