

Treatment of Emergency Resources in Scarcity Pricing Construct

SPWG

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Monitoring Analytics

Accounting for Emergency Procedures

- **Goals in accounting for emergency procedures:**
 - Recognize that emergency *procedures* will impact reserve position and without intervention may cause prices to fall inappropriately
- **Approach should offset MW provided by administrative emergency procedures not priced in the PJM market:**
 - Manual load dump
 - Voltage reduction

Accounting for Emergency Resources

- **Goals in accounting for emergency resources:**
 - Recognize that emergency *resources*, such as max emergency and emergency DR, are economic resources.
- **During stated emergencies, approach would not offset qualifying MW provided by emergency resource MW priced in the PJM markets:**
 - Emergency DR
 - Maximum emergency MW
 - **Capacity recalls**
 - Emergency purchases

Accounting for Emergency Resources

- **Capacity recalls**

- **Part of the definition of a capacity resource**
- **As part of final scarcity design need written procedures on when and how to recall**
- **As part of final scarcity design need documented methodology to determine the amount of recallable capacity**
- **As part of final scarcity design need data based on methodology**



Accounting for Emergency Resources

- **Include emergency resource MW as energy:**
 - **Will help eliminate gaming opportunities created by allowing changing MW classifications (economic/emergency) during times of scarcity to affect market prices**
 - **Will properly recognize available qualifying market resources that are available for dispatch or have been deployed**
 - **Will avoid measurement error of calculating offsets for deployed (economic/emergency) resources**
 - **Will allow the optimization software to recognize and appropriately price changes in system conditions**

Issue: Dispatch of Emergency Demand Response Resources

- **Locational Dispatch of Emergency Demand Response (DR)**
 - **Identified issues:**
 - **Emergency DR Resources are deployed in bulk**
 - **1 hour and 2 hour notification times**
 - **Inadequate metering (data regarding the amount of DR available vs. already deployed)**
 - **Unknown location of the resource.**
 - Zone vs. Reserve Area?
 - Constrained side of a constraint?
 - **Need other options to call emergency DR in a more refined way to better maintain operational control**



PJM Proposal: Dispatch of Emergency Demand Response Resources

- **PJM proposals to date have focused on identifying resources by zone**
 - **Calling by price first**
 - **By groups of MW (% or totals)**
 - **Trying to find a way to have emergency DR set price**
 - **Working on ways to get better “real time” data**



MA Comments: Dispatch of Emergency Demand Response Resources

- **To improve reliability, the goal should be to improve the ability to dispatch resources on a locational basis**
 - **Metering (data regarding the amount of DR available vs. already deployed)**
 - **Need hourly data validation of dispatched/available MW**



MA Comments: Dispatch of Emergency Demand Response Resources

- **Absent telemetry and location, DR should not be able to set price**
- **Absent telemetry and location, allowing DR to set price will cause control issues under scarcity**
 - **Not consistent with locational pricing**
 - **Pricing not consistent with dispatch**
 - **Any change should be consistent with application to DR in all hours**
 - **Would need to develop mitigation rules for DR in energy market**

