Comments on PJM ORDC Proposal

- The ORDC estimation method proposed by PJM is an adaptation of the ERCOT method.
- The ORDC means that PJM will buy more than current synchronized reserve levels and pay higher prices for synchronized reserves.
- Used within the energy and reserve joint optimization, the estimated ORDCs would lead PJM to carry more online capacity than it has historically.
- The implication is not only a change to price formation, but also a change to operations and revenues.
Illustration of Supply and Demand ORDC Spring T Block 3 (0700-1000)

- Reserve Price ($/MW)
- Reserve Quantity (MW)
- Synchronized Reserve Supply Curve
- Rampable Capacity with Zero Opportunity Cost (Tier 1)

- ORDC
- MRR (MW)
PJM will bring additional capacity online to equate supply and demand.
ORDC and Scarcity Pricing Purpose

- What is the marginal value of ten minute reserves?
  - Consumer demand is unknown and scarcity pricing is not used to allocate scarce energy among consumers.
  - Microeconomics does not provide a theoretical basis.

- Administrative demand curves
  - Scarcity pricing should send a price signal to generators and responsive load sufficient to resolve scarcity, but not so excessive as to create windfalls.
  - In the absence of scarcity, a comparison of costs to benefits of carrying additional reserves is appropriate.
ORDC and Scarcity Pricing Purpose

- PJM’s goal is to price reserves procured beyond the minimum requirement.
  - Operators’ commitment of additional synchronized reserves reveal the actual additional MW desired.
  - Synchronized reserve market costs reveal the expense of carrying MW beyond the reserve requirement.
IMM ORDC Proposal

• Goal: construct a demand curve that provides an appropriate price signal for additional reserves
  • PJM’s ORDCs will send a price signal to procure additional reserves, more than historic levels.
  • A less dramatic change to the ORDC can produce the desired results at a lower cost.
  • The IMM proposes an ORDC using historic operator demand for additional reserves and sufficient, but not excessive, prices for market procurement of additional reserves.