ERCOT Planning Guide

October 29, 2026

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Section 1: Overview

February 1, 2026

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1 OVERVIEW

1.1 Purpose

(1) This Planning Guide is consistent with applicable planning-related requirements of the Public Utility Commission of Texas (PUCT) Substantive Rules, Protocols and the North American Electric Reliability Corporation (NERC) Reliability Standards.

(2) This Planning Guide provides more detail of and establishes planning requirements for organizations and Entities operating in or potentially impacting the reliability of the ERCOT System. These organizations and Entities shall comply with the requirements set forth in this Planning Guide.

(3) In the event of a conflict between the Planning Guide and Protocols, any PUCT Substantive Rules or the NERC Reliability Standards, then such PUCT Substantive Rules, NERC Reliability Standards, and the Protocols shall control.

(4) For application in the ERCOT Region, some NERC Reliability Standards must be adapted to fit the unique characteristics of ERCOT. Defined terminology for NERC Regional Variances, if any, is detailed in the NERC Reliability Standards.

1.2 Process for Planning Guide Revision

1.2.1 Introduction

(1) A request to make additions, edits, deletions, revisions, or clarifications to this Planning Guide, including any attachments and exhibits to this Planning Guide, is called a Planning Guide Revision Request (PGRR). Except as specifically provided in other sections of this Planning Guide, this Section 1.2, Process for Planning Guide Revision, shall be followed for all PGRRs. ERCOT Members, Market Participants, Public Utility Commission of Texas (PUCT) Staff, the Reliability Monitor, the Independent Market Monitor (IMM), the North American Electric Reliability Corporation (NERC) Regional Entity, ERCOT, and any other Entities are required to utilize the process described herein prior to requesting, through the PUCT or other Governmental Authority, that ERCOT make a change to this Planning Guide, except for good cause shown to the PUCT or other Governmental Authority.

(2) The "next regularly scheduled meeting" of the Reliability and Operations Subcommittee (ROS), the Wholesale Market Subcommittee (WMS), the Technical Advisory Committee (TAC), the ERCOT Board or the PUCT, shall mean the next regularly scheduled meeting for which required Notice can be timely given regarding the item(s) to be addressed, as specified in the appropriate PUCT, ERCOT Board or committee procedures.

(3) The ROS shall ensure that the Planning Guides are compliant with the ERCOT Protocols. As such, the ROS will monitor all changes to the ERCOT Protocols and initiate any

PGRRs necessary to bring the Planning Guides in conformance with the ERCOT Protocols. The ROS will also initiate a Nodal Protocol Revision Request (NPRR) if such a change is necessary to accommodate a proposed PGRR prior to proceeding with that PGRR.

(4) Throughout the Planning Guide, references are made to the ERCOT Protocols. ERCOT Protocols supersede the Planning Guide and any PGRR must be compliant with the Protocols. The ERCOT Protocols are subject to the revision process outlined in Protocol Section 21, Revision Request Process.

(5) ERCOT may make non-substantive corrections at any time during the processing of a particular PGRR. Under certain circumstances, however, the Planning Guide can also be revised by ERCOT rather than using the PGRR process outlined in Section 1.2.

(a) This type of revision is referred to as an "Administrative PGRR" or "Administrative Changes" and shall consist of non-substantive corrections, such as typos (excluding grammatical changes), internal references (including table of contents), improper use of acronyms, references to ERCOT Protocols, PUCT Substantive Rules, the Public Utility Regulatory Act (PURA), NERC regulations, Federal Energy Regulatory Commission (FERC) rules, etc., and revisions for the purpose of maintaining consistency between Section 1.2 and Protocol Section 21.

(b) ERCOT shall post such Administrative PGRRs to the ERCOT website and distribute the PGRR to ROS. If no Entity submits comments to the Administrative PGRR within ten Business Days in accordance with paragraph (1) of Section 1.2.3.3, ROS Review and Action, the Administrative PGRR shall be subject to PUCT approval. Following PUCT approval, ERCOT shall implement the Administrative PGRR according to paragraph (3) of Section 1.2.5, Planning Guide Revision Implementation. If any Entity submits comments to the Administrative PGRR, then it shall be processed in accordance with the PGRR process outlined in Section 1.2.

1.2.2 Submission of a Planning Guide Revision Request

(1) The following Entities may submit a PGRR:

(a) Any Market Participant;

(b) Any ERCOT Member;

(c) PUCT Staff;

(d) Reliability Monitor Staff;

(e) NERC Regional Entity Staff;

(f) The IMM;

(g) ERCOT; and

(h) Any other Entity that meets the following qualifications:

(i) Resides (or represent residents) in Texas or operates in the Texas electricity market; and

(ii) Demonstrates that Entity (or those it represents) is affected by the Customer Registration or Renewable Energy Credit (REC) Trading Program sections of the ERCOT Protocols.

1.2.3 Planning Guide Revision Procedure

1.2.3.1 Review and Posting of Planning Guide Revision Requests

(1) PGRRs shall be submitted electronically to ERCOT by completing the designated form provided on the ERCOT website. Excluding ERCOT-sponsored PGRRs, ERCOT shall provide an electronic return receipt response to the submitter upon receipt of the PGRR.

(2) The PGRR shall include the following information:

(a) Description of requested revision and reason for suggested change;

(b) Impacts and benefits of the suggested change on ERCOT market structure, ERCOT operations, and Market Participants, to the extent that the submitter may know this information;

(c) List of affected Planning Guide sections and subsections;

(d) General administrative information (organization, contact name, etc.); and

(e) Suggested language for requested revision.

(3) ERCOT shall evaluate the PGRR for completeness and shall notify the submitter, within five Business Days of receipt, if the PGRR is incomplete, including the reasons for such status. ERCOT may provide information to the submitter that will correct the PGRR and render it complete. An incomplete PGRR shall not receive further consideration until it is completed. In order to pursue the PGRR, a submitter must submit a completed version of the PGRR.

(4) If a submitted PGRR is complete or upon completion of a PGRR, ERCOT shall post the PGRR on the ERCOT website and distribute to ROS within three Business Days.

(5) For any ERCOT-sponsored PGRR, ERCOT shall also post an initial Impact Analysis on the ERCOT website, and distribute it to ROS. The initial Impact Analysis will provide ROS with guidance as to potential ERCOT computer systems, operations, or business functions that could be affected by the submitted PGRR.

1.2.3.2 Withdrawal of a Planning Guide Revision Request

(1) A submitter may withdraw or request to withdraw a PGRR by submitting a completed Request for Withdrawal form provided on the ERCOT website. ERCOT shall post the submitter's Request for Withdrawal on the ERCOT website within three Business Days of submittal.

(2) The submitter of a PGRR may withdraw the PGRR at any time before ROS recommends approval of the PGRR.

(3) If ROS has recommended approval of the PGRR, the Request for Withdrawal must be approved by the TAC if the PGRR has not yet been recommended for approval by TAC.

(4) If TAC has recommended approval of the PGRR, the Request for Withdrawal must be approved by the ERCOT Board if the PGRR has not yet been recommended for approval by the ERCOT Board.

(5) Once recommended for approval by the ERCOT Board, a PGRR cannot be withdrawn.

1.2.3.3 ROS Review and Action

(1) Any ERCOT Member, Market Participant, PUCT Staff, Reliability Monitor Staff, NERC Regional Entity Staff, the IMM Staff, or ERCOT may comment on the PGRR.

(2) To receive consideration, comments must be delivered electronically to ERCOT in the designated format provided on the ERCOT website within 14 days from the posting date of the PGRR. Comments posted after the 14-day comment period may be considered at the discretion of ROS. Comments submitted in accordance with the instructions on the ERCOT website, regardless of date of submission, shall be posted on the ERCOT website and distributed to the ROS within three Business Days of submittal.

(3) The ROS shall consider the PGRR at its next regularly scheduled meeting after the end of the 14-day comment period. The quorum and voting requirements for ROS action are set forth in the Technical Advisory Committee Procedures. At such meeting, the ROS shall take action on the PGRR. In considering action on a PGRR, the ROS shall:

   (a) Recommend approval of the PGRR as submitted or as modified;

   (b) Reject the PGRR;

   (c) Table the PGRR; or

   (d) Refer the PGRR to another ROS working group or task force, or another TAC subcommittee with instructions.

(4) If a motion is made to recommend approval of a PGRR and that motion fails, the PGRR shall be deemed rejected by ROS unless at the same meeting ROS later votes to

recommend approval of, table, or refer the PGRR. If a motion to recommend approval of a PGRR fails via e-mail vote according to the Technical Advisory Committee Procedures, the PGRR shall be deemed rejected by the ROS unless at the next regularly scheduled ROS meeting or in a subsequent e-mail vote prior to such meeting, ROS votes to recommend approval of, table, or refer the PGRR. The rejected PGRR shall be subject to appeal pursuant to Section 1.2.3.14, Appeal of Action.

(5) Within three Business Days after ROS takes action, ERCOT shall post an ROS Report reflecting the ROS action on the ERCOT website. The ROS Report shall contain the following items:

(a) Identification of submitter of the PGRR

(b) Planning Guide language recommended by the ROS, if applicable;

(c) Identification of authorship of comments;

(d) Proposed effective date(s) of the PGRR;

(e) Recommended priority and rank for any PGRRs requiring an ERCOT project for implementation; and

(f) ROS action.

(6) The ROS chair shall notify TAC of Revision Requests rejected by ROS.

1.2.3.4 Comments to the ROS Report

(1) Any ERCOT Member, Market Participant, PUCT Staff, Reliability Monitor Staff, NERC Regional Entity Staff, the IMM, or ERCOT may comment on the ROS Report. Comments submitted in accordance with the instructions on the ERCOT website, regardless of date of submission, shall be posted on the ERCOT website and distributed to the committee (i.e. ROS and/or TAC) considering the PGRR within three Business Days of submittal.

(2) The comments to the ROS Report will be considered at the next regularly scheduled ROS meeting that is at least six days from the posting date. Comments posted less than six days prior to the next regularly scheduled ROS meeting may be considered at the discretion of the ROS.

(3) For TAC, the comments to the ROS Report will be considered at the next regularly scheduled TAC meeting where the Revision Request is being considered.

1.2.3.5 Planning Guide Revision Request Impact Analysis

(1) If ROS recommends approval of a PGRR, ERCOT shall prepare an Impact Analysis based on the proposed language in the ROS Report. If ERCOT has already prepared an

Impact Analysis, ERCOT shall update the existing Impact Analysis, if necessary, to accommodate the language recommended for approval in the ROS Report.

(2) The Impact Analysis shall assess the impact of the proposed PGRR on ERCOT staffing, computer systems, operations, or business functions and shall contain the following information:

(a) An estimate of any cost and budgetary impacts to ERCOT for both implementation and ongoing operations;

(b) The estimated amount of time required to implement the PGRR;

(c) The identification of alternatives to the PGRR that may result in more efficient implementation; and

(d) The identification of any manual workarounds that may be used as an interim solution and estimated costs of the workaround.

(3) Unless a longer review period is warranted due to the complexity of the proposed ROS Report, ERCOT shall post an Impact Analysis on the ERCOT website for a PGRR for which ROS has recommended approval of, prior to the next regularly scheduled ROS meeting, and distribute to ROS. If a longer review period is required by ERCOT to complete an Impact Analysis, ERCOT shall submit comments with a schedule for completion of the Impact Analysis.

1.2.3.6 ROS Review of Impact Analysis

(1) After ERCOT posts the results of the Impact Analysis, ROS shall review the Impact Analysis at its next regularly scheduled meeting. ROS may revise its ROS Report after considering the information included in the Impact Analysis or additional comments received on the ROS Report.

(2) Within three Business Days of ROS consideration of the Impact Analysis and ROS Report, ERCOT shall post the ROS Report on the ERCOT website. If ROS revises the ROS Report, ERCOT shall update the Impact Analysis, if necessary, post the updated Impact Analysis on the ERCOT website, and distribute it to the committee (i.e. ROS and/or TAC) considering the Impact Analysis. If a longer review period is required for ERCOT to update the Impact Analysis, ERCOT shall submit comments with a schedule for completion of the Impact Analysis.

(3) If the PGRR requires an ERCOT project for implementation, at the same meeting, ROS shall assign a recommended priority and rank for the associated project.

1.2.3.7 Wholesale Market Subcommittee Review

(1) The WMS shall monitor and review PGRRs as they work through the ROS process and may submit comments to the process as appropriate.

1.2.3.8 ERCOT Impact Analysis Based on ROS Report

(1) ERCOT shall review the ROS Report and, if necessary, update the Impact Analysis as soon as practicable. ERCOT shall distribute the updated Impact Analysis, if applicable, to TAC and post it on the ERCOT website. If a longer review period is required for ERCOT to update the Impact Analysis, ERCOT shall submit comments with a schedule for completion of the Impact Analysis.

1.2.3.9 PRS Review of Project Prioritization

(1) At the next regularly scheduled Protocol Revision Subcommittee (PRS) meeting after ROS recommends approval of a PGRR that requires an ERCOT project for implementation, the PRS shall assign a recommended priority and rank for the associated project.

1.2.3.10 Technical Advisory Committee Vote

(1) TAC shall consider any PGRRs that ROS has submitted to TAC for consideration for which both an ROS Report and an Impact Analysis (as updated if modified by ROS under Section 1.2.3.8, ERCOT Impact Analysis Based on ROS Report) and any new or unresolved comments submitted by WMS that have been posted on the ERCOT website. The following information must be included for each PGRR considered by TAC:

(a) The ROS Report and Impact Analysis;

(b) The ROS-recommended priority and rank, if an ERCOT project is required; and

(c) Any comments timely received in response to the ROS Report.

(2) The quorum and voting requirements for TAC action are set forth in the Technical Advisory Committee Procedures. In considering action on an ROS Report, TAC shall:

(a) Recommend approval of the PGRR as recommended in the ROS Report (with due consideration to comments provided by WMS) or as modified by TAC;

(b) Reject the PGRR;

(c) Table the PGRR;

(d) Remand the PGRR to ROS with instructions; or

(e) Refer the PGRR to another TAC subcommittee or a TAC working group or task force with instructions.

(3) If a motion is made to recommend approval of a PGRR and that motion fails, the PGRR shall be deemed rejected by TAC unless at the same meeting TAC later votes to recommend approval of, table, remand, or refer the PGRR. If a motion to recommend approval of a PGRR fails via email vote according to the Technical Advisory Committee Procedures, the PGRR shall be deemed rejected by TAC unless at the next regularly scheduled TAC meeting or in a subsequent email vote prior to such meeting, TAC votes to recommend approval of, table, remand, or refer the PGRR. The rejected PGRR shall be subject to appeal pursuant to Section 1.2.3.13, Appeal of Action.

(4) Within three Business Days after TAC takes action on a PGRR, ERCOT shall post a TAC Report reflecting the TAC action on the ERCOT website. The TAC Report shall contain the following items:

(a) Identification of the submitter of the PGRR;

(b) Modified Planning Guide language proposed by TAC, if applicable;

(c) Identification of the authorship of comments, if applicable;

(d) Proposed effective date(s) of the PGRR;

(e) Priority and rank for any PGRR requiring an ERCOT project for implementation;

(f) ROS action;

(g) TAC action;

(h) IMM Opinion;

(i) ERCOT Opinion; and

(j) ERCOT Market Impact Statement.

(5) If TAC recommends approval of a PGRR, ERCOT shall forward the TAC Report to the ERCOT Board for consideration pursuant to 1.2.3.12, ERCOT Board Vote.

1.2.3.11 ERCOT Impact Analysis Based on Technical Advisory Committee Report

(1) ERCOT shall review the TAC Report and, if necessary, update the Impact Analysis as soon as practicable. ERCOT shall distribute the updated Impact Analysis, if applicable, TAC and post it on the ERCOT website. If a longer review period is required for ERCOT to update the Impact Analysis, ERCOT shall submit comments with a schedule for completion of the Impact Analysis.

1.2.3.12 ERCOT Board Vote

(1) Upon issuance of a TAC Report and Impact Analysis to the ERCOT Board, the ERCOT Board shall review the TAC Report and the Impact Analysis at the next regularly scheduled meeting. For Urgent PGRRs, the ERCOT Board shall review the TAC Report and Impact Analysis at the next regularly scheduled meeting, unless a special meeting is required due to the urgency of the PGRR.

(2) The quorum and voting requirements for ERCOT Board action are set forth in the ERCOT Bylaws. In considering action on a TAC Report, the ERCOT Board shall:

(a) Recommend approval of the PGRR as recommended in the TAC Report or as modified by the ERCOT Board;

(b) Reject the PGRR;

(c) Table the PGRR; or

(d) Remand the PGRR to TAC with instructions.

(3) If a motion is made to recommend approval of a PGRR and that motion fails, the PGRR shall be deemed rejected by the ERCOT Board unless at the same meeting the ERCOT Board later votes to recommend approval, table, or remand the PGRR. The rejected PGRR shall be subject to appeal pursuant to Section 1.2.3.14, Appeal of Action.

(4) Within three Business Days after the ERCOT Board takes action on a PGRR, ERCOT shall post a Board Report reflecting the ERCOT Board action on the ERCOT website.

1.2.3.13 PUCT Approval of Revision Requests

(1) All PGRRs require approval by the PUCT prior to implementation.

(2) Within three Business Days after the PUCT takes action on a PGRR, ERCOT shall post a PUCT Report reflecting the PUCT action on the ERCOT website.

1.2.3.14 Appeal of Action

(1) Any ERCOT Member, Market Participant, PUCT Staff, the NERC Regional Entity, the Reliability Monitor, or ERCOT may appeal an ROS action to reject, table, or refer a PGRR directly to TAC. Such appeal to the TAC must be submitted electronically to ERCOT by completing the designated form provided on the ERCOT website within seven days after the date of the relevant ROS appealable event. ERCOT shall reject appeals made after that time. ERCOT shall post appeals on the ERCOT website within three Business Days of receiving the appeal. Appeals shall be heard at the next regularly scheduled TAC meeting that is at least seven days after the date of the requested appeal.

An appeal of a PGRR to TAC suspends consideration of the PGRR until the appeal has been decided by TAC.

(2) Any ERCOT Member, Market Participant, PUCT Staff, the NERC Regional Entity, the Reliability Monitor, the IMM, or ERCOT may appeal a TAC action to reject, table, remand, or refer a PGRR directly to the ERCOT Board. Appeals to the ERCOT Board shall be processed in accordance with the ERCOT Board Policies and Procedures. An appeal of a PGRR to the ERCOT Board suspends consideration of the PGRR until the appeal has been decided by the ERCOT Board.

(3) Any ERCOT Member, Market Participant, PUCT Staff, the Reliability Monitor, the IMM, or the NERC Regional Entity may appeal any decision of the ERCOT Board regarding a PGRR to the PUCT or other Governmental Authority. Such appeal to the PUCT or other Governmental Authority must be made within any deadline prescribed by the PUCT or other Governmental Authority, but in any event no later than 35 days of the date of the relevant ERCOT Board appealable event. Notice of any appeal to the PUCT or other Governmental Authority must be provided, at the time of the appeal, to ERCOT's General Counsel. If the PUCT or other Governmental Authority rules on the PGRR, ERCOT shall post the ruling on the ERCOT website.

1.2.4 Urgent Requests

(1) The party submitting a PGRR may request that the PGRR be considered on an urgent timeline ("Urgent") only when the submitter can reasonably show that an existing Planning Guide provision is impairing or could imminently impair ERCOT System reliability or wholesale or retail market operations, or is causing or could imminently cause a discrepancy between a Settlement formula and a provision of the ERCOT Protocols.

(2) The ROS may designate the PGRR for Urgent consideration if a submitter requests Urgent status or upon valid motion in a regularly scheduled meeting of the ROS. Criteria for designating a PGRR as Urgent are that the PGRR requires immediate attention due to:

(a) Serious concerns about ERCOT System reliability or market operations under the unmodified language; or

(b) The crucial nature of a Settlement activity conducted pursuant to any Settlement formula.

(3) ERCOT shall prepare an Impact Analysis for Urgent PGRRs as soon as practicable.

(4) ROS shall consider the Urgent PGRR and Impact Analysis, if available, at the next regularly scheduled ROS meeting, or at a special meeting called by the ROS leadership to consider the Urgent PGRR. The WMS may monitor Urgent PGRRs and shall submit comments as appropriate.

(5) If the submitter desires to further expedite processing of the PGRR, a request for voting via email may be submitted to the ROS chair. The ROS chair may grant the request for voting via email. Such voting shall be conducted pursuant to the Technical Advisory Committee Procedures.

(6) If recommended for approval by ROS, ERCOT shall post an ROS Report on the ERCOT website within three Business Days after ROS takes action. The TAC chair may request action from TAC to accelerate or alter the procedures described herein, as needed, to address the urgency of the situation.

(7) Any Urgent PGRRs shall be subject to an Impact Analysis pursuant to Section 1.2.3.8, ERCOT Impact Analysis Based on ROS Report, and ERCOT Board consideration pursuant to Section 1.2.3.12, ERCOT Board Vote.

1.2.5 Planning Guide Revision Implementation

(1) Following PUCT approval, ERCOT shall implement PGRRs on the first day of the month following PUCT approval, unless otherwise provided in the PUCT Report for the approved PGRR.

(2) For such other PGRRs, the Impact Analysis shall provide an estimated amount of time required to implement the PGRR and ERCOT shall issue a Market Notice as soon as practicable, but no later than ten days prior to the actual implementation, unless a different notice period is required in the PUCT Report for the approved PGRR.

(3) ERCOT shall implement an Administrative PGRR on the first day of the month following PUCT approval.

ERCOT Planning Guide

Section 2: Definitions and Acronyms

June 1, 2026

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2 DEFINITIONS AND ACRONYMS

Relevant terms and definitions used in the Planning Guide can be found in Protocol Section 2, Definitions and Acronyms.

ERCOT Planning Guide

Section 3: Regional Planning

October 29, 2026

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3 REGIONAL PLANNING

3.1 Communications

3.1.1 Overview of Major Transmission Planning Activities

(1) The process of planning a reliable and efficient transmission system for the ERCOT Region is composed of several types of activities and studies.

(2) The effective date for the Year 6 case is the 2014 Steady State Working Group (SSWG) Data Set B base case release date. Consideration of the Year 6 case in the Regional Transmission Plan is required starting in 2014.

3.1.1.1 Long-Term System Assessment

(1) The Long-Term System Assessment (LTSA) is performed by ERCOT in coordination with the Regional Planning Group (RPG) on a biennial basis (in even-numbered years) and reviewed annually. The study uses scenario analysis techniques to assess the potential needs of the ERCOT System up to 20 years into the future. The role of the LTSA is not to recommend the construction of specific system upgrades, due to the high degree of uncertainty associated with the amount and location of loads and Resources in this timeframe. Instead, the role of the LTSA is to evaluate the system upgrades that are indicated under each of a wide variety of scenarios in order to identify upgrades that are robust across a range of scenarios or might be more economic than the upgrades that would be determined considering only needs of Years 1 to 6 in the Regional Transmission Plan development.

[PGRR116: Insert paragraph (2) below upon system implementation of NPRR1240:]

(2) ERCOT shall post the LTSA as follows:

(a) Versions that include ERCOT Critical Energy Infrastructure Information (ECEII) shall be posted on the Market Information System (MIS) Secure Area;

(b) Versions that include both ECEII and Protected Information shall be posted on the MIS Certified Area for Transmission Service Providers (TSPs) only; and

(c) Versions redacted of ECEII and Protected Information shall be posted on the ERCOT website.

3.1.1.2 Regional Transmission Plan

(1) The Regional Transmission Plan is developed annually by ERCOT, in coordination with the RPG and Transmission Service Providers (TSPs). The Regional Transmission Plan addresses regional and ERCOT-wide reliability and economic transmission needs and the planned improvements to meet those needs for the upcoming six years starting with the SSWG base cases. These planned improvements include projects previously approved by the ERCOT Board, projects previously reviewed by the RPG, new projects that will be refined at the appropriate time by TSPs in order to complete RPG review, and the local projects currently planned by TSPs. Combined, these projects represent ERCOT's plan which addresses the reliability and efficiency of the ERCOT System in order to meet North American Electric Reliability Corporation (NERC) Reliability Standards, the Protocols, Nodal Operating Guides and this Planning Guide. Projects that are included in the Regional Transmission Plan are not considered to have been endorsed by ERCOT until they have undergone the appropriate level of RPG Project Review as outlined in Protocol Section 3.11.4, Regional Planning Group Project Review Process, if required. The process used by ERCOT to develop the Regional Transmission Plan is outlined in Section 3.1.4, Regional Transmission Plan Development Process.

(2) ERCOT shall post the Regional Transmission Plan by December 31 of each year as follows:

(a) Versions that include ERCOT Critical Energy Infrastructure Information (ECEII) shall be posted on the Market Information System (MIS) Secure Area;

(b) Versions that include both ECEII and Protected Information shall be posted on the MIS Certified Area for TSPs only; and

(c) Versions redacted of ECEII and Protected Information shall be posted on the ERCOT website.

(3) ERCOT shall include in the Regional Transmission Plan report a list of Transmission Facilities that are loaded above 95% of their applicable Ratings for the following conditions:

(a) Normal system conditions; or

(b) Following the contingency loss of a single generating unit, transmission circuit, transformer, or common tower outage.

3.1.1.3 Regional Planning Group Project Reviews

(1) Except for minor transmission projects that have only localized impacts and projects that are directly associated with the interconnection of new Generation Resources and Energy Storage Resources (ESRs), all transmission projects in the ERCOT Region undergo a formal review by the RPG in accordance with Protocol Section 3.11.4, Regional Planning Group Project Review Process. In addition, ERCOT performs an independent analysis of

the need for major transmission projects that are submitted for RPG Project Review. The affirmative result of this review is formal endorsement of the project by ERCOT. This ERCOT project endorsement is intended to support, to the extent applicable, a finding by the Public Utility Commission of Texas (PUCT) that a project is necessary for the service, accommodation, convenience, or safety of the public within the meaning of Public Utility Regulatory Act, TEX. UTIL. CODE ANN. § 37.056 (Vernon 1998 and Supp. 2007) and P.U.C. SUBST. R. 25.101, Certification Criteria.

3.1.1.4 Generation Interconnection Process

(1) This process facilitates the interconnection of new generation units in the ERCOT Region by assessing the transmission upgrades necessary for new generating units to operate reliably. The process to study interconnecting new generation or modifying an existing generation interconnection to the ERCOT Transmission Grid is covered in Section 5, Generator Interconnection or Modification. The generation interconnection study process primarily covers the direct connection of generation Facilities to the ERCOT Transmission Grid and directly-related projects. Additional upgrades to the ERCOT Transmission Grid that might be cost-effective as a result of new or modified generation may be initiated by any stakeholder through the RPG Project Review procedure described in Protocol Section 3.11.4, Regional Planning Group Project Review Process, at the appropriate time, subject to the confidentiality provisions in Section 5.

3.1.1.5 Geomagnetic Disturbance (GMD) Vulnerability Assessment

(1) The purpose of Geomagnetic Disturbance (GMD) vulnerability assessments is to provide a coordinated assessment and corrective action plan(s) for the ERCOT System to meet ERCOT and NERC GMD reliability performance criteria for GMD events. The most recent Geomagnetically-Induced Current (GIC) system models developed and maintained by ERCOT in collaboration with the TSPs and Resource Entities as described in Section 6.11, Process for Developing Geomagnetically-Induced Current (GIC) System Models, shall be used as the basis for the ERCOT benchmark and supplemental GMD vulnerability assessments. Projects that are included in the corrective action plan(s) are not considered to have been endorsed by ERCOT until they have undergone the appropriate level of RPG Project Review as outlined in Protocol Section 3.11.4, Regional Planning Group Project Review Process, if required. The process used by ERCOT to develop the GMD benchmark and supplemental vulnerability assessments is outlined in Section 3.1.8, Planning Geomagnetic Disturbance (GMD) Activities.

3.1.1.6 Grid Reliability and Resiliency Assessment (GRRA)

(1) ERCOT shall perform the Grid Reliability and Resiliency Assessment (GRRA) in coordination with the RPG on a biennial basis in even-numbered years to assess the reliability and resiliency of the ERCOT System in extreme weather scenarios. The study shall:

(a) Consider the impact of different levels of thermal and renewable generation availability;

(b) Identify areas of the ERCOT Region that face significant grid reliability and resiliency issues, taking into account the impact of potential Outages caused by regional extreme weather scenarios on Customers; and

(c) Identify transmission upgrades that are expected to increase the reliability or resiliency of the ERCOT System in extreme weather scenarios based on the criteria established in Section 4.1.2, Resiliency Criteria.

(2) Extreme weather scenarios shall be selected for one or more study cases. The study cases prepared will be adjusted to have sufficient power supply to meet the demand. The study cases shall be based on the current Regional Transmission Plan study cases, utilizing coincident load values, and may include scenarios that vary one or more of the following modeling assumptions:

(a) Different patterns of generation;

(b) Extreme peak load;

(c) Multiple Transmission Element Outages; and/or

(d) Multiple Generation Resource Outages.

(3) Under the extreme weather study scenarios described in paragraph (2) above, the post-contingency performance of the ERCOT System shall be evaluated for the following contingency events:

(a) Categories P0, P1, and P2.1 as defined in NERC Reliability Standard TPL-001, System Performance Under Normal Conditions; and

(b) Common tower outages as defined in Section 4.1.1.1, Planning Assumptions.

[PGRR129: Insert paragraph (4) below upon system implementation:]

(4) ERCOT shall post the GRRA as follows:

(a) Versions that include ECEII shall be posted on the MIS Secure Area;

(b) Versions that include both ECEII and Protected Information shall be posted on the MIS Certified Area for TSPs only; and

(c) Versions redacted of ECEII and Protected Information shall be posted on the ERCOT website.

3.1.2 Regional Planning Group Project Submission

(1) Transmission projects that are proposed for RPG Review, pursuant to Protocol Section 3.11.4.1, Project Submission, shall be submitted according to the provisions outlined in Section 3.1.2.1, All Projects.

3.1.2.1 All Projects

(1) The submittal of each transmission project (60 kV and above) for RPG Project Review, except for the Transmission Facility improvements submitted based on Section 9.5, Batch Zero Study Refinement and Delivery of Transmission Plan, should include the following elements:

(a) The proposed project description including expected cost, feasible alternative(s) considered, transmission topology and Transmission Facility modeling parameter data, and all study cases used to generate results supporting the need for the project in electronic format (powerflow data should be in PTI Power System Simulator for Engineering (PSS/E) RAWD format). Also, the submission should include accurate maps and one-line diagrams showing locations of the proposed project and feasible alternatives;

(b) Identification of the SSWG, Dynamics Working Group (DWG), or Regional Transmission Plan powerflow cases used as a basis for the study and any associated changes that describe and allow accurate modeling of the proposed project;

(c) Description and data for all changes made to the SSWG base cases or Regional Transmission Plan cases used to identify the need for the project, such as Resource unavailability and area peak load forecast;

(d) A description of the reliability and/or economic problem that is being solved;

(e) Information that supports any load values that differ from the load forecast used in the base cases identified in item (b) above, including any relevant historical load information or evidence demonstrating that a submitted load value is Substantiated Load;

(f) A description of the Subsynchronous Resonance (SSR) impact of the proposed project to the generation Facilities in the system pursuant to Protocol Section 3.22.1, Subsynchronous Resonance Vulnerability Assessment, and potential SSR Countermeasure plan for any identified SSR vulnerability, if applicable;

(g) Desired/needed in-service date for the project, and feasible in-service date, if different;

(h) The phone number and email address of the single point of contact who can respond to ERCOT and RPG participant questions or requests for additional information necessary for stakeholder review; and

(i) Analysis of rejected alternatives, including cost estimates, and other factors considered in the comparison of alternatives with the proposed project.

(2) Both transmission and distribution solutions to performance deficiencies may be considered where applicable.

(3) If there is any other information, not included above, that the submitting party believes is relevant to consideration of the need for any submitted project, the submitting party should include that information in the project submission.

3.1.3 Project Evaluation

(1) ERCOT and the RPG shall evaluate proposed transmission projects using a variety of tools and techniques as needed to ensure that the system is able to meet applicable reliability criteria in a cost-effective manner. For most proposed projects, except for the Transmission Facility improvements submitted based on Section 9.5, Batch Zero Study Refinement and Delivery of Transmission Plan, several alternatives will be identified to meet the reliability criteria or other performance improvement objectives that the proposed project is designed to meet. The project alternative with the expected lowest cost over the life of the project is generally recommended, subject to consideration of the expected long-term system needs in the area, including, as applicable, any evidence of Substantiated Load, and subject to consideration of the relative operational impacts of the alternatives.

(2) In some cases, one alternative may be to dispatch the system in such a way that all reliability requirements are met, even without the proposed transmission project or any transmission alternative, resulting in a less efficient dispatch than what would be required to meet the reliability requirements if the proposed project was in place. Consideration of the merits of this alternative relative to the proposed transmission project is more complex. To facilitate the discussion and consideration of these alternatives, ERCOT has adopted certain definitions and practices, described in paragraph (4) of Protocol Section 3.11.2, Planning Criteria, and Sections 3.1.3.1, Definitions of Reliability-Driven and Economic-Driven Projects, and 3.1.3.2, Reliability-Driven Project Evaluation, below.

(3) In conducting an independent review of any project, ERCOT may, in its discretion, make adjustments to the planning case to ensure that the case reaches a solution. When conducting an independent review of any project classified as Tier 1 pursuant to Protocol Section 3.11.4, Regional Planning Group Project Review Process, ERCOT must provide reasonable advance notice to the RPG of any proposed adjustments and an opportunity for stakeholder comment on them.

(4) As part of its independent review of any project classified as Tier 1 pursuant to Protocol Section 3.11.4, except for the Transmission Facility improvements submitted based on Section 9.5 ERCOT shall:

(a) Perform a generation sensitivity analysis. The generation sensitivity analysis will evaluate the effect that proposed Generation Resources and/or ESRs in or near the study area will have on a recommended transmission project. Generation Resources and ESRs that have signed Standard Generation Interconnection Agreements (SGIAs) but were not included in the study cases because they did not meet all of the requirements for inclusion in the cases pursuant to Section 6.9, Addition of Proposed Generation to the Planning Models, will be included in the sensitivity analysis. ERCOT shall not consider the results of the generation sensitivity analysis in determining project need during its independent review of the project; and

(b) Evaluate impacts related to the load scaling used in the study on any constraints resulting in project recommendations. The results of this evaluation shall be included in the final recommendations in the independent review.

[PGRR127: Replace paragraph (4)(b) above with the following upon system implementation:]

(b) Evaluate impacts related to large generators in or near the study area that are included in the study cases but are not in the interconnection queue by removing those generators from the analysis. The results of this evaluation shall be included in the final recommendations in the independent review.

(5) ERCOT's independent review shall incorporate and consider historical load and any Substantiated Load.

3.1.3.1 Definitions of Reliability-Driven and Economic-Driven Projects

(1) Proposed transmission projects are categorized for evaluation purposes into two types:

(a) Reliability-driven projects; and

(b) Economic-driven projects.

(2) The differentiation between these two types of projects is based on whether a simultaneously-feasible, security-constrained generating unit commitment and dispatch is expected to be available for all hours of the planning horizon that can resolve the system reliability issue that the proposed project is intended to resolve. If it is not possible to simulate a dispatch of the Generation Resources and ESRs such that all reliability criteria are met without the project, and the addition of the project allows the reliability criteria to be met, then the project is classified as a reliability-driven project. If it is possible to simulate a dispatch of the Generation Resources and ESRs in such a way that all

reliability criteria are met without the project, but the project may allow the reliability criteria to be met at a lower total cost, then the project is classified as an economic-driven project. When performing a simulation of the generating unit commitment and dispatch, only contingencies and limits that would be considered in the operations horizon shall be simulated.

3.1.3.2 Reliability-Driven Project Evaluation

(1) For reliability-driven projects, the comparison of project costs generally includes only the relative capital costs of the alternatives. In the case of Tier 1 and 2 projects, any differences in expected ERCOT System production costs between the alternatives may be included in the consideration of the relative costs of the alternatives, due to larger potential impacts on losses and congestion of these projects.

3.1.4 Regional Transmission Plan Development Process

(1) As prescribed by Section 3.1.1.2, Regional Transmission Plan, the purpose of the Regional Transmission Plan is to provide a coordinated plan for the ERCOT System. This Section describes the process used by ERCOT to develop the Regional Transmission Plan. While unanticipated changes in Load and generation may require additional projects to be needed that were not included in the current Regional Transmission Plan, or require additional evaluation of projects included in the current Regional Transmission Plan when they are submitted for RPG Project Review, the Regional Transmission Plan provides a reasonable and supportable basis for analyses of the planned ERCOT Transmission Grid.

3.1.4.1 Development of Regional Transmission Plan

(1) The planning process begins with computer modeling studies of the generation and Transmission Facilities and substation Loads under normal conditions in the ERCOT System. Contingency conditions along with changes in Load and generation that might be expected to occur in operation of the ERCOT Transmission Grid are also modeled. To maintain adequate service and minimize interruptions during Outages, model simulations are used to identify adverse results based upon the planning criteria and to examine the effectiveness of various problem-solving alternatives.

(2) The effectiveness of each alternative will be evaluated under a variety of possible operating environments because Loads and operating conditions cannot be predicted with certainty. As a result, repeated simulations under different conditions are often required. In addition, options considered for future installation may affect other alternatives so that several different combinations must be evaluated, thereby multiplying the number of simulations required.

(3) Once feasible alternatives have been identified, the process is continued with a comparison of those alternatives. To determine the most favorable, the short-range and

long-range benefits of each alternative must be considered including operating flexibility and compatibility with future plans.

3.1.4.1.1 Regional Transmission Plan Cases

(1) The starting base cases for the Regional Transmission Plan development are created by removing all Tier 1, 2, and 3 projects that have not received RPG acceptance or, if applicable, ERCOT endorsement from the most recent SSWG base cases.

(2) ERCOT shall set all non-seasonal Mothballed Generation Resources and Mothballed ESRs to out of service in the Regional Transmission Plan reliability base cases. ERCOT shall add proposed Generation Resources and ESRs that have met the criteria for inclusion in Section 6.9, Addition of Proposed Generation to the Planning Models, to the Regional Transmission Plan base cases.

(3) ERCOT shall update the Regional Transmission Plan reliability and economic base cases to reflect any updates to the amount of Switchable Generation Resource (SWGR) capacity available to the ERCOT Region.

(4) ERCOT may, in its discretion, set a Generation Resource or ESR to out of service in the Regional Transmission Plan base cases prior to receiving a Notification of Suspension of Operations (NSO) if the Resource Entity notifies ERCOT of its intent to retire/mothball the Resource and/or makes a public statement of its intent to retire/mothball the Resource. ERCOT must provide reasonable advance notice to the RPG of any proposed Resource retirements/mothballs and allow an opportunity for stakeholder comments.

   (a) ERCOT will post and maintain the current list of Generation Resources and ESRs that will be set to out of service pursuant to paragraph (4) above on the ERCOT website.

(5) In its Regional Transmission Plan studies, ERCOT shall first consider transmission needs without Remedial Action Scheme (RAS) or Constraint Management Plan (CMP) actions. After evaluating these needs, ERCOT may model a RAS or CMP in the Regional Transmission Plan cases only if ERCOT's initial studies did not identify a transmission project to exit the RAS or CMP, or if a transmission project to exit the RAS or CMP is not expected to be in service by the season and year the case represents.

(6) ERCOT may, in its discretion, make other adjustments to any Regional Transmission Plan base case to ensure that the case reaches a solution. ERCOT must provide reasonable advance notice to the RPG of any proposed adjustments and an opportunity for stakeholder comment on them.

(7) ERCOT shall apply a reliability margin on applicable Interconnection Reliability Operating Limits (IROLs) and/or stability-related system operating limits, consistent with the ERCOT operating procedures when such limits are modeled in the Regional Transmission Plan reliability and economic cases. ERCOT shall use the current

operating limit with reliability margin applied or best available information in determining the appropriate modeled limit for the future year being evaluated.

[PGRR127: Insert paragraph (8) below upon system implementation:]

(8) ERCOT must provide reasonable advance notice to the RPG of additional generation proposed to be added to the base cases in accordance with paragraph (5) of Section 6.9 and an opportunity for stakeholder comment.

3.1.4.2 Use of Regional Transmission Plan

(1) If a project submitted for RPG review is included in the Regional Transmission Plan, and no changes are identified which would affect the need for the proposed project through the comment period described in Section 3.1.5, Regional Planning Group Comment Process, then the Regional Transmission Plan may serve as the ERCOT Independent Review of the proposed project.

(2) Tier 1, 2, and 3 projects that are included in the Regional Transmission Plan should be submitted for RPG Project Review at an appropriate lead time. Generally, this lead time should be sufficient to allow the review to be completed before the TSP reaches the decision point at which it must initiate the engineering and procurement in order to meet the required in-service date, but not farther in advance than is necessary. In general, these lead times will be three to four months for Tier 3 projects and six to seven months for Tier 1 and 2 projects.

(3) Tier 1, 2, and 3 projects that are included in the Regional Transmission Plan but do not reach this decision point before the development of the next year's Regional Transmission Plan begins will be removed from the case used to develop the Regional Transmission Plan and will be re-evaluated as a part of the development of this subsequent Regional Transmission Plan.

3.1.5 Regional Planning Group Comment Process

(1) Any stakeholder may initiate an RPG project review in accordance with Protocol Section 3.11.4.1, Project Submission. All project submissions should be sent electronically to rpg_submittal@ercot.com. The RPG project review consists of the following steps:

(a) ERCOT will provide electronic copies of RPG project review submittals by email to the RPG within five Business Days of receipt and solicit comments or questions from the RPG;

(b) ERCOT will assign a unique project identification number (RPG project number) to the RPG project review submittals according to the following convention:

yrRPGxxx

where: yr is the calendar year the RPG project is submitted
RPG indicates RPG project
xxx is a sequence number beginning with 001 (reset for each year)

(c) All concerns/questions or objections about the submitted project by any stakeholder or ERCOT should be submitted by email to the RPG within 15 Business Days after ERCOT's transmittal to the RPG;

(d) Each Entity providing comments should provide a "single" complete comment about each project by the end of the 15-Business Day comment period rather than sending multiple comments at various times or from various individuals;

(e) Any questions related to data deficiency should be submitted to ERCOT and the submitting party immediately;

(f) If concerns or objections about a project are received during the 15-Business Day comment period, the project will be put into "study mode." During study mode, the submitting party shall respond to any concerns or objections and provide additional information, if necessary, by email to the RPG until all concerns are resolved or until ERCOT assesses that a reasonable effort has been made to resolve all concerns or objections. A submitting party may make modifications to a Tier 3 project to address concerns or objections without having to resubmit the project so long as the modifications do not result in the project being classified as a Tier 1 or 2 project. Study mode shall end no later than 20 Business Days following the end of the comment period, unless ERCOT finds good cause to extend study mode;

(g) The submitting party should answer all questions and respond to all concerns in a timely manner;

(h) Comments should be based on Good Utility Practice and sound engineering judgment. Suggestions should be able to be implemented by the TSP constructing and operating the project; and

(i) ERCOT will post all project submissions, the comments received, and other information and databases associated with submitted transmission projects on the MIS Secure Area.

(j) Comments received after the 15-Business Day comment period may be considered by ERCOT or the submitting party, but a response is not required.

3.1.6 Notify PUCT of Recommended Transmission Projects

(1) ERCOT will notify the PUCT of the disposition of all Tier 1 or 2 projects and of the designated TSPs for those projects. ERCOT will then support ERCOT-endorsed projects in future Certificate of Convenience and Necessity (CCN) proceedings required for those projects through the use of filed supporting documents and testimony if necessary.

3.1.7 Steady State Transmission Planning Load Forecast

(1) ERCOT shall use the following process for determining the load level to be used in the starting base cases for the Regional Transmission Plan and in the steady-state evaluation of a Tier 1 or Tier 2 project pursuant to Protocol Section 3.11.4, Regional Planning Group Project Review Process:

(a) ERCOT will compare the ERCOT 90/10 load forecast with the summed SSWG bus-level load forecast for each Weather Zone.

(b) If the ERCOT 90/10 load forecast is higher, ERCOT will use this forecast for the Weather Zone.

(c) If the SSWG load forecast for a Weather Zone is higher than or equal to the ERCOT 90/10 load forecast, ERCOT will use the ERCOT 90/10 load forecast plus any additional historical load and Substantiated Load submitted by the Transmission and/or Distribution Service Providers (TDSPs) for the Weather Zone.

3.1.8 Planning Geomagnetic Disturbance (GMD) Activities

(1) As required by the applicable NERC Reliability Standard, ERCOT shall employ the GIC system models described in Section 6.11, Process for Developing Geomagnetically-Induced Current (GIC) System Models, to perform simulations to identify maximum effective GIC flow in the high side wye-grounded transformers for the worst case geoelectric field orientation for each transformer for the benchmark and supplemental GMD events. ERCOT shall post on the MIS Secure Area the preliminary maximum effective GIC flows and preliminary GIC time series results to the TSPs and Resource Entities for comment before finalizing the results. Upon consideration of the comments, ERCOT shall make the final maximum effective GIC flows in the high side wye-grounded transformers and the final GIC time series available to TSPs and Resource Entities by posting this data on the ERCOT MIS Secure Area.

(2) Each TSP and Resource Entity that owns a high side wye-grounded transformer(s) with the high side terminal operated at 200 kV or higher within the ERCOT planning area shall perform the benchmark and supplemental transformer thermal impact assessment(s) as required in the applicable NERC Reliability Standard and shall provide to ERCOT any suggested actions to mitigate the impact of GICs on those transformers with the high side

terminal operated at 200 kV or higher within 18 months of the date of ERCOT notification to TSPs and Resource Entities that the final GIC flow results are posted on the MIS Secure Area.

(3) ERCOT and the TSPs shall develop for approval by the Technical Advisory Committee (TAC), criteria for acceptable steady-state voltage performance during the benchmark and supplemental GMD events.

(4) ERCOT in collaboration with the TSPs and Resource Entities shall perform the ERCOT benchmark and supplemental GMD vulnerability assessments as required in the applicable NERC Reliability Standard; and may set a Generation Resource or ESR to out of service prior to receiving an NSO if the Resource Entity notifies ERCOT of its intent to retire/mothball the Resource and/or makes a public statement of its intent to retire/mothball the Resource. ERCOT shall post on the ERCOT website the preliminary results of the GMD vulnerability assessments to the TSPs and Resource Entities for comment before finalizing the results. Upon request, ERCOT shall make available to the TSPs the GIC system models and other model information used for the GMD vulnerability assessments, including suggested actions described in paragraph (2) above.

(a) ERCOT will post and maintain the current list of Generation Resources and ESRs that will be set to out of service pursuant to paragraph (4) above on the ERCOT website.

(5) ERCOT shall finalize the ERCOT benchmark and supplemental GMD vulnerability assessments, including any associated corrective action plans, post them as follows, and notify TSPs and Resource Entities of the posting:

(a) Versions that include ECEII shall be posted on the MIS Secure Area;

(b) Versions that include both ECEII and Protected Information shall be posted on the MIS Certified Area for TSPs only; and

(c) Versions redacted of ECEII and Protected Information shall be posted on the ERCOT website.

(6) For each GMD vulnerability assessment that does not satisfy applicable performance requirements, each impacted TSP and Resource Entity, in collaboration with ERCOT, shall develop and document corrective action plan(s) for their facilities, and develop a timetable, subject to revision, for implementing the corrective action plan(s). For any corrective action plan proposing upgrades to the transmission system that are subject to Protocol Section 3.11.4, Regional Planning Group Project Review Process, review shall be conducted in accordance with the process described therein. For any corrective action plan that is not subject to the review process described in Protocol Section 3.11.4, ERCOT shall review the corrective action plan to ensure that it satisfies applicable performance requirements. Any corrective action plan that proposes operational actions shall be reviewed pursuant to Nodal Operating Guide Section 11, Constraint Management Plans and Remedial Action Schemes.

(a) If a situation beyond the control of the TSP or Resource Entity prevents implementation of a corrective action plan within the timetable for implementation required in the applicable NERC Reliability Standard, the TSP or Resource Entity shall submit a revised corrective action plan, updated timetable, and documentation supporting the request for extension of time, as required in the applicable NERC Reliability Standard, to ERCOT within 30 days of the revision of the corrective action plan.

(b) After receipt of all information required in the applicable NERC Reliability Standard, ERCOT shall submit the request for extension of time to the NERC Regional Entity, as required in the applicable NERC Reliability Standard, on behalf of the TSP or Resource Entity.

(7) ERCOT shall post the GMD vulnerability assessment reports and corrective action plan(s) on the ERCOT MIS Secure Area within 90 calendar days of development or revision.

(8) ERCOT in collaboration with TSPs and Resource Entities shall implement a process for obtaining GIC monitor data and geomagnetic field data from TSPs, Resource Entities, or other available sources as required in the applicable NERC Reliability Standard.

3.1.9 Transmission Interconnection Study

(1) ERCOT shall perform an annual transmission interconnection study to analyze the reliability impact of any transmission projects 100 kV or above that are expected to be in-service before the completion of the next Regional Transmission Plan and were not included in the current Regional Transmission Plan, an RPG project submission, or a Generation Interconnection or Change Request (GINR) study pursuant to Section 5, Generator Interconnection or Modification.

(a) ERCOT shall identify a list of transmission projects 100 kV or above that need to be included in the annual transmission interconnection study and shall send the list to the TSPs that own the projects.

(b) Within 20 Business Days of receipt of the list, each TSP that owns an identified transmission project shall send to ERCOT a PSS/E or PowerWorld formatted incremental change file to model the project in the current Regional Transmission Plan study cases.

(c) ERCOT shall post a study report detailing its findings on the MIS Secure Area within 20 Business Days of completion.

(2) After each Transmission Project and Information Tracking (TPIT) update ERCOT shall identify a list of transmission projects 100 kV or above that are expected to be in-service before the completion of the next annual transmission interconnection study and were not included in the previous transmission interconnection study, Regional Transmission Plan,

an RPG project submission, or a GINR study pursuant to Section 5. ERCOT shall send the list to the TSPs that own the projects.

(a) Within 20 Business Days of receipt of the list, each TSP that owns an identified transmission project shall send to ERCOT a study report detailing the reliability impact analysis it conducted for the project. At a minimum the report shall identify the study base case(s), contingencies, and results.

(b) ERCOT shall review the TSP reports and provide comments to the TSP within 20 Business Days of receipt.

ERCOT Planning Guide

Section 4: Transmission Planning Criteria

October 29, 2026

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4 TRANSMISSION PLANNING CRITERIA

4.1 Introduction

(1) ERCOT employs reliability, economic, and resiliency criteria in evaluating the need for transmission system improvements. The economic criteria are included in Protocol Section 3.11.2, Planning Criteria. This Planning Guide provides the reliability and resiliency criteria.

(2) The ERCOT System consists of those generation and Transmission Facilities (60 kV and higher voltages) that are controlled by individual Market Participants and that function as part of an integrated and coordinated system.

(3) To maintain reliable operation of the ERCOT System, it is necessary that all stakeholders observe and subscribe to certain minimum planning criteria. The criteria set forth in this Section 4.1 constitute the aforementioned minimum planning criteria. Tests outlined herein shall be performed to determine conformance to these minimum criteria; however, ERCOT recognizes that events more severe than those outlined in these criteria could cause grid separation and other tests may also be performed.

(4) The complexity and uncertainty inherent in the planning and operation of the ERCOT System make exhaustive studies impracticable; therefore, to gain maximum benefit from the limited number of tests performed, the selection of the specific tests and the frequency of their performance will be made solely upon the basis of the expected value of the reliability information obtainable from the test.

(5) ERCOT shall perform steady-state, short circuit, and dynamic analyses appropriate to ensure the reliability of the ERCOT System and identify appropriate solutions.

(6) Each Transmission Service Provider (TSP) will perform steady-state, short circuit, and dynamic analyses appropriate to ensure the reliability of its portion of the ERCOT System and implement appropriate solutions to meet the reliability performance criteria in this Section 4.1.

(7) The base cases created by the Steady-State Working Group (SSWG) and System Protection Working Group (SPWG) are available for use by Market Participants.

(8) If a TSP has its own planning criteria in addition to those defined in this Planning Guide, the TSP shall provide documentation of those criteria to ERCOT. ERCOT shall post the documentation on the Market Information System (MIS) Secure Area. The TSP shall notify ERCOT of any changes to their planning criteria and provide revised documentation within 30 days of such change.

[PGRR116: Replace paragraph (8) above with the following upon system implementation of NPRR1240:]

(8) If a TSP has its own planning criteria in addition to those defined in this Planning Guide, the TSP shall provide documentation of those criteria to ERCOT. ERCOT shall post the documentation on the ERCOT website. The TSP shall notify ERCOT of any changes to their planning criteria and provide revised documentation within 30 days of such change.

4.1.1 Reliability Criteria

4.1.1.1 Planning Assumptions

(1) A contingency loss of an element includes the loss of an element with or without a single line-to-ground or three-phase fault.

(2) A common tower outage is the contingency loss of a double-circuit transmission line consisting of two circuits sharing a tower for 0.5 miles or greater.

(3) Unavailability of a single generating unit includes an entire Combined Cycle Train, if no part of the train can operate with one of the units Off-Line as provided in the Resource Registration data.

(4) The contingency loss of a single generating unit shall include the loss of an entire Combined Cycle Train, if that is the expected consequence.

(5) The following assumptions may be applied to planning studies:

(a) Reasonable variations of load forecast, including forecasted load growth based on Substantiated Load;

(b) Reasonable variations of generation commitment and dispatch applicable to transmission planning analyses on a case-by-case basis may include, but are not limited to, the following methods:

(i) Production cost model simulation, security constrained optimal power flow, or similar modeling tools that analyze the ERCOT System using hourly generation dispatch assumptions;

(ii) Modeling of high levels of intermittent generation conditions; or

(iii) Modeling of low levels of or no intermittent generation conditions.

(6) Assumed Direct Current Tie (DC Tie) imports and exports will be curtailed as necessary to meet reliability criteria in planning studies.

(7) Each Large Load included in a planning study shall be set to a level of Demand consistent with the current Load Commissioning Plan (LCP), if applicable.

(8) Manual System Adjustments shall not increase the amount of consequential load loss following a common tower outage, or the contingency loss of a single generating unit, transmission circuit, transformer, shunt device, flexible alternating current transmission system (FACTS) device, or DC Tie Resource or DC Tie Load, with or without a single line-to-ground fault.

4.1.1.2 Reliability Performance Criteria

(1) The following reliability performance criteria (summarized in Table 1: ERCOT-specific Reliability Performance Criteria, below) shall be applicable to planning analyses in the ERCOT Region:

(a) With all Facilities in their normal state, following a common tower outage with or without a single line-to-ground fault, all Facilities shall be within their applicable Ratings, the ERCOT System shall remain stable with no cascading or uncontrolled Islanding, and there shall be no non-consequential Load loss;

(b) With all Facilities in their normal state, following an outage of a DC Tie Resource or DC Tie Load with or without a single line-to-ground fault, all Facilities shall be within their applicable Ratings, the ERCOT System shall remain stable with no cascading or uncontrolled Islanding, and there shall be no non-consequential Load loss;

(c) With all Facilities in their normal state, following an outage of a Large Load with or without a three-phase fault, all Facilities shall be within their applicable Ratings, the ERCOT System shall remain stable with no cascading or uncontrolled Islanding, and there shall be no non-consequential Load loss;

(d) With any single generating unit unavailable, followed by Manual System Adjustments, followed by a common tower outage, the opening of a line section without a fault, or outage of a DC Tie Resource or DC Tie Load with or without a single line-to-ground fault, all Facilities shall be within their applicable Ratings, the ERCOT System shall remain stable with no cascading or uncontrolled Islanding, and there shall be no non-consequential Load loss;

(e) With any single transformer, with the high voltage winding operated at 300 kV or above and low voltage winding operated at 100 kV or above unavailable, followed by Manual System Adjustments, followed by a common tower outage, the opening of a line section without a fault, or the contingency loss of a single

generating unit, transmission circuit, transformer, shunt device, FACTS device, or DC Tie Resource or DC Tie Load with or without a single line-to-ground fault, all Facilities shall be within their applicable Ratings, the ERCOT System shall remain stable with no cascading or uncontrolled Islanding, and there shall be no non-consequential Load loss. An operational solution may be planned on a permanent basis to resolve a performance deficiency under this condition; and

(f) With any single DC Tie Resource or DC Tie Load unavailable, followed by Manual System Adjustments, followed by a common tower outage, the opening of a line section without a fault, or the contingency loss of a single generating unit, transmission circuit, transformer, shunt device, FACTS device, or DC Tie Resource or DC Tie Load, with or without a single line-to-ground fault, all Facilities shall be within their applicable Ratings, the ERCOT System shall remain stable with no cascading or uncontrolled Islanding, and there shall be no non-consequential Load loss. An operational solution may be planned on a permanent basis to resolve a performance deficiency under this condition.

Initial Condition		Event	Facilities within Applicable Ratings and System Stable with No Cascading or Uncontrolled Outages	Non-consequential Load Loss Allowed
1	Normal System	Common tower outage, DC Tie Resource outage, DC Tie Load outage, or the outage of a Large Load	Yes	No
2	Unavailability of a generating unit, followed by Manual System Adjustments	Common tower outage, DC Tie Resource outage, DC Tie Load outage, or opening of a line section without a fault	Yes	No

Initial Condition		Event	Facilities within Applicable Ratings and System Stable with No Cascading or Uncontrolled Outages	Non-consequential Load Loss Allowed
3	Unavailability of a transformer with the high voltage winding operated at 300 kV or above and low voltage winding operated at 100 kV or above, followed by Manual System Adjustments	Common tower outage; opening of a line section without a fault; or Contingency loss of one of the following: 1. Generating unit; 2. Transmission circuit; 3. Transformer; 4. Shunt device; 5. FACTS device; or 6. DC Tie Resource or DC Tie Load	Yes	No
4	Unavailability of a DC Tie Resource or DC Tie Load, followed by Manual System Adjustments	Common tower outage; opening of a line section without a fault; or Contingency loss of one of the following: 1. Generating unit; 2. Transmission circuit; 3. Transformer; 4. Shunt device; 5. FACTS device; or 6. DC Tie Resource or DC Tie Load	Yes	No

Table 1: ERCOT-specific Reliability Performance Criteria

(2) ERCOT and the TSPs shall endeavor to resolve any performance deficiencies as appropriate. If a Transmission Facility improvement is required to meet the criteria in this Section 4.1.1.2, but the improvement cannot be implemented in time to resolve the performance deficiency, an interim solution may be used to resolve the deficiency until the improvement has been implemented.

(a) A Remedial Action Scheme (RAS) or Constraint Management Plan (CMP) shall not be planned to resolve a planning criteria performance deficiency unless it is expected that system conditions will change such that the RAS or CMP will no longer be needed within the next five years.

4.1.1.3 Voltage Stability Margin

(1) In conducting its planning analyses, ERCOT and each TSP shall ensure that the voltage stability margin is sufficient to maintain post-transient voltage stability under the following study conditions for each ERCOT or TSP-defined area:

(a) A 5% increase in Load above expected peak supplied from resources external to the ERCOT or TSP-defined areas and operating conditions in categories P0 and P1 of the North American Electric Reliability Corporation (NERC) Reliability Standard addressing Transmission System Planning Performance Requirements; and

(b) A 2.5% increase in Load above expected peak supplied from resources external to the ERCOT or TSP-defined areas and operating conditions in categories P2 through P7 of the NERC Reliability Standard addressing Transmission System Planning Performance Requirements.

4.1.1.4 Steady State Voltage Response Criteria

(1) In conducting its planning analyses, ERCOT and each TSP shall ensure that all transmission level buses above 100 kV meet the following steady state voltage response and post-contingency voltage deviation criteria:

(a) 0.95 per unit to 1.05 per unit in the pre-contingency state following the occurrence of any operating condition in category P0 of the NERC Reliability Standard addressing Transmission System Planning Performance Requirements;

(b) 0.90 per unit to 1.05 per unit in the post-contingency state following the occurrence of any operating condition in categories P1 through P7 of the NERC Reliability Standard addressing Transmission System Planning Performance Requirements; and

(c) Following the occurrence of any operating condition in categories P1 through P7 of the NERC Reliability Standard further analysis to assess voltage stability is required in the event of a post-contingency steady-state voltage deviation that exceeds 8% at any load-serving bus above 100 kV, exclusive of buses on a radial system that serve only Resource Entities and/or Load. After further analysis, ERCOT and the TSPs shall endeavor to resolve any voltage instability.

(2) If a TSP has communicated to ERCOT that a Facility has unique characteristics and may operate outside of the above ranges and deviation (e.g. Facilities located near a series capacitor) or that the Facility needs to be operated in a more restrictive range (e.g. a nuclear plant, UVLS relay settings) or its system is designed to operate with different voltage limits or voltage deviation then the TSP's specified limits will be considered acceptable.

4.1.1.5 Transient Voltage Response Criteria

(1) In conducting its planning analyses, ERCOT and each TSP shall ensure that all transmission level buses above 100 kV meet the following transient voltage response criteria:

(a) For any operating condition in category P1 of the NERC Reliability Standard addressing Transmission System Planning Performance Requirements, voltage shall recover to 0.90 p.u. within five seconds after clearing the fault; and

(b) For any operating condition in categories P2 through P7 of the NERC Reliability Standard addressing Transmission System Planning Performance Requirements, voltage shall recover to 0.90 p.u. within ten seconds after clearing the fault.

4.1.1.6 Damping Criteria

(1) In conducting its planning analyses, ERCOT and each TSP shall ensure that, for any operating condition in categories P1 through P7 of the NERC Reliability Standard addressing Transmission System Planning Performance Requirements, ERCOT and each TSP shall ensure that power oscillation within the range of 0.2 Hz to 2 Hz decays with a minimum 3% damping ratio.

4.1.1.7 Minimum Deliverability Criteria

(1) In conducting its planning analyses, ERCOT and each TSP shall ensure that an ERCOT-defined minimum percentage of capacity of each Resource described in paragraph (3) below can be delivered to serve peak system Load while meeting the following reliability criteria:

(a) Category P0, P1, P2-1, P3, and P7 planning events from the NERC Reliability Standard addressing Transmission System Planning Performance Requirements; and

(b) The ERCOT-specific reliability performance criteria included in Section 4.1.1.2, Reliability Performance Criteria.

(2) The minimum percentage of capacity referenced in paragraph (1) above shall be applied to each Resource's applicable Seasonal Net Max Sustainable Rating submitted through the Resource Registration process.

(3) The minimum deliverability condition described in paragraph (1) applies to the following Resources:

(a) Any Generation Resource utilizing combined cycle, steam turbine, combustion turbine, hydro, or reciprocating engine technology; or

(b) Any Energy Storage Resource (ESR) meeting an ERCOT-defined minimum duration threshold.

(4) Resources other than those described in paragraph (3) above may be redispatched as necessary to meet the requirements of this Section.

(5) ERCOT-proposed revisions to the minimum percentage of capacity or minimum duration threshold for ESRs used to implement the requirements of this Section will be recommended by the Technical Advisory Committee (TAC) and approved by the ERCOT Board.

(a) ERCOT will post the current values approved by the ERCOT Board pursuant to paragraph (5) above on the ERCOT website.

4.1.1.8 Maintenance Outage Reliability Criteria

(1) In an off-peak system condition selected in accordance with paragraph (3) below, with any transmission element included in paragraph (2) below unavailable, followed by Manual System Adjustments, followed by a common tower outage or the contingency loss of a transmission circuit, transformer, shunt device, or FACTS device, with or without a single line-to-ground fault, all Facilities shall be within their applicable Ratings, the ERCOT System shall remain stable with no cascading or uncontrolled Islanding, and there shall be no non-consequential Load loss. An operational solution may be planned on a permanent basis to resolve a performance deficiency under this condition.

(2) The unavailability of the following transmission elements shall be considered for the requirements of this Section:

(a) Any double-circuit transmission line consisting of two circuits sharing a tower of 0.5 miles or greater where both circuits must be removed from service for a maintenance outage; or

(b) Any transmission circuit, transformer, shunt device, or FACTS device.

(3) At least one off-peak system condition occurring outside of the Peak Load Season shall be selected for assessment.

4.1.2 Resiliency Criteria

(1) As part of the resiliency analysis described in Section 3.1.1.6, Grid Reliability and Resiliency Assessment (GRRA), ERCOT shall identify those transmission upgrades that are necessary to:

(a) Prevent cascading, instability, or uncontrolled islanding; and/or

(b) Reduce the impact of outages on customers.

ERCOT Planning Guide

Section 5: Generator Interconnection or Modification

August 1, 2026

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5 GENERATOR INTERCONNECTION OR MODIFICATION

5.1 Introduction

(1) Section 5, Generator Interconnection or Modification, defines the requirements and processes used to facilitate new or modified generation interconnections with the ERCOT System. The requirements outlined in Section 5 are designed to:

(a) Facilitate studies to identify potential system limitations associated with the proposed interconnection of new or modified generators to the ERCOT System and to determine the facilities required to interconnect new or modified generators to the ERCOT System;

(b) Ensure that the interconnection of the new or modified generation is accomplished in a manner that maintains the reliability of the ERCOT System and complies with the North American Electric Reliability Corporation (NERC) Reliability Standards, Protocols, this Planning Guide, the Operating Guides, and any Applicable Legal Authority (ALA);

(c) Specify the communications required between Interconnecting Entities (IEs), Distribution Service Providers (DSPs), Transmission Service Providers (TSPs), and ERCOT;

(d) Provide for the best available information on future capacity additions for use in identifying, forecasting, and analyzing both short- and long-range ERCOT capabilities, demands, and reserves; and

(e) Provide ERCOT accurate data about new and modified generators to ensure that ERCOT and stakeholders have the information necessary for planning purposes.

5.2 General Provisions

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 a Settlement Only Generator (SOG) to the ERCOT System; or

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

(i) Increasing the real power rating from that shown in the latest Resource Registration data 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) 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 (6) 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, 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.

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. All GIM-related email communication sent to the ERCOT-designated point of contact or to ResourceIntegrationDepartment@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.

5.2.3 Confidentiality

(1) For any interconnection request involving a large generator, all data, documents or other information regarding the interconnection request, including the identity of the IE, will remain Protected Information until ERCOT receives written Notice from the IE that this information may be made public or until the IE requests a Full Interconnection Study (FIS). The FIS agreement may contain confidential cost estimates; it will remain Protected Information and will not be released to parties other than those who are members of the confidential Transmission Owner Generation Interconnection list except as otherwise required by a court or by regulatory authorities having jurisdiction.

(2) For any interconnection request involving a small generator, all data, documents, or other information regarding the interconnection request, including the identity of the IE, will remain Protected Information until ERCOT receives written Notice from the IE that this information may be made public or until ERCOT approves the IE's completed Resource Registration form for inclusion in the Network Operations Model, whichever occurs first.

(3) Once the interconnection request is classified as a public project through one of these steps, ERCOT will make available the project description, the results of any economic analysis of Transmission Facilities needed to connect the generator costing over $25,000,000, and any information developed throughout the interconnection study process about transmission improvement projects that may be submitted for Regional Planning Group (RPG) review as a result of the new generation.

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, 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.

5.2.5 Inactive Status

(1) Any proposed large generator or proposed modification to a large generator subject to Section 5, Generator Interconnection or Modification, shall be given the status of "Inactive" if it has not met the conditions for inclusion in the ERCOT planning models, as specified in Section 6.9, Addition of Proposed Generation to the Planning Models,

within two years of the date on which ERCOT posts the final FIS elements for the proposed generator to the Market Information System (MIS) Secure Area.

(2) Any proposed small generator or proposed modification to a small generator subject to Section 5 shall be given the status of "Inactive" if it has not met the conditions for inclusion in the ERCOT Network Operations Model within six months of the date on which the interconnection request was initiated.

(3) An IE may also elect "Inactive" status for any proposed generator after the FIS has been requested. For any interconnection-related study or process in progress when the IE elects "Inactive" status, the Entity conducting the study or performing the process may, at its own discretion, stop work on the study, not include the generator in the study, or discontinue any process related to this project.

(4) If a proposed small or large generator had met the requirements of Section 6.9 and is included in the planning models prior to electing a status change to "Inactive", the proposed small or large generator shall be removed from the planning models during the next available planning model case build.

(5) A proposed small or large generator whose IE has elected "Inactive" status may elect to change to "Planned" status if ERCOT determines that it still meets the requirements of Section 6.9 and not more than two years have elapsed since the date any one or more of the studies in the most recent FIS was posted to the MIS Secure Area. If more than two years have elapsed, then the IE shall restart the FIS process for the project, unless ERCOT notifies the IE in writing that such studies are unnecessary.

(6) A proposed small or large generator that was given the status of "Inactive" because it had not met the conditions for inclusion in the ERCOT planning models shall be assigned the status of "Planned" and included in the ERCOT planning models if ERCOT determines that the generator meets the requirements of Section 6.9, and if not more than two years have elapsed since the date any one of more of the studies in the most recent FIS was posted to the MIS Secure Area. If more than two years have elapsed since posting of the FIS, then the IE shall restart the FIS process for the project, unless ERCOT notifies the IE in writing that such studies are unnecessary.

(7) For any proposed small or large generator with the status of "Inactive", the IE associated with the project shall not be required to submit the semiannual declaration or any other information that would otherwise be required under this Planning Guide and ERCOT shall exclude the Resource's capacity from each monthly Generator Interconnection Status report that is issued while the IE is in "Inactive" status.

(8) If a transmission-connected project has been "Inactive" for five years, ERCOT may cancel the project pursuant to Section 5.2.6, Project Cancellation Due to Failure to Comply with Requirements. At any time prior to cancellation of its project, an IE may submit a request to terminate the project's "Inactive" status and return the project to "Planned" status if ERCOT determines that the IE has provided complete and updated project information.

(9) If a distribution-connected project has been "Inactive" for one year or the TDSP sends notification of a cancellation, ERCOT may cancel the project pursuant to Section 5.2.6. At any time prior to cancellation of its project, an IE may submit a request to terminate the project's "Inactive" status and return the project to "Planned" status if ERCOT determines that the IE has provided complete and updated project information.

5.2.6 Project Cancellation Due to Failure to Comply with Requirements

(1) If at any time ERCOT determines that an IE with a project in "Planned" status has failed to meet any requirement of the ERCOT Protocols or this Planning Guide, including, without limitation, any requirement to provide materially accurate or complete information concerning any proposed small or large generator, ERCOT may send a notice of potential cancellation to the IE via email or through the online RIOO system. The notice of potential cancellation shall describe the failure and provide notice of ERCOT's intent to cancel the project if the failure is not remedied.

(2) Within 60 days of receiving ERCOT's notification of potential cancellation, the IE shall correct the failure or provide information that explains to ERCOT's satisfaction why the IE cannot reasonably comply with ERCOT requirements or why the failure to comply cannot reasonably be remedied.

(3) If the IE fails to respond to ERCOT's notice of potential cancellation within 60 days, or if ERCOT determines that, notwithstanding the IE's response, the IE has neither satisfactorily resolved the deficiency nor provided an explanation that, in ERCOT's sole judgment, justifies the deficiency, ERCOT may cancel the IE's project no sooner than 30 days after providing notice to the IE that the project will be canceled.

(4) If at any time before cancellation ERCOT determines that the IE did not fail to meet any requirement of the ERCOT Protocols or the Planning Guide or that any failure has been satisfactorily remedied, then ERCOT shall notify the IE that the concern has been resolved and the potential cancellation has been rescinded.

(5) At any time prior to cancellation, an IE may request a change in the status of the project to "Inactive" status as provided in Section 5.2.5, Inactive Status.

(6) Once a project is canceled, it is permanently removed from the GIM process and must be resubmitted to be reconsidered for interconnection.

5.2.7 Voluntary Project Cancellation

(1) An IE may cancel the GIM process at any time upon providing written notice of cancellation via the RIOO system. The RIOO system will notify ERCOT and TDSPs of any cancellation. Cancellation of the GIM process does not affect any obligation the IE may have previously incurred, including any obligation to render payment to the TSP for FIS studies.

5.2.8 Interconnection Agreements and Procedures

5.2.8.1 Standard Generation Interconnection Agreement for Transmission-Connected Generators

(1) As a condition for obtaining transmission service for a Generation Resource or ESR, a Resource Entity or IE must execute a Standard Generation Interconnection Agreement (SGIA) with its TSP. A template of the SGIA can be found on the ERCOT website.

(2) If an existing SGIA is amended for any of the reasons stated below, the new or modified portion of the Resource must comply with all applicable operating and technical requirements defined in the Protocols or Operating Guides and in effect at the time the amended SGIA is executed, unless otherwise clarified or modified in the Protocols or Operating Guides.

(a) Adding a new Generation Resource or ESR that is connected at the same POI as the existing Generation Resource or ESR;

(b) Increasing the real power rating of an IBR by 10 MW or more within a single year; or

(c) Making changes to an IBR to which paragraph (1)(c)(ii) or (v) of Section 5.2.1, Applicability, applies.

(3) The TSP must submit a change request via the online RIOO system to transmit a copy of the signed SGIA to ERCOT within ten Business Days of execution.

(4) The TSP must submit a change request via the online RIOO system to transmit a copy of any public, financially-binding agreement between the IE and the TSP, other than an SGIA, under which the interconnection for a transmission-connected generator will be constructed. The agreement must be submitted within ten Business Days of execution.

(5) The TSP must submit a change request via the online RIOO system within ten Business Days of receiving both a notice to proceed with construction of the interconnection for the transmission-connected generator and the financial security sufficient to fund the interconnection facilities pursuant to either agreement addressed in paragraphs (3) or (4) above.

5.2.8.2 Interconnection Agreement for Distribution-Connected Generators

(1) Each IE for a distribution-connected generator must provide ERCOT and the relevant TSP a copy of its fully executed applicable Distribution Service Provider (DSP) interconnection agreement, or a letter attesting that the interconnection agreement with the DSP has been executed, as a condition for interconnecting a proposed generation project at distribution voltage in ERCOT.

5.2.8.3 Provisions for Municipally Owned Utilities and Cooperatives

(1) A Municipally Owned Utility (MOU) or Electric Cooperative (EC) developing a proposed generator that will interconnect to its own system is not required to execute an interconnection agreement. However, an MOU or EC must execute an SGIA or other appropriate interconnection agreement if its proposed generator would interconnect with another TDSP's facilities.

(2) A letter from a duly authorized official from the MOU or EC confirming the Entity's intent to construct and operate the proposed generator and to interconnect such generator with its own transmission or distribution facilities will be deemed by ERCOT to be sufficient as a public commitment by the MOU or EC and will have the same impact as an interconnection agreement for all purposes. The MOU or EC shall submit the letter to ERCOT via the online RIOO system.

5.2.8.4 Interconnection Cost Reporting for Transmission-Connected Generators

(1) Beginning in January 2026, within 90 calendar days from the end of each calendar month, a TSP must provide the following information for each new transmission-level generator with an Initial Energization date in that calendar month:

(a) The total cost of the interconnection incurred by the TSP at the time the cost data is submitted to ERCOT;

(b) Any contribution in aid of construction (CIAC) paid by the IE; and

(c) Any above-allowance costs incurred by the IE.

(2) The TSP must submit an update to the costs provided under paragraph (1) above once all final costs of the generator interconnection have been fully incurred.

(3) TSPs shall submit the information required in this section through the RIOO system.

(4) ERCOT will include in the monthly Generation Interconnection Status (GIS) Report the information it received in the prior month from TSPs as required under this section.

(5) Beginning in April 2027 and every calendar year thereafter, ERCOT will publish an annual report on the ERCOT website containing the information it received in the prior calendar year pursuant to this section regarding costs for new transmission-level generator interconnections that were energized to the ERCOT transmission system.

5.2.9 Self-Limiting Facilities

(1) An IE may elect to designate any proposed new or modified Generation Resource or ESR 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 or ESR 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.

[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, or SOG 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 SOG 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.

5.2.10 Subsynchronous Oscillation (SSO) Risk Reduction

(1) Any generator with an original 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, Applicability, 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.

[PGRR115 and PGRR133: Insert Section 5.2.11 below upon system implementation of NPRR1234:]

5.2.11 Required Interconnection Equipment

(1) Each POI for a Generation Resource, ESR, or SOG interconnected at transmission voltage to the ERCOT System must have a permanent configuration consisting of a station with breakers capable of interrupting fault current to sectionalize the transmission lines connecting the station to the ERCOT System. The generator interconnection breakers at a TSP switching station shall be under the remote control of the applicable Transmission Operator (TO) and capable of being operated remotely to comply with an instruction from ERCOT.

(2) For a Generation Resource, ESR, or SOG with a Resource Commissioning Date on or before December 31, 2025, the applicable breakers described in paragraph (1) of this Section may be remotely controllable at the direction of the TO. The TO shall communicate with the applicable Qualified Scheduling Entity (QSE) as needed to ensure coordination. A Generation Resource, ESR, or SOG with a Resource Commissioning Date on or before December 31, 2025 shall comply with the requirements of paragraph (1) of this Section if a modification subject to the requirements of paragraph (1)(c)(iv) of Section 5.2.1, Applicability, is made, or for the addition of load that would result in the total load co-located with the Generation Resource, ESR, or SOG of 75 MW or greater.

5.3 Interconnection Study Procedures for Large Generators

(1) The provisions in this Section establish the procedures for conducting the Security Screening Study and Full Interconnection Study (FIS) for each new or modified large generator, as that term is defined by paragraph (3) of Section 5.2.1, Applicability.

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.

(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.

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. 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;

[PGRR127: Replace paragraph (3)(b) above with the following upon system implementation:]

(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.

(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.

[PGRR127: Insert paragraph (4) below with the following upon system implementation and renumber accordingly:]

(4) To initiate an FIS stability study, the IE must submit via the online RIOO system the required 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 and appropriate models along with other associated data. These models shall be incorporated into the standard model libraries of all software packages.

(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 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.

5.3.2.2 Full Interconnection Study Scoping Process

(1) Within ten Business Days of the IE's submission of the items required by paragraph (3) of Section 5.3.2, Full Interconnection Study, ERCOT will designate a TSP to lead the FIS and will contact that TSP to schedule an FIS kickoff meeting. ERCOT will select the lead TSP based upon a preliminary analysis of the most likely POI, or for a distribution-connected project, the most likely transmission substation for the proposed interconnection. If an IE has previously developed a generation project in ERCOT with the selected TSP, the IE, ERCOT, and the TSP may agree to forgo the kickoff meeting. If they so agree, the timeline for the IE and TSP to reach agreement on the FIS scope will start on the date ERCOT notifies the TSP of the IE's decision to proceed with the FIS.

(2) ERCOT will notify all other TSP(s) of the FIS request via the online RIOO system. It is the responsibility of each TSP to determine if the proposed project would have a material impact on its Transmission Facilities and to decide whether and to what extent it should participate in the FIS. The assistance of more than one TSP may be required in areas where Transmission Facilities are provided by multiple TSPs. In these cases it may be necessary for the IE to execute study agreements with multiple TSPs.

(3) Each TSP desiring to participate in the FIS shall promptly notify the lead TSP via email. The lead TSP must include all interested TSPs in the FIS to the extent such involvement is reasonable.

(4) At the FIS kickoff meeting, the IE will present the proposed project and ERCOT will review the results of the Security Screening Study. The lead TSP will facilitate a general discussion of the preliminary study scope of work for the FIS.

(5) Any SSR studies required under Protocol Section 3.22.1.2, Generation Resource or Energy Storage Resource Interconnection Assessment, shall be scoped at the same time as the FIS but do not need to be included as part of the FIS.

(6) Following the kickoff meeting, the IE and the TSP(s) must agree to the terms of the FIS study as a condition for proceeding with the FIS studies. The FIS study agreement must include all assumptions, timetables, study costs, and payment schedules, and the determination of all requirements for interconnection. The IE and TSP(s) may divide the FIS into distinct study phases, each requiring IE approval to proceed. All payments for the FIS studies shall be remitted directly to the TSP(s) completing the studies.

(a) The FIS must include all study elements required by Section 5.3.2.4, Full Interconnection Study Elements, unless ERCOT and the TSP(s) determine that one or more studies should not be performed. ERCOT and the TSP(s) shall consider the Security Screening Study and any information provided by the IE when developing the FIS scope.

(b) The requirement for one or more of the FIS study elements identified in Section 5.3.2.4 may be waived for projects involving any distribution-connected generator or any project meeting paragraph (1)(c)(ii) of Section 5.2.1, Applicability, if mutually agreed upon by ERCOT and the TSP(s). In order to aid in the determination of whether or not FIS study waivers are appropriate, ERCOT and the TSP(s) may request additional data and information from the IE beyond what is required by Section 5.2.2, Initiation of Generator Interconnection or Modification, Section 5.3.2, and Section 5.5, Generator Commissioning and Continuing Operations.

(7) The TSP(s) shall submit the FIS study agreement via the online RIOO system. The online RIOO system will provide notification via an email to ERCOT and other TSP(s) of availability of the FIS study agreement for review and comment. Comments must be made within ten Business Days.

(8) If the IE and TSP(s) cannot agree to the terms of the FIS study within 60 days, ERCOT will attempt to mediate an agreement. If mediation is unsuccessful, ERCOT will cancel the interconnection request if the IE does not agree to the proposed terms within ten days of being notified that the mediation was unsuccessful.

(9) The TSP shall notify ERCOT by submitting a change request via the online RIOO system within ten Business Days of the following events:

(a) Signing of the FIS study agreement; and

(b) Funding of the FIS study agreement.

5.3.2.3 Full Interconnection Study Description and Methodology

(1) The FIS consists of a series of distinct study elements. The specific elements that will be included in a particular FIS will be stated in the FIS agreement, and not all of the study elements specified below must be included if the IE and the TSP agree that one or more studies are unnecessary. The primary purpose of the FIS is to determine the most effective and efficient manner in which to achieve the proposed project while continuing to maintain the reliability of the ERCOT System by ensuring compliance with all North American Electric Reliability Corporation (NERC) Reliability Standards, Protocols, this Planning Guide and the Operating Guides. The scenarios and base cases being used for these studies to determine potential transmission limitations will be documented in the FIS study scope.

(2) Each proposed generator that requires a separate physical transmission interconnection will be treated as an individual study to be analyzed separately from all other such requests unless otherwise agreed by the IE and TSP(s) in the interconnection study agreement.

(3) The FIS process includes developing and analyzing various computer model simulations of the existing and proposed ERCOT generation/transmission system. The results from these simulations will be utilized by the TSP(s) to determine the impact of the proposed interconnection.

(4) The TSP(s) will examine normal transmission operations as well as potentially adverse, or contingency, conditions in order to identify and analyze the reliability and effectiveness of various interconnection design alternatives in alleviating or mitigating any undesirable performance of the interconnection under a variety of operating conditions. The study should include analysis demonstrating the adequate reliability of any temporary interconnection configurations.

(5) In comparing interconnection alternatives, the TSP(s) will consider such information as interconnection cost and construction schedule, impact to short- and long-range reliability, operational flexibility, and compatibility with future transmission plans. The TSP(s) may consider interconnection alternatives not suggested by the IE.

(6) The TSP(s) may update the final FIS report to reflect changes to the ERCOT System (i.e., new Standard Generation Interconnection Agreements (SGIAs)) after the report is completed and before the SGIA is executed.

5.3.2.4 Full Interconnection Study Elements

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.

5.3.2.4.2 System Protection (Short-Circuit) Analysis

(1) The FIS agreement will specify locations where available short-circuit fault duty will be identified, calculated, and documented.

(2) If any of the required transmission system facilities identified in the FIS facility study associated with the GIM result in violations of the TSP's short circuit criteria, the TSP shall plan and provide facilities to address such violations. The TSP will determine the maximum available fault currents at the interconnection substation for determining switching device interrupting capabilities and protective relay settings.

5.3.2.4.3 Dynamic and Transient Stability (Unit Stability, Voltage) Analysis

(1) At the discretion of the lead TSP or ERCOT, the lead TSP will perform transient stability studies if necessary to meet NERC Reliability Standards, Protocols, this Planning Guide or the Operating Guides applicable to the generator or to the ERCOT System. If the lead TSP conducting a stability study decides such study is not required, the lead TSP shall provide a written justification in lieu of the study report.

(2) When performing such studies, all operational and planned generators which have met the requirements of Section 6.9, Addition of Proposed Generation to the Planning Models, in the area of the study shall be dispatched at full net output in at least one of the scenarios/cases evaluated by the lead TSP. The dispatch level may be reduced to respect any published stability limits or to reach a power flow solution. If any Generation Resources in the study area are not dispatched at full output, the study report shall include the technical rationale. Any resulting increase in generation will be balanced as addressed in the FIS agreement.

(3) Stability study base cases shall be formed from the latest available approved SSWG base cases consistent with the most recently approved Dynamics Working Group (DWG) stability data base. The initial transmission configuration in the area of study included in a stability study base case shall be identical to that used in the steady-state studies of the same period. Any previously identified transmission improvements that will not be in service prior to the Initial Synchronization of the proposed generator shall not be included in the stability study base case.

(4) Transient stability studies will analyze the performance of the proposed generator and the ERCOT System in terms of angular stability, voltage stability and excessive frequency excursions. Additional studies may include small signal stability or critical clearing time analyses where the number of cycles for which a transmission line can sustain a fault without causing loss of synchronism of any of the Resource is compared to the response of the protection systems. Such studies should incorporate reasonable and conservative assumptions regarding plant operating conditions. Proposed analyses shall be identified and defined in the FIS agreement.

(5) All stability studies shall be performed in accordance with NERC Reliability Standards, Protocols, this Planning Guide and the Operating Guides. The stability study portion of the FIS shall document any instability identified through performance of the study.

(6) If the TSP identifies instability (other than instability identified for extreme events) in the stability portion of the FIS, the following steps will be taken after the FIS is deemed complete and posted to the Market Information System (MIS) Secure Area in accordance with Section 5.3.2.5, FIS Report and Follow-up:

(a) The IE and TSP shall investigate alternative solutions to resolve the instability through changes to the proposed generator and report their findings to ERCOT. If changes to the generator are determined by ERCOT to be feasible, the IE shall implement the changes prior to Initial Synchronization.

(b) If ERCOT determines that changes to the proposed generator are not feasible to resolve the identified instability, ERCOT shall notify the TSP and IE, and the TSP shall investigate a transmission improvement to resolve the instability and report its findings to ERCOT.

(c) If ERCOT determines that a proposed transmission improvement is feasible to resolve the identified instability, the TSP shall proceed with implementing the

transmission improvement, in accordance with Protocol Section 3.11.4, Regional Planning Group Project Review Process, identified in paragraph (6)(b) above after the requirements of Section 6.9 have been met for the proposed generator.

(d) If the transmission improvement identified in paragraph (6)(b) or (c) above cannot be implemented prior to Initial Synchronization, ERCOT shall determine the appropriate operating limit, including evaluating the feasibility of a proposed Remedial Action Scheme (RAS) that may mitigate the limit when a market solution is not available, in accordance with Section 5.3.5, ERCOT Quarterly Stability Assessment, prior to Initial Synchronization.

5.3.2.4.4 Facility Study

(1) The facility study provides complete details of the transmission and substation facilities needed to connect a generator to a new or existing substation on the ERCOT Transmission Grid. These details include conceptual design descriptions, construction milestones, and cost estimates. A facility study is not required for a large generator interconnecting directly to a DSP's distribution facilities unless transmission facilities are required to be constructed.

(2) In conducting the facility study, if the lead TSP determines that the costs of the Transmission Facilities needed to connect the proposed generator are expected to exceed $25,000,000, the lead TSP will submit a change request via the online RIOO system to communicate this finding to ERCOT and other TSP(s) within ten Business Days of such determination. This communication will include all available information upon which that finding is based, including but not limited to:

(a) A description of the Transmission Facilities needed to connect the proposed generator;

(b) Information necessary to modify a power-flow case to include those facilities;

(c) Any information obtained from the IE that would be helpful in modeling the proposed generator for the study; and

(d) The estimated cost of the facilities.

(3) The lead TSP will notify the RPG email list via email within ten Business Days following the later of the completion of the facility study or the signing of an SGIA when the cost of the Transmission Facilities needed to connect the generator is expected to be greater than $25,000,000.

5.3.2.5 FIS Report and Follow-up

(1) The TSP(s) will submit to ERCOT and to the other TSP(s) via the online RIOO system a preliminary report of findings and recommendations for each of the FIS elements.

(2) Any questions, comments, proposed revisions, or clarifications by any party shall be made in writing to the TSP(s) within ten Business Days after the issuance of each study report, which may cover one or more study elements. ERCOT can extend this review period by an additional 20 Business Days and an email will be sent to notify the affected TSP(s) and the IE that it needs additional time to review the report.

(3) After considering the information received from ERCOT and other TSPs, the study element(s) report will be deemed complete and a final report shall be provided, via the online RIOO system, to ERCOT and all TSPs. The TSP(s) conducting the FIS shall submit via the online RIOO system, the SSR analysis, if required, as a separate document from the remainder of the report.

(4) Each final study element report will be available via the online RIOO system after the report has been deemed complete and marked "final" and will be posted to the MIS Secure Area within ten Business Days. Coincident with posting of the final FIS study element reports to the MIS Secure Area, ERCOT will notify the TSP and the IE when each study element report is posted. The TSP shall provide a copy of each final report to the IE upon request.

(5) The study element(s) report shall not contain sensitive information including, but not limited to, confidential plant design information including stability study model data and parameters and contingencies causing instability. The TSP(s) shall provide this information to ERCOT and other TSP(s) upon request.

(6) The TSP issuing the final FIS element(s) report shall indicate that the report is the final report required by the FIS. At the end of the ten Business Day review period following the issuance of the final FIS element(s) report, the FIS will be deemed complete and the IE and TSP may execute an SGIA.

(7) The final FIS element(s) report shall be deemed complete and marked "final" via the online RIOO system at least 45 days prior to the quarterly stability assessment deadline defined in paragraph (2) of Section 5.3.5, ERCOT Quarterly Stability Assessment.

(8) Should the IE wish to proceed with any proposed transmission-connected project, the IE must execute a new or amended SGIA with the appropriate TSP within 180 days following the completion of the FIS (includes all major study element(s) reports). Failure to do so may result in a cancellation as described in Section 5.2.6, Project Cancellation Due to Failure to Comply with Requirements.

(9) During the time after the FIS is completed and before Initial Synchronization, the IE shall notify both ERCOT and the lead TSP(s) of any changes to the assumptions used for the FIS along with a detailed written explanation of why the changes were made. If the changes substantially differ from the assumptions used for the FIS, ERCOT and the TSP(s) shall determine the impact of the changes on the results of the FIS and, if applicable, SSR studies. If the changes are determined by ERCOT and lead TSP(s) to have the potential to materially alter the conclusions documented in the FIS, the lead TSP(s) will make appropriate modifications to one or more FIS study elements. The

updated FIS reports will be submitted via the online RIOO system. Any questions, comments, proposed revisions, or clarifications by any party shall be made in writing to the TSP(s) within ten Business Days after the issuance of an updated study report. Initial Synchronization of the generator may be delayed pending completion of these modifications to the FIS.

5.3.3 ERCOT Economic Study

(1) In accordance with paragraph (2) of Protocol Section 3.11.6, Generation Interconnection Process, ERCOT shall perform an independent economic analysis of the Transmission Facilities needed to connect a generator to the ERCOT Transmission Grid, including any new substation that may be needed, and that are expected to cost more than $25,000,000. This economic analysis is performed only for informational purposes, and no ERCOT endorsement will be provided.

(2) The IE shall provide to ERCOT any requested information necessary to accurately represent the generator in the economic study.

(3) ERCOT will endeavor to complete this economic study within 90 days, and will inform the TSP(s) and IE if additional time is required. ERCOT will provide the results of the economic study to the IE and to the TSP(s) via the online RIOO system.

5.3.4 Reactive Study

(1) The IE and the TSP shall coordinate with one another for the IE to complete the reactive study 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.

[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 and Large Loads subject to the requirements of Section 9.2.1, Applicability of the Batch Zero 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 (LCP) and with consideration given to the results of the Large Load Interconnection Study (LLIS) stability studies performed according to Section 9.8.4.3, Legacy Dynamic and Transient Stability Analysis, or stability studies performed as part of the Batch Zero Interconnection Study as described in Section 9.3, Batch Zero Interconnection Study.

(c) ERCOT may study conditions other than those identified in the FIS, LLIS stability studies, or Batch Zero Interconnection Studies.

(2) Large generators that are not included in the assessment as described in this Section as a 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.

(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 one of the following requirements:

(i) For quarterly stability assessments with a prerequisite deadline of May 1, 2026 or earlier, the Large Load has met the requirements of Section 9.9, Legacy LLIS Report and Follow-up, and Section 9.10, Legacy Interconnection Agreements and Responsibilities;

(ii) For quarterly stability assessments with a prerequisite deadline of August 1, 2026, November 1, 2026, February 1, 2027, or May 1, 2027, the Large Load has met the requirements of paragraph (1) of Section 9.2.1.1, Eligibility Criteria for Inclusion of a Large Load as Base Load not Subject to Additional Study in the Batch Zero Process; or

(iii) For quarterly stability assessments with a prerequisite deadline of August 1, 2027 or later, the Large Load has met the requirements of either paragraph (2) of Section 9.4, Batch Zero Report and Interconnecting Large Load Entity (ILLE) Commitment, or paragraph (1) of Section 9.2.1.1;

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

(c) If applicable, 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 9.8.4.3 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 Information, that would invalidate the model;

(d) The Reactive Power Study, if required according to Protocol Section 3.15, Voltage Support, must be complete; 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 9.9 or completed Batch Zero Interconnection Study as described in Section 9.3, as applicable.

(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 Interconnection Procedures for Small Generators

5.4.1 Small Generator Review Meetings

(1) Upon request by an Interconnecting Entity (IE), ERCOT, the Transmission Service Provider (TSP), and if applicable, the Distribution Service Provider (DSP) will have an initial meeting with the IE to discuss the small generator interconnection process and address general information related to the project.

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), 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.

5.4.3 Reviews and Approval to Submit Model Information

(1) ERCOT shall review submitted interconnection agreements, TSP and DSP study results, and generator technical specifications.

(2) ERCOT shall communicate within ten Business Days the need for clarification or additional information. ERCOT shall provide a reason for rejecting any information.

(3) The IE shall have ten Business Days to submit clarifications or additional information in response to an ERCOT request.

(4) If the IE does not respond within ten Business Days, ERCOT may place the project in "Inactive" status. Once the IE provides the information, ERCOT may place the project in "Planned" status and ERCOT shall have ten Business Days for reviews.

(5) Once the IE has provided all required agreements, studies, and technical specifications and ERCOT reviews have been completed, the approval to submit model information will be granted and the project will be included in ERCOT systems.

5.4.4 Transmission System Reliability Impact

(1) ERCOT may delay the synchronization, testing, or commissioning of any generator to the extent it deems necessary to study transmission system impacts of this generator and any other proposed or existing generators. If, as a result of this study or any previous study, ERCOT determines that the generator would create or contribute to a reliability concern, ERCOT may prohibit the synchronization, testing, or commissioning of the generator until the reliability concern is addressed.

5.5 Generator Commissioning and Continuing Operations

(1) For each interconnecting Generation Resource or Energy Storage Resource (ESR), 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 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 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 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.

(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.

ERCOT Planning Guide

Section 6: Data/Modeling

August 1, 2026

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6 DATA/MODELING

6.1 Steady-State Model Development

(1) To adequately simulate steady-state system conditions, it is necessary to establish and maintain steady-state data and simulation-ready study cases in accordance with the ERCOT Steady State Working Group Procedure Manual. These case models, known as steady-state base cases, shall contain appropriate equipment characteristics and system data, and shall represent projected system conditions that provide a starting point for each required season and year.

(a) The Annual Planning Model base cases, which represent the annual peak load conditions, as prescribed in Protocol Section 3.10.2, Annual Planning Model, shall be developed annually, updated on a biannual basis, and may be updated as needed on an interim basis. Each Annual Planning Model base case, biannual updates, and off-cycle updates shall be posted on the Market Information System (MIS) Secure Area to ensure availability of the most accurate steady-state base cases.

(b) Additional steady-state base cases, such as seasonal base cases, shall also be developed annually, updated on a biannual basis, and may also be updated as needed on an interim basis. These derivative base cases, biannual updates, and off-cycle updates shall be posted on MIS Secure Area to ensure availability of the most accurate steady-state base cases.

(c) Off-cycle updates not associated with the biannual update shall be posted in a timely manner and include:

(i) Corrections to significant errors discovered in modeling or major changes in operation configuration that affect the steady-state base cases; or

(ii) A significant change in the scope or timing of a transmission project or the development of a new transmission project that impacts either of the next two summer base cases.

(d) Off-cycle updates that are posted as described in paragraphs (1)(a) through (c) above shall be in the form of a Power System Simulator for Engineering (PSS/E) formatted incremental change file.

(e) All steady-state base cases and incremental change files on the MIS Secure Area shall be available for use by Market Participants.

(f) The ERCOT Steady State Working Group Procedure Manual describes each base case that is required to be built. ERCOT shall post the Annual Planning Model Data Submittal schedule for posting all steady-state base cases on the ERCOT website.

(2) Transmission Service Providers (TSPs) and ERCOT shall develop the steady-state base cases. The steady-state base cases are derived from the Network Operations Model to ensure consistency of key characteristics, including Ratings, impedance and connectivity for Transmission Facilities that are common between the Network Operations Model and each steady-state base case. Minor differences between the models will occur for several reasons. For example:

(a) Additional detailed modeling may be added to the converted Network Operations Model for planning purposes.

(b) Future projects are added to the converted Network Operations Model that do not exist in the Network Operations Model past the model build date used to extract a snapshot from the Network Operations Model.

(3) Using the Network Model Management System (NMMS), ERCOT and TSPs shall create steady-state models that represent current and planned system conditions from the following data elements:

(a) Each TSP, or its Designated Agent, shall provide its respective transmission network steady-state model data, including load data.

(b) Each TSP, or its Designated Agent, shall not include the impact of energy sources connected to the Distribution System that are registered with ERCOT and required to provide telemetry including, but not limited to, Distribution Generation Resources (DGRs), Distribution Energy Storage Resources (DESRs), or Settlement Only Distribution Generators (SODGs) in its submitted Load data as negative loads or as embedded reductions in the submitted load forecast.

(c) Each TSP, or its Designated Agent, shall include the impact of energy sources connected to the Distribution System that are not registered with ERCOT in its submitted Load data. The methodology used shall be consistent across all TSPs and described in the ERCOT Steady State Working Group Procedure Manual.

(d) ERCOT shall utilize the latest available Resource Entity and Private Use Network model data submitted to ERCOT by the Resource Entity and the Private Use Network owners through the Resource Registration process for Resource Entities.

(e) ERCOT shall utilize proposed Generation Resource and Energy Storage Resource (ESR) model data provided by the Interconnecting Entity (IE) during the generation interconnection process in accordance with Section 5, Generator Interconnection or Modification.

(f) ERCOT shall determine the operating state of Generation Resources and ESRs (MW, MVAr) using a security-constrained economic dispatch tool.

(g) ERCOT shall determine the import/export levels of asynchronous transmission interconnections based on historical data.

6.2 Dynamics Model Development

(1) To adequately simulate dynamic and transient events in the ERCOT System, it is necessary to establish and maintain dynamics data and simulation-ready study cases representing the dynamic capability and frequency characteristics of machines and equipment connected to the ERCOT System.

(2) Dynamics data is the network data and mathematical models required in accordance with the Reliability and Operations Subcommittee (ROS)-approved Dynamics Working Group Procedure Manual for simulation of dynamic and transient events in the ERCOT System.

(3) For Resource Entities, dynamics data includes the data needed to represent the dynamic and transient response of Resource Entity-owned devices and/or Loads including but not limited to generating units, plants, and other equipment when connected to the ERCOT System including the data for any privately owned transmission system or collection system used to connect the Resource to the ERCOT System.

(4) For Transmission Service Providers (TSPs), dynamics data needed to represent the dynamic and transient capability of TSP-owned devices including but not limited to Load shedding relays, protective relays, flexible alternating current transmission system (FACTS) devices (e.g., SVC, STATCOMs), Direct Current Ties (DC Ties), variable-frequency transformers, automatically switched shunts, and transformers with automatic load tap changers.

[PGRR101: Replace paragraph (4) above with the following upon system implementation of NPRR1133:]

(4) For Transmission Service Providers (TSPs) and owners of Direct Current Ties (DC Ties), dynamics data includes the data needed to represent the dynamic and transient capability of dynamic devices including but not limited to Load shedding relays, protective relays, flexible alternating current transmission system (FACTS) devices (e.g., SVC, STATCOMs), DC Ties, variable-frequency transformers, automatically switched shunts, and transformers with automatic load tap changers.

(5) The owner of a generator Facility or any dynamic device shall provide appropriate dynamics data to ERCOT, including the data for a planned Facility, in accordance with the Dynamics Working Group Procedure Manual. The dynamic data shall include the following:

(a) A model with parameters that accurately represent the dynamics of the device and that is compatible with the current version of the planning and operations model software as described in the Dynamics Working Group Procedure Manual. If a user written model is provided:

(i) A model manual containing a technical description of the model characteristics, including descriptions for all model parameters and variables, a list of which parameters are commonly tuned for site-specific

settings, and a description of procedures and considerations for using the model in dynamic simulations, including steady state representation and limitations for model adequacy and usability in the planning and operations model software; and

(ii) The user-written model shall allow the user to determine the allocation of machine identifiers (bus numbers, bus names, machine IDs etc.) without restriction.

(b) Verification reports that support the model data based on documented field settings shall be provided as specified in the Dynamics Working Group Procedure Manual for Generation Resources, Energy Storage Resources (ESRs), and for Transmission Elements represented by a dynamic model. The reports shall demonstrate that the model parameters which are commonly tuned match site-specific settings implemented in the field. For new Generation Resources and ESRs, these reports shall be provided as required in paragraph (5) of Section 5.5, Generator Commissioning and Continuing Operations. For existing Generation Resources and ESRs, these reports shall be provided as required in paragraph (6) of Section 5.5. For Transmission Elements represented by a dynamic model, these reports shall be provided no later than two years following energization of new equipment and updated a minimum of every ten years.

(c) Results of model quality tests and associated simulation files that demonstrate acceptable performance of the models in the planning model and operations software as described in the Dynamics Working Group Procedure Manual. The Facility owner shall provide updated information whenever it provides a new or updated dynamic model to ERCOT representing a Generation Resource, ESR, or Transmission Element. These tests ensure the quality of the provided dynamic data and models for use in numerous system studies and consistency across planning and operations software platforms. Therefore, the Facility owner shall also assess sufficient sensitivities, including but not limited to Voltage Set Point at the Point of Interconnection (POI), real power output, and Reactive Power output to ensure acceptable model performance over the entire range of operating conditions. The Facility owner shall provide an explanation if model responses do not match.

(i) Facility owners shall include all site-specific dynamic models representing the Facility in the model quality tests. Facility owners can perform the tests in a simple test system without requiring ERCOT System information.

(ii) For Intermittent Renewable Resource (IRR) equipment aggregated together to form an IRR in accordance with paragraph (13) of Protocol Section 3.10.7.2, Modeling of Resources and Transmission Loads, the dynamic model shall represent the aggregated IRR.

(iii) Results for the following model quality tests shall be provided for Generation Resources, ESRs, or Transmission Elements that are not required to comply with Nodal Operating Guide Section 2.14, Advanced Grid Support Requirements for Inverter-Based Resources (IBRs), to demonstrate acceptable model performance. Additional details about each test, including the set up and description of desirable response, are included in the Dynamics Working Group Procedure Manual.

(A) Flat start test: A no-disturbance test shall be performed to demonstrate appropriate model initialization and the Facility's dynamic response under a no-disturbance condition.

(B) Small voltage disturbance test: A voltage step increase and decrease shall be applied to the POI to demonstrate the Facility's dynamic response.

(C) Large voltage disturbance test:

(1) For IRRs, ESRs, and inverter-based transmission equipment, the high and low voltage ride-through profiles as described in Nodal Operating Guide Section 2.9.1, Voltage Ride-Through Requirements for Transmission-Connected Inverter-Based Resources (IBRs), Type 1 Wind-powered Generation Resources (WGRs), Type 2 WGRs and Type 3 WGRs, shall be applied to the POI to demonstrate the Facility's dynamic response.

(2) For Resources other than IRRs, ESRs, and inverter-based equipment, a fault shall be applied to the POI to demonstrate the Facility's dynamic response.

(D) Small frequency disturbance test: A frequency step increase and decrease shall be applied to the POI to demonstrate the Facility's dynamic response.

(E) System strength test: The model for IRRs and inverter-based Resources shall be tested under a few equivalent short circuit ratios, as described in the Dynamics Working Group Procedure Manual. This tests the robustness of the model to varying system conditions.

(iv) For inverter-based ESRs required to comply with Nodal Operating Guide Section 2.14, results for the following model quality tests shall be provided to demonstrate acceptable model performance. Additional details about each test, including the set up and description of desirable response, are included in the Dynamics Working Group Procedure Manual.

(A) Flat start test: A no-disturbance test shall be performed to demonstrate appropriate model initialization and the Facility's dynamic response under a no-disturbance condition.

(B) Small voltage disturbance test: A voltage step increase and decrease shall be applied to the POI to demonstrate the Facility's dynamic response.

(C) Large voltage disturbance test: The high and low voltage ride-through profiles as described in Nodal Operating Guide Section 2.9.1, shall be applied to the POI to demonstrate the Facility's dynamic response.

(D) Frequency change and inertia response test: A frequency change increase and decrease shall be applied to the POI to demonstrate the Facility's dynamic response.

(E) System strength test: The Facility shall be tested under multiple equivalent short circuit ratios, as described in the Dynamics Working Group Procedure Manual. This tests the robustness of the model to varying system conditions.

(F) Phase angle jump test: A step change is applied to the phase angle. This tests the capability to maintain the voltage phasor and resistance to angle change.

(G) Loss of synchronous machine test: This test confirms the performance of the Facility to maintain synchronism and voltage phasor after changes occur on the ERCOT System. This test is not intended to require the Facility to operate reliably without connecting to the ERCOT Transmission Grid.

(d) Inverter-Based Resources (IBRs) shall provide results of the unit model validation to demonstrate that the PSCAD model, as described in the Dynamics Working Group Procedure Manual, accurately represents the dynamic responses of all inverter-based dynamic devices within the Facility. This validation is not intended to be site-specific; rather it is intended to be a hardware type test, where models representing different inverter hardware are benchmarked for accuracy. Validation results for a specific model of inverter can be submitted for multiple uses of that model of inverter.

(i) The validation results shall be included when submitting a PSCAD model to ERCOT.

(ii) Results for the following unit model validation tests shall be provided to demonstrate model accuracy. Additional details about each test are included in the Dynamics Working Group Procedure Manual.

(A) Step change in voltage;

(B) Large voltage disturbance (voltage ride-through tests);

(C) System strength test;

(D) Phase angle jump test; and

(E) Subsynchronous test.

(6) Dynamics data for a planned Facility will be updated by the Facility owner upon completion of the design for the Facility.

(7) Updated dynamics data for an existing Facility shall be provided to ERCOT when field tests, inspections, or other information demonstrates that the dynamics data should be changed to accurately represent the dynamic characteristics of the Facility.

(8) Dynamics Data is considered Protected Information pursuant to Protocol Section 1.3, Confidentiality.

(9) Dynamics data shall be provided with the legal authority to provide the information to all TSPs. If any of the information is considered Protected Information, the Facility owner shall indicate as such.

6.2.1 Dynamics Data Requirements for Generation Resources, Energy Storage Resources, and Settlement Only Generators

(1) A Resource Entity shall submit new or updated dynamics data in accordance with Section 5, Generator Interconnection or Modification. The Resource Entity shall provide all dynamics data as described in paragraph (5) of Section 6.2, Dynamics Model Development, and the Dynamics Working Group Procedure Manual.

(2) A Resource Entity is responsible for tuning and validating the parameters that go into their models to ensure that the models produce an accurate representation of a device's capability and response. If ERCOT, the interconnecting TSP, or the Dynamics Working Group (DWG) identifies inappropriate or incomplete dynamics data, ERCOT, in its sole discretion, may reject the submitted dynamics data and will provide the Resource Entity an explanation for the rejection. The Resource Entity shall take action to resolve discrepancies and provide updated dynamics data to ERCOT and the interconnecting TSP within 30 days.

6.2.2 Dynamics Data Requirements for Load Resources

(1) ERCOT shall provide the updated Load Resource relay models.

(2) Load Resource relay models shall be updated as described in the Dynamics Working Group Procedure Manual.

6.2.3 Dynamics Data Requirements for Transmission and/or Distribution Service Providers

[PGRR101: Replace the title for Section 6.2.3 above with the following upon system implementation of NPRR1133:]

6.2.3 Dynamics Data Requirements for Transmission and/or Distribution Service Providers, Direct Current Tie Facility Owners, and Direct Current Tie Operators

(1) The owner of under-frequency Load shedding equipment shall provide necessary data to model under frequency Load shedding relays for their portion of the ERCOT System as described in the Dynamics Working Group Procedure Manual.

(2) The owner of under voltage Load shedding equipment shall provide necessary data to model under voltage Load shedding relays for their portion of the ERCOT System as described in the Dynamics Working Group Procedure Manual.

(3) When requested by ERCOT or a Transmission and/or Distribution Service Provider (TDSP), the owner of protective relays, control systems, and Remedial Action Schemes (RASs) shall provide dynamics data needed to simulate their action.

(4) The DWG shall document appropriate Load model data as described in the Dynamics Working Group Procedure Manual for use in dynamic simulations.

(5) The owner of a dynamic element connected to the transmission system shall provide the dynamic data needed to simulate the action of the device in dynamic simulations to ERCOT and the TDSP to which the element is connected.

[PGRR101: Insert paragraph (6) below with the following upon system implementation of NPRR1133 and renumber accordingly:]

(6) Each DC Tie Facility owner shall provide the dynamic data needed to simulate the action of any dynamic elements located at its Facility in dynamic simulations to its DCTO, and the DCTO shall submit the data to ERCOT. The DC Tie Facility owner is responsible for the accuracy and completeness of the data submitted to ERCOT through its DCTO.

(6) The owner of a dynamic element connected to the transmission system shall verify the dynamic models through comparison with operational data of actual events or test results within five years of energization and a minimum of every ten years thereafter. Industry accepted testing techniques shall be used for testing, measuring and calculating the modeling parameters. The owner of the dynamic element shall document and retain results for the model verification effort. Documentation shall include the operational data used to verify the modeling parameters.

6.2.4 Dynamics Data Screening and Maintenance

(1) In order to maintain simulation-ready base cases and associated dynamics data files for use in dynamic simulations, ERCOT, in consultation with the DWG, shall perform dynamic simulations called flat-start simulations as described in the Dynamics Working Group Procedure Manual.

(2) The schedule for producing the flat start simulations will be reviewed annually and submitted to the ROS.

(3) Transmission owners shall review the completeness and applicability of dynamics data used in the flat start simulation for equipment connected to their system. The model should be appropriate for the equipment and the data shall be appropriate for the model.

(4) ERCOT shall contact the appropriate TSP or Resource Entity to resolve any dynamics data problems, incomplete or missing data, encountered while preparing the flat start simulation.

(5) Upon completion of each flat start simulation, ERCOT shall distribute an electronic copy of all files necessary to replicate the flat start simulation as described in the Dynamics Working Group Procedure Manual to the DWG.

(6) ERCOT and the DWG shall document assumptions made, data created, and data changed during the creation of a flat start simulation.

(7) ERCOT shall be responsible for storing all of the dynamics data and shall maintain a repository of dynamics data with tuned parameters and any submitted revisions.

(8) Within 30 days of receipt, ERCOT shall forward all dynamics data received to the TSP to which the dynamics device is connected.

6.3 Process for Developing Short Circuit Cases

(1) This Section describes the process for the development of the short circuit cases used for planning purposes. Nodal Operating Guide Section 6, Disturbance Monitoring and System Protection, describes other non-planning aspects relating to system protection and disturbance monitoring requirements.

(a) ERCOT shall collect the short circuit data sets or data updates developed by each Transmission Service Provider (TSP) and shall compile and maintain the short circuit cases.

(b) During the first quarter of each calendar year, ERCOT shall compile and distribute the current year short circuit case to the System Protection Working Group (SPWG).

(c) During the second quarter of each calendar year, ERCOT shall compile and distribute the future year short circuit cases for years two through five to the SPWG.

(d) The transmission and generation systems of each Facility owner in ERCOT shall be represented completely including positive and zero sequence data. Generation Resource and Energy Storage Resource (ESR) data shall be provided by the Resource Entity.

(e) Each common bus within both the short circuit case and the corresponding steady-state load flow case shall have a matching bus name and matching bus number. Each additional bus added to the short circuit case as necessary to perform short circuit studies shall be assigned a name and bus number that does not conflict with pre-existing names and bus numbers used in the current set of load flow cases.

(f) The positive sequence impedance of Transmission Elements used in both the load flow and short circuit cases shall be the same.

(g) Zero sequence data shall include mutual impedance of multi-circuit transmission lines and of adjacent circuits within the same right-of-way, unless the TSP considers such impedance to be insignificant for studies made from this data.

6.4 Transmission Project and Information Tracking Report and Data Requirements

6.4.1 Transmission Project and Information Tracking Report

(1) The ERCOT Transmission Project and Information Tracking (TPIT) report contains the status of the transmission projects (60 kV and above) that are classified as a Tier 1, 2, 3, or 4 project and are updated by the Steady State Working Group (SSWG). Projects that meet the criteria under paragraph (2) below may be excluded from the TPIT report.

(2) The transmission projects listed in the TPIT report are typically projects that are planned for completion by a Transmission Service Provider (TSP) within the near-term planning horizon. Projects that may not be listed in the TPIT report include:

(a) Any project that requires Regional Planning Group (RPG) review and has not completed the review process;

(b) Any project with a projected in-service date beyond the last year for which an ERCOT SSWG case is posted;

(c) Any project that consists of only a Remedial Action Scheme (RAS) or an Automatic Mitigation Plan (AMP) (which is not typically modeled);

(d) A minor physical change to a transmission line that does not affect the flow of power;

(e) An impedance change that can be reasonably attributed to a rounding error or recalculation of parameters with no actual construction;

(f) Any repair and replacement-in-kind project; or

(g) Any replacement of failed equipment with a rating and/or impedance change that will be included in the equipment owner's next annual assessment.

6.4.2 ERCOT Responsibilities

(1) ERCOT shall prepare the TPIT report using data supplied by each TSP, or its Designated Agent.

(2) ERCOT shall update the TPIT report with updated information provided through the SSWG case build or SSWG update process.

(3) ERCOT shall publish the TPIT report on the ERCOT website on a triannual basis.

6.4.3 TSP Responsibilities

(1) The TSP responsible for submitting model data used in the SSWG case build or SSWG case update shall provide information for its transmission projects to ERCOT.

(2) The TSP shall provide transmission project data for inclusion in the TPIT report as specified in the ERCOT Steady State Working Group Procedure Manual.

6.4.4 Regional Transmission Plan Projects in Transmission Project and Information Tracking Report

(1) Each year, with input from stakeholders, ERCOT develops a Regional Transmission Plan that identifies a set of reliability-driven and economic-driven transmission projects based on the current steady-state base cases. Transmission projects identified in the Regional Transmission Plan are typically at varying stages within the planning process and thus, are subject to change. When a Regional Transmission Plan project is deemed appropriate for inclusion in the steady-state base cases, the TSP shall initiate inclusion of the project in the Future Projects section of TPIT, and ERCOT shall assign a TPIT project number. The project shall also remain in the Regional Transmission Plan section of the TPIT.

6.4.5 Content of the Transmission Project and Information Tracking Report

(1) The TPIT report shall contain:

(a) A section that describes each data field and the Entity responsible for providing the data within each field;

(b) A section for future projects;

(c) A section for completed projects;

(d) A section for cancelled projects;

(e) A section for projects approved in the ERCOT Regional Transmission Plan;

(f) A section containing transmission owner project contact information; and

(g) A section summarizing cost information.

6.5 Annual Load Data Request

(1) The Transmission and/or Distribution Service Provider (TDSP) or its Designated Agent must provide Load data each year to allow necessary ERCOT System reliability analysis and planning and to meet requirements of North American Electric Reliability Corporation (NERC). Each TDSP or its Designated Agent is responsible for providing historical and forecasted Load data to ERCOT for all Loads connected to its system as outlined in the Annual Load Data Request Form Instructions. Data supplied in the Annual Load Data Request (ALDR) is considered Protected Information.

(2) Some or all of the following factors may be considered when developing Load forecast data:

(a) Economic;

(b) Demographic;

(c) Customer trends;

(d) Conservation;

(e) Improvements in the efficiency of electrical energy uses;

(f) Other changes in the end uses of electricity; and

(g) Weather effects.

(3) Each Distribution Service Provider (DSP) or its Designated Agent directly interconnected with the ERCOT Transmission Grid shall provide annual Load forecasts to ERCOT as outlined in the Annual Load Data Request Form Instructions.

(4) For each substation not owned by either a Transmission Service Provider (TSP) or a DSP, the owner shall provide a substation Load forecast to the directly-connected TSP sufficient to allow it to adequately include that substation in its ALDR response.

(5) ERCOT shall annually provide each DSP with a list of registered Distributed Generation (DG) facilities in the DSP's territory, including information about how each facility is mapped to its designated Load in the Network Operations Model. This list will be posted to the Market Information System (MIS) Certified Area. In conjunction with the ALDR process, the DSP shall verify that each DG facility on the list is correctly mapped to its Load in the Network Operations Model. TSPs shall cooperate with ERCOT and the DSP to verify that each DG facility on the list is correctly mapped to its Load in the Network Operations Model.

(6) The TDSP or its Designated Agent shall coordinate with the appropriate working group as described in the Annual Load Data Request Form Instructions for issues with data submissions.

(7) Load data that is incomplete, not timely submitted on the schedule, or not in the format defined in the Annual Load Data Request Form Instructions will be considered missing data. For these missing Load data, ERCOT shall calculate Loads based on historical data and insert these Loads into the Load flow cases during Data Set A and Data Set B annual updates.

6.6 Modeling of Large Loads

6.6.1 Modeling of Large Loads Not Co-Located with a Generation Resource, Energy Storage Resource (ESR), or Settlement Only Generator (SOG)

(1) The Interconnecting Transmission Service Provider (TSP) shall not add a new Large Load or Load modification subject to the requirements of Section 9.2.1, Applicability of the Batch Zero Process, to the Network Operations Model until the Large Load has met the requirements for inclusion in the quarterly stability assessment as described in paragraph (5) of Section 5.3.5, ERCOT Quarterly Stability Assessment.

6.6.2 Modeling of Large Loads Co-Located with an Existing Generation Resource, Energy Storage Resource (ESR), or Settlement Only Generator (SOG)

(1) The addition of a new Large Load to an existing Generation Resource, ESR, or SOG, or the modification of an existing Load at the Generation Resource, ESR, or SOG, subject to the requirements of Section 9.2.1, Applicability of the Batch Zero Process, is considered a material modification of the Resource Registration as described in paragraph (8) of Section 6.8.2, Resource Registration Process. The Resource Entity shall update the Resource Registration data to reflect the new or increased Load.

(2) The Resource Entity shall not update the Resource Registration data to reflect the new or increased Load until the Large Load has met the requirements for inclusion in the quarterly stability assessment as described in paragraph (5) of Section 5.3.5, ERCOT Quarterly Stability Assessment.

6.6.2.1 *Modeling of Large Loads within a Withdrawal-Limited Private Use Network*

(1) The Resource Entity for a generator in a Withdrawal-Limited Private Use Network (WLPUN) shall include model data for the generator and the Large Load in the WLPUN during the Resource Registration process. The Large Load shall not be included in the Network Operations Model until the following requirements have been satisfied:

(a) The Large Load has met the requirements for inclusion in the quarterly stability assessment as described in paragraph (5) of Section 5.3.5, ERCOT Quarterly Stability Assessment;

(b) All applicable requirements of Section 6.9, Addition of Proposed Generation to the Planning Models, have been completed; and

(c) The established MW Withdrawal limit has been recorded in the Resource Registration data pursuant to Protocol Section 3.10.7.3.1, Withdrawal-Limited Private Use Networks.

(2) The addition of a new Large Load to an existing WLPUN, or the modification of an existing Large Load that increases the aggregate peak Demand within such a Facility, subject to the requirements of Section 9.2.1, Applicability of the Batch Zero Process, is considered a material modification of the Resource Registration as described in paragraph (8) of Section 6.8.2, Resource Registration Process. The Resource Entity shall not update the Resource Registration data to reflect the new or increased Load until the Large Load has met the requirements for inclusion in the quarterly stability assessment as described in paragraph (5) of Section 5.3.5. With the new or increased Load, the MW Withdrawal at the Point of Interconnection (POI) shall not exceed the established MW Withdrawal limit as determined in paragraph (1)(a) through (c) of Section 9.3.2.2, Treatment of Withdrawal-Limited Private Use Networks (WLPUNs) in the Batch Zero Interconnection Study.

(3) The addition of generation to an existing WLPUN is subject to the generation interconnection process under Section 5, Generator Interconnection or Modification, and the requirements of Section 6.9.

6.6.3 Modeling of Large Loads Co-Located with a Proposed Generation Resource, Energy Storage Resource (ESR), or Settlement Only Generator (SOG)

(1) A new Large Load co-located with a proposed Generation Resource, ESR, or SOG shall be included in the data provided by the Interconnecting Entity (IE) or Resource Entity during the Resource Registration process.

(2) The Large Load shall not be included in the Network Operations Model until the following requirements have been satisfied:

(a) The Large Load has met the requirements for inclusion in the quarterly stability assessment as described in paragraph (5) of Section 5.3.5, ERCOT Quarterly Stability Assessment; and

(b) All applicable requirements of Section 6.9, Addition of Proposed Generation to the Planning Models, have been completed.

6.7 Data Dictionary

(1) The Data Dictionary provides additional bus data that is not included in the steady-state base cases or network model data. The ERCOT Steady State Working Group Procedure Manual defines the requirements for the planning portion of the Data Dictionary.

(2) The following items pertain to data updates:

(a) Transmission Service Providers (TSPs) shall submit all pertinent Data Dictionary data for each bus in its transmission system for Steady State Working Group (SSWG) models as specified in the ERCOT Steady State Working Group Procedure Manual.

(b) ERCOT shall provide pertinent Resource Entity data for the Data Dictionary.

(c) Interim information is provided pursuant to Section 6.4.1, Transmission Project and Information Tracking Report. TSPs may revise bus data for the Data Dictionary as necessary to reflect changes.

(3) ERCOT shall make available a copy of the ERCOT Steady State Planning Data Dictionary and contingency files on the Market Information System (MIS) Secure Area per the ERCOT Steady State Working Group Procedure Manual and in accordance with the schedule posted on the ERCOT website for Annual Planning Model Data Submittal.

6.8 Resource Registration Procedures

(1) In accordance with Protocol Sections 3.7, Resource Parameters, 3.10, Network Operations Modeling and Telemetry, and 16.5, Registration of a Resource Entity, a Resource Entity shall register each Generation Resource, Energy Storage Resource

(ESR), Settlement Only Generator (SOG), or Load Resource with ERCOT. The Resource Entity shall submit Resource Registration data and information through the Resource Registration process pursuant to Section 6.8.2, Resource Registration Process, and made available on the ERCOT website.

6.8.1 Resource Registration

(1) A Resource Entity shall submit complete Resource Registration data pursuant to Section 6.8.2, Resource Registration Process, for each Generation Resource, ESR, SOG, or Load Resource prior to inclusion in applicable ERCOT systems.

(2) All data elements requested in the Resource Registration process will be contained in the Resource Registration Glossary. Changes, deletions or additions to the data elements in the Resource Registration Glossary will be made in accordance with the revision process specified for the Resource Registration Glossary.

(3) ERCOT shall post the Resource Registration Glossary on the ERCOT website.

(4) ERCOT shall post a detailed Resource Registration Guide on the ERCOT website that provides detailed instructions and explanations required for Resource Registration data and shall conform to the Resource Registration Glossary.

(5) ERCOT shall make available related documents for Resource Registration on the ERCOT website and shall notify Market Participants when changes are made to the Resource Registration process and requirements, including Resource Registration forms, the Resource Registration Glossary, and the Resource Registration Guide.

(6) As required by Section 5, Generator Interconnection or Modification, Generation Resources shall provide accurate initial data for inclusion in the ERCOT Network Operations Model. The data will be used to model future generation for Steady State Working Group (SSWG), Dynamics Working Group (DWG), and System Protection Working Group (SPWG) base cases.

6.8.2 Resource Registration Process

(1) A Resource Entity shall submit the Resource Registration data for Generation Resources, ESRs, SOGs, or Load Resources as described in the Resource Registration Glossary.

(2) Upon receipt of the Resource Registration data, ERCOT shall review the completeness and accuracy of the data submission. ERCOT shall provide notice of acceptance and/or deficiencies to the Resource Entity.

(3) ERCOT shall provide notice to the Resource Entity if the Resource Registration data is accepted, which is not the same as an approved Network Operations Model Change Request (NOMCR). The acceptance of the Resource Registration data only means that the registered data moves to the next step of being converted to a NOMCR. After

acceptance and/or approval, the data is still subject to various and continuous validation processes.

(4) If ERCOT's notice reports deficiencies through the data submission process or through subsequent validation processes, the Resource Entity shall make necessary changes specified and re-submit the Resource Registration data as necessary, until acceptance of the total set of registered data is granted.

(5) Upon acceptance of the Resource Registration data, ERCOT shall provide the Resource Entity with the model ready date on which the Resource Registration data will be implemented in production. Although a model ready date has been provided, subsequent data corrections may be required as a result of validation processes.

(6) If a Resource Entity desires that the submitted Resource Registration data become effective earlier than the schedule established in Protocol Section 3.10.1, Time Line for Network Operations Model Changes, it may submit a request for interim update as described in the Resource Registration Guide.

(7) ERCOT shall notify each Resource Entity when applicable changes to the model are processed and implemented in accordance with Protocol Section 3.10.1.

(8) A Resource Entity shall revise the Resource Registration data as required by this Section to reflect changes in any data related to a Generation Resource, ESR, SOG, or Load Resource.

(9) The Resource Entity must submit updated Resource Registration data containing changes made for the reasons below for a Generation Resource, ESR, SOG, or Load Resource:

(a) Within ten Business Days of ERCOT approval of a Net Dependable Capability test to reflect the results of the test;

(b) Within ten Business Days of ERCOT approval of a reactive capability test to reflect the results of the test;

(c) Within ten Business Days of a request by ERCOT to check or update specific Resource Registration data; and

(d) Within ten Business Days of a known change to any Resource Registration data.

6.9 Addition of Proposed Generation to the Planning Models

(1) For large generators meeting the conditions of paragraph (1) of Section 5.2.1, Applicability, ERCOT will include applicable generation in the base cases created and maintained by the Steady State Working Group (SSWG) once each of the following has occurred:

(a) The Interconnecting Entity (IE) has posted to the online Resource Integration and Ongoing Operations (RIOO) systems all data required in the Security Screening Study, if the Full Interconnection Study (FIS) has not started, or the FIS, if the FIS has started;

(b) The IE has posted to the online RIOO system documentation that it has received all necessary Texas Commission on Environmental Quality (TCEQ)-approved air permits or that no such permits are required and ERCOT has accepted the IE's submission;

(c) The IE has submitted via the online RIOO system a completed Declaration of Adequate Water Supplies (Section 8, Attachment B, Declaration of Adequate Water Supplies; generation types exempt from this requirement are cited in Attachment B); and

(d) ERCOT receives one of the following via the online RIOO system:

(i) A signed Standard Generation Interconnection Agreement (SGIA) from the Transmission Service Provider (TSP) and a written notice from the TSP that the IE has provided:

(A) A notice to proceed with the construction of the interconnection; and

(B) The financial security required to fund the interconnection facilities; or

(ii) A public, financially binding agreement between the IE and the TSP under which the interconnection for the applicable generation will be constructed along with:

(A) A written notice from the TSP that the IE has provided notice to proceed with the construction of the interconnection; and

(B) The required financial security; or

(iii) A letter from a duly authorized official from a Municipally Owned Utility (MOU) or Electric Cooperative (EC) confirming the Entity's intent to construct and operate applicable generation and interconnect such generation to its own transmission system.

(2) Upon receiving notice from ERCOT that the large generator has met the requirements of paragraph (1) above, the IE shall provide within 60 days the remaining required data as specified in the Resource Registration Glossary, Planning Model column, using the applicable Resource Registration process. The purpose of submitting the data is for modeling of the applicable generation in the base cases created and maintained by the System Protection Working Group (SPWG) and the Dynamics Working Group (DWG).

(3) For small generators meeting the conditions of paragraph (1) of Section 5.2.1, ERCOT will include applicable generation in the base cases created and maintained by the SSWG, SPWG, and DWG once ERCOT has determined that the IE has submitted all data required on the Resource Registration form and after inclusion of the generator in the Network Operations Model.

(4) Once the IE has met these requirements, ERCOT will notify the SSWG, SPWG, and DWG that the applicable generation will be included in the base cases created and maintained by these working groups.

[PGRR127: Insert paragraphs (5), (6), and (7) below upon system implementation:]

(5) ERCOT may include large generator projects that have not met all of the requirements of paragraph (1) above in the base cases created and maintained by SSWG to ensure that sufficient generation is available to meet the demand in the base cases. These large generator projects may be added to the base cases in the following order until the demand is met:

(a) Large generator projects with "Planned" status that meet the conditions of paragraph (1) of Section 5.2.1 and have a signed SGIA submitted by the TSP via the online RIOO system;

(b) Large generator projects with "Planned" status that meet the conditions of paragraph (1) of Section 5.2.1 and have completed the FIS;

(c) Large generator projects with "Planned" status that meet the conditions of paragraph (1) of Section 5.2.1, have not completed the FIS, and:

(i) Have completed the steady-state and stability studies of the FIS;

(ii) Have completed the steady-state study of the FIS;

(iii) Have started the FIS;

(d) Large generator projects with "Inactive" status that meet the conditions of paragraphs (a), (b), or (c) above that have completed FIS stability studies, with the most recently inactivated projects to be included first; and

(e) Additional generation outside of the interconnection queue based on ERCOT's discretion.

(6) Upon receiving notice from ERCOT that the large generator will be added to the base cases in accordance with paragraphs (5)(a), (5)(b), or (5)(c)(i) above, the IE shall provide dynamic models to be used by the DWG within 60 days. Such large generators must still comply with all other applicable requirements after satisfying the requirements of paragraph (1) above.

(7) For each group of large generators defined in paragraph (5) above, large generators may be further categorized into subgroups according to their dispatch characteristics. For each subgroup, the large generators added in the base case from that subgroup shall be geographically representative of all large generators in the subgroup.

6.10 Contingency Filing Requirements

(1) Each Transmission Service Provider (TSP), or the entity designated as its modeling entity in Appendix A to the ERCOT Steady State Working Group Procedure Manual, shall provide updates to the ERCOT contingency list corresponding to the steady-state base cases for the TSP's existing system and planned future Transmission Facilities. ERCOT shall post the list to the Market Information System (MIS) Secure Area. The list shall be reviewed and updated as described in the ERCOT Steady State Working Group Procedure Manual. At a minimum, the list shall contain all required category P1, P2, P4, P5, and P7 contingencies, as described in the North American Electric Reliability Corporation (NERC) Reliability Standard addressing Transmission System Planning Performance Requirements, all contingencies representing the Forced Outage of a double circuit (two circuits on the same structures in excess of 0.5 miles in length), all contingencies representing the Outage of a double circuit (two circuits on the same structure in excess of 0.5 miles in length) where both circuits must be taken out for a maintenance outage, all contingencies representing the Outage of a Large Load, and any other contingencies described in the ERCOT Steady State Working Group Procedure Manual.

6.11 Process for Developing Geomagnetically-Induced Current (GIC) System Models

(1) To adequately simulate Geomagnetic Disturbance (GMD) events, it is necessary to establish and maintain Geomagnetically-Induced Current (GIC) system models and conduct GMD vulnerability assessments to determine whether the ERCOT System can meet the performance requirements of the benchmark and supplemental GMD event described in North American Electric Reliability Corporation (NERC) Reliability Standards. These GIC system models shall contain appropriate system data, and shall represent projected system conditions that provide a starting point for the required year(s).

(a) ERCOT, in collaboration with Transmission Service Providers (TSPs) and Resource Entities, shall develop and maintain the GIC system models. The GIC system models are derived from the steady-state base cases developed by Steady State Working Group (SSWG) for the near-term transmission planning horizon to ensure consistency between the system topology in the SSWG base cases and GIC system models.

(b) ERCOT, in collaboration with TSPs and Resource Entities, may set a Generation Resource or Energy Storage Resource (ESR) to out of service prior to receiving a Notification of Suspension of Operations (NSO) if the Resource Entity notifies

ERCOT of its intent to retire/mothball the Resource and/or makes a public statement of its intent to retire/mothball the Resource.

(i) ERCOT will post and maintain the current list of Generation Resources and ESRs that will be set to out of service pursuant to paragraph (1)(b) above on the ERCOT website.

(c) Each TSP, or its Designated Agent, shall provide its respective transmission network GIC model data in accordance with the GIC System Model Procedure Manual.

(d) Each Resource Entity, or its Designated Agent, shall provide its respective Resource Entity-owned generating units, plants, transmission lines, shunt devices, Main Power Transformers (MPTs), and Generator Step-Ups (GSUs) connected to the ERCOT System in accordance with the GIC System Model Procedure Manual and the Resource Registration Glossary.

(e) ERCOT shall aggregate the GIC system model data supplied by each TSP and Resource Entity and shall compile the data to form the GIC system models. Upon completion of compiling the data for the GIC system models, ERCOT and the TSPs shall review and finalize the GIC system models. Upon completion of the review of the GIC system models, ERCOT shall post these models on the ERCOT Market Information System (MIS) Certified Transmission Service Provider Information page.

(f) Guidelines and formats for the GIC system model data and model maintenance can be found in the GIC System Model Procedure Manual.

(g) GIC data is considered Protected Information pursuant to Protocol Section 1.3, Confidentiality.

(2) Each TSP and Resource Entity shall provide ERCOT for use in the GMD vulnerability assessments as outlined in Section 3.1.8, Planning Geomagnetic Disturbance (GMD) Activities:

(a) A list of equipment potentially removed from service as a result of protection system operation or misoperation due to harmonics that could result from the benchmark GMD event.

(b) A list of equipment potentially removed from service as a result of protection system operation or misoperation due to harmonics that could result from the supplemental GMD event.

(3) TSPs and Resource Entities may refer to a Reliability and Operations Subcommittee (ROS)-approved methodology for developing the equipment lists described in paragraph (2) above. TSPs and Resource Entities are not required to submit the equipment lists described in paragraph (2) above until 30 days after ROS approves a methodology.

6.12 Addition of a Proposed DC Tie to the Planning Models

(1) For a proposed Direct Current Tie (DC Tie) that will not be owned by a Transmission Service Provider (TSP), ERCOT will include the applicable DC Tie in the base cases created and maintained by the Steady State Working Group (SSWG), System Protection Working Group (SPWG), and the Dynamics Working Group (DWG), and will notify the SSWG, SPWG, and DWG once ERCOT receives:

(a) A signed interconnection agreement from the TSP and a written notice from the TSP that the DC Tie developer has provided:

(i) A notice to proceed with the construction of the interconnection;

(ii) The financial security required to fund the interconnection facilities; and

(b) The data required under paragraph (2) below.

(2) ERCOT will provide notice to the DC Tie developer of the specific data ERCOT requires to model the DC Tie after ERCOT receives the information required under paragraph (1)(a) above.

(a) ERCOT retains discretion to request any data it deems necessary to model the new DC Tie.

(b) The DC Tie developer shall provide the data to ERCOT within 60 days of receiving the notice from ERCOT specifying the data required.

ERCOT Planning Guide

Section 7: Market Data Transparency

December 1, 2025

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7 MARKET DATA TRANSPARENCY 1

7.1 PLANNING DATA AND INFORMATION ..... **ERROR! BOOKMARK NOT DEFINED.**

7 MARKET DATA TRANSPARENCY

7.1 Planning Data and Information

(1) The information available on the ERCOT website or applicable Market Information System (MIS) (i.e., Secure or Certified Areas) includes, but is not limited to, planning information pertaining to the following:

(a) Long-term planning;

(b) Regional transmission planning;

(c) Steady state data;

(d) Resource integration;

(e) Case studies and files used in planning;

(f) Model information; and

(g) Data and information available to specific groups of Market Participants.

(i) Market Participants with a nondisclosure agreement with ERCOT have designated sections on the MIS that allow access to the certified posting of group information.

(ii) Market Participants may access the artifacts posted for their respective groups on the MIS Secure Area.

[PGRR116: Insert paragraph (h) below upon system implementation of NPRR1240:]

(h) Information on the ERCOT website pertaining to energy and demand shall include monthly reports with 15-minute interval data.

(2) The list below includes both data set and designated classification of the available planning data and information. Where the information is classified as "Certified," the appropriate Market Participant category or group is "(all TSPs)" to indicate all Transmission Service Providers (TSPs) or "(PDCWG members)" to indicate members of the Performance, Disturbance, Compliance Working Group (PDCWG).

Data Set	**Classification**
Aggregated Wind Output	ERCOT website
Annual Planning Model Data Submittal Schedule	Secure

Demand and Energy Monthly Reports	Secure
Dynamic Data Information	Certified (all TSPs)
Economic Studies of Transmission Projects for New Generation	Secure
ERCOT Long-Term System Assessment (LTSA) (except for Protected Information)	Secure
ERCOT LTSA	Certified (all TSPs)
ERCOT Steady State Planning Contingency Files	Secure
ERCOT System Operating Limit (SOL) Methodology	ERCOT website
Generation Data Forms	Secure
Generator Interconnection Status (GIS) Report	ERCOT website
Geomagnetically-Induced Current (GIC) Flow Information	Secure
Geomagnetic Disturbance (GMD) Vulnerability Assessment Postings (except for Protected Information) – includes ERCOT Critical Energy Infrastructure Information (ECEII)	Secure
GMD Vulnerability Assessment Postings – includes ECEII and Protected Information	Certified (all TSPs)
GMD Vulnerability Assessment Postings (redacted) – excludes ECEII and Protected Information	ERCOT website
Documents Initiating a Generation Interconnection or Change Request (GINR)	Certified (all TSPs)
GINR Security Screening Studies and Supporting Documents	Secure
Sub-synchronous Oscillation Studies and Supporting Documents	Certified (all TSPs)
Full Interconnection Study (FIS): Steady-State, System Protection, Stability, and Facility Studies and Supporting Documents (except for Protected Information)	Secure
FIS: Draft Steady-State, System Protection, Stability, and Facility Studies and Supporting Documents	Certified (all TSPs)
Independent Market Monitor (IMM) and Topology Processor Supporting Documents	Certified (all TSPs)
Performance, Disturbance, Compliance Working Group (PDCWG) Group Documents and Project Files	Certified (PDCWG members)
Public Generation Information	ERCOT website
Remedial Action Plan (RAP) Review Cases	Certified (all TSPs)
Resource Registration Data	Certified (all TSPs)
Regional Planning Group Projects	Secure

Regional Transmission Plan Postings (except for Protected Information) – includes ERCOT Critical Energy Infrastructure Information (ECEII)	Secure
Regional Transmission Plan Postings – includes ECEII and Protected Information	Certified (all TSPs)
Regional Transmission Plan Postings (redacted) – excludes ECEII and Protected Information	ERCOT website
Seasonal Voltage Profile Studies	Certified (all TSPs)
Special Planning Studies (except for Protected Information)	Secure
Special Planning Studies	Certified (all TSPs)
Steady State Power Flow Base Cases	Secure
Steady State Power Flow Case Data	Certified (all TSPs)
Steady State Topology Processor Files	Secure
Steady State Transmission Project and Information Tracking (TPIT) Procedures	Secure
System Protection Short Circuit Data	Secure
Transient Stability Screening Study for ERCOT System	Certified (all TSPs)
TSP Planning Criteria and Procedures	Secure
Voltage Stability Screening Study for ERCOT System	Certified (all TSPs)

[PGRR116 and PGRR129: Replace applicable portions of paragraph (2) above with the following upon system implementation of NPRR1240 or PGRR129, respectively:]

(2) The list below includes both data set and designated classification of the available planning data and information. Where the information is classified as "Certified," the appropriate Market Participant category or group is "(all TSPs)" to indicate all Transmission Service Providers (TSPs) or "(PDCWG members)" to indicate members of the Performance, Disturbance, Compliance Working Group (PDCWG). "RIOO-RS" indicates information in Resource Integration and On-going Operations–Resource Services. Information classified as "Public" is available on the ERCOT website. The list below is intended to be only a general guide and not controlling language, and any conflict between this list and another section of the Planning Guide is controlled by the other section.

Data Set	**Classification**
Aggregated Wind Output	ERCOT Website

Annual Planning Model Data Submittal Schedule	Secure
Demand and Energy Monthly Reports	ERCOT website
Dynamic Data Information	Certified (all TSPs)
Economic Studies of Transmission Projects for New Generation	Secure
ERCOT Long-Term System Assessment (LTSA) (except for Protected Information) – includes ERCOT Critical Energy Infrastructure Information (ECEII)	Secure
ERCOT LTSA – includes ECEII and Protected Information	Certified (all TSPs)
ERCOT LTSA (redacted) – excludes ECEII and Protected Information	ERCOT website
ERCOT Steady State Planning Contingency Files	Secure
ERCOT System Operating Limit (SOL) Methodology	ERCOT website
Generator Interconnection Status (GIS) Report	ERCOT website
Geomagnetically-Induced Current (GIC) Flow Information	Secure
Geomagnetic Disturbance (GMD) Vulnerability Assessment Postings (except for Protected Information) – includes ERCOT Critical Energy Infrastructure Information (ECEII)	Secure
GMD Vulnerability Assessment Postings – includes ECEII and Protected Information	Certified (all TSPs)
GMD Vulnerability Assessment Postings (redacted) – excludes ECEII and Protected Information	ERCOT website
Grid Reliability and Resiliency Assessment (GRRA) Postings (except for Protected Information) – includes ERCOT Critical Energy Infrastructure Information (ECEII)	Secure
GRRA Postings – includes ECEII and Protected Information	Certified (all TSPs)
GRRA Postings (redacted) – excludes ECEII and Protected Information	ERCOT website
Documents Initiating a Generation Interconnection or Change Request	Secure (RIOO-RS)
Security Screening Studies and Supporting Documents	Secure (RIOO-RS)
Sub-synchronous Oscillation Studies and Supporting Documents	Certified (all TSPs)
Full Interconnection Study (FIS): Steady-State, System Protection, Stability, and Facility Studies and Supporting Documents (except for Protected Information)	Secure
FIS: Draft Steady-State, System Protection, Stability, and Facility Studies and Supporting Documents	Certified (all TSPs)

Independent Market Monitor (IMM) and Topology Processor Supporting Documents	Certified (all TSPs)
Performance, Disturbance, Compliance Working Group (PDCWG) Group Documents and Project Files	Certified (PDCWG members)
Public Generation Information	ERCOT website
Remedial Action Plan (RAP) Review Cases	Certified (all TSPs)
Resource Registration Data	Certified (all TSPs)
Regional Planning Group Projects	Secure
Regional Transmission Plan Postings (except for Protected Information) – includes ERCOT Critical Energy Infrastructure Information (ECEII)	Secure
Regional Transmission Plan Postings – includes ECEII and Protected Information	Certified (all TSPs)
Regional Transmission Plan Postings (redacted) – excludes ECEII and Protected Information	ERCOT website
Seasonal Voltage Profile Studies	Certified (all TSPs)
Special Planning Studies (except for Protected Information)	Secure
Special Planning Studies	Certified (all TSPs)
Steady State Power Flow Base Cases	Secure
Steady State Power Flow Case Data	Certified (all TSPs)
Steady State Topology Processor Files	Secure
Steady State Transmission Project and Information Tracking (TPIT) Procedures	Secure
System Protection Short Circuit Data	Secure
Transient Stability Screening Study for ERCOT System	Certified (all TSPs)
TSP Planning Criteria and Procedures	ERCOT website
Voltage Stability Screening Study for ERCOT System	Certified (all TSPs)

ERCOT Planning Guide

Section 8

Attachment A: Declaration of Resource Data Accuracy

January 1, 2019

Declaration of Resource Data Accuracy

Name of Interconnecting Entity:

_____

Name and INR number of Project:

_____

Declaration Submission Period:

☐ March 1-15, 20___

☐ September 1-15, 20___

By signing below, I certify that I am knowledgeable about the design of the above-named project, and that the Resource registration form most recently submitted to ERCOT for the above-named project accurately reflects the anticipated characteristics of the proposed Resource and the project contact information in the online Resource Integration and Ongoing Operations (RIOO) system is correct.

I further certify that I am authorized to execute and submit this declaration on behalf of the Interconnecting Entity listed above, and that the statements contained herein are true and correct.

_____
Signature

_____
Name

_____
Title

_____
Date

ERCOT Planning Guide

Section 8

Attachment B: Declaration of Adequate Water Supplies

December 5, 2025

Declaration of Adequate Water Supplies

An Interconnecting Entity (IE) must submit this attestation form to notify ERCOT that water rights, contracts or groundwater supplies sufficient for generation of electricity have been obtained or that water supplies are not required for the generation of electricity at each proposed Generation Resource. Section 6.9, Addition of Proposed Generation to the Planning Models, requires an IE to submit this form before ERCOT may include certain proposed Generation Resources in the base cases created and maintained by the Steady State Working Group (SSWG), the System Protection Working Group (SPWG), and the Dynamics Working Group (DWG). Any IE that proposes to interconnect a Generation Resource powered by wind or photovoltaic solar, or an Energy Storage Resource (ESR), does not need to submit this form. However, any IE proposing to interconnect any other type of Generation Resource must submit this form, even if the IE's proposed Resource will not use water.

Each IE should submit this attestation for each unique Generation Interconnection or Change Request (GINR) within ten Business Days of securing the relevant water supply rights, or, for Generation Resources that do not require water supplies to operate, within ten Business Days of executing the Interconnection Agreement with the Transmission Service Provider (TSP). The attestation should be signed by an officer or other individual with authority to bind the IE. The IE should submit the attestation and the necessary attachments to ERCOT via the online Resource Integration and Ongoing Operations (RIOO) system.

ATTESTATION

Name of Interconnecting Entity:

_____

Name and GINR Number of Project:

_____

By signing below, I certify that I am knowledgeable about the above-named project, and hereby represent as follows (check one of the following):

☐ No water rights, contracts or groundwater supplies are needed for the above-named proposed Generation Resource to generate electricity.

☐ The IE, the owner of the proposed Generation Resource, or another similarly situated party has secured water rights, contracts or groundwater supplies sufficient for the generation of electricity at the above-named proposed Generation Resource. A copy of the relevant contract(s), permit(s) and/or groundwater adequacy studies is attached to this declaration. The right(s) or contract(s) allows the Generation Resource owner or operator access to water according to the following terms (describe basic terms, including quantity, duration, and conditions of access):

_____

_____

_____

_____

_____

_____

_____
Signature

_____
Name

_____
Title

_____
Date

ERCOT Planning Guide

Section 8

Attachment C: Declaration of Department of Defense Notification

December 5, 2025

Declaration of Department of Defense Notification

Interconnecting Entity (IE): _____

This declaration applies to the following proposed Generation Resource or Energy Storage Resource (ESR): _____

Check the below listed attestation(s) which apply to the Generation Resource or ESR.

I hereby attest that:

____ This IE has notified the Department of Defense (DOD) Siting Clearinghouse of the above-listed proposed Generation Resource or ESR and requested that it perform an Informal Review and/or Formal Review as described in 32 C.F.R. § 211.1 (2013);

____ This IE has completed the formal review process for the Generation Resource or ESR with the DOD Siting Clearinghouse and Federal Aviation Administration FAA, as described in 14 C.F.R. § 77.7 (2010) and 32 C.F.R. § 211.6 (2013); or

____ The above-listed proposed Generation Resource or ESR is exempt from the requirement to seek review from the DOD and the (FAA), as described in 14 C.F.R. § 77.7 (2010) and 32 C.F.R. § 211.6 (2013).

By signing below, I certify that I am an officer, executive, or authorized employee with authority to bind the IE listed above, that I am authorized to execute and submit this declaration on behalf of each IE listed above, and that, to the best of my knowledge, the statements contained herein are true and correct.

_____
Signature

_____
Name

_____
Title

_____
Date

ERCOT Planning Guide

Section 8

Attachment D: Attestation Regarding Compliance with the Lone Star Infrastructure Protection Act

August 1, 2025

Attestation Regarding Compliance with the Lone Star Infrastructure Protection Act

Name of Interconnecting Entity (IE):

_____

IE's Interconnection Request (INR) number:

_____

Check the one box that applies [do not check both boxes]:

1. With respect to the above referenced IE and INR number and with respect to each Entity with an ownership interest in the real property to be utilized by the above referenced IE's project ("Property Owner"), I hereby attest that:

☐ NONE of the following statements in paragraphs (A) - (C) are TRUE.

☐ ONE OR MORE of the following statements in paragraphs (A) - (C) are TRUE.

(A) The IE or Property Owner, or a wholly owned subsidiary, majority-owned subsidiary, parent company, or Affiliate of the IE or Property Owner, is owned by:

(i) individuals who are citizens of China, Iran, North Korea, Russia, or a designated country;[1] or

(ii) a company or other entity, including a governmental entity, that is owned or controlled by citizens of or is directly controlled by the government of China, Iran, North Korea, Russia, or a designated country; or

[1] The term "designated country" as used in this attestation shall have the same meaning as the definition of that term in Texas Business and Commerce Code, Section 117.001(4), 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).

(B) The majority of stock or other ownership interest of the IE or Property Owner, or a wholly owned subsidiary, majority-owned subsidiary, parent company, or Affiliate of the above referenced IE or Property Owner is held or controlled by:

(i) individuals who are citizens of China, Iran, North Korea, Russia, or a designated country; or

(ii) a company or other entity, including a governmental entity, that is owned or controlled by citizens of or is directly controlled by the government of China, Iran, North Korea, Russia, or a designated country; or

(C) The IE or Property Owner, or a wholly owned subsidiary, majority-owned subsidiary, parent company, or Affiliate of the IE or Property Owner is headquartered in China, Iran, North Korea, Russia, or a designated country.

If you checked the box for "ONE OR MORE of the following statements in paragraphs (A) - (C) are TRUE" solely because a wholly-owned subsidiary, majority-owned subsidiary, or Affiliate meets any of the citizenship or headquarters criteria listed above, then please answer question 2 below.

2. With respect to the subsidiary or Affiliate at issue, check the one box that applies [do not check both boxes]:

☐ The subsidiary or Affiliate will NOT have direct or remote access to or control of the project, the real property utilized by the project, the Resource Integration and Ongoing Operations (RIOO) system, the Market Information System (MIS), other ERCOT systems, or any confidential data from such systems.

☐ The subsidiary or Affiliate will have direct or remote access to or control of the project, the real property utilized by the project, the RIOO system, the MIS, other ERCOT systems, or any confidential data from such systems.

By signing below, I certify that I am an officer, executive, or authorized employee with authority to bind the IE listed above, that I am authorized to execute and submit this attestation on behalf of each IE listed above, and that the statements contained herein are true and correct.

_____
Signature

_____
Name

_____

Title

_____

Date

ERCOT Planning Guide

Section 9: Large Load Interconnection or Modification

July 11, 2026

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9 LARGE LOAD INTERCONNECTION OR MODIFICATION

9.1 Introduction

(1) This Section defines the requirements and processes used to facilitate new or modified Large Load interconnections with the ERCOT System. It documents the transition from a process that relied on individual Large Load interconnection studies to a new process referred to as the Batch Zero Process. The Batch Zero Process consists of a Batch Zero Interconnection Study and a Batch Zero Refinement Study. The requirements are designed to:

(a) Facilitate studies to identify potential system limitations and determine, to the extent feasible, facilities needed to interconnect a new Large Load to or modify an existing Large Load on the ERCOT network;

(b) Facilitate orderly and organized Large Load interconnections, while allowing ERCOT to determine whether the interconnection of the proposed Large Load would comply with North American Electric Reliability Corporation (NERC) Reliability Standards, ERCOT Protocols, ERCOT Planning and Operating Guides, Transmission Service Provider (TSP) criteria, and any Applicable Legal Authority (ALA);

(c) Specify the communications required between Interconnecting Large Load Entities (ILLEs), TSPs, Distribution Service Providers (DSPs), Resource Entities, Interconnecting Entities (IEs), and ERCOT;

(d) Provide the best information on future Large Load additions for use in identifying, forecasting, and analyzing short- and long-range ERCOT capabilities, demands, and reserves; and

(e) Provide ERCOT accurate data about a Large Load subject to the provisions detailed in Section 9.2.1, Applicability of the Batch Zero Process, to ensure that ERCOT and stakeholders have the information necessary for planning purposes.

(2) Submission of all project data, and other communications described in this Section shall be in the manner and format prescribed by ERCOT. ERCOT shall publicly post the format of such submissions on the ERCOT website.

(3) Customer-specific information submitted to ERCOT by an Interconnecting DSP or Interconnecting TSP pursuant to this Section 9, Large Load Interconnection or Modification, is considered Protected Information under paragraph (1)(r) of Protocol Section 1.3.1.1, Items Considered Protected Information.

(4) ERCOT shall manage an email list to facilitate communication of confidential Large Load-related information among Interconnecting DSPs, Interconnecting TSPs and

ERCOT. Membership in this email list will be limited to ERCOT and appropriate Interconnecting DSPs' and Interconnecting TSPs' personnel.

(5) Where an Interconnecting DSP must submit a notarized attestation, it may designate another electric utility, Municipally Owned Utility (MOU), or Electric Cooperative (EC) to submit the notarized attestation on the Interconnecting DSP's behalf, provided such designation is made in writing.

(6) A Large Load studied by a TSP through individual interconnection studies that were approved by ERCOT during the interim Large Load interconnection process established on March 25, 2022 and ending December 14, 2025, is deemed to have satisfied Section 9.9, Legacy LLIS Report and Follow-up.

(7) A Large Load that executed agreements and satisfied other required commitments with its TSP during the interim Large Load interconnection process established on March 25, 2022 and ending December 14, 2025, is deemed to have satisfied Section 9.10, Legacy Interconnection Agreements and Responsibilities.

(8) Between July 10, 2026 and April 9, 2027, ERCOT may request supporting materials for any attestation provided by the ILLE and may perform site-readiness verifications. ILLEs shall comply with any reasonable requests from ERCOT that are communicated through the ILLE's Interconnecting DSP or Interconnecting TSP. If ERCOT identifies information that is inconsistent with an attestation or its supporting evidence, ERCOT shall notify the ILLE through the Interconnecting DSP or Interconnecting TSP and provide the ILLE a reasonable opportunity to explain any inconsistency. If, after providing such opportunity, ERCOT determines that an attestation submitted under this Section 9 is false in any material respect, or if the ILLE fails to respond to ERCOT's request within the time specified by ERCOT, the Large Load that is the subject of the attestation shall be removed from the Batch Zero Process. Disqualification under this paragraph is effective upon written notice from ERCOT to the ILLE, the Interconnecting DSP, and the Interconnecting TSP.

(9) Any attestation required under this Section 9 must be a notarized attestation sworn to by the attesting party's representative, official, officer, or other authorized person with binding authority over the attesting party, identifying the attesting individual by name and title and dated as of the date of execution.

9.2 General Provisions

9.2.1 Applicability of the Batch Zero Process

(1) Any request to interconnect or modify a Load Facility that meets one or more of the following criteria shall be subject to an ERCOT interconnection process:

(a) A new Large Load;

(b) A modification of any existing Load Facility that increases the aggregate peak Demand of the Facility by 75 MW or more; or

(c) A modification of an existing Large Load that changes or adds a Point of Interconnection (POI) or Service Delivery Point to a different electrical bus on a different electrical circuit.

(2) ERCOT shall not evaluate Large Load interconnection requests meeting the requirements of paragraph (1) above according to the legacy Large Load Interconnection Study (LLIS) process defined in Section 9.8, Legacy Interconnection Study Procedures for Large Loads, through Section 9.10, Legacy Interconnection Agreements and Responsibilities.

(3) ERCOT shall evaluate Large Load interconnection requests meeting the eligibility criteria in Section 9.2.1.1, Eligibility Criteria for Inclusion of a Large Load as Base Load not Subject to Additional Study in the Batch Zero Process, or Section 9.2.1.2, Eligibility Criteria for Inclusion as Load to be Studied and Allocated in Batch Zero, according to the Batch Zero Process defined in Section 9.2, General Provisions, through Section 9.6, Initial Energization and Continuing Operations for Large Loads.

(4) Large Loads that do not meet the eligibility criteria in Section 9.2.1.1 or Section 9.2.1.2 shall be ineligible to receive approval for Initial Energization until evaluated through a future interconnection study process.

(5) Notwithstanding paragraph (2) above, an Interconnecting Transmission Service Provider (TSP) may complete an LLIS that it commenced prior to the effective date of this provision if the Large Load is part of a proposed net metering arrangement for which an application was submitted to the Public Utility Commission of Texas (PUCT) pursuant to Public Utility Regulatory Act (PURA), TEX. UTIL. CODE ANN § 39.169 on or before March 4, 2026. The LLIS shall be used solely for ERCOT's study of the system impacts of the net metering arrangement conducted in accordance with P.U.C. SUBST. R. 25.205, Net Metering Arrangements Involving a Large Load Customer Co-Located with an Existing Generation Resource.

9.2.1.1 Eligibility Criteria for Inclusion of a Large Load as Base Load not Subject to Additional Study in the Batch Zero Process

(1) A Large Load that meets one of the following requirements on or before July 10, 2026, will be modeled in the Batch Zero Process as base load according to paragraph (2) below and its Demand is not subject to further evaluation.

(a) A Large Load that achieved Initial Energization before March 25, 2022;

(b) A Large Load that achieved Initial Energization between March 25, 2022, and July 10, 2026;

(c) A Large Load that, on or before May 1, 2026, met the qualification requirements for inclusion in the quarterly stability assessment or was included in an interim voltage ride-through assessment;

(d) A Large Load included in the Permian Basin Reliability Plan Study completed by ERCOT in 2024 and approved by the PUCT in Project No. 55718, Reliability Plan for the Permian Basin Region Under PURA TEX. UTIL. CODE ANN § 39.167, and the Load contributed to establishing the need for one or more of the identified transmission projects;

(e) A Large Load that has not achieved Initial Energization as of July 10, 2026, and that meets all the following requirements:

(i) ERCOT has determined the Large Load has a complete and valid set of interconnection studies as described in Section 9.2.1.4, Evaluation of Existing Interconnection Studies for Large Loads;

(ii) On or before July 24, 2026, the Interconnecting Distribution Service Provider (DSP) or Interconnecting TSP has informed ERCOT that the Interconnecting Large Load Entity (ILLE) has satisfied the requirements defined in Section 9.7, Required Disclosures;

(iii) On or before July 24, 2026, the Interconnecting DSP or Interconnecting TSP has informed ERCOT that the ILLE has attested to the DSP or TSP that it has ordered all equipment with a lead time of at least 18 months and will take delivery sufficiently in advance of its requested Initial Energization date so the equipment can be installed by the ILLE's requested Initial Energization date;

(iv) On or before July 24, 2026, the Interconnecting DSP or Interconnecting TSP has informed ERCOT that the ILLE has attested to the DSP or TSP that it has issued a notice to proceed with the construction of all required interconnection Facilities;

(v) On or before July 24, 2026, the Interconnecting DSP or Interconnecting TSP has informed ERCOT that the ILLE has attested to the DSP or TSP that it is the end-use customer or, if the ILLE is a developer, it has executed a binding contract with an end-use customer for that customer to take service at the location where the developer is requesting interconnection. If the ILLE is a developer, the contract must have a term of at least five years from the date the Large Load is expected to reach the total non-coincident peak Demand as stated in the Load Commissioning Plan (LCP);

(vi) On or before July 24, 2026, the Interconnecting DSP or Interconnecting TSP has informed ERCOT that the ILLE has posted financial security for system upgrades that are necessary to reliably serve the ILLE;

(A) The Interconnecting DSP or the Interconnecting TSP may accept the following forms of financial security:

(1) Cash collateral;

(2) Corporate or parental guaranty, only if the corporation or parent corporation has a credit rating of at least "BBB-" from Standard & Poor's, "Baa3" from Moody's Investors Services (Moody's), or "BBB-" from Fitch Ratings (Fitch). If the corporation or parent corporation is rated by more than one of these agencies, creditworthiness shall be determined by the second-highest rating; or

(3) A letter of credit issued by a major U.S. commercial bank, or a U.S. branch office of a major foreign commercial bank, with a credit rating of at least "A-" from Standard & Poor's, "A3" from Moody's, or "A-" from Fitch. If the issuing bank is rated by more than one of these agencies, creditworthiness shall be determined by the second-highest rating;

(B) If the ILLE provides a corporate or parental guaranty, the Interconnecting DSP or Interconnecting TSP may require the submission of financial records or statements to determine the ILLE's financial stability;

(C) The Interconnecting DSP or Interconnecting TSP shall determine the financial security required for system upgrades that are necessary to reliably serve the ILLE using the following methodology:

(1) If the Large Load's complete and valid set of interconnection studies as described in Section 9.2.1.4 is based on a Regional Planning Group (RPG) project, the Interconnecting DSP or Interconnecting TSP shall determine the financial security requirement as follows. The cost estimate for the total set of Transmission Facility improvements from the report used as the basis for the RPG acceptance or ERCOT endorsement shall be divided by the total MW peak Demand of new Large Loads that contribute to establishing the need for the project to produce a cost per

MW estimate. The financial security requirement for the Large Load shall be the cost per MW estimate multiplied by the peak Demand of the Large Load. If the Interconnecting DSP or Interconnecting TSP is unable to determine the total MW peak Demand of new Large Loads contributing to establishing the need for the project, the financial security requirement for the Large Load shall be $50,000 per MW peak Demand;

(2) If the Large Load's complete and valid set of interconnection studies as described in Section 9.2.1.4 is based on meeting the requirements of Section 9.9, Legacy LLIS Report and Follow-up, and Section 9.10, Legacy Interconnection Agreements and Responsibilities, then the Interconnecting DSP or Interconnecting TSP shall determine which Transmission Facility improvements identified in the LLIS report would not be required but for the ILLE's Large Load and set the financial security requirement as the cost estimate for those improvements. If the LLIS report identifies Transmission Facility improvements that would not be required but for the ILLE's Large Load but does not identify a cost estimate for those improvements, then the financial security requirement will be $50,000 per MW peak Demand. If the LLIS report indicates that no Transmission Facility improvements would be required but for the ILLE's Large Load, then the financial security requirement will be $0;

(3) If the Large Load does not meet the qualifications of paragraphs (1) or (2) above and the Interconnecting DSP or Interconnecting TSP provides a study to ERCOT by July 24, 2026 that demonstrates to ERCOT's satisfaction that the addition of the Large Load does not result in any planning criteria violations or the need for Transmission Facility improvements requiring review by the RPG, then the Interconnecting DSP or Interconnecting TSP shall set the financial security requirement to $0;

(4) If the Large Load does not meet the qualifications of paragraphs (1), (2), or (3) above, then the Interconnecting DSP or Interconnecting TSP shall set the financial security requirement as $50,000 per MW peak Demand;

(vii) On or before July 24, 2026, the Interconnecting DSP or Interconnecting TSP has informed ERCOT that the ILLE has satisfied its financial responsibility for all direct interconnection costs through

contribution in aid of construction (CIAC). If the ILLE has an executed interconnection agreement or equivalent agreement before July 10, 2026, the terms of that agreement govern the manner in which direct interconnection costs are satisfied. If the ILLE does not have an executed interconnection agreement, direct interconnection costs shall be satisfied in full through CIAC, either by direct cash payment or posted financial security, on or before July 10, 2026. CIAC payments under this paragraph cannot be offset by a standard contribution or other allowance. Direct interconnection costs include all costs associated with facilities built to interconnect the ILLE to the existing ERCOT system, including radial lines and substation upgrades necessary to interconnect the new ILLE; and

(viii) On or before July 24, 2026, the Interconnecting DSP or the Interconnecting TSP has informed ERCOT that the ILLE has attested to the DSP or TSP that it holds one of the property interests described in paragraphs (A) through (C) below in or relating to one or more parcels of land sufficient to accommodate the ILLE's planned Load Facilities at the proposed Large Load location. The attested property interest must be supported by documentary evidence.

(A) A signed and executed lease agreement for a duration of at least five years from the date the ILLE is expected to reach the total non-coincident peak Demand as stated in its LCP;

(B) A deed conveying such parcel(s) to the ILLE; or

(C) A signed and executed purchase and sale agreement for such parcel(s); or

(f) A Large Load that has not achieved Initial Energization as of July 10, 2026, and that meets all the following requirements:

(i) ERCOT has determined the Large Load has a complete and valid set of interconnection studies as described in Section 9.2.1.4;

(ii) On or before July 24, 2026, the Interconnecting DSP or Interconnecting TSP has informed ERCOT that the ILLE has attested to the DSP or TSP that the ILLE has satisfied the requirements defined in Section 9.7;

(iii) On or before July 24, 2026, the Interconnecting DSP or Interconnecting TSP has informed ERCOT that the ILLE attested to the DSP or TSP that it has obtained all discretionary approvals required by the applicable municipality or governmental entity at the location where the ILLE is requesting interconnection. If no such

approval is required, the ILLE shall attest that no discretionary approval is required along with a statement supporting the ILLE's conclusion. Discretionary approvals may include but are not limited to zoning, special use permits, and conditional use permits;

(iv) On or before July 24, 2026, the Interconnecting DSP or Interconnecting TSP has informed ERCOT that the ILLE has posted financial security for system upgrades that are necessary to reliably serve the ILLE;

(A) The Interconnecting DSP or the Interconnecting TSP may accept the following forms of financial security:

(1) Cash collateral;

(2) Corporate or parental guaranty, only if the corporation or parent corporation has a credit rating of at least "BBB-" from Standard & Poor's, "Baa3" from Moody's, or "BBB-" from Fitch. If the corporation or parent corporation is rated by more than one of these agencies, creditworthiness shall be determined by the second-highest rating; or

(3) A letter of credit issued by a major U.S. commercial bank, or a U.S. branch office of a major foreign commercial bank, with a credit rating of at least "A-" from Standard & Poor's, "A3" from Moody's, or "A-" from Fitch. If the issuing bank is rated by more than one of these agencies, creditworthiness shall be determined by the second-highest rating;

(B) If the ILLE provides a corporate or parental guaranty, the Interconnecting DSP or Interconnecting TSP may require the submission of financial records or statements to determine the ILLE's financial stability;

(C) The Interconnecting DSP or Interconnecting TSP shall determine the financial security required for system upgrades that are necessary to reliably serve the ILLE using the following methodology:

(1) If the Large Load's complete and valid set of interconnection studies as described in Section 9.2.1.4 is based on an RPG project, the Interconnecting DSP or Interconnecting TSP shall determine the financial security requirement as follows. The cost estimate for the total set of Transmission Facility improvements from the report

used as the basis for the RPG acceptance or ERCOT endorsement shall be divided by the total MW peak Demand of new Large Loads that contribute to establishing the need for the project to produce a cost per MW estimate. The financial security requirement for the Large Load shall be the cost per MW estimate multiplied by the peak Demand of the Large Load. If the Interconnecting DSP or Interconnecting TSP is unable to determine the total MW peak Demand of new Large Loads contributing to establishing the need for the project, the financial security requirement for the Large Load shall be $50,000 per MW peak Demand;

(2) If the Large Load's complete and valid set of interconnection studies as described in Section 9.2.1.4 is based on meeting the requirements of Section 9.9 and Section 9.10 then the Interconnecting DSP or Interconnecting TSP shall determine which Transmission Facility improvements identified in the LLIS report would not be required but for the ILLE's Large Load and set the financial security requirement as the cost estimate for those improvements. If the LLIS report identifies Transmission Facility improvements that would not be required but for the ILLE's Large Load but does not identify a cost estimate for those improvements, then the financial security requirement will be $50,000 per MW peak Demand. If the LLIS report indicates that no Transmission Facility improvements would be required but for the ILLE's Large Load, then the financial security requirement will be $0;

(3) If the Large Load does not meet the qualifications of paragraphs (1) or (2) above and the Interconnecting DSP or Interconnecting TSP provides a study to ERCOT by July 24, 2026 that demonstrates to ERCOT's satisfaction that the addition of the Large Load does not result in any planning criteria violations or the need for Transmission Facility improvements requiring review by the RPG, then the Interconnecting DSP or Interconnecting TSP shall set the financial security requirement to $0;

(4) If the Large Load does not meet the qualifications of paragraphs (1), (2), or (3) above, then the Interconnecting DSP or Interconnecting TSP shall set the financial security requirement as $50,000 per MW peak Demand;

(v) On or before July 24, 2026, the Interconnecting DSP or Interconnecting TSP has informed ERCOT that the ILLE has satisfied its financial responsibility for all direct interconnection costs through CIAC. If the ILLE has an executed interconnection agreement or equivalent agreement before July 10, 2026, the terms of that agreement govern the manner in which direct interconnection costs are satisfied. If the ILLE does not have an executed interconnection agreement, direct interconnection costs shall be satisfied in full through CIAC, either by direct cash payment or posted financial security, on or before July 10, 2026. CIAC payments under this paragraph cannot be offset by a standard contribution or other allowance. Direct interconnection costs include all costs associated with facilities built to interconnect the ILLE to the existing ERCOT system, including radial lines and substation upgrades necessary to interconnect the new ILLE; and

(vi) On or before July 24, 2026, the Interconnecting DSP or the Interconnecting TSP has informed ERCOT that the ILLE has attested to the DSP or TSP that it holds one of the property interests described in paragraphs (A) through (C) below in or relating to one or more parcels of land sufficient to accommodate the ILLE's planned Load Facilities at the proposed Large Load location. The attested property interest must be supported by documentary evidence.

(A) A signed and executed lease agreement for a duration of at least five years from the date the ILLE is expected to reach the total non-coincident peak Demand as stated in its LCP;

(B) A deed conveying such parcel(s) to the ILLE; or

(C) A signed and executed purchase and sale agreement for such parcel(s);

(vii) On or before July 24, 2026, the Interconnecting DSP or Interconnecting TSP has informed ERCOT that the ILLE attested to the DSP or TSP that it has executed a binding contract with a general contractor for construction of the ILLE's planned Load Facilities at the location where the ILLE is requesting interconnection. The contract must cover the full scope of work necessary to complete the ILLE's planned Load Facilities; and

(viii) On or before July 24, 2026, the Interconnecting DSP or Interconnecting TSP has informed ERCOT that the ILLE attested to the DSP or TSP that it has executed a binding contract with a substation contractor, which may include the Interconnecting DSP or TSP, for construction of all the ILLE's substation facilities at the

location where the ILLE is requesting interconnection. The substation contractor must hold an electrical contractor license issued by the Texas Department of Licensing and Regulation or perform such work through licensed subcontractors. The requirement excludes facilities owned by the Interconnecting DSP or Interconnecting TSP; or

(g) A Large Load that has not achieved Initial Energization as of July 10, 2026, and that meets all the following requirements:

(i) The Large Load is part of a proposed net metering arrangement for which an application was submitted to the PUCT pursuant to PURA, TEX. UTIL. CODE ANN § 39.169 on or before March 4, 2026;

(ii) On or before July 24, 2026, the Interconnecting DSP or Interconnecting TSP has informed ERCOT that the ILLE has satisfied the requirements defined in Section 9.7; and

(iii) On or before July 24, 2026, the Interconnecting DSP or Interconnecting TSP has informed ERCOT that the ILLE has posted financial security for system upgrades that are necessary to reliably serve the ILLE;

(A) The Interconnecting DSP or the Interconnecting TSP may accept the following forms of financial security:

(1) Cash collateral;

(2) Corporate or parental guaranty, only if the corporation or parent corporation has a credit rating of at least “BBB-” from Standard & Poor’s, “Baa3” from Moody’s, or “BBB-” from Fitch. If the corporation or parent corporation is rated by more than one of these agencies, creditworthiness shall be determined by the second-highest rating; or

(3) A letter of credit issued by a major U.S. commercial bank, or a U.S. branch office of a major foreign commercial bank, with a credit rating of at least “A-” from Standard & Poor’s, “A3” from Moody’s, or “A-” from Fitch. If the issuing bank is rated by more than one of these agencies, creditworthiness shall be determined by the second-highest rating;

(B) If the ILLE provides a corporate or parental guaranty, the Interconnecting DSP or Interconnecting TSP may require the

submission of financial records or statements to determine the ILLE's financial stability; and

(C) The Interconnecting DSP or Interconnecting TSP shall determine the financial security required for system upgrades that are necessary to reliably serve the ILLE using the following methodology:

(1) The Interconnecting DSP or Interconnecting TSP shall determine which Transmission Facility improvements identified in the LLIS report would not be required but for the ILLE's Large Load and set the financial security requirement as the cost estimate for those improvements. If the LLIS report identifies Transmission Facility improvements that would not be required but for the ILLE's Large Load but does not identify a cost estimate for those improvements, then the financial security requirement will be $50,000 per MW peak Demand. If the LLIS report indicates that no Transmission Facility improvements would be required but for the ILLE's Large Load, then the financial security requirement will be $0.

(2) ERCOT shall model Large Loads meeting the requirements of paragraph (1) above in Batch Zero as follows:

(a) A Large Load meeting the requirements of paragraph (1)(a) shall be modeled at the Large Load's level of peak Demand reported to ERCOT in response to ERCOT's annual request for information as part of the development of the 2026 Regional Transmission Plan if included, otherwise the peak Demand will be as modeled in the Steady State Working Group (SSWG) cases.

(b) A Large Load meeting the requirements of paragraph (1)(b) and (1)(c) shall be modeled in each year of the study at the Large Load's level of peak Demand that is defined in one of the following documents. In the event the Large Load is represented in both documents, ERCOT shall use the document with the lower values of Demand.

(i) The level of peak Demand reported to ERCOT in response to ERCOT's annual request for information as part of the development of the 2026 Regional Transmission Plan; or

(ii) The level of peak Demand indicated in the most recent LCP, if applicable, provided to ERCOT on or before July 24, 2026. The LCP provided must be consistent with the previously completed studies and existing agreements.

(c) A Large Load meeting the requirements of paragraphs (1)(d), (1)(e), or (1)(f) shall be modeled in each year of the study at the level of peak Demand that is defined in one of the following documents. In the event the Large Load is represented in both documents, ERCOT shall use the document with the lower values of Demand.

(i) The level of peak Demand specified in the Large Load's executed interconnection agreement or equivalent agreement; or

(ii) The level of peak Demand that can be served reliably as indicated in the Large Load's qualifying complete and valid interconnection studies, as described in Section 9.2.1.4.

(A) For Large Loads with qualifying complete and valid interconnection studies based on paragraphs (3)(a), (3)(c), or (4)(a)(ii)(A) of Section 9.2.1.4, the level of peak Demand that can be reliably served will be assumed to be the level modeled in the study, and the timing will be based on the date in which all of the recommended transmission improvements are planned to be in-service as indicated in the final report to the RPG or in the latest Transmission Project and Information Tracking (TPIT) report.

(1) If the Large Load also has a complete and valid interconnection study under paragraph (3)(b) or (4)(a)(ii)(B) of Section 9.2.1.4, the load level for each year prior to the date in which all of the recommended transmission improvements are planned to be in-service shall be determined under paragraph (B) below.

(2) If the Large Load does not have a complete and valid interconnection study under paragraph (2)(c)(ii)(A)(1) above, the base load level for each year prior to the date in which all of the recommended transmission improvements are planned to be in-service shall be zero, and the Large Load shall be studied for allocation under paragraph (3) of Section 9.2.1.2, Eligibility Criteria for Inclusion as Load to be Studied and Allocated in Batch Zero.

(B) For Large Loads with qualifying complete and valid interconnection studies based on paragraphs (3)(b) or (4)(a)(ii)(B) of Section 9.2.1.4, the level of peak Demand that can be reliably served will be assumed to be the level as indicated in the LCP in the interconnection study report. If

load level increases in the LCP are based on transmission improvement(s), the date of the Load level increases will be based on the planned in-service of the transmission improvements as indicated in the latest TPIT report. If the transmission improvement is not included in the latest TPIT report, then the transmission improvement will be assumed to have an in-service date of 2034 for purposes of Batch Zero. If the transmission improvement is not included in the latest TPIT, ERCOT may request the TSP provide an estimated in-service date in lieu of assuming an in-service date of 2034.

(d) A Large Load meeting the requirements of paragraph (1)(g) above shall be modeled in each year of the study at the level of peak Demand specified in the PURA, TEX. UTIL. CODE ANN § 39.169 proceeding.

9.2.1.2 Eligibility Criteria for Inclusion as Load to be Studied and Allocated in Batch Zero

(1) A Large Load that meets paragraphs (a), (b), (c), and (d) below, shall be included in Batch Zero as Load subject to reliability assessment and allocation.

(a) On or before July 10, 2026, a Large Load that meets one of the following:

(i) The Large Load satisfied the requirement documented in paragraph (1)(e)(i) or (1)(f)(i) of Section 9.2.1.1, Eligibility Criteria for Inclusion of a Large Load as Base Load not Subject to Additional Study in the Batch Zero Process, but does not meet one or more of the other requirements documented in paragraph (1)(e) or (1)(f) of Section 9.2.1.1;

(ii) The Large Load was included in the list established in paragraph (4) of Section 9.2.1.4, Evaluation of Existing Interconnection Studies for Large Loads, but was determined to have invalid existing studies according to the methodology established in paragraphs (4)(d) and (4)(e) of Section 9.2.1.4; or

(iii) The Large Load has received ERCOT approval of a steady-state or stability study as described in Section 9.8, Legacy Interconnection Study Procedures for Large Loads, and Section 9.9, Legacy LLIS Report and Follow-up; and

(b) On or before July 24, 2026, the Interconnecting DSP or the Interconnecting TSP has informed ERCOT that the ILLE has attested to the DSP or TSP that it holds one of the property interests described in paragraphs (i) through (iv) below in or relating to one or more parcels of land sufficient to accommodate the ILLE's

planned Load Facilities at the proposed Large Load location. The attested property interest must be supported by documentary evidence.

(i) A signed and executed lease agreement for a duration of at least five years from the date the ILLE is expected to reach the total non-coincident peak Demand;

(ii) A deed conveying such parcel(s) to the ILLE;

(iii) A signed and executed purchase and sale agreement for such parcel(s); or

(iv) A signed and executed agreement with an option to purchase or lease for such parcel(s);

(c) On or before July 24, 2026, the Interconnecting DSP or Interconnecting TSP has informed ERCOT that the ILLE has posted financial security for system upgrades equal to $50,000 per MW of its peak Demand in its most recent LCP in accordance with paragraph (2) below; and

(i) The Interconnecting DSP or the Interconnecting TSP may accept the following forms of financial security:

(A) Cash collateral;

(B) Corporate or parental guaranty, only if the corporation or parent corporation has a credit rating of at least “BBB-” from Standard & Poor’s, “Baa3” from Moody’s, or “BBB-” from Fitch. If the corporation or parent corporation is rated by more than one of these agencies, creditworthiness shall be determined by the second-highest rating; or

(C) A letter of credit issued by a major U.S. commercial bank, or a U.S. branch office of a major foreign commercial bank, with a credit rating of at least “A-” from Standard & Poor’s, “A3” from Moody’s, or “A-” from Fitch. If the issuing bank is rated by more than one of these agencies, creditworthiness shall be determined by the second-highest rating;

(ii) If the ILLE provides a corporate or parental guaranty, the Interconnecting DSP or the Interconnecting TSP may require the submission of financial records or statements to determine the ILLE’s financial stability.

(d) On or before July 24, 2026, the Interconnecting DSP or Interconnecting TSP has informed ERCOT that the ILLE has satisfied the requirements defined in Section 9.7, Required Disclosures.

(2) ERCOT shall model a Large Load meeting the requirements of paragraph (1) above according to the peak Demand in the most recent LCP provided by the Interconnecting TSP on or before July 24, 2026. The LCP shall reflect an Initial Energization date of January 1, 2028, or later.

(3) ERCOT shall model a Large Load meeting the requirements of paragraph (2)(c)(ii)(A)(2) of Section 9.2.1.1 according to the level of peak Demand specified in the Large Load's interconnection agreement or equivalent agreement. Financial security posted by the ILLE under Section 9.2.1.1 satisfies the financial security requirement for the Large Load's inclusion under this paragraph.

9.2.1.3 Load Not Included in Batch Zero

(1) ERCOT shall not include in Batch Zero any Large Load that does not meet requirements described in Section 9.2.1.1, Eligibility Criteria for Inclusion of a Large Load as Base Load not Subject to Additional Study in the Batch Zero Process, or Section 9.2.1.2, Eligibility Criteria for Inclusion as Load to be Studied and Allocated in Batch Zero.

(2) ERCOT shall not include any Large Load that otherwise meets the requirements described in Section 9.2.1.1 or 9.2.1.2 if the Interconnecting TSP or Interconnecting DSP fails to provide to ERCOT all information required by Section 9.2.2, Submission of Large Load Information for Batch Zero Process, on or before July 24, 2026.

9.2.1.4 Evaluation of Existing Interconnection Studies for Large Loads

(1) ERCOT shall use the methodology described in this Section to assess the completeness and validity of previous studies as prescribed in Section 9.2.1.1, Eligibility Criteria for Inclusion of a Large Load as Base Load not Subject to Additional Study in the Batch Zero Process, and Section 9.2.1.2, Eligibility Criteria for Inclusion as Load to be Studied and Allocated in Batch Zero.

(2) During its review, ERCOT, in consultation with the Interconnecting DSP and/or Interconnecting TSP, will determine the completeness and validity of previous studies.

(3) ERCOT shall consider previous studies for Large Loads that have not achieved Initial Energization by July 10, 2026, to be fully complete and valid without additional review if they meet one of the criteria in paragraphs (a) through (c) below. Studies qualifying under paragraph (d) below shall be considered complete and valid only upon ERCOT's review and acceptance of the Interconnecting TSP's submission.

(a) The Large Load was included in the study area of one or more studies submitted to the RPG before December 15, 2025, the Load contributed to establishing the need for the RPG transmission project that resolved the performance deficiency in the study area, and the proposed transmission project

received RPG acceptance or ERCOT endorsement as described in Protocol Section 3.11.4.9, Regional Planning Group Acceptance and ERCOT Endorsement, on or before March 4, 2026;

(b) The Large Load met the requirements of Section 9.9, Legacy LLIS Report and Follow-up, and Section 9.10, Legacy Interconnection Agreements and Responsibilities, on or before March 4, 2026; or

(c) The Large Load was included in the Permian Basin Reliability Plan Study completed by ERCOT in 2024 and approved by the PUCT in Project No. 55718, Reliability Plan for the Permian Basin Region Under PURA TEX. UTIL. CODE ANN § 39.167, and the Load contributed to establishing the need for the identified transmission projects.

(d) The Large Load was the subject of an interconnection study performed outside the interim Large Load interconnection process in effect between March 25, 2022, and December 14, 2025. The results of that study determined the Large Load could be reliably served without Transmission Facility improvements requiring review by the RPG. The Interconnecting TSP submitted to ERCOT, on or before July 24, 2026, a notarized attestation that addresses items (i) through (v) below. The Interconnecting TSP may also submit additional documentation demonstrating the inclusion of the Large Load in ERCOT transmission planning studies, including submissions to the RPG or other ERCOT study processes.

(i) The date on which the ILLE executed a study agreement with the Interconnecting TSP, the Initial Energization date specified in that agreement, and the MW Demand requested by the ILLE;

(ii) A statement that the period between the ILLE's interconnection request and requested Initial Energization date was more than two years;

(iii) A statement that the Interconnecting TSP performed an interconnection study for the Large Load through the TSP's customary study process;

(iv) A statement that the results of the interconnection study completed on or before December 15, 2025, determined the Large Load could be reliably served without Transmission Facility improvements requiring review by the RPG; and

(v) A statement that the ILLE has executed an interconnection agreement or equivalent agreement to proceed with interconnection on or before December 15, 2025.

(4) ERCOT will consider previous studies for Large Loads that have not achieved Initial Energization by July 10, 2026, and that do not have studies meeting the criteria in paragraph (3) above to be fully complete and valid according to the following process:

(a) ERCOT shall identify all Large Loads that meet all of the following criteria:

(i) The Interconnecting TSP has, by July 24, 2026, determined the dynamic data submitted by the ILLE per paragraph (3) of Section 9.2.2, Submission of Large Load Information for Batch Zero Process, is not expected to adversely impact the results from the previous stability study; and

(ii) The Large Load meets either of the following conditions:

(A) The Large Load was included in one or more studies submitted to the RPG before December 15, 2025, that Load contributed to establishing the need for the RPG project, and the proposed project received RPG acceptance or ERCOT endorsement as described in Protocol Section 3.11.4.9 on or before July 10, 2026; or

(B) The Large Load met the requirements of Section 9.9 and Section 9.10 on or before July 10, 2026.

(b) ERCOT shall create a list of all Large Loads meeting the criteria in paragraph (4)(a) above. ERCOT shall order the list according to the date each Large Load met the applicable criteria in paragraph (4)(a)(ii) above. The Large Load with the oldest date shall be given first position, with subsequent loads following in order of date the criteria in paragraph (4)(a)(ii) above were met.

(i) In the event a Large Load meets both the criteria in paragraph (4)(a)(ii)(A) and (4)(a)(ii)(B) above or in the event the Large Load meets the criteria in paragraph (4)(a)(ii)(A) above multiple times, ERCOT shall use the date that gives the Large Load the highest position in the list.

(c) In the event two Large Loads met the criteria documented in paragraph (4)(a)(ii) above on the same date, ERCOT shall use the following methodology to determine placement on the list:

(i) If both Large Loads were included in the same RPG study, ERCOT shall give them equal placement on the list;

(ii) If each Large Load is from a separate RPG study, the Load with the earlier RPG study submission date will receive priority;

(iii) If one Large Load met the criteria described in paragraph (4)(a)(ii)(A) above and the other met the criteria described in paragraph (4)(a)(ii)(B) above, the Load meeting the criteria of paragraph (4)(a)(ii)(A) above will receive priority regardless of submission date; and

(iv) If both Large Loads met the criteria described in paragraph (4)(a)(ii)(B) above, the Load with the earlier submission date of a TSP study to ERCOT will receive priority;

(d) ERCOT shall begin by evaluating the Large Load(s) in the first position on the list. ERCOT shall consider the existing studies for the Large Load(s) in the first position to be valid if, in ERCOT's sole discretion, each Large Load meeting the criteria in paragraphs (3)(a) through (3)(c) above is:

(i) Located outside of the study area of the Large Load in the first position; or

(ii) Located within the study area and included in the existing studies for the Large Load in the first position.

(e) ERCOT shall evaluate each subsequent Large Load on the list in the order established in paragraphs (4)(b) and (4)(c) above, including any set of Large Loads sharing equal placement under paragraph (4)(c)(i) above. ERCOT shall consider the existing studies for the Large Load under review to be valid if, in ERCOT's sole discretion, each Large Load meeting the criteria in paragraphs (3)(a) through (3)(c) above and each Large Load on the list already determined to have valid existing studies is:

(i) Located outside of the study area of the Large Load under review; or

(ii) Located within the study area and included in the existing studies for the Large Load under review.

9.2.2 Submission of Large Load Information for Batch Zero Process

(1) For any Load request meeting one or more criteria defined in paragraph (1) of Section 9.2.1.1, Eligibility Criteria for Inclusion of a Large Load as Base Load not Subject to Additional Study in the Batch Zero Process, and 9.2.1.2, Eligibility Criteria for Inclusion as Load to be Studied and Allocated in Batch Zero, the following actions shall be completed prior to the initiation of the Batch Zero Interconnection Study described in Section 9.3, Batch Zero Interconnection Study.

(a) Submission of all information, including but not limited to, data required by the Interconnecting DSP, the Interconnecting TSP, and ERCOT to perform steady-

state, short circuit, dynamic and transient stability analyses and any other studies the Interconnecting TSP or ERCOT deems necessary to reliably interconnect the Load;

(b) Submission of a preliminary LCP that fully reflects the proposed project schedule; and

(c) Written acknowledgement from the ILLE of its obligations to notify and update the Interconnecting DSP and Interconnecting TSP of changes to the Large Load project information or to the load composition, technology, parameters, or development schedule as described in Section 9.2.3, Modification of Large Load Information, during the interconnection process.

[PGRR115: Insert paragraph (e) below upon system implementation of NPRR1234:]

(e) Payment of the LLIS Application Fee to ERCOT as described in paragraph (3).

(2) The Interconnecting TSP shall submit the information described in paragraphs (1)(a) through (1)(c) above on behalf of the ILLE on or before July 24, 2026.

(3) By July 10, 2026, the ILLE must promptly provide to ERCOT and the Interconnecting TSP dynamic data including the necessary models, parameters, and supporting documentation required for accurate representation of the Large Load. The data shall be compatible with the version of the planning and operations model software, as described in the Dynamics Working Group Procedure Manual in effect on March 4, 2026. If a dynamic stability study on the Large Load has previously been performed, the Interconnecting TSP must also provide to ERCOT by July 24, 2026, a written determination as to whether the dynamic data submitted by the ILLE is expected to adversely impact the results from the previous stability study.

(a) If ERCOT determines that dynamic data submitted by an ILLE is deficient, ERCOT shall notify the ILLE of the deficiency no later than August 7, 2026. The ILLE shall resolve the deficiency no later than August 31, 2026. Failure to cure the deficiency by August 31, 2026, shall result in removal of the associated Large Load from the Batch Zero Interconnection Study.

(4) A Large Load that elects to be studied as a Provisional Controllable Load Resource (PCLR) pursuant to Section 9.2.2.1, Additional Information Required for Provisional Controllable Load Resources (PCLRs), or a Withdrawal-Limited Private Use Network (WLPUN) pursuant to Section 9.2.2.2, Additional Information Required for Withdrawal-Limited Private Use Networks (WLPUNs), may not elect to be studied as both.

[PGRR115: Insert paragraph (5) below upon system implementation of NPRR1234:]

(5) The ILLE shall pay to ERCOT the LLIS Application Fee, as described in the ERCOT Fee Schedule prior to the commencement of the LLIS. The interconnecting TSP, Resource Entity, or Interconnecting Entity (IE) may choose to submit this fee to ERCOT on the behalf of the ILLE. Payment of the ERCOT LLIS Application Fee shall not affect the independent responsibility of the ILLE to pay for interconnection studies conducted by the interconnecting TSP or for any Distribution Service Provider (DSP) studies.

9.2.2.1 Additional Information Required for Provisional Controllable Load Resources (PCLRs)

(1) A Large Load must be eligible for inclusion as Load to be studied and allocated in Batch Zero pursuant to Section 9.2.1.2, Eligibility Criteria for Inclusion as Load to be Studied and Allocated in Batch Zero, to request PCLR treatment under this Section.

(2) For a Large Load request to be studied as a PCLR in Batch Zero, the ILLE must complete and notarize Part A of Protocol Section 23, Form W, Declaration of Intent and Commitment to Register as a Provisional Controllable Load Resource. Part A must be signed by the ILLE's representative, official, officer, or other authorized person with binding authority over the ILLE and submitted to the Interconnecting DSP or Interconnecting TSP on or before July 10, 2026. The Interconnecting DSP or Interconnecting TSP must submit the form to ERCOT on or before July 24, 2026.

9.2.2.2 Additional Information Required for Withdrawal-Limited Private Use Networks (WLPUNs)

(1) A Large Load must be eligible for inclusion as Load to be studied and allocated in Batch Zero pursuant to Section 9.2.1.2, Eligibility Criteria for Inclusion as Load to be Studied and Allocated in Batch Zero, to request WLPUN treatment under this Section.

(2) For a Large Load request to be studied as a WLPUN in Batch Zero, the ILLE and the Interconnecting Entity (IE) or Resource Entity must complete, execute, and notarize Protocol Section 23, Form X, Withdrawal-Limited Private Use Network Designation. Protocol Section 23, Form X must be submitted to the Interconnecting DSP or Interconnecting TSP on or before July 10, 2026. The Interconnecting DSP or Interconnecting TSP must submit the form to ERCOT on or before July 24, 2026 on behalf of the executing parties.

(3) For a new generator to be included in a WLPUN in Batch Zero, it must meet all the following requirements:

(a) The Full Interconnection Study (FIS) request must be submitted as described in paragraph (3) of Section 5.3.2, Full Interconnection Study, and deemed complete by ERCOT on or before July 10, 2026; and

(b) As of July 10, 2026, the generation must not have met all the requirements specified in paragraph (1) of Section 6.9, Addition of Proposed Generation to the Planning Models, for ERCOT's inclusion of the generation in the base cases created and maintained by the SSWG.

(4) Multiple generation interconnection requests may be included in the WLPUN application provided each generator is planned to be connected to the same POI as the Large Load. The generation interconnection requests must have the same IE or Resource Entity.

9.2.3 Modification of Large Load Information

(1) The Interconnecting TSP shall update any project information submitted per paragraph (1) of Section 9.2.2, Submission of Large Load Information for Batch Zero Process, within ten Business Days of being notified by the ILLE of a material change.

(2) The ILLE shall notify the Interconnecting DSP and Interconnecting TSP if a change to the load composition, technology, or parameters occurs after the ILLE has provided the TSP with its initial dynamic data per paragraph (3) of Section 9.2.2. Upon such notification, the ILLE shall provide to the Interconnecting TSP updated dynamic data reflecting the change. The Interconnecting DSP and Interconnecting TSP shall promptly provide the updated dynamic data to ERCOT.

9.2.4 Load Commissioning Plan

(1) The LCP shall be maintained and updated by the Interconnecting TSP and ERCOT as prescribed in Section 9, Large Load Interconnection or Modification, using information provided by the ILLE. The LCP must specify the load increments and timeline by which the ILLE intends to increase peak Demand. The LCP shall reflect the most currently available information about the Large Load and ILLE and shall be updated upon receipt of updated project information from the ILLE and as otherwise described in this Section.

(2) Upon the completion of the Batch Zero Interconnection Study, as described in Section 9.4, Batch Zero Report and Interconnecting Large Load Entity (ILLE) Commitment, ERCOT shall update the LCP to reflect the amount of peak Demand that can be served reliably for each year of the Batch Zero Interconnection Study scope.

(3) Upon the execution of an interconnection agreement prescribed by P.U.C. SUBST. R. 25.194, the Interconnecting TSP shall update the LCP to reflect the executed interconnection agreement.

(4) Following the Batch Zero Interconnection Study, the Interconnecting TSP shall update the LCP of a Large Load subject to allocation under paragraph (2)(c)(ii)(A)(2) of Section 9.2.1.1, Eligibility Criteria for Inclusion of a Large Load as Base Load not Subject to Additional Study in the Batch Zero Process.

(5) The Interconnecting TSP shall continue to maintain the LCP after Initial Energization until the Large Load reaches its full requested peak Demand, updating as needed to reflect changes in the Large Load construction and timelines.

9.2.5 Required Interconnection Equipment

(1) Each Service Delivery Point for a Large Load not co-located with a Generation Resource, Energy Storage Resource (ESR), or Settlement Only Generator (SOG) interconnected at transmission voltage to the ERCOT System must have a permanent configuration consisting of one or more breakers capable of interrupting fault current to isolate the Large Load from the ERCOT System without interrupting flow on the associated transmission lines. The breakers shall be under the remote control of the applicable Transmission Operator (TO).

(2) Each Large Load co-located with a Generation Resource, ESR, or SOG interconnected at transmission voltage to the ERCOT System must have a permanent configuration consisting of one or more breakers capable of interrupting fault current to isolate the Large Load from the ERCOT System without isolating any of the co-located generators. The breakers shall be remotely controllable at the direction of the applicable Qualified Scheduling Entity (QSE).

(3) Large Loads submitted under the legacy LLIS process described in Section 9.8, Legacy Interconnection Study Procedures for Large Loads, through Section 9.10, Legacy Interconnection Agreements and Responsibilities, with an initial LLIS submission date on or after June 1, 2025, and Large Loads meeting requirements, described in Sections 9.2.1.1, Eligibility Criteria for Inclusion of a Large Load as Base Load not Subject to Additional Study in the Batch Zero Process, and 9.2.1.2, Eligibility Criteria for Inclusion as Load to be Studied and Allocated in Batch Zero, for inclusion in the Batch Zero Interconnection Study shall not have an interconnection configuration such that any category P1 or P7 event described in the North American Electric Reliability Corporation (NERC) Reliability Standard addressing transmission planning performance requirements results in more than 1,000 MW of consequential Load loss.

(a) All Loads co-located with a Generation Resource as described in Protocol Section 10.3.2.3, Generation Netting for ERCOT-Polled Settlement (EPS) Meters, shall be subject to the requirements of this paragraph.

(b) For a WLPUN, consequential Load loss shall be determined based on the aggregate peak Demand of the included Large Load, not the established MW Withdrawal limit at the POI.

(4) Large Loads submitted under the legacy LLIS process described in Section 9.8, Legacy Interconnection Study Procedures for Large Loads, through Section 9.10, Legacy Interconnection Agreements and Responsibilities, with an initial LLIS submission date before June 1, 2025, shall comply with the requirements of paragraph (3) of this Section if, on or after June 1, 2025, a modification to the Large Load subject to the requirements of Section 9.2.1, Applicability of the Batch Zero Process, is made.

9.3 Batch Zero Interconnection Study

(1) This Section establishes the procedures for conducting a Batch Zero Interconnection Study for new or modified Large Loads, as defined by Section 9.2.1.1, Eligibility Criteria for Inclusion of a Large Load as Base Load not Subject to Additional Study in the Batch Zero Process, and Section 9.2.1.2, Eligibility Criteria for Inclusion as Load to be Studied and Allocated in Batch Zero.

9.3.1 Batch Zero Process Overview and Timelines

(1) The Batch Zero Interconnection Study consists of a singular, system-wide study covering steady-state analysis and stability screening analysis performed by ERCOT.

(2) The Batch Zero Process shall be conducted according to the following timeline:

(a) Interconnecting Distribution Service Providers (DSPs) and Interconnecting Transmission Service Providers (TSPs) must provide to ERCOT all information required by Sections 9.2.1.1, Eligibility Criteria for Inclusion of a Large Load as Base Load not Subject to Additional Study in the Batch Zero Process, 9.2.1.2, Eligibility Criteria for Inclusion as Load to be Studied and Allocated in Batch Zero, and 9.2.2, Submission of Large Load Information for Batch Zero Process, on or before July 24, 2026. ERCOT will notify each Interconnecting DSP and Interconnecting TSP of how each Large Load submitted under Section 9.2.2 is included and classified in the Batch Zero Interconnection Study according to the methodology defined in Section 9.2.1, Applicability of the Batch Zero Process, on or before August 7, 2026.

(i) If ERCOT's classification determines that a Large Load submitted under Section 9.2.1.1 does not satisfy the base load eligibility criteria and will instead be classified under Section 9.2.1.2, the Interconnecting DSP or Interconnecting TSP, as applicable, shall notify the ILLE within two Business Days of receipt of ERCOT's classification notice. If the ILLE believes the classification is based on incomplete or inaccurate information, the ILLE must notify ERCOT through its Interconnecting DSP or Interconnecting TSP no later than three Business Days after receiving notification. Upon receipt of such notice, ERCOT, the ILLE, and the Interconnecting DSP or Interconnecting TSP shall attempt to resolve

the dispute within three Business Days. If the dispute is not resolved and the reclassification stands, the provisions of paragraphs (2)(a)(ii) through (2)(a)(iii) below apply.

(ii) The ILLE shall have seven Business Days from the date of notification to post the financial security required by paragraph (1)(c) of Section 9.2.1.2. The Interconnecting DSP or Interconnecting TSP, as applicable, must inform ERCOT within two Business Days of the ILLE posting the required financial security.

(iii) Failure to post the required financial security within the period specified in paragraph (2)(a)(ii) shall result in the Large Load being excluded from the Batch Zero Interconnection Study.

(b) ERCOT shall provide the Batch Zero Interconnection Study report to all Interconnecting DSPs and Interconnecting TSPs on or before April 9, 2027. ERCOT shall also communicate updated Load Commissioning Plans (LCPs) to Interconnecting Large Load Entities (ILLEs).

(c) Interconnecting DSPs and Interconnecting TSPs shall provide to ERCOT a list of all Large Loads for which the ILLE has met the commitment requirements, as described in Section 9.4, Batch Zero Report and Interconnecting Large Load Entity (ILLE) Commitment, on or before the deadline for a Large Load customer to execute an interconnection agreement following completion of the interconnection study as specified in P.U.C. SUBST. R. 25.194.

(d) ERCOT shall complete the Batch Zero Refinement Study and provide a Batch Zero transmission plan to the Regional Planning Group (RPG), as described in Section 9.5, Batch Zero Study Refinement and Delivery of Transmission Plan, on or before 90 days following the deadline in paragraph (c) above.

(3) The Interconnecting TSP must complete the short-circuit study prescribed in Section 9.5.2, System Protection (Short-Circuit) Analysis, and provide a study report to ERCOT at least 60 days prior to the date specified in paragraph (2)(d) above.

9.3.2 Batch Zero Interconnection Study Methodology

(1) ERCOT shall establish a study scope and methodology to assess the steady-state and stability impacts of the Large Loads subject to assessment in accordance with paragraph (1) of Section 9.2.1.2, Eligibility Criteria for Inclusion as Load to be Studied and Allocated in Batch Zero, for years 2028, 2030, and 2032.

(2) ERCOT shall present the study scope and methodology to the RPG and allow an opportunity for stakeholder comments.

(3) ERCOT shall post the initial Batch Zero Interconnection Study steady-state cases and contingencies, the final Batch Zero Interconnection Study cases, the initial Batch Zero Refinement Study cases and contingencies, and the final Batch Zero Refinement Study cases on the Market Information System (MIS) Secure Area once available.

(4) For each Large Load subject to assessment in the Batch Zero Interconnection Study, ERCOT shall identify any reliability criteria violations associated with the proposed addition in accordance with the study scope and shall endeavor to resolve any identified performance deficiencies by identifying Transmission Facility improvements for 2028, 2030, and 2032.

(a) ERCOT shall consult with the applicable TSP(s) when identifying proposed Transmission Facility improvements.

(b) ERCOT shall post the 2032 study steady-state start case, contingencies and initial reliability screening results for TSPs once the initial Batch Zero Interconnection Study cases become available.

(c) TSP(s) may perform studies for their area of responsibility using the 2032 start case and submit to ERCOT any Transmission Facility improvements along with the steady-state model files, including an assessment of the construction feasibility, projected in-service date within 60 days of the postings described in paragraph (b) above.

(d) ERCOT shall consider the Transmission Facility improvements identified by the TSPs to resolve the performance deficiencies in the Batch Zero Interconnection Study.

(e) ERCOT in its discretion shall decide not to include any Transmission Facility improvements that may require additional studies and review that are beyond the scope and timeline of the Batch Zero Interconnection Study process.

(f) Each TSP shall provide any Transmission Facility improvement cost estimates within 10 Business Days of ERCOT's request.

(g) ERCOT shall make final determinations on the Transmission Facility improvements that will be identified and recommended in the Batch Zero Interconnection Study.

(h) ERCOT shall post the 2028 and 2030 study steady-state start cases, contingencies and initial reliability screening results for TSPs as those initial Batch Zero Interconnection Study cases become available.

(5) ERCOT shall determine the amount of peak Demand that may be served reliably for 2028, 2030, and 2032 through full scope analysis and for 2029 and 2031 through limited scope analysis.

(6) The amount of peak Demand allocated to a Large Load subject to assessment in accordance with paragraphs (2) or (3) of Section 9.2.1.2 shall not decrease from one year to the next within the Batch Zero Interconnection Study scope. Where the amount of peak Demand that can be served reliably in a given year is less than the amount allocated in a prior year, ERCOT shall reduce the prior year's allocation to equal the lower amount.

(7) If, after the application of paragraph (6) above, the allocated peak Demand for a Large Load that is subject to assessment in accordance with paragraph (2) or (3) of Section 9.2.1.2 is less than the minimum load allocation in a given year, ERCOT shall set the allocated peak Demand for that Large Load to zero MW for that year.

(a) For Large Loads that have been requested to be studied as a PCLR, the minimum load allocation is zero.

(b) For Large Loads that have been requested to be studied as a Withdrawal-Limited Private Use Network (WLPUN), the minimum load allocation is zero.

(c) For Large Loads not subject to paragraph (a) or (b) above and that have requested a peak Demand in a given year that is 100 MW or less, the minimum load allocation is 90% of the requested peak Demand.

(d) For Large Loads not subject to paragraphs (a), (b), or (c) above, the minimum load allocation is 100 MW.

(e) If the application of this paragraph results in the allocated peak Demand for a Large Load being set to zero in any year, ERCOT shall also set the allocated peak Demand to zero for all prior years.

9.3.2.1 Treatment of Provisional Controllable Load Resources (PCLRs) in the Batch Zero Interconnection Study

(1) For Large Loads subject to assessment in accordance with paragraph (2) of Section 9.2.1.2, Eligibility Criteria for Inclusion as Load to be Studied and Allocated in Batch Zero, for which the ILLE requests to be studied as a PCLR in Batch Zero in accordance with paragraph (1) of Section 9.2.2.1, Additional Information Required for Provisional Controllable Load Resources (PCLRs), the maximum Low Power Consumption in a given year shall be set as the peak Demand that may be served reliably for each year as determined according to paragraph (5) of Section 9.3.2, Batch Zero Interconnection Study Methodology. The Maximum Power Consumption (MPC) shall be set at the peak Demand modeled in accordance with paragraph (2) of Section 9.2.1.2.

9.3.2.2 Treatment of Withdrawal-Limited Private Use Networks (WLPUNs) in the Batch Zero Interconnection Study

(1) Large Loads subject to assessment in accordance with paragraph (2) of Section 9.2.1.2, Eligibility Criteria for Inclusion as Load to be Studied and Allocated in Batch Zero, for which the ILLE requests to be studied as a WLPUN in Batch Zero in accordance with paragraph (1) of Section 9.2.2.2, Additional Information Required for Withdrawal-Limited Private Use Networks (WLPUNs), will have the following treatment in the Batch Zero Interconnection Study:

(a) ERCOT shall model the associated Large Load and generation such that the modeled generation does not inject real or reactive power into the ERCOT System.

(b) ERCOT shall determine the MW Withdrawal limit for each year by turning off the WLPUN generation and determining the peak Demand that may be reliably served.

(c) The MW Withdrawal limit shall not decrease from one year to the next within the Batch Zero Interconnection Study scope. If the MW Withdrawal limit determined for a given year is less than the amount determined for a prior year, ERCOT shall reduce the prior year's MW Withdrawal limit to equal the lower amount.

(d) The amount of peak Demand allocated to the Large Load each year will be the lesser of the following:

(i) The requested peak Demand;

(ii) The established MW Withdrawal limit plus the aggregate real power rating of the WLPUN generation; and

(iii) 90% of the load level that causes instability or cascading with all of the WLPUN generation off and with no contingency.

(e) The allocated peak Demand shall not decrease from one year to the next within the Batch Zero Interconnection Study scope. If the allocated peak Demand determined for a given year is less than the amount allocated in a prior year, ERCOT shall reduce the prior year's allocation to equal the lower amount.

9.4 Batch Zero Report and Interconnecting Large Load Entity (ILLE) Commitment

(1) On or before the date specified in paragraph (2)(b) of Section 9.3.1, Batch Zero Process Overview and Timelines, ERCOT will provide to all Interconnecting Distribution Service Providers (DSPs) and Interconnecting Transmission Service Providers (TSPs):

(a) A report summarizing the results of the Batch Zero Interconnection Study and, for each proposed Transmission Facility improvement, identifying the affected TSP(s);

(b) An updated Load Commissioning Plan (LCP) for each Large Load that was assessed in the Batch Zero Interconnection Study that reflects the allocated peak Demand for each year of the Batch Zero Interconnection Study scope; and

(c) An estimate of the Interconnecting Large Load Entity's (ILLE's) security requirements for each proposed Transmission Facility improvement attributable to the ILLE's Large Load identified in the report described in paragraph (1)(a) above. The estimate shall be determined in a manner consistent with P.U.C. SUBST. R. 25.194.

(2) In order to accept the allocated peak Demand and schedule documented in the LCP, the ILLE must execute an interconnection agreement that meets the requirements in P.U.C. SUBST. R. 25.194. This paragraph does not apply to a Large Load subject to assessment in accordance with paragraph (2)(c)(ii)(A)(2) of Section 9.2.1.1, Eligibility Criteria for Inclusion of a Large Load as Base Load not Subject to Additional Study in the Batch Zero Process, and paragraph (3) of Section 9.2.1.2, Eligibility Criteria for Inclusion as Load to be Studied and Allocated in Batch Zero.

(3) If the executed interconnection agreement or, for a Large Load subject to assessment in accordance with paragraph (2)(c)(ii)(A)(2) of Section 9.2.1.1 and paragraph (3) of Section 9.2.1.2, the existing interconnection agreement or equivalent agreement reflects allocated peak Demand that is lower than the values in the LCP provided under paragraph (1)(b) above, the Interconnecting TSP shall update the LCP to reflect the values memorialized in the interconnection agreement and provide the updated LCP to ERCOT within five Business Days.

(4) The Interconnecting DSP or Interconnecting TSP must submit to ERCOT a notarized attestation confirming that the ILLE has executed the interconnection agreement on or before the date specified in paragraph (2)(c) of Section 9.3.1.

(5) Any Large Load for which the Interconnecting DSP, Interconnecting TSP, or its designated representative has not provided the notarized attestation mandated in paragraph (4) above by the date specified in paragraph (2)(c) of Section 9.3.1 is considered to have withdrawn from the Batch Zero Process and shall not be included in the Batch Zero Refinement Study described in Section 9.5, Batch Zero Study Refinement and Delivery of Transmission Plan. These Large Loads shall not be eligible for Initial Energization unless included in a future batch study.

(6) Nothing in this Section shall be construed to prohibit an ILLE from negotiating and preparing an interconnection agreement described in P.U.C. SUBST. R. 25.194 prior to receipt of the Batch Zero Interconnection Study results as described in paragraph (1) above.

9.4.1 Additional Commitments for Provisional Controllable Load Resources (PCLRs)

(1) In addition to the information set forth in paragraph (1) of Section 9.4, Batch Zero Report and Interconnecting Large Load Entity (ILLE) Commitment, ERCOT shall provide the Interconnecting DSP or Interconnecting TSP for each Large Load studied as a Provisional Controllable Load Resource (PCLR) in the Batch Zero Interconnection Study an updated copy of the ILLE's Protocol Section 23, Form W, Declaration of Intent and Commitment to Register as a Provisional Controllable Load Resource (PCLR). ERCOT shall complete the end date field in Part B of Protocol Section 23, Form W to reflect the results of the study. The updated Protocol Section 23, Form W must be provided by ERCOT to the Interconnecting DSP or Interconnecting TSP on or before the date specified in paragraph (2)(b) of Section 9.3.1, Batch Zero Process Overview and Timelines.

(2) In the updated LCP provided under paragraph (1)(b) of Section 9.4, ERCOT shall, for each Large Load studied as a PCLR in the Batch Zero Interconnection Study:

(a) Set the maximum Low Power Consumption (LPC) values for the PCLR to equal the amounts of peak Demand identified in the study; and

(b) Identify the ILLE's initial requested amounts of peak Demand as approved Maximum Power Consumption (MPC) values, contingent on successful registration as a PCLR.

(3) The ILLE for a Large Load studied as a PCLR must complete, sign and have notarized Part B of Protocol Section 23, Form W, indicating one of the following elections:

(a) The ILLE affirms its intent to register as a PCLR and will accept the LPC and MPC values communicated in paragraph (2) above with no modifications;

(b) The ILLE affirms its intent to register as a PCLR with modifications to the LPC and/or MPC values communicated in paragraph (2) above. These modified values must be less than or equal to the values communicated by ERCOT in paragraph (2) above and must be reflected in the updated LCP provided to ERCOT per paragraph (3) of Section 9.4;

(c) The ILLE withdraws its intent to register as a PCLR but will accept the maximum LPC values communicated in paragraph (2) above as its allocated peak Demand with no modifications; or

(d) The ILLE withdraws its intent to register as a PCLR but will accept the maximum LPC values communicated in paragraph (2) above as its allocated peak Demand with modifications. These modified values must be less than or equal to the values communicated by ERCOT in paragraph (2) above and must be reflected in the updated LCP provided to ERCOT per paragraph (3) of Section 9.2.4, Load Commissioning Plan.

(4) The Interconnecting DSP must provide the completed Protocol Section 23, Form W to ERCOT on or before the date specified in paragraph (2)(c) of Section 9.3.1.

(5) For a Large Load studied as a PCLR, if ERCOT does not receive the signed and notarized Part B of Protocol Section 23, Form W that conforms with one of the elections specified in paragraph (3) above by the date specified in paragraph (2)(c) of Section 9.3.1, ERCOT will exclude that Large Load from the Batch Zero Refinement Study described in Section 9.5, Batch Zero Study Refinement and Delivery of Transmission Plan. That Large Load will not be eligible for Initial Energization unless it completes a future study for Large Load interconnection that meets the applicable study requirements defined in the ERCOT Planning Guide.

9.4.2 Additional Commitments for Withdrawal-Limited Private Use Networks (WLPUNs)

(1) In addition to the information set forth in paragraph (1) of Section 9.4, Batch Zero Report and Interconnecting Large Load Entity (ILLE) Commitment, for each Large Load studied as a Withdrawal-Limited Private Use Network (WLPUN) in the Batch Zero Interconnection Study, ERCOT shall provide an LCP that includes both the established MW Withdrawal limit and the allocated peak Demand for each year of the Batch Zero Interconnection Study scope to the Interconnecting DSP, if applicable, and Interconnecting TSP.

(2) In order to accept the established MW Withdrawal limit and allocated peak Demand and schedule documented in the LCP, the ILLE must execute an interconnection agreement that meets the requirements in P.U.C. SUBST. R. 25.194. In the event the executed interconnection agreement reflects modifications to the established MW Withdrawal limit or allocated peak Demand that are lower than the values determined in paragraph (1) above, the Interconnecting DSP or Interconnecting TSP shall update the LCP to reflect the values memorialized in the interconnection agreement.

(3) The Interconnecting DSP or Interconnecting TSP must submit to ERCOT a notarized attestation confirming that the ILLE has executed the interconnection agreement on or before the date specified in paragraph (2)(c) of Section 9.3.1, Batch Zero Process Overview and Timelines.

(4) The generation associated with a Large Load studied as a WLPUN must meet the requirements specified in paragraph (1) of Section 6.9, Addition of Proposed Generation to the Planning Models, for ERCOT's inclusion of the applicable generation in the base cases created and maintained by the Steady State Working Group (SSWG) by the date specified in paragraph (2)(c) of Section 9.3.1.

(5) Any Large Load for which the associated generation meets any of the following criteria is considered to have withdrawn from the Batch Zero Process and shall not be included in the Batch Zero Refinement Study described in Section 9.5, Batch Zero Study Refinement

and Delivery of Transmission Plan. These Large Loads shall not be eligible for Initial Energization unless included in a future batch study.

(a) The associated generation does not meet the requirements in paragraph (4) above.

(b) After July 24, 2026, the aggregate real power rating of the associated generation decreases from what was recorded in Resource Integration and Ongoing Operations (RIOO).

(c) After July 24, 2026, the technology type(s) of the associated generation changes from what was recorded in RIOO.

(6) An ILLE for a Large Load studied as a WLPUN may elect one of the following:

(a) The ILLE accepts the established MW Withdrawal limit and allocated peak Demand provided in paragraph (1) above with no modifications; or

(b) The ILLE accepts a modified MW Withdrawal limit or peak Demand from what was provided in paragraph (1) above. Each modified value must be less than or equal to the corresponding value provided by ERCOT in paragraph (1) above and must be reflected in an updated LCP.

(7) The established MW Withdrawal limit and allocated peak Demand determined in Section 9.3.2.2, Treatment of Withdrawal-Limited Private Use Networks (WLPUNs) in the Batch Zero Interconnection Study, each as adjusted by any election under paragraph (6) above, are final upon the ILLE's execution of the interconnection agreement under paragraph (2) above. The Resource Entity shall ensure the established MW Withdrawal limit is recorded in the Resource Registration data pursuant to Protocol Section 3.10.7.3.1, Withdrawal-Limited Private Use Networks. The Interconnecting TSP shall document the allocated peak Demand in the LCP.

9.5 Batch Zero Study Refinement and Delivery of Transmission Plan

(1) The Batch Zero Refinement is an activity performed by ERCOT, in consultation with the Interconnecting Distribution Service Providers (DSPs) and Interconnecting Transmission Service Providers (TSPs), to update the Batch Zero Interconnection Study performed per Section 9.3, Batch Zero Interconnection Study, to only include Large Loads that met the commitment requirements per Section 9.4, Batch Zero Report and Interconnecting Large Load Entity (ILLE) Commitment. The goal of the Batch Zero Refinement Study is to determine which Transmission Facility improvements identified in the Batch Zero Interconnection Study are still needed, needed with modifications, or are no longer needed.

9.5.1 ERCOT Activities During the Batch Zero Refinement Period

(1) After the deadline established in paragraph (2)(c) of Section 9.3.1, Batch Zero Process Overview and Timelines, for the Interconnecting DSP or Interconnecting TSP to notify ERCOT which Large Loads included in the initial Batch Zero Interconnection Study have met the requirements for commitment, ERCOT will initiate the Batch Zero Refinement Study.

(2) During the Batch Zero Refinement Study period, ERCOT shall update its Batch Zero Interconnection Study to evaluate if the remaining Large Loads under assessment still result in planning criteria violations and if the Transmission Facility improvements for 2028, 2030, and 2032 identified in the Batch Zero Interconnection Study require modification.

(3) ERCOT shall communicate with applicable Interconnecting DSPs and Interconnecting TSPs during ERCOT's evaluation. Each Interconnecting DSP and Interconnecting TSP shall promptly respond to all communications and provide recommendations to ERCOT as soon as practicable. Each Interconnecting DSP and Interconnecting TSP shall provide any Transmission Facility improvement cost estimates within 15 Business Days of ERCOT's request.

(4) ERCOT shall prepare a final report for the Batch Zero Refinement Study described in this Section. For each recommended Transmission Facility improvement, the final report shall include a description of the need for the improvement, cost estimates, the affected TSP, and any alternate improvements formally considered by ERCOT.

(5) ERCOT shall submit the final report for Regional Planning Group (RPG) Project Review by the date specified in paragraph (2)(d) of Section 9.3.1, unless the set of Transmission Facility improvements are classified as a Tier 4 project according to Protocol Section 3.11.4.3, Categorization of Proposed Transmission Projects. This final report shall serve as ERCOT's independent review in accordance with Protocol Section 3.11.4.6, Processing of Tier 2 Projects, or Protocol Section 3.11.4.7, Processing of Tier 1 Projects, unless ERCOT decides to create an updated final report based on comments received during the RPG Project Review.

(6) The Batch Zero Refinement Study described in this section shall not include an adjustment to the allocated peak Demand, the maximum allowed Low Power Consumption (LPC) values for any Large Load studied as a Provisional Controllable Load Resource (PCLR), the established MW Withdrawal limit and allocated peak Demand for any Large Load studied as a Withdrawal-Limited Private Use Network (WLPUN), financial security, or cost obligations for any Large Loads included in the Batch Zero Interconnection Study for which the Large Load has met the commitment requirements per Section 9.4, Batch Zero Report and Interconnecting Large Load Entity (ILLE) Commitment.

9.5.2 System Protection (Short-Circuit) Analysis

(1) The Interconnecting TSP shall perform a short-circuit analysis during the Batch Zero Refinement Study period.

(2) The short-circuit study shall use the ERCOT base cases posted per paragraph (3) of Section 9.3.2, Batch Zero Interconnection Study Methodology, appropriate for the desired Initial Energization date and Load Commissioning Plan (LCP) of the Load.

(3) The Interconnecting TSP will determine the maximum available fault currents at the interconnection substation and for the facilities impacted by the proposed transmission additions, to determine the required facility ratings and any additional necessary transmission upgrades that were not already identified in the initial Batch Zero Interconnection Study report.

(4) The Interconnecting TSP must provide the short-circuit study report to ERCOT on or before the date prescribed in paragraph (3) of Section 9.3.1, Batch Zero Process Overview and Timelines.

9.5.3 Treatment of Provisional Controllable Load Resources (PCLRs) in the Batch Zero Refinement Study

(1) ERCOT shall evaluate Large Loads meeting the commitment requirements for PCLRs defined in Section 9.4.1, Additional Commitments for Provisional Controllable Load Resources (PCLRs), in the same manner as other Large Loads included in the Batch Zero Refinement Study. The Demand level for a PCLR shall be set at the LPC as reflected in the updated LCP and interconnection agreement that meets the commitment requirements in Section 9.4, Batch Zero Report and Interconnecting Large Load Entity (ILLE) Commitment.

9.5.4 Treatment of Withdrawal-Limited Private Use Networks (WLPUNs) in the Batch Zero Refinement Study

(1) For WLPUNs meeting the commitment requirements defined in Section 9.4, Batch Zero Report and Interconnecting Large Load Entity (ILLE) Commitment, and Section 9.4.2, Additional Commitments for Withdrawal-Limited Private Use Networks (WLPUNs), ERCOT shall model both the associated Large Load and the generation in the Batch Zero Refinement Study. For the purposes of this study, the modeled generation dispatch will not be capped as described in paragraph (1)(a) of Section 9.3.2.2, Treatment of Withdrawal-Limited Private Use Networks (WLPUNs) in the Batch Zero Interconnection Study, and the WLPUN may inject power to the ERCOT System depending on the parameters of the Large Load and associated generation.

9.6 Initial Energization and Continuing Operations for Large Loads

(1) Each Large Load shall meet the conditions established by ERCOT before proceeding to Initial Energization. These conditions may include, but are not limited to:

(a) Inclusion of the Load in the Network Operations Model in accordance with Section 6.6, Modeling of Large Loads;

(b) Verification that all required telemetry is operational and accurate;

(c) Completion of the requirements of Section 5.3.5, ERCOT Quarterly Stability Assessment;

(d) Completion and approval of any required Subsynchronous Oscillation (SSO) studies, SSO Mitigation plan, SSO Countermeasures, and SSO monitoring, if required; and

(e) Submission of a current Load Commissioning Plan (LCP) meeting the requirements of Section 9.2.4, Load Commissioning Plan.

(2) During continuing operations:

(a) The Interconnecting Distribution Service Provider (DSP), Interconnecting Transmission Service Provider (TSP), or, if applicable, the Resource Entity shall notify ERCOT if it identifies that a Large Load has exceeded a limit on peak Demand established in the LCP.

(b) Pursuant to Section 9.2.3, Modification of Large Load Information, if an Interconnecting Large Load Entity (ILLE) modifies its facilities such that a previously provided dynamic load model is invalid, the ILLE shall notify and provide an updated model to the Interconnecting DSP and Interconnecting TSP that provides service to the Large Load. The Interconnecting DSP or Interconnecting TSP shall subsequently provide this updated dynamic load model to ERCOT.

9.6.1 Additional Energization and Operation Requirements for Provisional Controllable Load Resources (PCLRs)

(1) A Large Load that has not yet met the requirements to qualify as a Provisional Controllable Load Resource (PCLR) will be granted Initial Energization upon meeting the requirements of paragraph (1) of Section 9.6, Initial Energization and Continuing Operations for Large Loads, and receiving written approval to energize from ERCOT. The Large Load shall not consume at a level greater than the maximum Low Power Consumption (LPC) amount documented in the updated LCP attested to by the ILLE per paragraph (4) of Section 9.4, Batch Zero Report and Interconnecting Large Load Entity (ILLE) Commitment.

[PGRR145: Insert paragraphs (2) and (3) below upon system implementation:]

(2) A Large Load designated as a PCLR that has been granted Initial Energization per paragraph (1) above shall not consume above its LPC amount until:

(a) The ILLE registers with ERCOT as a Resource Entity and designates a Qualified Scheduling Entity (QSE);

(b) The ILLE provides all required data in the ERCOT Resource Integration and Ongoing Operations (RIOO) system and the PCLR is added to the ERCOT Network Operations Model;

(c) The ILLE provides all required telemetry to ERCOT and the telemetry is of good quality;

(d) The ILLE successfully completes all qualification testing required by ERCOT; and

(e) ERCOT provides the ILLE's QSE written confirmation that the requirements are complete.

(3) During qualification tests required in paragraph (2)(d) above, ERCOT may permit the PCLR to operate above the LPC limit if required to facilitate the test.

9.6.2 Additional Energization and Operation Requirements for Withdrawal-Limited Private Use Networks (WLPUNs)

(1) A Large Load in a Withdrawal-Limited Private Use Network (WLPUN) will be granted Initial Energization upon meeting the requirements of paragraph (1) of Section 9.6, Initial Energization and Continuing Operations for Large Loads, and receiving written approval to energize from ERCOT. The Large Load shall not consume at a level of gross Demand that causes the net Demand at the Point of Interconnection (POI) to exceed the established MW Withdrawal limit.

(2) A Large Load within a WLPUN may increase its Demand behind the POI commensurate with the output of the generation so long as the total consumption at the POI does not exceed the established MW Withdrawal limit only after the following conditions have been met:

(a) The associated generation has completed the commissioning process in accordance with paragraph (1) of Section 5.5, Generator Commissioning and Continuing Operations;

(b) All required telemetry for each Large Load is operational and of good quality;

(c) The established MW Withdrawal limit has been recorded in the Resource Registration data and incorporated in the ERCOT Network Operations Model pursuant to Protocol Section 3.10.7.3.1, Withdrawal-Limited Private Use Networks; and

(d) ERCOT provides the Resource Entity with written confirmation that the requirements of this paragraph have been met.

9.7 Required Disclosures

(1) The Interconnecting Large Load Entity (ILLE) must disclose to the Interconnecting Distribution Service Provider (DSP) or the Interconnecting Transmission Service Provider (TSP) whether the ILLE is pursuing a substantially similar interconnection request for electric service in Texas, the approval of which would result in the ILLE materially changing, delaying, or withdrawing the interconnection request. The disclosure must be accompanied by a notarized attestation from the ILLE stating that the information contained in the submission is complete and accurate at the time the notarized attestation is signed. A material change or delay includes a delay of one or more years to the Large Load's projected date to realize its requested or contracted peak Demand, a 20% or greater change in the requested or contracted peak Demand, or a change in the location for the point of interconnection.

(a) An ILLE that is pursuing a substantially similar interconnection request for electric service the approval of which would result in the ILLE materially changing, delaying, or withdrawing the interconnection request must disclose the following information to the Interconnecting DSP or the Interconnecting TSP:

(i) The ERCOT-assigned serial number (i.e., the Large Load interconnection number) for the substantially similar interconnection request, as applicable;

(ii) The location, including the power region and, if in the ERCOT region, the load zone, of the substantially similar interconnection request;

(iii) The non-coincident peak Demand of the substantially similar interconnection request;

(iv) The anticipated timing of energization of the substantially similar interconnection request; and

(v) The Interconnecting DSP and, if different from the Interconnecting DSP, the Interconnecting TSP associated with the substantially similar interconnection request.

(b) An ILLE that discloses a substantially similar interconnection request under this subsection may anonymize competitively sensitive information in its disclosure to the Interconnecting DSP or the Interconnecting TSP.

(c) An Interconnecting DSP and an Interconnecting TSP must not sell, share, or disclose information submitted to the Interconnecting DSP or the Interconnecting TSP under this subsection other than a disclosure to the Public Utility Commission of Texas (PUCT) or ERCOT.

(d) ERCOT may request and the ILLE must provide any competitively sensitive information ERCOT deems necessary to complete any analysis required as part of the interconnection process. ERCOT must treat disclosed competitively sensitive information as Protected Information under ERCOT Protocols.

(2) The ILLE must submit to the Interconnecting DSP or the Interconnecting TSP the ILLE's plans, expected timing, and progress for site-related studies and engineering services required for Large Load development before energization (e.g., geotechnical survey, water, wastewater, or gas). The submission must be accompanied by a notarized attestation from the ILLE stating that the information contained in the submission is complete and accurate at the time the attestation is signed. The ILLE must provide updates or progress reports to the Interconnecting DSP or the Interconnecting TSP when requested, but no more frequently than quarterly.

(3) The ILLE must submit to the Interconnecting DSP or the Interconnecting TSP the ILLE's plans, expected timing, and current progress for obtaining non-ministerial discretionary approvals from state and local regulatory authorities required for development before energization (e.g., water, air, or backup generation permits). The submission must be accompanied by a notarized attestation from the ILLE attesting that the information contained in the submission is complete and accurate at the time the attestation is signed. The ILLE must provide updates or progress reports to the Interconnecting DSP or the Interconnecting TSP when requested, but no more frequently than quarterly.

(4) The ILLE must disclose to the Interconnecting DSP or the Interconnecting TSP the expected schedule, including the quarter and year, for phased energization of the requested or contracted peak demand expressed in MW, power factor (PF), and megavolt ampere reactive (MVAr) units. The schedule must be consistent with any current Load Commissioning Plan (LCP).

(5) The ILLE must disclose to the Interconnecting DSP or the Interconnecting TSP whether the ILLE plans to have on-site backup generating facilities. If the ILLE plans to have on-site backup generating facilities, the ILLE must also disclose, to the extent known, the following information:

(a) The number of backup generating units;

(b) The nameplate capacity of each of the backup generating facilities;

(c) The fuel source and operational characteristics of each of the backup generating facilities, including any run hour limitations and any fuel storage limitations under the existing environmental permits; and

(d) How quickly each of the backup generating facilities can reach their full capacity to serve the Load.

(6) The ILLE must disclose how it plans to procure power and whether the ILLE has on-site generation that will provide power to the ILLE.

9.8 Legacy Interconnection Study Procedures for Large Loads

(1) This Section, previously known as Section 9.3, Large Load Interconnection Study (LLIS), outlines the former procedures for conducting a Large Load Interconnection Study (LLIS) for new or modified Large Loads. It has been replaced by the Batch Zero Process but has been retained here for reference.

9.8.1 Legacy Large Load Interconnection Study (LLIS)

(1) An LLIS consists of the set of steady-state, stability, short-circuit and other relevant studies that are necessary to determine the reliability impact of a Large Load interconnection on affected Transmission Facilities and identify the Transmission Facilities that are needed to reliably interconnect the new or modified Large Load to the ERCOT System.

(2) If an Interconnecting Entity (IE) or Resource Entity submits a large Generation Resource interconnection request, as defined in Section 5.3, Interconnection Study Procedures for Large Generators, that also includes a co-located Large Load, the Full Interconnection Study (FIS) may be used in place of a separate LLIS. The FIS shall reflect the full requested Load amount and conform to all study requirements detailed in Sections 5.3 and 9.8, Legacy Interconnection Study Procedures for Large Loads. For any deadlines or timelines set out in this section that conflict with the deadlines or timelines in Sections 5.2, General Provisions, and 5.3, the deadlines or timelines in Sections 5.2 and 5.3 shall govern.

(3) During the LLIS, the interconnecting Transmission Service Provider (TSP) shall be the lead TSP unless otherwise designated by ERCOT during the study scoping process detailed in Section 9.8.2, Legacy Large Load Interconnection Study Scoping Process.

(4) For an interconnection request involving a Large Load interconnecting at distribution voltage, the LLIS shall evaluate only the proposed Load's transmission-level impacts, if any. The affected Distribution Service Provider (DSP) shall provide the lead TSP with all information concerning the DSP's facilities needed to complete any required studies.

9.8.2 Legacy Large Load Interconnection Study Scoping Process

(1) ERCOT will notify the interconnecting TSP after all requirements have been met. Within ten Business Days of this notification, the lead TSP shall schedule a kick-off meeting with ERCOT and the certificated DSP to occur soon thereafter. If the proposed project is co-located with a Generation Resource, the kick-off meeting must also include the affected Resource Entity or IE. The lead TSP shall invite the Interconnecting Large Load Entity (ILLE) to attend the kick-off meeting. The ILLE may attend at its option.

(2) ERCOT will notify all other TSPs of the LLIS request. Each TSP may evaluate if it is directly affected by the interconnection request and determine if it should participate in the LLIS. Examples of a directly affected TSP may include, but are not limited to, a TSP whose facilities are likely to experience changes in voltage or power flow because of the Load interconnection request.

(3) Each directly affected TSP desiring to participate in the LLIS shall promptly notify the lead TSP and ERCOT and must provide a description of the expected effect of the Load interconnection on the TSP's facilities in its notification. The lead TSP shall include all directly affected TSP(s) in the LLIS kickoff meeting.

(4) At the LLIS kickoff meeting, the lead TSP will present the proposed project and facilitate a general discussion of the preliminary study scope of work for the LLIS.

(5) Any reactive studies required under Protocol Section 3.15, Voltage Support, or Subsynchronous Oscillation (SSO) studies required under Protocol Section 3.22.1.4, Large Load Interconnection Assessment, shall be scoped simultaneously with the LLIS but do not need to be included as part of the LLIS. The Resource Entity responsible for the reactive study shall provide it to ERCOT directly.

(6) The lead TSP will develop a preliminary LLIS study scope within ten Business Days following the kickoff meeting.

(a) The study scope must include all study elements required by Section 9.8.4, Legacy Large Load Interconnection Study Elements, unless ERCOT in collaboration with the TSP(s) determine that one or more studies are unnecessary. If a study element is deemed unnecessary, the lead TSP shall provide a written technical justification for not performing the analysis in lieu of the study report.

(b) The study scope shall specify the base cases, study assumptions, and scenarios that will be used in each LLIS element. Any transmission facilities that will not be in service before Initial Energization of the proposed Load that may significantly impact the study results, as initially identified by the lead TSP during the project kickoff meeting, shall be documented in the study scope. All study assumptions related to maintenance outage scenarios required under Section 4.1.1.8, Maintenance Outage Reliability Criteria, shall be explicitly identified in the study scope.

(c) The study scope shall specify the involvement of any directly affected TSPs in the study process. In some cases, it may be necessary for the ILLE to execute study agreements with multiple TSP(s).

(d) The lead TSP may propose interconnection design alternatives during the scoping process. Such alternative options shall be fully studied in all required LLIS study elements.

(7) The lead TSP shall submit the preliminary study scope for review by ERCOT and all directly affected TSPs, including TSPs which may be directly affected due to proposed interconnection topology. Directly affected TSPs and ERCOT may provide comments on the preliminary study scope within ten Business Days of posting.

(8) Upon closing of the comment period described in paragraph (7) above, the lead TSP shall, within ten Business Days, submit a final study scope that addresses submitted comments to the extent possible. ERCOT in collaboration with the TSP(s) shall determine the study scope.

(9) Within five Business Days of the lead TSP submitting the final study scope, ERCOT shall approve the final study scope or return the scope to the lead TSP with comments. The lead TSP shall promptly address ERCOT comments and resubmit according to paragraph (8) above.

9.8.3 Legacy Large Load Interconnection Study Description and Methodology

(1) The primary purpose of the LLIS is to determine whether the amount of Load being requested by the ILLE can be placed in service by the desired Initial Energization date while maintaining the reliability of the ERCOT System and ensuring compliance with all North American Electric Reliability Corporation (NERC) Reliability Standards, Protocols, this Planning Guide, and the Operating Guides. The LLIS will also identify any transmission improvements needed to serve the full requested Load amount, including individual load increments requested by the ILLE in the initial Load Commissioning Plan (LCP).

(2) The LLIS consists of a series of distinct study elements. The specific elements included in a particular LLIS will be stated in the LLIS scope.

(3) Each proposed Large Load interconnection that requests more than one physical transmission interconnection will be studied as an individual study for each interconnection to be analyzed separately from all other such requests unless otherwise agreed by the TSP(s) in the interconnection study agreement.

(4) The LLIS process includes developing and analyzing various computer model simulations of the existing and proposed ERCOT transmission system. The results from

these simulations will be utilized by the TSP(s) to determine the impact of the proposed interconnection.

(5) The study shall include an analysis demonstrating the adequate reliability of any temporary interconnection configurations.

9.8.4 Legacy Large Load Interconnection Study Elements

9.8.4.1 Legacy 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 appropriate for the desired Initial Energization date of the Load. The lead TSP shall remove from the study base case all Transmission Facilities it determines may significantly impact study results that will not be in service before Initial Energization of the proposed Load, as identified in the preliminary LLIS study scope. The steady-state analysis shall include other relevant Large Loads and any transmission upgrades included in the LCPs for those Large Loads that have a complete LLIS per paragraph (7) of Section 9.9, Legacy LLIS Report and Follow-up, and that have met the requirements of Section 9.10, Legacy Interconnection Agreements and Responsibilities. The lead TSP may include other transmission projects and Substantiated Load in the study base case. All modifications to the SSWG base case made as part of the study assumptions shall be documented in the LLIS report.

(2) The lead TSP shall perform contingency analyses as required by the NERC Reliability Standards, ERCOT Nodal Protocols, this Planning Guide, and the Operating Guides to identify any additional Facilities that may be necessary to ensure that results of the system performance conform to these standards. The study shall identify any system limitations that would prevent the ILLE from achieving the requested load in the desired timeframe. If the study identifies system limitations, the lead TSP shall identify potential transmission system improvements necessary to achieve the requested Load. The results of this analysis shall be shared with TSP(s) that have Facilities identified with planning criteria violations, and those affected TSP(s) will be responsible for evaluating the impact of the Large Load and the validity of the anticipated violations.

(3) Upon completion of the steady-state study as described in paragraph (2) above, the lead TSP shall identify any modifications to the levels of Demand and timeline specified in the ILLE's initial LCP that are needed to account for all transmission upgrades required to support the full requested amount of Load.

9.8.4.2 Legacy System Protection (Short-Circuit) Analysis

(1) The short-circuit study shall use the most recently approved System Protection Working Group (SPWG) base case appropriate for the desired Initial Energization date of the

Load. The initial transmission configuration of the study area shall correspond to the configuration used in the corresponding steady-state study to the extent practicable.

(2) The lead TSP will determine the maximum available fault currents at the interconnection substation for determining switching device interrupting capabilities and protective relay settings.

9.8.4.3 Legacy Dynamic and Transient Stability Analysis

(1) The lead TSP shall not initiate the stability study prior to receiving from the ILLE dynamic load modeling information sufficient to properly model the load in the stability studies. The TSP shall check the dynamic load information according to the procedure specified in Section 3.4.4, Load Model Data, of the Dynamics Working Group Procedure Manual.

(2) The stability study base case shall be created from the most recently approved Dynamics Working Group (DWG) base case appropriate for the desired Initial Energization date of the Load. The initial transmission configuration of the study area shall be consistent with the configuration used in the corresponding steady-state study to the extent practicable.

(3) All stability studies shall be performed in accordance with NERC Reliability Standards, Protocols, this Planning Guide, and the Operating Guides. Transient stability studies will analyze the performance of the ERCOT System in terms of angular stability, voltage stability, and excessive frequency excursions. Additional studies may include small signal stability or critical clearing time analyses. Such studies should incorporate reasonable and conservative assumptions regarding impacted facility operating conditions. ERCOT in collaboration with the TSP(s) shall determine the stability analysis to be performed.

(4) The stability study portion of the LLIS shall document any identified instability.

(5) If the lead TSP identifies instability (other than instability identified for extreme events) in the stability portion of the LLIS, the TSP shall investigate alternative solutions, including transmission improvements, to mitigate the instability. The lead TSP shall identify any modifications to the levels of Demand and the timeline specified in the ILLE's initial LCP that are needed to account for all transmission upgrades required to support the full requested amount of Load. The TSP shall implement any mitigation measure that may be needed to address a stability risk before the Initial Energization of the Large Load in accordance with Protocol Section 3.11.4, Regional Planning Group Project Review Process.

9.9 Legacy LLIS Report and Follow-up

(1) This Section, previously known as Section 9.4, LLIS Report and Follow-up, outlines the former procedures for informing an Interconnecting Large Load Entity (ILLE) the results of its Large Load Interconnection Study (LLIS). It has been replaced by the Batch Zero Process but has been retained here for reference.

(2) For each of the LLIS study elements, the lead Transmission Service Provider (TSP) shall submit a preliminary study report to ERCOT and other directly affected TSPs. The report shall include a description of the study methodology and assumptions, findings, and recommendations. The report shall also identify any changes to the Interconnecting ILLE's Load Commissioning Plan (LCP) to allow for transmission upgrades in accordance with the criteria in Section 9.8.4, Legacy Large Load Interconnection Study Elements. The lead TSP may include additional information in the study report and may combine multiple LLIS study elements into a single report.

(3) ERCOT shall review the preliminary study report within ten Business Days and provide to the lead TSP any questions, comments, and proposed revisions necessary to ensure the report complies with the requirements in Section 9.8, Legacy Interconnection Study Procedures for Large Loads. ERCOT may extend this review period by an additional 20 Business Days and shall notify in writing the lead and directly affected TSPs of the extension. Directly affected TSPs may also provide questions, comments, and proposed revisions during this review period. All comments from ERCOT and directly affected TSPs shall be provided to the lead TSP in writing.

(4) If, after considering the responses received from ERCOT and directly affected TSPs, ERCOT in collaboration with the lead TSP determines if an additional study is required, the lead TSP shall promptly perform the additional study and submit an updated preliminary study report for review as described in paragraph (2) above.

(5) If no additional study is required as described in paragraph (4) above, the lead TSP shall prepare a final LLIS study report that incorporates all relevant feedback received in paragraph (2) above within ten Business Days.

(6) When complete, the lead TSP shall provide the final report for the LLIS study element(s) to ERCOT and the directly affected TSPs only.

(7) The LLIS is deemed complete when the final report has been provided for all LLIS study elements. Within ten Business Days following the completion of the LLIS, ERCOT shall:

(a) Determine whether system upgrades recommended to support the full requested Load amount specified in the initial LCP are sufficient based on the report in paragraph (6) above;

(b) Grant conditional approval for the interconnection of Load in accordance with the schedule in the final LCP, as may be revised by the TSP, as the necessary transmission upgrades identified in the LCP become operational, if ERCOT has determined pursuant to paragraph (a) above that the system upgrades recommended in the LLIS are sufficient to address the reliability risks associated with the proposed load additions;

(i) For transmission upgrades that are subject to Regional Planning Group (RPG) review as described in Protocol Section 3.11.4, Regional Planning Group Project Review Process, ERCOT shall grant conditional approval if it determines that a project with an equivalent impact on the ability to serve the requested Load has become operational; and

(c) Communicate the completion of the LLIS and the resulting LCP to the lead TSP and directly affected TSPs.

(8) The lead TSP may provide a redacted copy of the final report for each LLIS study element to the ILLE upon request. The redacted report(s) shall conform with Protocol Section 1.3, Confidentiality.

(9) If a material change that impacts one or more LLIS study assumptions occurs before the requirements of Section 9.10, Legacy Interconnection Agreements and Responsibilities, have been met, ERCOT or the lead TSP may require one or more LLIS study elements be updated. ERCOT in collaboration with the lead TSP shall have discretion to determine if a change impacts any LLIS study assumptions and to require a modification of the study or a restudy be performed. Any modification of the study report shall be treated as a preliminary study and reviewed according to paragraph (2) above.

(10) If the requirements of Section 9.10 have not been satisfied within 180 days after the communication of the completion of the LLIS by ERCOT as described in paragraph (7) above, ERCOT may notify the lead TSP that the project is subject to cancellation. Upon receipt of this notification, the lead TSP may submit a project status update to ERCOT that includes a request for an extension and provides an opinion on whether any of the completed LLIS elements require restudy. If no such project status update is received within 30 days from the date the notice is issued, ERCOT may consider the project canceled.

(11) If the Large Load has not met the requirements for Initial Energization as described in paragraph (1) of Section 9.6, Initial Energization and Continuing Operations for Large Loads, within 365 days after the Initial Energization date identified in the LLIS study report, the lead TSP shall provide an opinion to ERCOT on whether any of the completed LLIS elements require restudy. ERCOT may require one or more LLIS study elements be updated prior to approval of Initial Energization.

9.10 Legacy Interconnection Agreements and Responsibilities

(1) This Section, previously known as Section 9.5, Interconnection Agreements and Responsibilities, outlines the former requirements an Interconnecting Large Load Entity must meet prior to Initial Energization. It has been replaced by the Batch Zero Process but has been retained here for reference.

9.10.1 Legacy Interconnection Agreement for Large Loads not Co-Located with a Generation Resource Facility

(1) For a Large Load not co-located with a Generation Resource Facility, ERCOT shall not allow Initial Energization prior to receiving one of the following:

(a) Confirmation from the interconnecting Transmission Service Provider (TSP) that:

(i) All required interconnection agreements or equivalent service extension agreements with the Interconnecting Large Load Entity (ILLE) and, if applicable, directly affected TSP(s) have been executed;

(ii) The interconnecting TSP has received written acknowledgement from the ILLE of the ILLE's obligations to:

(A) Notify the interconnecting TSP of changes to the Large Load project information or to the load composition, technology, or parameters, as described in Section 9.2.3, Modification of Large Load Information; and

(B) Maintain Load consumption at or below the level(s) of peak Demand established in the Load Commissioning Plan (LCP);

(iii) The interconnecting TSP has received notice to proceed with the construction of all required interconnection Facilities; and

(iv) The interconnecting TSP and, if applicable, directly affected TSP(s) have received the financial security, applicable payments, and/or other agreements required to fund all required interconnection Facilities; or

(b) A letter from a duly authorized person from a Municipally Owned Utility (MOU) or Electric Cooperative (EC) confirming its intent to construct and operate applicable Large Load and interconnect such Large Load to its transmission system.

9.10.2 Legacy Interconnection Agreement for Large Loads Co-Located with One or More Generation Resource Facilities

(1) For a Large Load co-located with a Generation Resource Facility, ERCOT shall not allow Initial Energization prior to receiving one of the following:

(a) Confirmation from the interconnecting TSP that:

(i) All required interconnection agreements and/or equivalent service extension or other agreements with the Resource Entity, Interconnecting Entity (IE), and ILLE have been executed;

(A) If the required agreements include a new Standard Generation Interconnection Agreement (SGIA) or an amendment to an existing SGIA, a copy of this agreement shall be provided to ERCOT once executed, per Section 5.2.8.1, Standard Generation Interconnection Agreement for Transmission-Connected Generators; or

(B) If no new or amended agreements are required, the interconnecting TSP shall so notify ERCOT and state affirmatively it agrees to energize the new Load per the approved LLIS studies;

(ii) The interconnecting TSP has received written acknowledgement from either the ILLE, or the Resource Entity on behalf of the ILLE, of the obligations to:

(A) Notify the interconnecting TSP of changes to the Large Load project information or to the load composition, technology, or parameters, as described in Section 9.2.3, Modification of Large Load Information; and

(B) Maintain Load consumption at or below the level(s) of peak Demand established in the LCP; and

(iii) The interconnecting TSP has received notice to proceed with the construction of all required interconnection Facilities; and

(iv) The interconnecting TSP and, if applicable, directly affected TSP(s) have received the financial security required, applicable payments, and/or other agreements to fund all required interconnection Facilities; or

(b) A letter from a duly authorized person from a MOU or EC confirming its intent to construct and operate applicable Large Load and interconnect such Large Load to its transmission system.