

Electric and Gas Coordination

EGCSTF

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IMM



Monitoring Analytics

Task Force

- **The MMU supports improved coordination among pipelines, PJM and generators.**
- **The MMU supports modeling improvements that better reflect generators' actual operations (e.g. soak time, combined cycle modeling).**
- **The MMU does not support customer guaranteed payments during emergencies or at any time.**



Task Force

- **The MMU does not support the transfer of pipeline or generator risk to customers.**
- **The assignment of gas availability and price risk to capacity resources should be clarified.**
- **The obligations of capacity resources to obtain gas supply and pipeline transportation with defined reliability characteristics should be clarified.**
- **PJM should have full information about the pipeline and gas supply arrangements and dual fuel supply arrangements of all generators.**

Existing Market Design

- **Generators offers can be based on price and cost.**
 - **Price offers are limited by the greater of cost or \$1,000/MWh.**
 - **Cost based offers that affect LMP are limited to \$2,000/MWh.**
- **Day ahead cost offers reflect the expected or actual cost of next day gas.**
- **Generators have the ability to update their cost offers in real time to reflect intraday gas prices.**
- **Offers can be submitted hourly to reflect the differences between gas days and power days.**

Existing Market Design

- **Generator offers also include operating parameters.**
- **Cost and price PLS offers have limits on their operating parameters.**
- **These limits are based on the operational capabilities of the generators.**
- **Under the existing rules, exceptions are allowed to reflect contractual constraints, such as pipeline ratable takes.**

Issues

- **Gas market issues include:**
 - **Pricing transparency**
 - **Weekend pricing**
 - **Market power**
- **Pipeline issues include:**
 - **Definitions of pipeline restrictions**
 - **Definitions of characteristics of pipeline service**
 - **Pipeline charges (e.g. balancing)**
 - **Ownership of pipeline capacity**
 - **Market power**

Issues

- **PJM market issues include:**
 - **Gas pricing in day-ahead offers**
 - **Definition of fuel related unavailability/outages**
 - **Obligations of capacity resources**



Pricing Transparency

- **Limited transparency in the natural gas spot market.**
- **More transactions based on indices vs fixed prices.**
- **Offers of gas generators in PJM are based primarily on estimates of gas costs.**
- **Estimates of gas costs are based primarily on fixed price transactions.**
- **Fewer fixed price transactions may mean less reliable estimates of gas costs.**
- **More generators rely on independent third party quotes.**

Pricing Transparency

- **On critical days, the source of third party quotes is concentrated among a few suppliers.**
- **This creates the potential for the exercise of market power in gas supply.**



Definitions of Pipeline Restrictions

- **Pipelines have different criteria for declaring conditions in which services are limited.**
- **On some days, these limitations are not consistent with the observed market prices.**



Weekend Pricing

- **On weekends, holidays and end of the month, the most common next day gas product is a package that includes multiple days.**
 - **For example, a Friday trade covers Sat/Sun/Mon.**
- **This price may not be reflective of market conditions, e.g. a cold Monday after a mild weekend.**
- **Little market activity that reflects the value of gas on the individual weekend days.**

Fuel Availability

- **Gas fired units declare gas unavailability when:**
 - **Notified by pipeline/LDC/supplier.**
 - **Asked by PJM to run and not able to procure gas.**
- **Day-ahead offers frequently based on estimate of gas cost without purchase/option of gas supply.**
- **There is an incentive to overstate fuel cost in the day-ahead offer.**
 - **Reduce the probability of a PJM commitment**
 - **Reduce need to declare a forced outage**

Summary

- **Significant gas related issues cannot be addressed by PJM market design: natural gas market; pipelines.**
 - **Stakeholder recommendations to FERC are important.**
 - **Market power in the gas market should be addressed.**
- **Increased gas generation has increased significance of gas/electric issues.**
- **Definition of capacity resource obligations need to be clarified.**
 - **Assignment of risk clarified.**
 - **Clear guidelines needed declaring gas fired units unavailable due to lack of fuel.**

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