

PJM Black Start Reliability Backstop Process Education and Next Steps

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Reliability Backstop process

needed to secure Fuel Assured (FA) Black Start (BS) to meet the minimum requirement of one per zone and is **not** due to a shortage of Black Start power.

FA BS resources are required to maintain a minimum of 16 hours of fuel and non-fuel consumables for system restoration to reduce the risk of BS unavailability due to fuel.

Fuel Assurance Options PJM Manual 36, Attachment A	
1	FA BS with on-site fuel storage
2	FA BS capable of operating independently on two or more interstate gas pipelines
3	FA BS directly connected to a natural gas gathering system ahead of any interstate pipeline
4	Hydro BS that meets criteria in PJM Manual 12, Section 4.5
5	Non-hydro intermittent/hybrid BS that meets criteria in PJM Manual 12, Section 4.5
6	Minimum of two gas Black Start units allocated to a TO zone that are connected on two separate interstate gas pipelines

BS service is voluntary. PJM can't require participation.

- Failed to secure FA BS resources in all zones through the 2023 RTO-wide and 2024 incremental FA BS RFPs
- Multiple transmission zones still without a FA solution potentially impacting Kentucky, Maryland, Ohio and Pennsylvania

PJM FA Black Start Efforts

2023 RTO-wide and 2024 incremental Black Start RFP OC special sessions to raise awareness and the need for FA proposals

Generation Owner outreach and FA education

Base Formula Rate (BFR) Net CONE Problem Statement and Issue Charge to address concerns of decreasing Net CONE values and impacts on BFR BS revenues. Stakeholder approved package filed with FERC and is under review

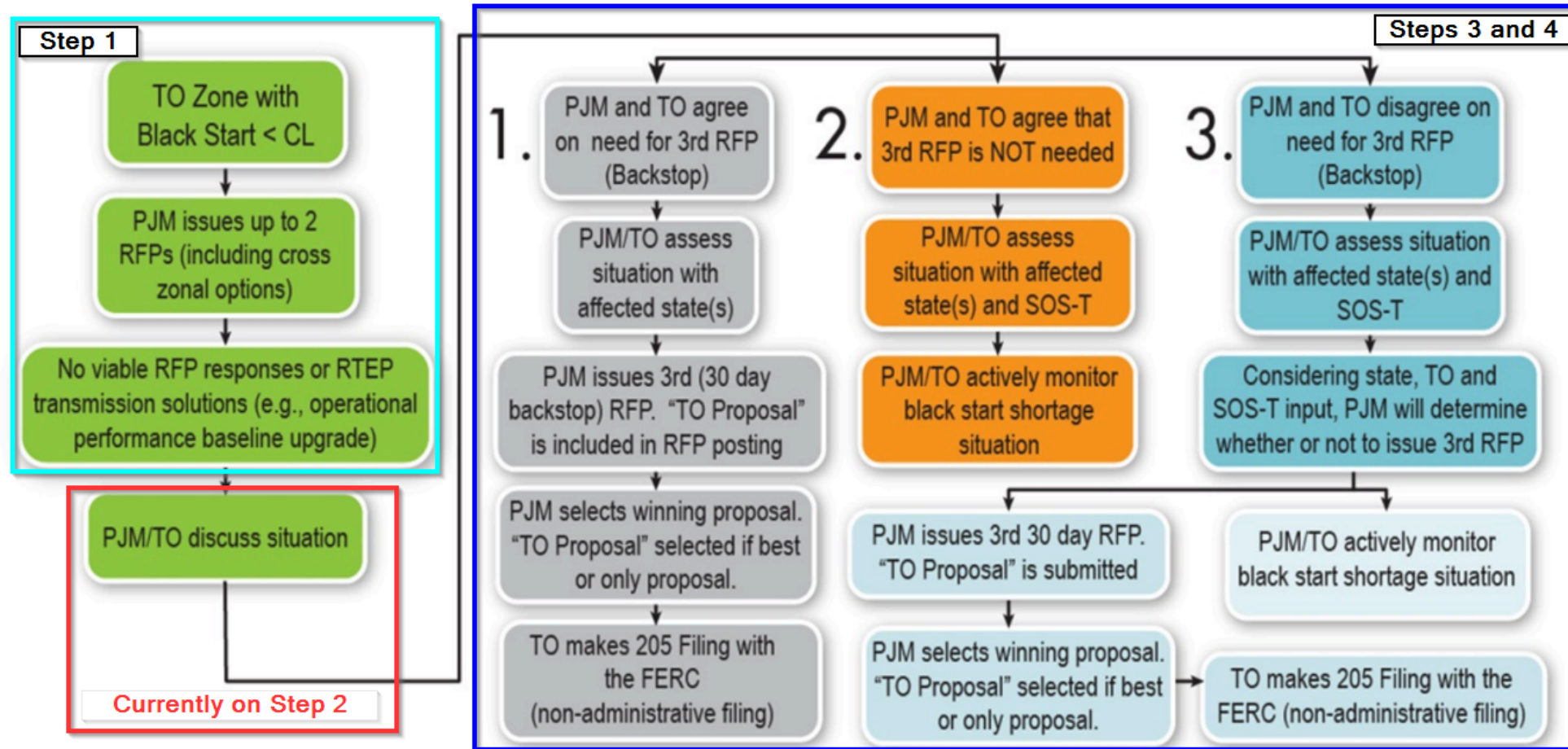
Collaborated with Transmission Owners to identify FA solutions

Upcoming generator retirements and impacts to Black Start and critical loads

Assess potential state and/or federal policies impacts on Black Start proposals.

Contingent Black Start awards requiring permit modifications to address Black Start testing or generator minimum loading requirements during a restoration event

10.3.5 Reliability Backstop Process Flow Chart



The following criteria need to be met to trigger Reliability Backstop discussions on the Black Start shortage and the possibility of triggering the Reliability Backstop RFP.

A Black Start generation shortage or a failure to meet the Black Start Fuel Assurance criteria in a TO zone; AND

Two failed RFPs (No technically viable solutions to address the Black Start shortage or a failure to meet the Fuel Assurance criteria are identified or cost recovery terms that do not conform to the PJM OATT.):

- Two failed incremental RFPs, OR
- Failed RTO-wide RFP and one failed incremental RFP; AND

No cross-zonal solutions available;
AND

No RTEP transmission solutions available (e.g., operational performance baseline upgrade).

PJM, TO and affected state(s) will discuss the Black Start and/or Fuel Assurance deficiency and the impact on restoration. PJM decides whether to issue the Reliability Backstop RFP.

Outcome #1

PJM & TO agree the Reliability Backstop RFP is **needed**.

Proceed to Step 3 of the Reliability Backstop.

Outcome #2

PJM & TO agree the Reliability Backstop **RFP is not needed**.

PJM & TO work with SOS-T to assess the situation and monitor the BS shortage.

Outcome #3

PJM & TO **disagree on the need** for Reliability Backstop RFP.

PJM and TO will review with SOS-T and if there is no agreement, the PJM Dispute Resolution process in M33, Section 7 will be employed.

PJM issues Reliability Backstop RFP. Backstop RFP timeline will be similar to the RTO/incremental RFP process, but flexible, as backstop process has never been used. All viable options will be considered.

TO is obligated to submit a solution in response to the Backstop RFP. TO proposed solutions will be made public except for information that is Critical Energy Infrastructure Information (CEII).

Potential Transmission Owner Proposal Options:

TO-Owned Resource

TO Contract With GO-Owned Resource

M14D, Section 10.3.3, Reliability Backstop Process Step 3

Capacity/Energy/Ancillary Service Clarification

- Intent is to prevent a newly built BS resource awarded through the Backstop RFP from recovering costs from BS Service and PJM's energy, capacity and ancillary service markets.
- PJM intends to clarify highlighted language in upcoming M14D periodic review.
 - Allow existing or future resources in PJM's queue awarded BS or FA BS through the Reliability Backstop RFP to continue to or to participate in the capacity, energy and ancillary service markets.
 - Newly built BS resource as a result of Reliability Backstop RFP award will run for BS and BS testing only and will **not be allowed** to participate in energy, capacity and ancillary services.

10.3.3 Reliability Backstop Process Step 3

Once PJM determines that the Reliability Backstop Process is required, it will issue the Reliability Backstop RFP. As part of this online notification, the TO solution will be made public (except for information that is Critical Energy Infrastructure Information). The TO solution may be owned by the TO, by a generation owning affiliate or contracting for by the TO with a generation owning third party. The TO has the obligation to submit a solution proposal within the Reliability Backstop RFP. The RFP will indicate that any proposed Fuel Assured Black Start Unit or Black Start Unit, whether it is a TO proposed unit, or a GO proposed unit, will be used for Black Start purposes only. The unit will NOT participate in the capacity market, energy market or other ancillary service markets except Black Start. The unit will run for Black Start and Black Start testing purposes only.

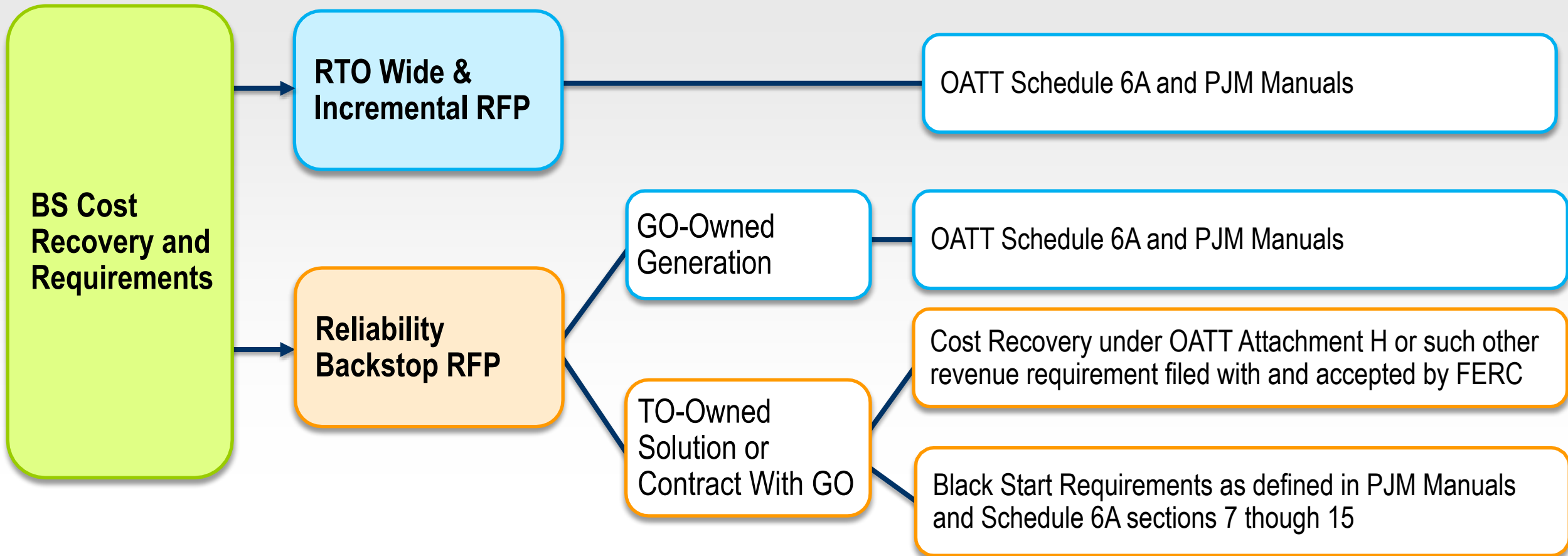
The Reliability Backstop RFP will be conducted on an accelerated schedule of 30 days.

Targeted Timeline: Within 15 days of determination of failed 2nd RFP



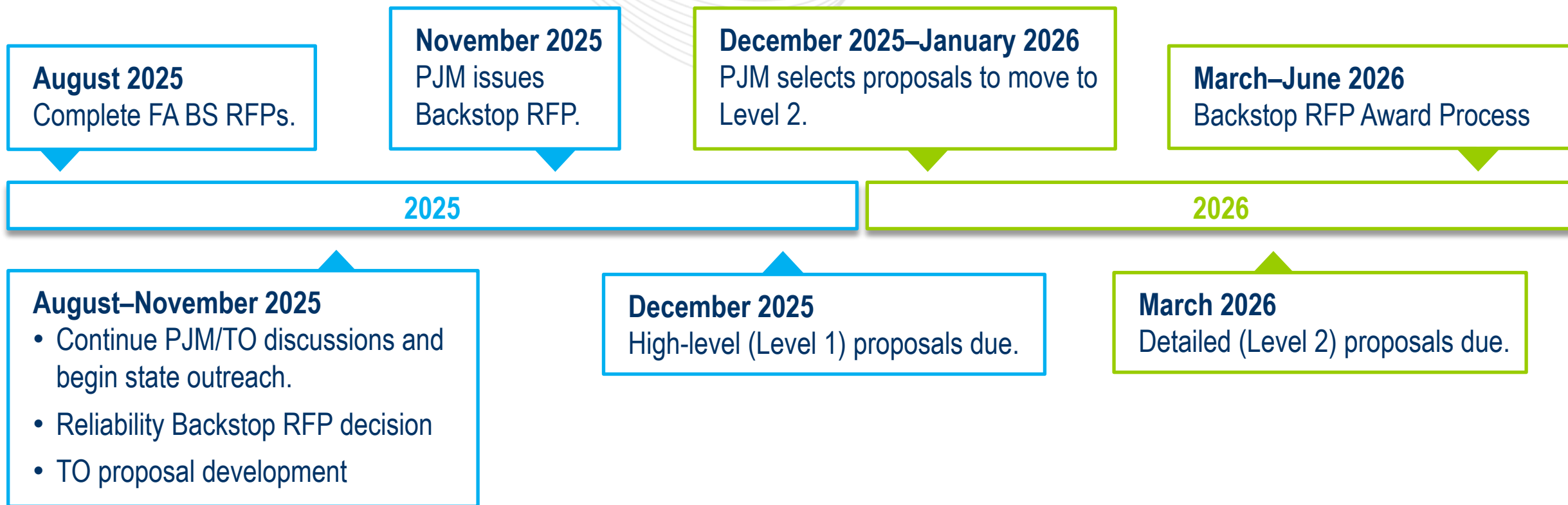
M14D, Section 10.3.4, Reliability Backstop Process Step 4 RFP Proposal Evaluation

PJM will evaluate proposals from the Reliability Backstop RFP in accordance with M14D Section 10.1.2 and will award the best solution.



Note: Black Start Units that are owned or contracted for by a Transmission Owner shall be subject to cost recovery through such Transmission Owner's annual revenue requirement under such Transmission Owner's Tariff, Attachment H, as filed with, and accepted 205 filing with FERC in accordance Tariff, Part I Section 9.

Reliability Backstop Process Timeline



NOTE

Backstop RFP timeline will be flexible.

- Reliability Backstop RFP is needed for FA BS and **not** for a shortage of Black Start power.
- Currently on Step 2 of the Reliability Backstop process. PJM and Transmission Owners will continue Fuel Assurance deficiency discussions and coordinate with affected states. No decisions have been made to issue a Reliability Backstop RFP.
- PJM intends to clarify M14D, Section 10.3.3 language to allow existing or future resources in PJM's queue awarded BS or FA BS through the Reliability Backstop RFP to continue to or to participate in the capacity, energy and ancillary service markets.
- Reliability Backstop process has never been used. Timeline is a target and will be flexible to address questions and allow time for proposal development.

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- [M12, Section 4.5: Black Start Service](#)
- [M14D, Section 10: Black Start Generation Procurement](#)
- [M36, Attachment A: Minimum Critical Black Start Requirement](#)
- [Schedule 6A of PJM OATT](#) – Black Start Service Requirements and revenue calculations
- [May 2025 OC: Fuel Assurance and Reliability Backstop Process Education](#)