

## Gas Unit Commitment Coordination

### Problem / Opportunity Statement

The cold weather operations of January 2014 highlighted issues with gas/electric coordination. If the gas pipelines impose restrictions on gas purchases and therefore the gas fired units, PJM is faced with a challenge whereby units that are normally the cheapest and most flexible units in the PJM market suddenly become the most costly and inflexible units on the system. If this is localized in nature to a few units, it is manageable. However, if the restrictions begin to impact units across the entire footprint, optimizing the economic dispatch of the system and maintaining reliability becomes much more challenging. In general, the process for longer lead gas unit commitment would benefit from improved clarity, transparency and standardization.

Specific areas of concern that were observed include:

- Some generators required longer lead/notification times from PJM to allow the generator owners to make gas purchases but the operating restrictions were not able to be communicated to PJM through the current tools
- Some generators expressed that gas pipeline restrictions led to inflexibility of unit operation (i.e. long min run times, no dispatchable range) of units that are normally flexible.
- In order to maintain reliable operations, PJM needed to make unit commitment decisions multiple days in advance of operating day with incomplete information of unit operating parameters and prices.
- PJM needed to release units that had a prior verbal commitment based on economics without the ability for the units to recover "stranded" gas costs if the load materialized lower than forecast or additional interchange came into PJM.

These issues should be addressed through the PJM Stakeholder process to prevent potential future reliability issues or increased uplift costs which could be associated with the situations described above.