

Fuel Requirements for Black Start Resources Informational Update

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Background

- There are currently no universal minimum fuel assurance requirements in PJM business rules. PJM currently assigns a higher weight to proposals for fuel assured black start resources in the black start procurement process.

FRBSR Purpose

- Develop fuel assurance business rules to mitigate the impact of non-fuel assured BS resources being unavailable during a restoration event due to fuel unavailability.

Timeline

- Work started in Jan 2019, continued through early 2020, with a planned vote on packages in March 2020; Hiatus began March 2020

Fuel Requirements for Black Start Resources (FRBSR) Hiatus Key Focus Areas

- More detailed analysis of restoration time impacts
- Measure of benefit or risk reduction
- Risk assessment of gas supply limitations



Summary of FRBSR Stage 2 (Hiatus) Key Activities and Results

More detailed analysis of restoration time impacts



Enhanced analysis of increase in restoration time for all affected TO zones; coordination with TO / EPRI



Zonal impacts and high impact black start sites identified

Measure of benefit or risk reduction



Comparison of expected cost of a blackout to the fuel assurance conversion costs



Methodology for cost/benefit analysis for evaluation of fuel assurance conversions

Risk assessment of gas supply limitations



Argonne Study to determine gas constraints during restoration event without pipeline disruption



Minor gas supply impacts identified; pipeline disruption scenarios would further impact black start fuel supply risk

Stage 1 FRBSR Work

2019 – 2020

- Level of Fuel Assurance
- Universal Fuel Assurance Requirements
- Fuel Assurance Solutions by Primary Fuel Type
- Testing & Verification Requirements
- Compensation Mechanism
- Implementation Plan
- Solution Packages



Stage 2 Hiatus Work

2020 – 2021

- Enhanced Restoration Time Analysis
- Cost / Benefit Analysis Methodology
- Gas Supply Risk Assessment



Stage 3 FRBSR Considerations

2022

- Updated Design Component Details and Solution Packages
- Enhanced Definitions of Fuel Assurance
- Hydro Packages to align with ELCC
- Inputs from FERC/NERC ERCOT Report

Q1 2022

- Resume FRBSR stakeholder process (Feb/Mar)

Q4 2022

- Complete stakeholder endorsement of solution package

Q3/Q4 2022

- Reach stakeholder consensus on a solution package

Q1 2023

- Begin RTO Wide Black Start RFP process for April 2025 Black Start Implementation

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Fuel Requirements for Black Start Resources



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