



# PRC-026-1 Relay Performance During Stable Power Swings: 2023 BES Element List

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Reliability Standards & Compliance Subcommittee

December 15, 2023

- On November 20, 2023 notification went out that the latest PRC-026-1 BES Element list was available.
  - List has now been incorporated in PJM Manual 03B (Revision 64.3) as Attachment A.
  - Manual 03B is CEII restricted. Users can request access by filling out a CEII request form at <https://www.pjm.com/library/request-access.aspx>
  - Notification sent to the following PJM Committees / Subcommittees
    - OC, DTS, Neighboring Coordination, SOS-G, SOS-T, Customer Info
- On November 21, 2023 additional notification was sent out to the following PJM Committees / Subcommittees / PRC-026-specific email list:
  - PC, OC, SOS-G, SOS-T, RSCS, RS, PRC-026-specific email list

- Requirement R1
  - Each Planning Coordinator shall, at least once each calendar year, provide notification of each generator, transformer, and transmission line BES Element in its area that meets one or more of the following criteria, if any, to the respective Generator Owner and Transmission Owner:
    - Criteria:
      1. Generator(s) where an angular stability constraint exists that is addressed by a System Operating Limit (SOL) or a Remedial Action Scheme (RAS) and those Elements terminating at the Transmission station associated with the generator(s).
      2. An Element that is monitored as part of an SOL identified by the Planning Coordinator's methodology based on an angular stability constraint.
      3. An Element that forms the boundary of an island in the most recent underfrequency load shedding (UFLS) design assessment based on application of the Planning Coordinator's criteria for identifying islands, only if the island is formed by tripping the Element due to angular instability.
      4. An Element identified in the most recent annual Planning Assessment where relay tripping occurs due to a stable or unstable power swing during a simulated disturbance.

- **The following PJM Manual (Manual 03B, Revision 64.3) has been posted on the PJM CEII website.**
  - **Manual 03B - Transmission Operating Procedures (CEII)**
  - **Revision 64.3**
  - **Effective Date: 11/13/2023**
  - **Note: CEII access is required to view this manual.**
    - Throughout: Corrected typos
    - Throughout: Added stability type for stability procedures
    - AE: Removed Lewis – Pleasantville 0743 line from the Directional Ratings procedure
    - AE: Provided full form name for TSA acronym
    - AEP: Updated Smith Mountain 138 kV Station Stability procedure
    - AEP: Updated Gavin - Rolling Hills Stability procedure
    - BGE: Updated Calvert Cliff stability restriction table
    - DOM: Removed the Cloverdale transformers from the Bath County Stability Restrictions procedure
    - DOM: Added the Ladysmith TX2 to the Ladysmith/Doswell Plants Stability procedure
    - FE East – Removed/retired the Homer City Stability procedure
    - **Attachment A: Added new attachment to document PRC-026 facility list**
  - **[Clean Version](#)**
  - **[Redline Version](#)**



## Stakeholder

You are receiving this email in accordance with NERC Reliability standard PRC-026-1 R1. PJM, as the Planning Coordinator is required to provide notification, at least once each calendar year, of BES Elements in its area that meets one or more of the criteria listed under Requirement R1 as provided below.

- **R1.** Each Planning Coordinator shall, at least once each calendar year, provide notification of each generator, transformer, and transmission line BES Element in its area that meets one or more of the following criteria, if any, to the respective Generator Owner and Transmission Owner:
  - Criteria:
    1. Generator(s) where an angular stability constraint exists that is addressed by a System Operating Limit (SOL) or a Remedial Action Scheme (RAS) and those Elements terminating at the Transmission station associated with the generator(s).
    2. An Element that is monitored as part of an SOL identified by the Planning Coordinator's methodology based on an angular stability constraint.
    3. An Element that forms the boundary of an island in the most recent under-frequency load shedding (UFLS) design assessment based on application of the Planning Coordinator's criteria for identifying islands, only if the island is formed by tripping the Element due to angular instability.
    4. An Element identified in the most recent annual Planning Assessment where relay tripping occurs due to a stable or unstable power swing during a simulated disturbance.

PJM has completed the identification of BES Elements and is providing them as attachment A in PJM manual 03B. The list was compiled based on the stability-related Remedial Action Schemes (RAS) & System Operating Limits (SOL) found in PJM Manual 03B CEII version 64.3 that satisfy Criteria 1 and 2. No BES Elements were identified under Criteria 3 thru 4.

The TO or GO required to comply with the standard is identified under the *Responsible NERC Entity Name* columns. For transmission lines, a Responsible NERC Entity was identified for each terminal. For the remainder of the elements, only a single entity was identified under Terminal 1.

PJM would like to request all TOs & GOs to review the list and if any errors or omissions are identified, please notify PJM immediately so that we can follow up with the needed updates/corrections.

Please use the following [link](#) to download the file.

Please respond directly to [Yiming Mao](#) or contact 610-666-8966 with any questions or comments.

This has been sent to: PC, OC, SOS-G, SOS-T, RSCS



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## PRC-026-1 Relay Performance During Stable Power Swings: 2023 BES Element List



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Version No.	Date	Description
1	12/12/2023	<ul style="list-style-type: none"><li>• Original slides posted</li></ul>

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