PJM Black Start Replacement Process

SRSTF Meeting
October 5, 2012
PJM Manual M14D Section 10

Current Black Start Replacement Process

Additional Triggers for Black Start Replacement Process

GO makes Deactivation Request to PJM PSC Dept. within 90 days of Proposed Deactivation Date.

PSC Dept notifies TO of impending black start retirement.

PJM and TO hold discussion about impact of black start retirement/services termination and/or replacement options.

PJM & TO disagree about need for black start replacement.

PJM & TO agree that black start replacement is not required.

PJM & TO agree that black start replacement is required.

PJM initiates final review and approval through SOS-T.

SOS-T approves retirement without replacement?

Disagreement Resolved?

Employ PJM Dispute Resolution Process.

Any offers meeting replacement criteria received?

PJM and TO coordinate with the GO for acceptance under PJM OATT as black start.

PJM and TO will investigate the cause for the absence of bids, and recommend corrective actions, to cost based service in accordance with the existing process outlined in Schedule 6A of the PJM OATT.

PJM and TO expand criteria and market window.

Replacement criteria previously modified?

PJM posts online notification requesting cost based offers for black start replacement.

TO also has option of negotiating bi-lateral contract with a GO as one of the cost-based offers to be evaluated.

PJM and TO determine (or modify) location and capability requirements for black start replacement.

TO identifies new or changed black start needs as a result of a review of its restoration plan and notifies PJM.

TO provides notice of termination to PJM & GO one year before the date the commitment period ends.

PJM provides notice of termination to TO & GO two years before the date the commitment period ends.

GO notified that unit can retire.
Black Start Replacement Process Overview
PJM Manual M14D Section 10

• Used for replacement of critical black start units in PJM when:
  • GO terminates commitment to provide black start service
  • PJM or TO terminates black start service
• PJM and TO confirm need for replacement black start
• PJM issues RFP based on PJM / TO technical parameters
• 90 day market window for RFP
• PJM and TO select most cost effective alternative considering:
  • Geography / Redundancy
  • Operational Details
  • Generator Condition
  • Project Scope / Schedule
  • Cost / Cost Recovery

• If no RFP bids received, PJM and TO revise technical requirements and issue revised RFP

• If still no bids received, PJM / TO pursue other alternatives

• Cost recovery in accordance with OATT Schedule 6A
Timeline of Black Start RFPs and their Respective TO Zones:

- **2006**: ComEd
- **2007**: PPL
- **2010**: APS
- **2011**: BGE (ATSI (1st)), AEP (1st)
- **2012**: DVP (ATSI (2nd)), AEP (2nd), PEPCO

Note: Requests for Information (RFIs) were also posted in 2011 (BGE) and 2012 (NJ) to assess market participant interest.
Challenges / Areas for Improvement

- Timing of one year termination notice / RFP process
- Refurbishment process
- Process Improvements for PJM / TO analysis
  - Clarity on M36 definitions
  - Data tracking / Automation
- Cross zonal solutions
  - Restoration Plans / Cost Allocation
• PJM OATT Schedule 6A
• PJM Manuals:
  – M12 – Balancing Operations
  – M14D – Generator Operational Requirements
  – M27 – OATT Accounting
  – M36 – System Restoration