Cut-in the '5034' 500 kV line into Bramah 500 kV Substation

Background

- PJM and the New Jersey Board of Public Utilities (NJBPU) have reached an agreement to wind-down the NJ SAA Agreement via a Mutual Termination Agreement (MTA), through which:
  - Most of the SAA Projects will be terminated and removed from the RTEP; and
  - Six SAA Projects will remain in the RTEP
- The MTA provides that:
  - if the termination of any of the projects identified for cancellation results in reliability violations, PJM will address those violations consistent with established RTEP processes
  - if FERC does not accept the MTA by June 23, 2026, the MTA is void and all of the SAA Projects will remain in the RTEP
- PJM filed the MTA at FERC on April 23, 2026 (Docket No. ER26-2294)
- In connection with anticipated FERC acceptance of the MTA, PJM has initiated analyses to evaluate potential reliability impacts associated with the anticipated cancellation of the identified SAA Projects
- PJM has determined that the cancellation of SAA Project b3737.50 would create reliability and operational concerns associated with the timely energization and operation of the retained Bramah substation and related regional upgrades (including Peach Bottom – Conastone 500kV corridor upgrades)
  - The Bramah substation has a DEA required in-service date of Dec. 31, 2027 and a projected in-service date of Oct. 14, 2027
- The identified reliability need is a direct result of the anticipated post-termination transmission system configuration associated with the proposed MTA
  - Since PJM and the NJBPU only agreed to the terms of the MTA in April 2026, PJM could not have previously identified the immediate reliability need.
- PJM has determined that the identified reliability need requires a solution with an in-service date within three years or less to support the timely completion and energization of the retained regional facilities

SAA Project b3737.50 Cancellation Impact

SAA Project b3737.50 involves bringing the Peach Bottom-Delta York 500 '5034' kV line "in and out" of the Bramah substation by partially demolishing the 5034 line to construct a new Peach Bottom – Bramah – Delta York 500 kV line, with 0.87 miles of cut-in and cut-out lines. The b3737.50 project currently has a projected in-service date of Oct. 14, 2027, at an estimated cost of $12M.

If FERC accepts the MTA by June 23, 2026, NJ SAA project b3737.50 will be canceled. Cancellation of the b3737.50 project will result in the removal of the 500 kV line termination into the Transource Bramah substation (b3737.47) that is intended to energize the Bramah substation, which has a DEA required in-service date of Dec. 31, 2027, and a projected in-service date of Oct. 14, 2027. The cancellation of b3737.50 will thus result in a delay to the Bramah

substation in-service date, as there are no other 500 kV line terminations into the Bramah substation that will be in-service in the required timeframe. The Bramah substation is a multi-driver project (with expanded scope for the PJM RTEP above and beyond what was needed for NJSAA) that is needed as part of the Brandon Shores deactivation mitigation upgrades (b3780 & b3781), and the 2022 RTEP Window 3 solution upgrades (b3800). A delay in the energization of the Bramah substation would thus be impactful to system reliability because the Bramah substation project is required to mitigate generator deliverability violations in the Peach Bottom–Conastone area that are observed in the 2028 RTEP study case.

As such, a new reliability transmission upgrade, with a required in-service date closely aligned with the projected in-service date of the Bramah substation, is required to ensure timely completion of the Bramah substation.

Proposed Solution

The identified solution to address the immediate reliability need described above is to construct transmission facilities necessary to support the timely energization of the Bramah substation and establish the needed Peach Bottom-Conastone 500kV corridor upgrades by bringing the Peach Bottom-Delta York 500 '5034' kV line "in and out" of Bramah substation by partially demolishing the 5034 line to construct a new Peach Bottom – Bramah – Delta York 500 kV line, with 0.87 miles of cut-in and cut-out lines (the "5034 cut-in project").

Completion of the 5034 cut-in project is critical for timely energization of the Bramah substation. This proposed solution ensures efficient utilization of existing ROWs to enhance the capability of the Peach Bottom-Conastone 500kV corridor, enables the Brandon Shores deactivation mitigation projects, and connects the Delta York station to the upgraded 500kV corridor at Bramah. The required in-service date for the 5034 cut-in project is October 14, 2027, and the estimated cost of the project is $11 million.

PJM has not identified any other feasible transmission or non-transmission alternative capable of meeting the required in-service timing.

For the above reasons, and because even an abbreviated competitive window will lead to delays of about six months, thereby significantly delaying completion of the dependent reliability projects, PJM has determined to designate PECO with construction responsibility for the proposed solution to address the immediate reliability need without opening a competitive solicitation window.

PJM notes that this solution will only be required if FERC accepts the MTA by June 23, 2026, as requested.