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| PGRR Number | [134](https://www.ercot.com/mktrules/issues/PGRR134) | PGRR Title | Interconnection Studies Reform for Dispatchable Loads |
| Date of Decision | | December 4, 2025 | |
| Action | | Tabled | |
| Timeline | | Normal | |
| Proposed Effective Date | | To be determined | |
| Priority and Rank Assigned | | To be determined | |
| Planning Guide Sections Requiring Revision | | 2.1, Definitions  4.1.1.1 Planning Assumptions  4.1.1.7, Minimum Deliverability Criteria 6.1, Steady-State Model Development | |
| Related Documents Requiring Revision/Related Revision Requests | | None | |
| Revision Description | | This PGRR allows Interconnecting Large Load Entities (ILLEs) to submit an NPRR1188-compliant Controllable Load Resources (CLR) election to the reviewing Transmission Service Provider (TSP). TSPs treat the election as a CLR Election Study input, model the site as an NPRR1188-compliant CLR, and may authorize earlier energization when constraints can be mitigated by dispatch down to the CLR Low Power Consumption (LPC), which may equal zero for the CLR. All Load would still be studied for delivery of their full capacity with timelines for firm network service outlined in the Load Commissioning Plan (LCP).  Additionally, this PGRR directs that each proposed Large Load that elects to be studied as a CLR will be studied using the LPC and Maximum Power Consumption (MPC) provided as part of project information described in Section 9.2.2, Submission of Large Load Project Information and Initiation of the Large Load Interconnection Study (LLIS). It further directs that for the purposes of the Large Load Interconnection Study Methodology, CLRs will be studied assuming registration and qualification under NPRR1188 or any successor provision.  Finally, this PGRR prohibits a CLR from using this program if it would impair a previously submitted Large Load’s requested energization date or energization capacity and that ERCOT may specify Interconnection Reliability Operating Limits (IROLs) or other reliability related transmission limits which cannot be resolved with CLR dispatch. | |
| Reason for Revision | | [Strategic Plan](https://www.ercot.com/files/docs/2023/08/25/ERCOT-Strategic-Plan-2024-2028.pdf) Objective 1 – Be an industry leader for grid reliability and resilience  [Strategic Plan](https://www.ercot.com/files/docs/2023/08/25/ERCOT-Strategic-Plan-2024-2028.pdf) Objective 2 - Enhance the ERCOT region’s economic competitiveness with respect to trends in wholesale power rates and retail electricity prices to consumers  [Strategic Plan](https://www.ercot.com/files/docs/2023/08/25/ERCOT-Strategic-Plan-2024-2028.pdf) Objective 3 - Advance ERCOT, Inc. as an independent leading industry expert and an employer of choice by fostering innovation, investing in our people, and emphasizing the importance of our mission  General system and/or process improvement(s)  Regulatory requirements  ERCOT Board/PUCT Directive  *(please select ONLY ONE – if more than one apply, please select the ONE that is most relevant)* | |
| Justification of Reason for Revision and Market Impacts | | NPRR1188, approved by the Public Utility Commission of Texas (PUCT) in November 2024 with a 12–24 month implementation window, changes dispatch and pricing for CLRs that are not Aggregate Load Resources (ALRs), to advance utilization of Load Resources for grid reliability. It focuses on market design and technical measures that make price signals to load transparent. The approved description states that Resources will be dispatched “using their locational nodal shift factor,” which “is essential for efficient congestion management.” ILLEs that elect CLR status must be assigned a Resource Node Settlement Point and must follow Security-Constrained Economic Dispatch (SCED) Base Points while consuming; OUTL may be telemetered only when the CLR is truly out and consuming 0 MW.  ERCOT has now created a durable incentive for loads to contribute to reliability as CLRs. To close the loop for successful reliability, load energization, and Customer outcomes for all loads constrained by base case and N-1 violations today, interconnection studies should recognize the same mechanics to solve constraints that bind in load studies which will govern how these Resources will be re-dispatched to solve transmission constraints in Real-Time operations.  Allowing new loads to be studied as CLRs today increases planning efficiency and targets ratepayer funded transmission upgrade, while giving loads faster energization with delivery risk borne by the Customer that chose to do so. This approach aligns with NPRR1188’s CLR operational framework and should be in force before any electing load studied now is energized.  On October 23, 2025, ERCOT presentation at the PUCT Open Meeting emphasized need to accelerate the implementation of NPRR1188 immediately after RTC effort. ERCOT stated that “Large Loads which are flexible could utilize available transmission capacity if they are willing to curtail under certain conditions.” It is urgent that this PGRR advance in parallel to ensure seamless integration and planning alignment. | |
| ROS Decision | | On 12/4/25, ROS voted unanimously to table PGRR134 and refer the issue to the Planning Working Group (PLWG). All Market Segments participated in the vote. | |
| Summary of ROS Discussion | | On 12/4/25, participants noted offline discussions with the sponsor of PGRR134 which indicated they supported tabling PGRR134 until the January ROS to allow for additional review and comments. | |

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| **Opinions** | |
| **Credit Review** | Not applicable |
| **Independent Market Monitor Opinion** | To be determined |
| **ERCOT Opinion** | To be determined |
| **ERCOT Market Impact Statement** | To be determined |

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| Sponsor | |
| Name | Arushi Sharma Frank |
| E-mail Address | [arushisharmafrank@live.com](mailto:arushisharmafrank@live.com) |
| Company | Luminary Strategies, LLC  With coalition support from:  Agentic Infrastructure, LLC  Brightfield Infrastructure, LLC  Cholla Petroleum, Inc.  Clean AI Energy  Cloverleaf Infrastructure  Cypress Creek Renewables  Distributed Sun LLC  Emerald AI  Energy Innovation Hub Texas  Engelhart Commodities Trading Partners US, LLC  ImpactECI  Infinium Operations, LLC  Jigar Shah (Personal Capacity)  Knowledge Problem LLC  Luminary Strategies, LLC  Mainspring Energy, Inc.  Monarch Energy  Novi Strategies LLC  PharrisLLC  Piq Energy  Point Three LLC  Schaper Energy Consulting, LLC  Stoic Energy, LLC  Verrus |
| Phone Number | 571-572-9037 |
| Cell Number |  |
| Market Segment | Not applicable |

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| **Phone Number** | 512-248-6464 |

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| **Comments Received** | |
| **Comment Author** | **Comment Summary** |
| Luminary Strategies 110125 | Provided a list of parties in support of PGRR134 |
| Agentic Infrastructure 110325 | Provided a presentation on the commercial and procedural intent behind PGRR134 |
| Schaper Energy Consulting 110325 | Expressed support for PGRR134 |
| Luminary Strategies 110425 | Formally withdrew the request for Urgent status |
| ERCOT 110525 | Expressed concerns with PGRR134 as written, and noted a companion Nodal Protocol Revision Request (NPRR) would likely be needed to fully implement the concepts within PGRR134 |
| Cypress Creek Renewables 110525 | Expressed support for PGRR134 |
| impactECI 110525 | Expressed support for PGRR134 |
| Joint Commenters 111425 | Proposed additional redlines based on stakeholder discussions with remove the separate “CLR Election Study” from PGRR134 |
| Emerald AI 111725 | Expressed support for PGRR134 |
| Luminary Strategies 111725 | Provided a response to issues raised in ERCOT’s presentation to the 11/18/25 PLWG meeting |
| GridCARE 112025 | Expressed support for PGRR134 |

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| Market Rules Notes |

Please note the following Planning Guide Revision Request(s) also propose revisions to the following section(s):

* PGRR126, Related to NPRR1284, Guaranteed Reliability Load Process
  + Section 4.1.1.1

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| Proposed Guide Language Revision |

**2.1 DEFINITIONS**

Controllable Load Resource (CLR) Election Study

A parallel, non-firm interconnection study performed at the request of an Interconnecting Large Load Entity (ILLE) to evaluate whether constraints can be mitigated by operating the proposed Large Load as a Controllable Load Resource (CLR).

Manual System Adjustment

Operator actions, with consequences allowed by Section 4, Transmission Planning Criteria, in response to an outage in the ERCOT System, including, but not limited to circuit switching or changes to schedules of Controllable Load Resources (CLRs), Generation Resources, but excluding the physical repair or replacement of any damaged equipment.

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| [PGRR118: Replace the definition “Manual System Adjustment” above with the following upon system implementation of NPRR1246:]  Manual System Adjustment  Operator actions, with consequences allowed by Section 4, Transmission Planning Criteria, in response to an outage in the ERCOT System, including, but not limited to circuit switching or changes to schedules of Controllable Load Resources (CLRs), Generation Resources and Energy Storage Resources (ESRs), but excluding the physical repair or replacement of any damaged equipment. |

**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.

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| ***[PGRR115: Insert paragraph (7) below upon system implementation of NPRR1234 and renumber accordingly:]***  (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. |

(7) 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.

(8) A proposal by an Interconnecting Large Load Entity (ILLE) to energize a Controllable Load Resource (CLR) outside of its Load Commissioning Plan LCP is evaluated in a CLR Election Study. The CLR Election Study is a non-firm interconnection sensitivity to evaluate whether identified transmission constraints can be managed by operating the proposed Large Load as a CLR. The CLR Election Study does not modify the scope or timing of the Large Load energization and interconnection as a firm Load. Findings may support provisional operating conditions or interim energization before any transmission network upgrades are completed. To qualify:

(a) Steady state studies and evaluations of proposed Real-Time Energy Bids demonstrate that the operation of the proposed CLR can resolve the identified constraints;

(b) For transmission screening, the TSP/ERCOT may redispatch the proposed CLR down to its Low Power Consumption (LPC), including 0 MW, to test mitigation of binding base case or N-1 constraints. Study modeling shall not represent any CLR ‘opt-out’ state; a CLR is either ON and following SCED or OUTL = Off-Line at 0 MW;

(c) The proposed CLR must not impact any specific IROLs or other reliability related transmission limits identified by ERCOT which it believes cannot be resolved with CLR dispatch;

(d) The proposed CLR must provide sufficient information to enable the TSP to determine that the CLR request does not impair a previously submitted Large Load’s energization timing or desired energization levels; and

(e) The proposed CLR must be eligible to receive a nodal price;

(9) A CLR registered for the purposes of paragraph (8) above may choose to be retired at the Resource Node if the network upgrades identified by the LCP are completed or the TSP otherwise determines there are not unanticipated system impacts, or may choose to continue to operate as a CLR after the network upgrades are completed.

**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. This includes an Interconnecting Large Load Entity (ILLE) electing Controllable Load Resource (CLR) treatment pursuant to paragraph (8) of Section 4.1.1.1, Planning Assumptions, to be dispatched to their Low Power Consumption (LPC), up to and including 0 MW.

(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.

**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. The schedule for posting all steady-state base cases shall be made available on the MIS Secure Area.

(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 Controllable Load Resource (CLR) and Generation Resource model data provided by the Interconnecting Entity (IE) during the generation interconnection process in accordance with Section 5, Generator Interconnection or Modification.

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| ***[PGRR118: Replace paragraph (e) above with the following upon system implementation of NPRR1246:]***  (e) ERCOT shall utilize proposed Controllable Load Resource (CLR), 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) In cases that include electing CLRs associated with Large Loads, the operating state shall be ON and SCED-dispatchable, or OUTL only when Off-Line at 0 MW;

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

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| ***[PGRR118: Replace paragraph (g) above with the following upon system implementation of NPRR1246:]***  (g) ERCOT shall determine the operating state of CLRs, Generation Resources, and ESRs (MW, MVAr) using a security-constrained economic dispatch tool. |

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

(i) ERCOT shall utilize CLR model data when evaluating a CLR planning proposal described in paragraph (8) of Section 4.1.1.1, Planning Assumptions.