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| PGRR Number | [120](https://www.ercot.com/mktrules/issues/PGRR120) | PGRR Title | SSO Prevention for Generator Interconnection |

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| Date | May 20, 2025 |

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| Submitter’s Information | |
| Name | Mina Turner on behalf of the Planning Working Group (PLWG) |
| E-mail Address | [myturner@aep.com](mailto:myturner@aep.com) |
| Company | American Electric Power (AEP) |
| Phone Number |  |
| Cell Number |  |
| Market Segment | Not applicable |

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| Comments |

PLWG submits these comments on top of the 4/16/25 ERCOT comments to Planning Guide Revision Request (PGRR) 120. The changes herein reflect discussions that took place at the 5/20/25 PLWG meeting.

PLWG reached consensus on the PGRR120 revisions below, including a revision to Section 5.2.10, Subsynchronous Oscillation (SSO) Risk Reduction, such that it would apply to any generators with Standard Generation Interconnection Agreements (SGIAs) signed on or after April 1, 2026, rather than the originally proposed September 1, 2025.

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| Revised Cover Page Language |

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| PGRR Number | [120](https://www.ercot.com/mktrules/issues/PGRR120) | PGRR Title | SSO Risk Reduction for Generator Interconnection |
| Planning Guide Sections Requiring Revision | | 5.2.10, Subsynchronous Oscillation (SSO) Risk Reduction (new)  5.3.1, Security Screening Study | |

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| **Market Rules Notes** |

Please note the baseline Planning Guide language in the following sections(s) has been updated to reflect the incorporation of the following PGRR(s) into the Planning Guide:

* PGRR118, Related to NPRR1246, Energy Storage Resource Terminology Alignment for the Single-Model Era (incorporated 4/1/25)
  + Section 5.3.1

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| Revised Proposed Guide Language |

***5.2.10 Subsynchronous Oscillation (SSO) Risk Reduction***

(1) Any generator with a Standard Generation Interconnection Agreement (SGIA) executed on or after April 1, 2026, shall not be connected to the ERCOT Transmission Grid if the number of Credible Single Contingencies causing the generator to become radial to a series capacitor post contingency is less than or equal to one.

(2) A proposal to modify a generator connected to the ERCOT Transmission Grid, as described in paragraph (1)(c) of Section 5.2.1, that is interconnected such that a Credible Single Contingency causes the generator to become radial to a series capacitor shall not proceed to energization unless simulations demonstrate that Subsynchronous Oscillation (SSO) is not observed or, if SSO is observed, the Resource Entity for the generator has demonstrated to ERCOT’s reasonable satisfaction that SSO has been fully mitigated.

(3) If any SSO is observed during operations, ERCOT may prohibit the generator from operating until it is demonstrated to ERCOT’s reasonable satisfaction that SSO has been fully mitigated.

5.3.1 Security Screening Study

(1) For each Generator Interconnection or Modification (GIM) submitted for a large generator, ERCOT will conduct a steady-state Security Screening Study, including power-flow and transfer studies, based on the expected in-service year to identify potential generation dispatch limitations based on the site proposed by the Interconnecting Entity (IE).

(a) The Security Screening Study is a high-level review of the project and generally includes a number of initial assumptions from both ERCOT and the IE. In accordance with 16 Tex. Admin. Code § 25.198, Initiating Transmission Service, ERCOT will establish the scope of the Security Screening Study that will include a determination of the need for a more in-depth Subsynchronous Resonance (SSR) study. The SSR vulnerability of all Generation Resources applicable under Section 5, Generator Interconnection or Modification, will be assessed pursuant to Protocol Section 3.22.1.2, Generation Resource or Energy Storage Resource Interconnection Assessment.

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| ***[PGRR118: Replace paragraph (a) above with the following upon system implementation of NPRR1246:]***  (a) The Security Screening Study is a high-level review of the project and generally includes a number of initial assumptions from both ERCOT and the IE. In accordance with 16 Tex. Admin. Code § 25.198, Initiating Transmission Service, ERCOT will establish the scope of the Security Screening Study that will include a determination of the need for a more in-depth Subsynchronous Resonance (SSR) study. The SSR vulnerability of all Generation Resources and Energy Storage Resources (ESRs) applicable under Section 5, Generator Interconnection or Modification, will be assessed pursuant to Protocol Section 3.22.1.2, Generation Resource or Energy Storage Resource Interconnection Assessment. |

(b) At its sole discretion, ERCOT may waive the requirement for a Security Screening Study for a GIM.

(2) The results of the Security Screening Study will provide an indication of the level at which the proposed generator can expect to operate simultaneously with other known generators in the area before significant transmission additions or enhancements may be required. During the course of the Security Screening Study, ERCOT may consult with the affected Transmission Service Provider (TSP), if needed, to identify the most efficient means of providing transmission service.

(3) During the Security Screening Study phase of the GIM process, and in accordance with the Protocols, all data, documents, and other information required by ERCOT from an IE related to a request for interconnection are considered Protected Information pursuant to Protocol Section 1.3.1.1, Items Considered Protected Information, to the extent that such information is not otherwise publicly available. Accordingly, ERCOT shall not publicly release any of the protected data, documents, or other information during the Security Screening Study phase except to TSPs. Information about interconnection requests in the Security Screening Study phase will only be released publicly in aggregated amounts.

(4) Upon completion of the Security Screening Study, ERCOT will present the IE with a preliminary report that will inform the IE about the suitability of the proposed Point of Interconnection (POI) for the proposed MW amount. This report does not imply any commitment by ERCOT or any TSP to recommend or construct transmission additions or enhancements. The report will also contain a description of the SSR assessment performed as part of the Security Screening Study and any conclusions resulting from the SSR assessment, including the number of identified Credible Single Contingencies that would cause a generator to become radial to a series capacitor and ERCOT’s determination of whether it meets the requirements of paragraph (1) of Section 5.2.10, Subsynchronous Oscillation (SSO) Risk Reduction.

(5) Within 180 days of the date ERCOT notifies the IE of the Security Screening Study results, the IE must notify ERCOT, via the online Resource Integration and Ongoing Operations (RIOO) system, of its desire to pursue an FIS, otherwise ERCOT shall consider the GIM withdrawn by the IE. ERCOT will begin initiation and coordination of the FIS only after receiving this Notification and all required items from the IE for the FIS application to be approved. TSPs will receive a RIOO system automated email when ERCOT determines the FIS application is complete.

(6) After the expiration of the 180-day period, an IE must submit a new GIM for a Security Screening Study and must again pay the appropriate fee. The IE will also be required to submit any updates or changes in the project’s data to ERCOT.

(7) For any interconnection request that proposes either a large generator that would be interconnected at distribution voltage or a qualifying modification to a large generator that is interconnected at distribution voltage, ERCOT will not initiate a Security Screening Study or propose any FIS kickoff meeting until the IE first provides written confirmation from the affected Distribution Service Provider (DSP) stating that the DSP has evaluated the proposed project, determined that the interconnection of the generator at distribution voltage is electrically feasible, and identified the necessary upgrades to accommodate the proposed interconnection. In conducting a Security Screening Study for such an interconnection request, ERCOT shall evaluate only the transmission-level impacts, if any, of the proposed generator, and the affected DSP shall provide ERCOT any information concerning the DSP’s facilities or the proposed generator interconnection as may be requested by ERCOT for the purpose of completing the Security Screening Study.