

Fuel Assurance for Restoration

Problem / Opportunity Statement

Existing Black Start Replacement processes as developed by the System Restoration Strategy Sr. Task Force include the 5 Year RTO Wide RFP process, the Incremental RFP process (to address black start shortages between the 5 Year RTO Wide RFP cycles), and the Reliability Backstop process (in the event that the RFP processes do not result in viable Black Start Service solutions). Assessment of fuel supply capabilities for black start RFP proposals has been a part of these RFP processes, but was included with other technical, operational and cost factors. There is currently no fuel assurance requirement for black start resources, other than an existing OATT Schedule 6A provision for black start units to maintain fuel to allow for 16 hours of run time. With the increased industry focus on resilience, PJM is questioning whether this existing requirement is sufficient for ensuring fuel assurance for black start resources of all fuel types.

PJM considers fuel assurance to be the ability of a unit to maintain full output during periods of fuel limitations caused by events such as seasonal weather extremes and high impact low frequency events. Examples of high impact low frequency events include pipeline failures or physical and cyber security events on a critical portion of a gas pipeline upon which black start resources may depend for fuel. Initial analysis of PJM's existing black start fleet indicates that approximately half of the units demonstrate fuel assurance, through dual fuel capability, onsite fuel storage or multiple gas pipeline connections.

In 2017 PJM took a first step towards increasing the significance of fuel assurance in the black start RFP proposal evaluation process by revising business rules (Manual M14D) to reflect an increased weighting of fuel assurance in the RFP proposal evaluation phase. PJM's evaluation criteria maintains reliability and cost objectives while giving a higher weighting to black start RFP proposals that have either dual fuel capability, secure onsite fuel storage (for any fuel type), or primary firm transportation contracts (for natural gas units), as compared to proposals for black start resources that are less fuel secure. These business rules are applicable to the current RTO Wide RFP process, for new Black Start Service resources to be available by 2020.

Increased weighting in the black start RFP process is a step in the right direction toward improving the fuel assurance of new black start resources. PJM would like to consider developing additional fuel assurance requirements as necessary to mitigate against high impact low frequency events for all new and existing black start units, including all applicable fuel types.