



Fuel Security for Black Start Resources

Risk Assessment of Gas Supply Limitations

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PJM collaborated with Argonne National Labs during the hiatus

Study Objective

- Assess gas supply availability risks to critical generation during a system-wide blackout

Argonne Scope of Work

- High level coarse analysis to identify generators or areas of footprint at risk for insufficient gas supply as a result of blackout

Assumed a blackout occurring during average January conditions (January 2019 temperatures utilized to forecast demands)

Estimated gas demand reduction due to loss of a portion of residential, commercial and industrial heating loads

Utilized interstate pipeline and local distribution company topology and demand levels which were current at the time of the study

Utilized PJM generation resource mix at the time of study

No incremental natural gas restrictions considered

Minimal gas supply impacts identified

- Pipelines able to maintain adequate pressure with existing gas fired compressor stations

No significant impact to black start or critical load generation

Study results strictly based on loss of electric supply as the primary stressor

- Meant to serve as a baseline assessment
- Expansion of this study to include additional stress variables (extreme weather, pipeline disruptions, etc.) occurring simultaneously with the blackout would clearly increase supply risks

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Fuel Requirements for Black Start Resources