RTO Blackstart Procurement Methods

System Restoration Strategy Task Force
Blackstart Generation is procured in PJM by:

- Automatic Extension of Existing Blackstart Unit’s Rolling 2 year Commitment
  - One Year Advance Notice by Generator, TO, or TOP required to Terminate
- Bilateral Contract between TO and Blackstart Generator
- Black Start Replacement Process - Section 10 Manual 14D
  - Request For Proposal on PJM.com
  - Initial Term under Base Formula Rate is Two Years.
  - Initial Term under CRF Rates based on Age of the Unit
• Black Start Resources Bi-annually submit Bids to ERCOT to provide Black Start Service on or before June 1\textsuperscript{st}

• A Resource Entity may propose an alternative Resource during the Two Year Period. ERCOT at its sole Discretion may accept or reject the alternate.
• The New York ISO:
  – Periodically reviews the ISO Plan and Determines the amount and location for Black Start Capability Generation.
  – Has the Flexibility to seek Bids for new Resources when it Amends the Current ISO Plan
  – Selects Generators for Black Start Capability based on Location, Price and Quality of Supply
New York ISO Blackstart Procurement

• Black Start Generators in NYISO have a Rolling Three Years Commitment
  – One Year Advance Notice in Second Year of Initial Three Year Period or at the End of a Subsequent Two Year Period to Terminate.

• Load Serving entities must purchase Black Start Capability from NYISO (No Self Supply).
• ISO New England System Restoration and Planning Service
  – ISONE designates specific Generators as “Black Start Capable”.
  – The ISO Chair of the System Restoration Working Group (SRWG) is responsible for designating Black Start Generators.
  – Annual Blackstart/System Restoration Study.
  – All transmission entities share the costs to provide this service and must buy it from the ISO.
• Black Start Capable Generators
  – Minimum Three Year Rolling Commitment
  – One Year Notice by Generator or ISO to Terminate (Cannot Truncate Commitment).
  – Commitment is not binding in the event of Unit Retirement of Force Majeure. However, One Year Notice is Binding.
• The CAISO determines the amount and location of Black Start Generation it requires through Contingency Studies that are the basis of the CAISO Emergency Plans.
• A Generator wishing to be Certified for Black Start Service must make a written request to the CAISO.

• The CAISO contracts annually (or for such other period as the CAISO may determine is economically advantageous) for Black Start Generation.

• Black Start Service may be Self Supplied
• The TO is responsible for identifying the Black Start Units included in its Restoration Plan
• In order to qualify for Compensation, Black Start Generators must submit to MISO an Executed Service Agreement with either the TO or MISO.
  – Initial Three Year Commitment
  – Generator or TO may Terminate with Written Notice Two Years before end of Commitment (Absent Force Majeure)
  – If no Notice, Commitment automatically extends for an additional year to maintain rolling Three Year Commitment.
• SPP develops and maintains Regional Black Start Plan in accordance with NERC Standards.
  – Annual Review
  – Proposed Changes to the Operating Reliability Working Group for review and approval.

• Each member shall develop and maintain a detailed internal Black Start Plan:
  – Identification of black start resources including generating unit resources, sufficient fuel resources, transmission corridors or paths, communication resources and power supplies, mutual assistance arrangements
Summary & Comparison

• Black Start Procurement Summary
  – PJM – TO via Bi-lateral Contract, PJM via RFP
  – ERCOT – Bi-Annual Bid Process
  – NYISO – Can Request Bids for new Resources, No Self Supply
  – CAISO – Contract with CAISO, May be Self Supplied
  – MISO – TO Identifies, Service Agreement with MISO or TO
  – SPP – TO Responsible