

ORDC Shape Options

EPFSTF

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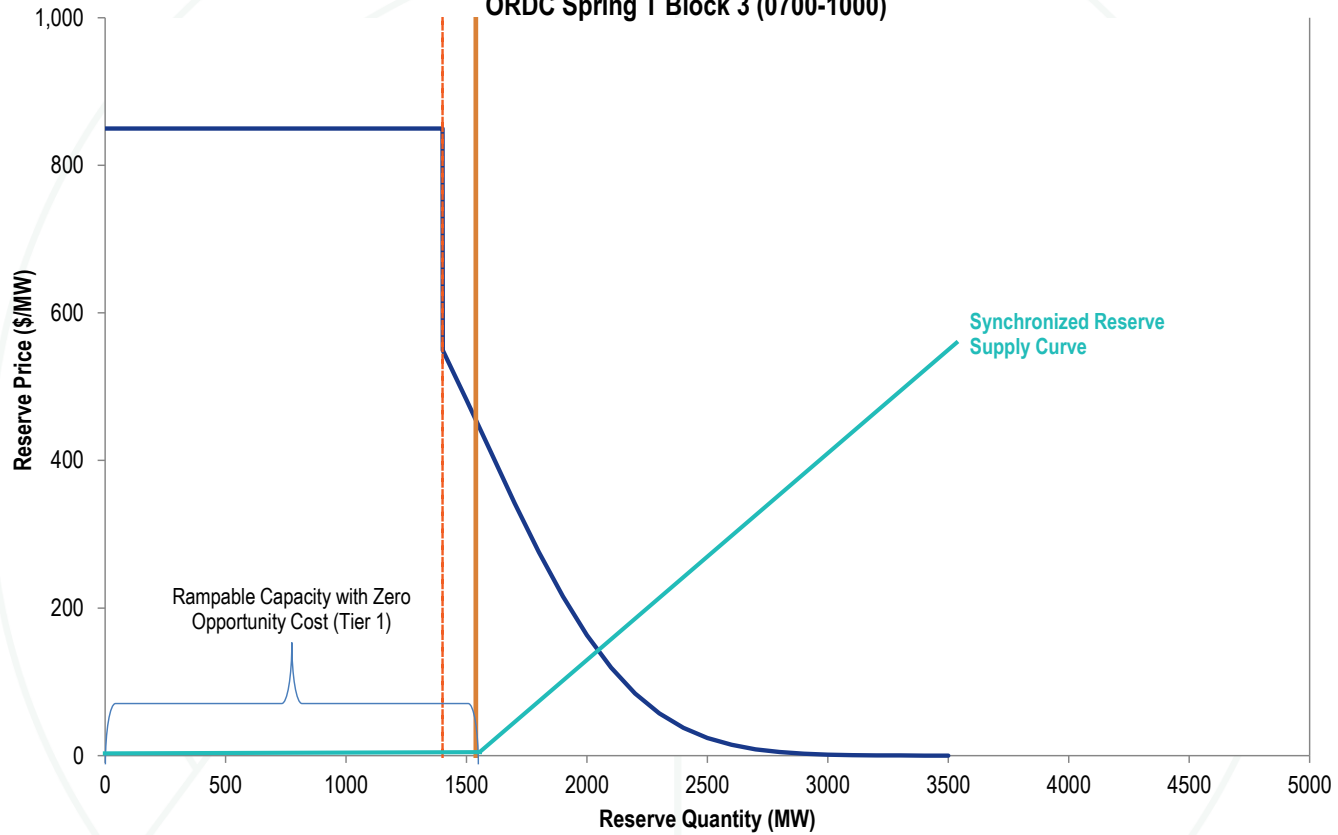


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Comments on PJM ORDC Proposal

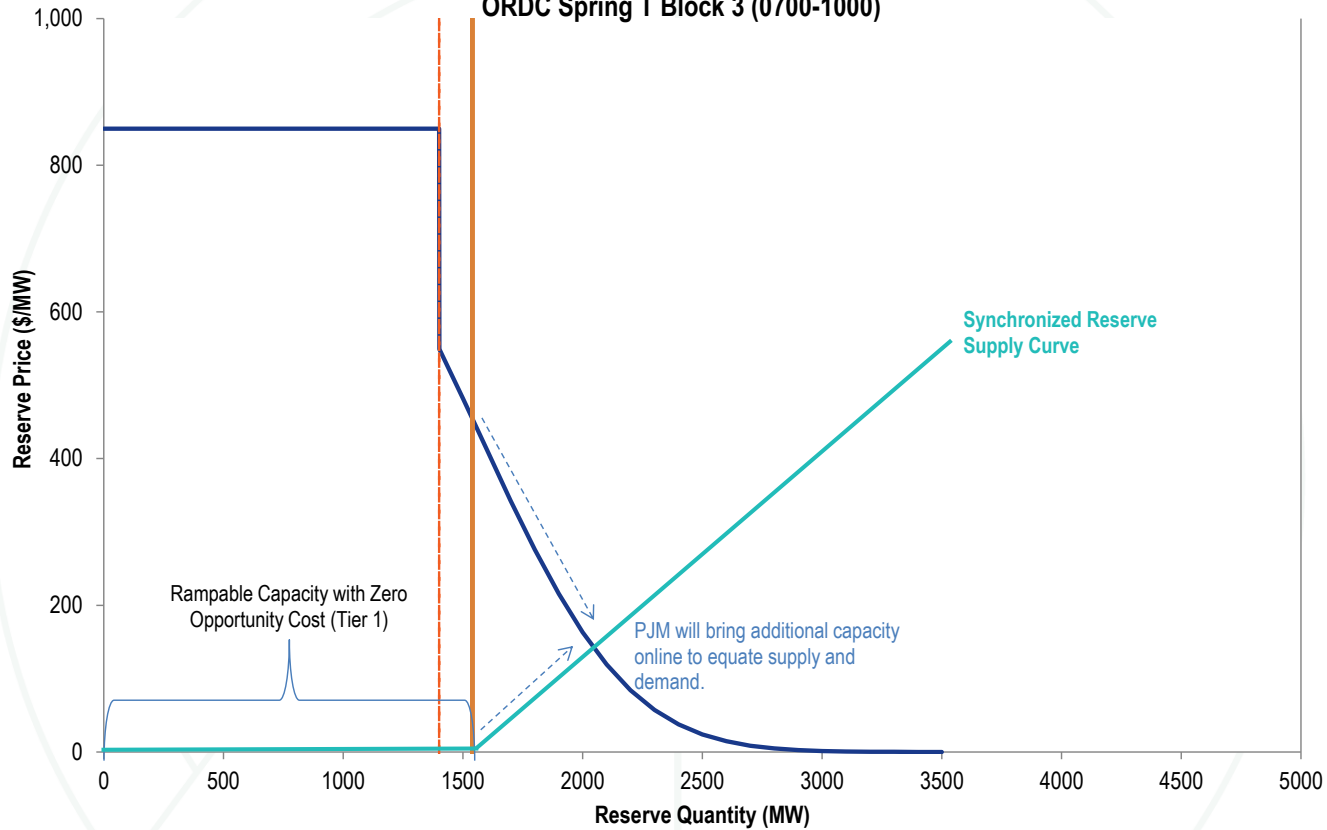
- **The ORDC estimation method proposed by PJM is an adaptation of the ERCOT method.**
- **The ORDC means that PJM will buy more than current synchronized reserve levels and pay higher prices for synchronized reserves.**
- **Used within the energy and reserve joint optimization, the estimated ORDCs would 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)



— ORDC - - - MRR (MW) — Median RTO Sync Reserves (2015-2017)

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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.**

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