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| PGRR Number | [140](https://www.ercot.com/mktrules/issues/PGRR140) | PGRR Title | Related to NPRR1317, Creation of Non-Settled Generator (NSG) and Clarification of the Types, Usage, and Registration of Distributed Generation |
| Date Posted | | December 19, 2025 | |
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| Requested Resolution | | Normal | |
| Planning Guide Sections Requiring Revision | | 5.2.1, Applicability  5.2.2, Initiation of Generator Interconnection or Modification  5.2.4, Duty to Update Project Information and Respond to ERCOT and TDSP Request for Information  5.2.9, Self-Limiting Facilities  5.3.1, Security Screening Study  5.3.2, Full Interconnection Study  5.3.2.1, Proof of Site Control  5.3.2.4.1, Steady-State Analysis  5.3.4, Reactive Study  5.3.5, ERCOT Quarterly Stability Assessment  5.4.2, Submission of Interconnection Agreement and TSP and/or DSP Studies and Technical Requirements  5.5, Generator Commissioning and Continuing Operations | |
| Related Documents Requiring Revision/Related Revision Requests | | Nodal Protocol Revision Request (NPRR) 1317, Creation of Non-Settled Generator (NSG) and Clarification of the Types, Usage, and Registration of Distributed Generation | |
| Revision Description | | This Planning Guide Revision Request (PGRR) clarifies types and usage of “Distributed Generation” within the Planning Guide in alignment with NPRR1317. | |
| Reason for Revision | | [Strategic Plan](https://www.ercot.com/files/docs/2023/08/25/ERCOT-Strategic-Plan-2024-2028.pdf) Objective 1 – Be an industry leader for grid reliability and resilience  [Strategic Plan](https://www.ercot.com/files/docs/2023/08/25/ERCOT-Strategic-Plan-2024-2028.pdf) Objective 2 - Enhance the ERCOT region’s economic competitiveness with respect to trends in wholesale power rates and retail electricity prices to consumers  [Strategic Plan](https://www.ercot.com/files/docs/2023/08/25/ERCOT-Strategic-Plan-2024-2028.pdf) Objective 3 - Advance ERCOT, Inc. as an independent leading industry expert and an employer of choice by fostering innovation, investing in our people, and emphasizing the importance of our mission  General system and/or process improvement(s)  Regulatory requirements  ERCOT Board/PUCT Directive  *(please select ONLY ONE – if more than one apply, please select the ONE that is most relevant)* | |
| Justification of Reason for Revision and Market Impacts | | This PGRR aligns the Planning Guide with the changes proposed by NPRR1317. Additionally, this PGRR outlines the interconnecting requirements for Non-Settled Distributed Generators (NSDGs) and Non-Settled Transmission Generators (NSTGs). | |

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| Sponsor | |
| Name | Thinesh Devadhas Mohanadhas / Douglas Fohn |
| E-mail Address | [Thinesh.DevadhasMohanadhas@ercot.com](mailto:Thinesh.DevadhasMohanadhas@ercot.com) / [Douglas.Fohn@ercot.com](mailto:Douglas.Fohn@ercot.com) |
| Company | ERCOT |
| Phone Number | 512-248-6922 / 512-275-7447 |
| Cell Number | 571-239-8606 |
| Market Segment | Not applicable |

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| --- | --- |
| **Market Rules Staff Contact** | |
| **Name** | Cory Phillips |
| **E-Mail Address** | [Cory.phillips@ercot.com](mailto:Cory.phillips@ercot.com) |
| **Phone Number** | 512-248-6464 |

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| Market Rules Notes |

Please note that the following PGRR(s) also propose revisions to the following section(s):

* PGRR127, Addition of Proposed Generation to the Planning Models
  + Section 5.2.1
  + Section 5.3.2

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| Proposed Guide Language Revision |

***5.2.1 Applicability***

(1) The requirements in Section 5, Generator Interconnection or Modification, apply to the following:

(a) Any Entity proposing to interconnect any generator with an aggregate nameplate capacity of one MW or greater, including but not limited to any Generation Resource or Energy Storage Resource (ESR), to the ERCOT System;

(b) Any Entity proposing to interconnect either a Settlement Only Generator (SOG) or a Non-Settled Generator (NSG) to the ERCOT System; or

(c) Any Resource Entity seeking to modify a Generation Resource, ESR, SOG, or any Entity seeking to modify an NSG that is connected to the ERCOT System by:

(i) Increasing the real power rating from that shown in the latest Resource Registration data or data provided by the owner or each NSG by one MW or greater within a single year;

(ii) Changing the inverter, turbine, generator, battery modules, or power converter associated with a facility with an aggregate real power rating of ten MW or greater, unless the replacement is in-kind;

(iii) Modifying any control settings or equipment of Inverter-Based Resources (IBRs) or Inverter-Based NSG that impact the dynamic response (such as voltage, frequency, and current injections) at the Point of Interconnection (POI) in a manner that is deemed to require further study in accordance with the process outlined in paragraph (5) of Section 5.5, Generator Commissioning and Continuing Operations;

(iv) Changing or adding a POI to a facility with an aggregate real power rating of ten MW or greater; or

(v) Increasing the aggregate nameplate capacity of a generator less than ten MW to ten MW or greater.

(2) For the purposes of Section 5, the term “generator” includes but is not limited to a Generation Resource, SOG, NSG, and ESR.

(3) For the purposes of determining the appropriate requirements in Section 5, a generator is considered a “large generator” if it currently has or is proposed to have an aggregate nameplate capacity of ten MW or greater. A generator is considered a “small generator” if it currently has or is proposed to have an aggregate nameplate capacity of less than ten MW.

(4) Notwithstanding paragraph (3), above, if a Resource Entity is proposing to increase the real power rating of an existing generator by one MW or greater but less than ten MW, that generator shall be considered a small generator for the purposes of the interconnection process described in Section 5.

(5) Notwithstanding paragraphs (3) and (4), above, if a Resource Entity is proposing to increase a generator’s real power rating by ten MW or more, or is proposing to increase a generator’s real power rating from less than ten MW to ten MW or more, that generator shall be considered a large generator for the purposes of the interconnection process described in Section 5.

(6) For the purposes of determining the appropriate requirements in Section 5, ERCOT may require two or more separate generator interconnection requests to the same substation to follow the interconnection process applicable to the large generators, if, following the proposed change, those generators would have an aggregate nameplate capacity of ten MW or greater, and the projects are proposed by the same Entity or Affiliates.

(7) For a new or modified generator that has been designated as a Self-Limiting Facility or as a component of a Self-Limiting Facility, the categorization of the generator as a small generator or large generator pursuant to paragraphs (3) through (5) above shall be determined using the Self-Limiting Facility’s established limit on the total MW Injection, or if applicable, the proposed increase in that value instead of the nameplate capacity of the Self-Limiting Facility.

(8) For a Non-Settled Distributed Generator (NSDG) facility (even though the Self-Limiting Facility value is zero MW), an NSDG will be considered a small generator for the purposes of the interconnection process described in Section 5.

(9) For a Non-Settled Transmission Generator (NSTG) facility (even though the Self-Limiting Facility value is zero MW), an NSTG will be considered a large generator for the purposes of the interconnection process described in Section 5.

***5.2.2 Initiation of Generator Interconnection or Modification***

(1) Any Entity subject to paragraph (1) of Section 5.2.1, Applicability, must initiate a Generator Interconnection or Modification (GIM) by submitting a completed request and providing all requested information and documentation through the online Resource Integration and Ongoing Operations (RIOO) system and paying the Generation Interconnection Fee described in the ERCOT Fee Schedule in the ERCOT Protocols.

(2) An Entity is not eligible to initiate or maintain a GIM if the Entity or any other owner of the project or Affiliate thereof meets any of the company ownership or headquarters criteria listed in Texas Business and Commerce Code, Sections 117.002(a)(2)(A)-(b)(2)(B) or Texas Government Code, Sections 2275.0102(a)(2)(A)-(b)(2)(B), added by Act of June 18, 2021, 87th Leg., R.S., Ch. 975 (S.B. 2116), redesignated by Act of September 1, 2023, 88th Leg. R.S. Ch. 786 (H.B. 4595). Any Entity that seeks to initiate a GIM shall submit an attestation Section 8, Attachment D, Attestation Regarding Compliance with the Lone Star Infrastructure Protection Act, confirming that the Entity or its Affiliates do not meet any of the company ownership or headquarters criteria listed in Texas Business and Commerce Code, Sections 117.002(a)(2)(A)-(b)(2)(B) or Texas Government Code, Sections 2275.0102(a)(2)(A)-(b)(2)(B), redesignated by Act of September 1, 2023, 88th Leg. R.S. Ch. 786 (H.B. 4595).

(3) An Entity is not eligible to initiate or maintain a GIM if the real property to be utilized by or for the project is owned or controlled, in whole or in part, by an Entity or Affiliate thereof that meets any of the prohibited company ownership or headquarters criteria identified in the Lone Star Infrastructure Protection Act, Texas Business and Commerce Code, Sections 117**.**002(a)(2)(A)-(b)(2)(B) or Texas Government Code, Sections 2275.0102(a)(2)(A)-(b)(2)(B), added by Act of June 18, 2021, 87th Leg., R.S., Ch. 975 (S.B. 2116), redesignated by Act of September 1, 2023, 88th Leg. R.S. Ch. 786 (H.B. 4595). The Interconnecting Entity (IE) must provide an attestation Section 8, Attachment D, confirming that such prohibited ownership or control does not apply to the real property.

(4) If an Entity, project owner, owner of real property, or Affiliate of the Entity, project owner, or owner of real property meets any of the above listed prohibited criteria described in paragraphs (2) or (3) above solely due to the citizenship, ownership or headquarters of a wholly owned subsidiary, majority-owned subsidiary, or Affiliate, of any Entity, an Entity will be eligible to initiate or maintain a GIM, subject to paragraph (5) below, if it certifies that the subsidiary or Affiliate at issue will not have direct or remote access to or control of the project, the real property utilized by the project, the RIOO system, the Market Information System (MIS), other ERCOT systems, or any confidential data from such systems.

(5) ERCOT may immediately suspend or terminate an Entity’s GIM, access to the RIOO system, or access to any of ERCOT’s other systems if ERCOT has a reasonable suspicion that the Entity or project violated any of the prohibitions described by paragraphs (2) or (3) above.

(6) For the purposes of submitting a GIM:

(a) MW values should be determined at the generator terminals;

(b) If generation is serving new or existing Load then this must be identified in the RIOO request; and

(c) The latitude, longitude, and county are those of the station that includes the main power transformer for the subject facility.

(d) Failure to supply any required data may delay ERCOT processing of the interconnection application and studies and result in project cancellation.

(7) Payment of the Generation Interconnection Fee and all other related fees payable to ERCOT must be made using an Automated Clearing House (ACH) e-check or credit card via the RIOO system. This fee is non-refundable and must be paid even if ERCOT waives the Security Screening Study described in Section 5.3.1, Security Screening Study, or cancels the project due to failure to submit complete project information. The fee must be paid for each additional interconnection request (INR) even if a fee has previously been paid for another INR associated with the same generator.

(8) Upon receiving the application, ERCOT will assign the project a unique identification number (INR number) according to the following convention:

yrINRxxxx

where: yr is the year the generation is anticipated to be commissioned

INR indicates it is an interconnection request

xxxx is a sequence number beginning with 0001 (reset for each year)

(9) The proposed Commercial Operations Date for large generators meeting paragraph (1)(a) of Section 5.2.1 must be at least 15 months after the date the application is submitted or it will not be accepted. If conditions allow, the Commercial Operations Date can be changed after submission.

(10) ERCOT will notify the IE within ten days if the GIM application fails to include the applicable fees or the information that is necessary for the GIM application to be approved.

(11) If the IE fails to respond to ERCOT’s inquiries within ten Business Days, the GIM application will be deemed incomplete and returned to the IE using the online RIOO system. The IE will be notified that action is required via a RIOO system automated email.

(12) Once the application has been deemed materially complete, ERCOT will notify the IE of receipt of the completed application within ten Business Days.

(13) An ERCOT-designated point of contact will be assigned to oversee the interconnection study process and answer questions concerning the interconnection process. Once assigned, the ERCOT-designated point of contact will contact the IE and will be the primary ERCOT contact for the IE.

(14) Prior to the initial contact from the ERCOT-designated point of contact, an IE may direct questions concerning the GIM process to [ResourceIntegrationDepartment@ercot.com](mailto:ResourceIntegrationDepartment@ercot.com). All GIM-related email communication sent to the ERCOT-designated point of contact or to [ResourceIntegrationDepartment@ercot.com](mailto:GINR@ercot.com) shall include the associated project INR number in the subject field. If the communication is not specific to a project, the email subject field shall have the words “Generator Interconnection or Modification.”

(15) If a proposed generator that would use the same physical interconnection is to be built in phases with in-service dates more than three months apart, each phase should be treated as a separate interconnection request but may be included in the same study.

(16) The requirements in paragraphs (2) and (3) above regarding the Lone Star Infrastructure Protection Act (LSIPA) do not apply to a GIM for a Non-Settled Generator (NSG). ***5.2.4 Duty to Update Project Information and Respond to ERCOT and TDSP Requests for Information***

(1) Each IE shall provide current and accurate Resource Registration information (including information describing the generator, the Main Power Transformer (MPT), and any other generator-owned transmission or distribution facilities) and contact information to ERCOT and the interconnecting Transmission and/or Distribution Service Provider (TDSP), and shall promptly update that information as soon as possible, but no later than ten Business Days, following any change to that information. All TDSPs will be sent notification when ERCOT reviews and acknowledges Registration information changes in the online RIOO system. Interconnection studies that are based on outdated, false, or inaccurate data may adversely affect the safety and reliability of the ERCOT System and can result in damage to generation or transmission equipment. Failure to provide accurate Resource Registration information and contact information may result in project delays or cancellation as described in Section 5.2.6, Project Cancellation Due to Failure to Comply with Requirements.

(2) Twice each year, each IE that has submitted an FIS request shall submit via the online RIOO system, for each proposed facility, the declaration in Section 8, Attachment A, Declaration of Resource Data Accuracy, stating that, as of the date of submission, the most recently submitted data on the current version of the Resource Registration form accurately reflects the anticipated characteristics of the proposed Resource and that the contact information is correct. The declaration shall be executed by an officer or other person having authority to bind the company and shall be submitted via the online RIOO system. Each IE shall submit one declaration for each project no earlier than March 1 and no later than March 15 each year, and shall submit another declaration for each proposed facility no earlier than September 1 and no later than September 15 each year. Failure to submit a declaration may result in project cancellation as described in Section 5.2.6.

(3) If, after receipt of updated Resource Registration data, ERCOT, the interconnecting TDSP, or the lead Transmission Service Provider (TSP) determines that any subsequent changes to the project or to the transmission system or distribution system may affect the reliable operation of the ERCOT System or otherwise warrant new studies, then ERCOT or the TDSP may require additional studies to be performed before the proposed generator is allowed to interconnect to the ERCOT System. The IE and TDSP(s) shall develop a schedule for completing the additional studies. The TDSP shall provide the FIS studies, if applicable, to ERCOT and the other TDSPs via the online RIOO system.

(4) If the IE increases the requested amount of capacity of any proposed large generator by more than 20% of the amount requested in the initial application, the IE shall submit a new interconnection request for the additional capacity or for the entire project.

(5) Within ten Business Days, the IE shall notify ERCOT and the interconnecting TDSP, or, if applicable, lead TSP of any change in ownership and shall provide conclusive documentary evidence of the ownership change (such as a purchase/sale agreement or a document executed by both parties confirming the transaction) via the online RIOO system. TDSPs will receive notification when ERCOT reviews and acknowledges the change. The new owner shall acknowledge the sale by submitting the Resource Registrations data showing the contact information for the new owners within 60 days. Failure to do so may result in project cancellation as described in Section 5.2.6.

(6) An IE shall not transfer all or any portion of a project, including the real property to be utilized by the project, to an Entity that meets any of the prohibited company ownership (including Affiliates) or headquarters criteria identified in the Lone Star Infrastructure Protection Act, Texas Business and Commerce Code, Sections 117**.**002(a)(2)(A)-(b)(2)(B) or 2275.0102(a)(2)(A)-(b)(2)(B), added by Act of June 18, 2021, 87th Leg., R.S., Ch. 975 (S.B. 2116), redesignated by Act of September 1, 2023, 88th Leg., R.S. Ch. 786 (H.B. 4595). If the IE for a project changes, then the new IE shall execute and submit a new attestation in the RIOO system within ten Business Days of the change in ownership. If the IE for a project relocates the IE’s headquarters, then the IE shall execute and submit a new attestation in the RIOO system within ten Business Days of the change in headquarters. If an IE or the real property that will be utilized by or for the project meets any of the prohibited company ownership or Affiliate criteria, the project will be subject to cancellation in the manner described in Section 5.2.6.

(7) To support ERCOT resource adequacy and North American Electric Reliability Corporation (NERC) reliability assessment reporting requirements, for each interconnecting Generation Resource or Energy Storage Resource (ESR), the IE shall provide the following information via the online RIOO system as soon as possible, but in no event later than ten Business Days after the information is available or has been updated:

(a) Revisions to the initial projected Commercial Operations Date and if available, the energization and Initial Synchronization dates;

(b) Notification if any required air permits have been issued or permit applications have been withdrawn;

(c) Notification and dates for when generator construction has commenced or has been completed; and

(d) A declaration of adequate water supplies (Section 8, Attachment B, Declaration of Adequate Water Supplies), unless the generator is powered by wind or PhotoVoltaic (PV) equipment or is a battery Energy Storage System (ESS).

(8) If during the course of the GIM process, additional information is needed by ERCOT or the TDSP from the IE, the IE must respond to the request within ten Business Days. The IE will be notified that action is required by its ERCOT contact.

***5.2.9 Self-Limiting Facilities***

(1) An IE may elect to designate any proposed new or modified Generation Resource, ESR, or NSG as a component of a Self-Limiting Facility for the purposes of the GIM process. Upon such designation, all studies and tests undertaken pursuant to this Section 5, Generator Interconnection or Modification, or that may otherwise be required as a condition for interconnection shall use the Self-Limiting Facility’s proposed MW Injection limit as the maximum potential injection to the ERCOT System, and, if applicable, shall use the Self-Limiting Facility’s MW Withdrawal limit as the maximum potential withdrawal from the ERCOT System, notwithstanding the nameplate capacity values provided.

(2) Any Generation Resource, ESR, or NSG that has been studied and tested in the GIM process as a component of a Self-Limiting Facility may not, at any time during or after this process, increase the MW Injection limit or MW Withdrawal limit of the Self-Limiting Facility beyond the value or values that were used in these studies and tests without re-initiating the GIM process to evaluate the impacts of the increased value or values.

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| ***[PGRR092: Replace Section 5.2.9 above upon system implementation of NPRR1077:]***  ***5.2.9 Self-Limiting Facilities***  (1) An IE may elect to designate any proposed new or modified Generation Resource, ESR, SOG, or NSG as a component of a Self-Limiting Facility for the purposes of the GIM process. Upon such designation, all studies and tests undertaken pursuant to this Section 5, Generator Interconnection or Modification, or that may otherwise be required as a condition for interconnection shall use the Self-Limiting Facility’s proposed MW Injection limit as the maximum potential injection to the ERCOT System, and, if applicable, shall use the Self-Limiting Facility’s MW Withdrawal limit as the maximum potential withdrawal from the ERCOT System, notwithstanding the nameplate capacity values provided.  (2) Any Generation Resource, ESR, SOG, or NSG that has been studied and tested in the GIM process as a component of a Self-Limiting Facility may not, at any time during or after this process, increase the MW Injection limit or MW Withdrawal limit of the Self-Limiting Facility beyond the value or values that were used in these studies and tests without re-initiating the GIM process to evaluate the impacts of the increased value or values. |

***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 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.

(c) A screening study is optional for a Non-Settled Transmission Generator (NSTG).

(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(s) (TSP(s)), 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.

***5.3.2 Full Interconnection Study***

(1) An FIS consists of the set of steady-state, stability, short-circuit, facility, and/or other relevant studies that are necessary to determine the reliability impact of a large generator on affected Transmission Facilities and identify the Transmission Facilities that are needed to reliably interconnect the new or modified generator to the ERCOT System. The FIS is not intended to determine the deliverability of power from the proposed Generation Resource or ESR to market or to ensure that the proposed Generation Resource or ESR does not experience any congestion-related curtailment.

(2) For an interconnection request involving a large generator interconnecting at distribution voltage, the FIS shall evaluate only the transmission-level impacts, if any, of the proposed generator, and the affected DSP shall provide the lead TSP all information concerning the DSP’s facilities or the proposed generator interconnection as may be requested by the TSP for the purpose of completing any one or more FIS studies.

(3) To initiate an FIS, the IE must submit each of the following via the online RIOO system:

(a) A request to proceed with the FIS via the online RIOO system;

(b) Complete Resource Registration data in the format prescribed by ERCOT with applicable information required for interconnection studies identified in the Resource Registration Glossary for the applicable Resource type. Resource Registration data for NSTGs is prescribed in Protocol Section 3.8.9, Interconnection of a Non-Settled Generator. This information includes, among other things, the appropriate dynamic model for the proposed generator and results of the model quality tests and associated simulation files as described in paragraph (5)(c) of Section 6.2, Dynamics Model Development, subject to performance and usability verification by the lead TSP with approval from ERCOT through the FIS process. Dynamic model data shall be provided using the appropriate dynamic model template. Paragraph (5) of Section 6.2 and the Dynamics Working Group Procedure Manual contain more detail and IE dynamics data requirements. Data submitted for transient stability models shall be compatible with the current version of the planning and operations model software as described in the Dynamics Working Group Procedure Manual. If no compatible model exists, the IE shall work with a consultant or software vendor to develop and supply accurate/appropriate models along with other associated data. These models shall be incorporated into the standard model libraries of all software packages;

(c) An FIS Application Fee as described in the ERCOT Fee Schedule in the ERCOT Nodal Protocols, with the MW amount determined based on:

(i) The MW of additional installed capacity for GIMs not meeting paragraph (1)(c)(ii) of Section 5.2.1, Applicability; or

(ii) Total MW capacity for GIMs meeting paragraph (1)(c)(ii) of Section 5.2.1;

(d) Proof of site control as described in Section 5.3.2.1, Proof of Site Control; and

(e) A declaration in Section 8, Attachment C, Declaration of Department of Defense Notification, certifying that:

(i) The IE has notified the Department of Defense (DOD) Siting Clearinghouse of the proposed Generation Resource or ESR and requested an informal or formal review as described in 32 C.F.R. § 211.1; or

(ii) The IE’s proposed Generation Resource or ESR is not required to provide notice to the DOD and Federal Aviation Administration (FAA) because the project does not meet the criteria requiring notice to the FAA under 14 C.F.R. § 77.9.

(f) The requirements in paragraphs (d) and (e) above do not apply to NSTGs.

(4) The IE can request an FIS for an active project before completion of the Security Screening Study or at any other time after ERCOT deems the initial GIM application complete, but must comply with the timeline set forth in paragraph (5) of Section 5.3.1, Security Screening Study. Requesting both studies at the same time may shorten the overall time to complete the GIM process due to overlap of work on both studies.

(5) Payment of the ERCOT FIS Application Fee does not affect the IE’s independent responsibility to pay for FIS studies conducted by the TSP or for any DSP studies.

(6) ERCOT shall manage a confidential email list (Transmission Owner Generation Interconnection) to facilitate communication of confidential GIM-related information among TSP(s) and ERCOT. Membership to this email list will be limited to ERCOT and appropriate TSP personnel.

(7) If any of the items required for the FIS request pursuant to paragraph (3) above are deemed not acceptable by ERCOT or are not submitted, then the IE must submit any omitted items and resolve and resubmit any deficient items. If the FIS request is not deemed complete by ERCOT within 60 days of submission of the FIS request, the FIS will be considered to have not been requested for the purpose of meeting paragraph (5) of Section 5.3.1. If the 180-day limit specified in paragraph (5) of Section 5.3.1 has expired, the GIM will be cancelled immediately. If the 180-day limit has not expired and the deficiency is not resolved before the 180-day limit, the GIM will be cancelled upon expiration of the 180-day limit.

**5.3.2.1 Proof of Site Control**

(1) To establish proof of site control for the purposes of paragraph (3)(d) of Section 5.3.2, Full Interconnection Study, the IE for each interconnecting Generation Resource or Energy Storage Resource (ESR) must demonstrate through an affiliated company, through a trustee, or directly in its name that:

(a) The IE is the owner in fee simple of the real property to be utilized by the facilities for which any new generation interconnection is sought;

(b) The IE holds a valid written leasehold interest in the real property to be utilized by the facilities for which new generation interconnection is sought;

(c) The IE holds a valid written option to purchase or obtain a leasehold interest in the real property to be utilized by the facilities for which new generation interconnection is sought; or

(d) The IE holds a duly executed written contract to purchase or obtain a leasehold interest in the real property to be utilized by the facilities for which new generation interconnection is sought.

(2) The IE must notify ERCOT of any substantive change in status of the arrangement used to demonstrate site control.

(3) If the IE fails to maintain site control at any point before the date the generator is fully constructed, ERCOT will consider the interconnection request withdrawn as of the date of the loss of site control unless the applicant can show within 30 days that it has re-established site control or has established control of a new site that would not result in any material modification of any interconnection study requested under the current application.

5.3.2.4.1 Steady-State Analysis

(1) The steady-state interconnection study base case shall be created from the most recently approved Steady State Working Group (SSWG) base case. TSP(s) or ERCOT may remove any future (currently nonexistent) facility from the steady-state interconnection study base case if either determines that the facility may significantly affect the interconnection study results and the facility has not already undergone appropriate review by the Regional Planning Group (RPG). In addition, ERCOT and TSP(s) may include other publicly disclosed projects in the steady-state interconnection study base case. ERCOT may request a list of the interconnection requests included in the FIS by the TSP(s). Modifications to the SSWG base case, necessary to evaluate the study results, shall be documented in the FIS but not to the extent that documenting the modifications would reveal Protected Information.

(2) The TSP(s) shall perform contingency analyses as required by the NERC Reliability Standards, Protocols, this Planning Guide and the Operating Guides and identify any additional facilities that may be necessary to ensure that expected system performance conforms to these standards. The study shall identify any system limitations that would prevent the generator from achieving full output.

(3) Loss-of-generation analyses shall assume that the lost generation will be replaced from all remaining Generation Resources and/or ESRs in proportion to their nominal capacity (i.e., inertial response and primary frequency response), and shall consider the generation limit of each Generation Resource and ESR.

(4) The lead TSP is responsible for completing an analysis of any contingency events or Outages that could result in a violation of the NERC Reliability Standards, Protocols, this Planning Guide and the Operating Guides, regardless of which TSP owns the facilities involved. The results of this analysis will be shared with TSP(s) that have facilities involved in planning criteria violations and those affected TSP(s) will be responsible for evaluating the validity of the anticipated violations.

(5) Any NSTG that is a battery must be included in the steady-state analysis. The steady-state analysis for that battery shall be limited only to the battery’s charging load.

5.3.4 Reactive Study

(1) The IE and the TSP shall coordinate with one another for the IE to complete the reactive study for any generator (other than an NSG) required to provide voltage support service and for the TSP to have the needed data to start the FIS stability study.

(a) The TSP shall send the preliminary short circuit current for the proposed POI based on the most recent System Protection Working Group (SPWG) base case to the IE within 15 Business Days of an IE request after the FIS study agreement has been signed.

(b) The IE shall complete a preliminary reactive study to determine the reactive devices that will be needed to meet ERCOT requirements. Once determined, the IE shall add the reactive devices, if any, to the Resource Registration data and make the updated data available to ERCOT and the TSP via the online RIOO system.

(c) The TSP shall start the FIS stability study after all the required data is available via the online RIOO system.

(2) Once the TSP has completed the FIS short circuit study and it is approved by ERCOT and posted to the MIS Secure Area, the IE shall complete and submit the final reactive study via the online RIOO system.

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| ***[PGRR076: Insert paragraph (3) below upon system implementation:]***  (3) For GINR projects attempting to meet the next quarterly stability assessment deadline, pursuant to Section 5.3.5, ERCOT Quarterly Stability Assessment, ERCOT shall approve or comment on the final reactive study according to the following timeline:  (a) Within 15 days if submitted at least 45 days before the quarterly stability assessment deadline. Resubmissions submitted 30 days or more before the quarterly stability assessment deadline will be reviewed and returned within ten days;  (b) On the day of the quarterly stability assessment deadline if submitted 30 to 44 days prior to the quarterly stability assessment deadline; or  (c) Without guarantee that it will be reviewed prior to the quarterly stability assessment deadline if submitted less than 30 days prior to the quarterly stability assessment deadline. |

5.3.5 ERCOT Quarterly Stability Assessment

(1) ERCOT shall conduct a stability assessment every three months to assess the impact of planned large generators, excluding NSTGs with a nameplate capacity less than 10 MW, and Large Loads subject to the requirements of Section 9.2.1, Applicability of the Large Load Interconnection Study Process, connecting to the ERCOT System.

(a) For large generators with planned Initial Synchronization in the period under study, the assessment shall derive the conditions to be studied with consideration given to the results of the FIS stability studies.

(b) For new Large Loads and Load modifications subject to the requirements of Section 9.2.1, with planned Initial Energization in the period under study, the assessment shall derive the conditions to be studied from the most current Load Commissioning Plan and with consideration given to the results of the Large Load Interconnection Study (LLIS) stability studies.

(c) ERCOT may study conditions other than those identified in the FIS or LLIS stability studies.

(2) Large generators that are not included in the assessment as described in this Section as result of the IE failing to meet the prerequisites by the deadlines as listed in the table below will not be eligible for Initial Synchronization during that three-month period. Loads described in paragraph (1)(b) above that are not included in the assessment as a result of failing to meet the prerequisites by the deadlines as listed in the table below will not be eligible for Initial Energization during that three-month period. The timeline for the quarterly stability assessment shall be in accordance with the following table:

|  |  |  |
| --- | --- | --- |
| **Generator Initial Synchronization or Large Load Initial Energization Date** | **Last Day for an IE, Resource Entity, or TSP to meet prerequisites as listed in paragraphs (4) and (5) below** | **Completion of Quarterly Stability Assessment** |
| Upcoming January, February, March | Prior August 1 | End of October |
| Upcoming April, May, June | Prior November 1 | End of January |
| Upcoming July, August, September | Prior February 1 | End of April |
| Upcoming October, November, December | Prior May 1 | End of July |

(3) If the last day for an IE, Resource Entity, or TSP to meet prerequisites or if completion of the quarterly stability assessment as shown in the above table falls on a weekend or holiday, the deadline will extend to the next Business Day.

(4) The following prerequisites shall be satisfied prior to a large generator being included in the quarterly stability assessment:

(a) The generator has met the requirements of Section 6.9, Addition of Proposed Generation to the Planning Models.

(b) The IE has provided all generator data in accordance with the Resource Registration Glossary, Planning Model column, including but not limited to steady state, system protection and stability models. An IE that is an NSTG with a nameplate capacity greater than 10 MW must provide all generator data in accordance with Protocol Section 3.8.9, Interconnection of a Non-Settled Generator.

(i) The IE shall submit the final dynamic data model at least 45 days prior to the quarterly stability assessment deadline described in paragraph (2) above. If ERCOT is unable to complete its review prior to the quarterly stability assessment deadline, ERCOT shall not include the Generation Resource, ESR, or Settlement Only Generator (SOG) in that quarterly stability assessment.

(ii) Changes to the dynamic data model after the stability study is deemed complete may subject the Generation Resource, ESR, or SOG to modification of one or more FIS study elements as defined in paragraph (9) of Section 5.3.2.5, FIS Report and Follow-up. If ERCOT and the lead TSP(s) determine that modifications to one or more FIS study elements are required, then ERCOT shall not include the Generation Resource, ESR, or SOG in a quarterly stability assessment until the revised FIS has been completed in accordance with paragraph (4)(c)(i) below.

(iii) If an IE submitted a final dynamic data model at least 45 days prior to the quarterly stability assessment deadline but ERCOT determines that the Generation Resource, ESR, or SOG is ineligible to be included in a quarterly stability assessment pursuant to paragraphs (4)(b)(i) or (4)(b)(ii) above, ERCOT will send a notification to the IE.

(c) The following elements must be complete:

(i) Final FIS studies, which the TSP must have submitted via the online RIOO system at least 45 days prior to the quarterly stability assessment deadline;

(ii) Reactive Power Study; and

(iii) System improvements or mitigation plans that were identified in these studies as required to meet the operational standards established in the Protocols, Planning Guide, Nodal Operating Guides, and Other Binding Documents prior to synchronizing the generator.

(d) The data used in the studies identified in paragraph (4)(c) above is consistent with data submitted by the IE as required by Section 6.9.

(5) The following prerequisites must be satisfied prior to the inclusion of a new Large Load or Load modification subject to the requirements of Section 9.2.1 in the quarterly stability assessment:

(a) The Large Load has met the requirements of Section 9.4, LLIS Report and Follow-up, and Section 9.5, Interconnection Agreements and Responsibilities;

(b) The Load Commissioning Plan has been updated to reflect the results of the LLIS as required by paragraph (1) of Section 9.2.4, Load Commissioning Plan;

(c) The interconnecting TSP has provided to ERCOT the dynamic load model it received from the Interconnecting Large Load Entity (ILLE) per paragraph (1) of Section 9.3.4.3, Dynamic and Transient Stability Analysis, and written affirmation that no changes to the project information have been communicated by the ILLE, per Section 9.2.3, Modification of Large Load Project Information, that would invalidate the model;

(d) The following elements must be complete;

(i) Reactive Power Study, if required according to Protocol Section 3.15, Voltage Support; and

(ii) SSO Study, if required according to Protocol Section 3.22.1.4, Large Load Interconnection Assessment; and

(e) The data used in the studies identified in paragraph (c) above is consistent with data used in the final LLIS studies approved per Section 9.4, LLIS Report and Follow-up.

(6) At any time following the inclusion of a large generator or applicable Large Load in a stability assessment, but before the Initial Synchronization of the generator or Initial Energization of the Large Load, if ERCOT determines, in its sole discretion, that the generator or Large Load no longer meets the prerequisites described in paragraphs (4) or (5) above, or that an IE or ILLE has made a change to the design of the generator or Large Load that could have a material impact on ERCOT System stability, then ERCOT may refuse to allow Initial Synchronization of the generator or Initial Energization of the Large Load. ERCOT shall include the generator or Large Load in the next quarterly stability assessment period that commences after identification of the material change or after the generator or Large Load meets the prerequisites specified in paragraphs (4) or (5) above, as applicable. If ERCOT determines, in its sole discretion, that the change to the design of the generator or Large Load would not have a material impact on ERCOT System stability, then ERCOT may not refuse to allow Initial Synchronization of the generator or Initial Energization of the Large Load due to this change.

(7) ERCOT shall post to the MIS Secure Area a report summarizing the results of the quarterly stability assessment within ten Business Days of completion.

***5.4.2 Submission of Interconnection Agreement and TSP and/or DSP Studies and Technical Requirements***

(1) As a condition for ERCOT’s acceptance of the Resource Registration form for an interconnection request involving a small generator other than a Settlement Only Generator (SOG) or Non-Settled Distributed Generator (NSDG), the following conditions must be met:

(a) The IE must submit a copy of a fully executed interconnection agreement or letter, as required per Section 5.2.8, Interconnection Agreements and Procedures.

(b) The Transmission and/or Distribution Service Provider (TDSP) to which the generator is proposed to interconnect, or in the case of a modification described in paragraph (1)(c) of Section 5.2.1, Applicability, the TDSP to which the generator currently connects, must provide written confirmation via email to ERCOT stating that all interconnection studies required by the TDSP have been completed, and indicating whether any operational limitations, including ramping limitations, maximum output limitations, or other restrictions, are expected to affect the generator’s operation. If the TDSP identifies operational limitations, the TDSP must describe those limitations.

(c) The TDSP must provide the following information to ERCOT:

(i) Confirmation that the IE has provided financial security sufficient to fund the distribution system upgrades identified by the TDSP;

(ii) The timeline for those upgrades; and

(iii) Any operational limitation on the generator’s operation in the interim.

(2) For NSDG must provide Resource Registration prescribed in Protocol Section 3.8.9, Interconnection of a Non-Settled Generator. The IE must submit a copy of a fully executed interconnection agreement or letter.

**5.5 Generator Commissioning and Continuing Operations**

(1) For each interconnecting Generation Resource, Energy Storage Resource (ESR), Settlement Only Generator (SOG), or Non-Settled Generator (NSG), each Interconnecting Entity (IE) shall meet the conditions established by ERCOT before proceeding to Initial Energization, Initial Synchronization, and commercial operations. These conditions may require proof of meeting applicable ERCOT requirements, which may include, but are not limited to, reactive capability, voltage and frequency ride-through standards, dynamic model template submission, Automatic Voltage Regulator (AVR), Primary Frequency Response, Power System Stabilizer (PSS), Subsynchronous Resonance (SSR) models, and telemetry.

(2) Before ERCOT approves Initial Energization for a project that will consume Load other than Wholesale Storage Load (WSL) and that is not behind a Non-Opt-In Entity (NOIE) tie meter:

(a) The Resource Entity must request an Electric Service Identifier(s) (ESI ID(s)) from the Distribution Service Provider(s) (DSP(s)) that will be serving the Load at the Resource site and provide the ESI ID(s) to ERCOT, as described in paragraph (2) of Protocol Section 10.3.2, ERCOT-Polled Settlement Meters; and

(b) These ESI ID(s) must be established in the ERCOT Settlement system in a state that allows for the Load to be properly settled to the appropriate Qualified Scheduling Entity (QSE).

(3) Within 300 days of receiving ERCOT’s approval for Initial Synchronization above 20 MVA of a new or repowered Generation Resource or ESR, a Resource Entity shall ensure the Resource meets the conditions established by ERCOT for commercial operations and shall submit a request to ERCOT to commission the Resource.

(a) In the event a Generation Resource or ESR will be unable to complete all necessary construction and required testing to commence commercial operations and connect reliably to the ERCOT System within the 300 days, the Generation Resource or ESR may request a good cause exception with sufficient detail, and shall notify ERCOT prior to the planned commercial operation date and provide ERCOT with an updated commercial operation date that the Generation Resource or ESR can reasonably expect to commence operations in a reliable manner.

(4) Prior to the Resource Commissioning Date of an Inverter-Based Resource (IBR), the IE associated with the IBR shall submit the appropriate dynamic models for the “as-built” data and the data submitted for the quarterly stability assessment, documentation clearly indicating any differences, results of the model quality tests of the “as-built” data overlaid with the results of the data submitted for the quarterly stability assessment, and associated simulation files pursuant to paragraph (5)(c) of Section 6.2, Dynamics Model Development. Submissions shall be sent electronically to [Dynamicmodels@ercot.com](mailto:Dynamicmodels@ercot.com) for ERCOT review, and the phrase "IBR prior to commissioning" must be included in the subject line of the submission email. ERCOT shall respond to the IE within ten Business Days of the submission, indicating whether the submission is acceptable or if additional information is required. If additional time is needed for review, ERCOT can extend this review period by an additional 20 Business Days, and an email will be sent to notify the IE that it needs additional time to review the submission. The time for ERCOT to review models and associated documentation will be a qualified cause to extend the allowed time to complete the conditions established by ERCOT for commercial operations.

(5) No later than 30 days following the Resource Commissioning Date, the Resource Entity shall submit updates to the resource dynamic planning and operations models through the online Resource Integration and Ongoing Operations (RIOO) system based on “as-built” data and provide a plant verification report as required by paragraph (5)(b) of Section 6.2. Pursuant to paragraph (5)(c) of Section 6.2, the Resource Entity shall include model updates with model quality tests.

(6) During continuing operations:

(a) Prior to the implementation of modification to any control settings or equipment of an IBR that impacts the dynamic response (such as voltage, frequency, and current injections) at the Point of Interconnection (POI), the proposed modification shall be reviewed by the interconnecting Transmission Service Provider (TSP) and ERCOT:

(i) The Resource Entity shall submit the appropriate dynamic model for the proposed modification, results of the model quality tests overlaid with the results before the modification, and associated simulation files pursuant to paragraph (5)(c) of Section 6.2. Submissions shall be sent electronically to [Dynamicmodels@ercot.com](mailto:Dynamicmodels@ercot.com) for ERCOT review, and the phrase "IBR proposed modification" must be included in the subject line of the submission email. The Resource Entity may withdraw its modification plan at any time during the review process if the Resource Entity no longer wishes to proceed with the modification.

(ii) ERCOT shall respond to the Resource Entity within ten Business Days of the submission in paragraph (i) above, indicating whether the submission is acceptable or if additional information is required. ERCOT can extend this review period by an additional 20 Business Days, and an email will be sent to notify the Resource Entity that it needs additional time to review the submission.

(iii) Upon completing its review of the model quality tests, ERCOT shall notify the Resource Entity and the interconnecting TSP of its determination. The notification will indicate one of the following:

(A) ERCOT recommends that the interconnecting TSP conduct a limited dynamic stability study comparing electrical performance before and after the proposed modification, and reasonably evaluate whether the proposed modification may present dynamic stability risks that should be subject to further study.

(B) The proposed modification is applicable to paragraph (1)(c)(iii) of Section 5.2.1, Applicability. The Resource Entity shall initiate a Generator Interconnection or Modification (GIM) request through RIOO.

(C) The proposed modification is deemed unacceptable.

(D) The proposed modification is deemed acceptable without need for a dynamic stability study.

(iv) Within 90 days of the receipt of the accepted submission in paragraph (iii)(A) above, the interconnecting TSP shall submit its dynamic stability study report to ERCOT electronically to [Dynamicmodels@ercot.com](mailto:Dynamicmodels@ercot.com).

(v) ERCOT shall review the dynamic stability study report submitted by the interconnecting TSP within ten Business Days.  ERCOT can extend this review period by an additional 20 Business Days, and an email will be sent to notify the interconnecting TSP and the Resource Entity that it needs additional time to review the dynamic stability study report.

(vi) Upon completing its review and ERCOT acceptance of the dynamic stability study report, ERCOT shall notify the Resource Entity and the interconnecting TSP of its determination. The notification will indicate one of the following:

(A) The proposed modification is deemed acceptable.

(B) The proposed modification is applicable to paragraph (1)(c) of Section 5.2.1. The Resource Entity shall initiate a GIM request through RIOO.

(vii) ERCOT, in consultation with the interconnecting TSP, may allow the proposed changes to be temporarily implemented prior to the above review process in order to address any identified performance deficiency.

(b) Pursuant to paragraph (5)(c) of Section 6.2, the Resource Entity shall include model updates with model quality tests.

(c) The Resource Entity shall provide ERCOT with a plant verification report as required by paragraph (5)(b) of Section 6.2 at the following times:

(i) No later than 30 days after implementing a settings change as required by paragraph (7) of Section 6.2;

(ii) No earlier than 12 months and no later than 24 months following the later of the Resource Commissioning Date or March 1, 2021; and

(iii) A minimum of every ten years.