*Last Updated: 3/17/2025 – POIB Value in the table of VRT-8 change from 0.05 to 0.5*

This document should be completed only for projects in the Generation Interconnection or Modification (GIM) queue which:

* Wish to request an extension or exemption pursuant to Nodal Operating Guide Section 2.12 and meet the criteria for an extension or exemption
* Represent the addition of Generation Resources or Energy Storage Resources (as opposed to Settlement Only Generation)
* Represent the addition of IBRs or WGRs to be transmission-connected
* Do not have an approved Production Load Date (PLD)

This document should not be completed for Resources already commissioned, in the commissioning process, or with an approved PLD. A separate process, as described in Market Notice M-A010825-03, has been initiated via DocuSign for these Resources.

# Instructions for Submitting Ride-Through Information to ERCOT

*(****Note****: the submission process described below cannot be completed until the Resource Integration and Ongoing Operations (RIOO) system R2 release on 2/28/25)*

Throughout this document there are specific placeholder locations to provide responses for each question. These locations are the only place where responses are permitted.

A detailed guide to creating a Change Request within the Resource Integration and Ongoing Operations (RIOO) system and attaching documents can be found [here](https://www.ercot.com/files/docs/2022/01/14/Managing-Your-INR-as-an-IE-or-RE.pdf) in the “Attaching Documents to the INR” section.

Steps to complete the submission of ride-through information via RIOO:

1. Complete this document once per interconnection project
2. Create a single .zip file containing:
   * This completed document
   * All files referenced in the responses below
3. Navigate to the RIOO [landing page](https://sa.ercot.com/rioo-rs/springboard) and select the Interconnection Services application
4. Locate the pertinent Interconnection Request
5. From the Actions column, click “Add Change Request”
6. Select “Update My INR” and “Attach New Documents”
7. Select “NOGRR245 Ride-Through Requirements” using the file type drop down. *(****Note****: this file type is not available until after the R2 RIOO release on 2/28/25)*
8. Select “Choose File” and select the .zip file referenced in step 2 above
9. Provide any desired comments and submit the change request

**Ride-Through RFI for Proposed Resources in Generation Interconnection or Modification Queue**

(Market Notice:  [M-A010825-03](https://www.ercot.com/services/comm/mkt_notices/M-A010825-03))

The Public Utility Commission of Texas approved NOGRR 245 to be effective October 1, 2024. Accordingly, the revised ride-through requirements in the Nodal Operating Guides (NOG) are currently in effect. ERCOT has developed an intake process for data associated with the requirements established through NOGRR 245 and this document implements that process.

**NOTE: If you intend to request an exemption or extension for your PROPOSED Resource, you must submit the requested information by midnight on April 1, 2025 or you will be forever barred from requesting an exemption or extension.** *See*, Nodal Operating Guide § 2.11.1(2); § 2.11.2(2) and § 2.12.1(2).

Submitter Name: Click or tap here to enter text.

Submitter Title: Click or tap here to enter text.

Date: Click or tap to enter a date.

General Comments:Click or tap here to enter text.

# General Information

|  |  |
| --- | --- |
| Interconnecting Entity (IE) Name: | Click or tap here to enter text. |
| IE Data Universal Numbering System (DUNS) Number: | Click or tap here to enter text. |
| Project Name: | Click or tap here to enter text. |
| Project Interconnection Request Number (ex. 25INR6789): | Click or tap here to enter text. |
| Fuel Type: | Choose an item. |
| If Applicable, Wind Turbine Type: | Choose an item. |
| Does the proposed Resource have a signed Standard Generation Interconnection Agreement (SGIA) dated prior to August 1, 2024? | Choose an item. |
| Does the proposed Resource have a signed SGIA dated on or after August 1, 2024? | Choose an item. |
| Has the proposed Resource been through Full Interconnection Study (FIS)? | Choose an item. |
| Has the proposed Resource been through a Quarterly Stability Assessment (QSA)? | Choose an item. |

Comments: Click or tap here to enter text.

# Frequency Ride-Through

1. Based on the proposed Resource’s designed maximum FRT performance capability, provide the ride-through time (in seconds) at the specified frequency levels in the table below:

|  |  |  |
| --- | --- | --- |
| **Frequency (Hz) at POIB** | **Required (seconds)** | **Design (seconds)** |
| 61.8 | 299 | Click or tap here to enter text. |
| 61.6 | 540 | Click or tap here to enter text. |
| 58.8-61.2 | continuous | Choose an item. |
| 58.4 | 540 | Click or tap here to enter text. |
| 57 | 299 | Click or tap here to enter text. |

I attest the table above accurately represents the designed maximum FRT performance capability of the proposed Resource and all its inter-dependent systems (such as plant controls, turbine controls and/or inverter controls - not just protective relay settings).

Choose an item.

Click or tap here to enter text.

1. Provide a complete designed maximum FRT performance capability curve (0-600 seconds) superimposed on the minimum applicable requirement.  
   NOTE: Submit pdf, image, or excel for curve.

Click or tap here to enter text.

1. If the proposed Resource has a Standard Generation Interconnection Agreement (SGIA) dated before 8/1/24 and will not be able to meet Operating Guides Sections 2.6.2.1(1)-(6) by 12/31/25, do you intend to request an extension to meet Sections 2.6.2.1(1)-(6)?

Choose an item.

If yes, please submit the Initial Frequency Ride-Through Capability Report (IFRTCR) described in Operating Guides Section 2.11.1(1).

Click or tap here to enter text.

If yes, will the proposed Resource meet the FRT requirements in effect on 5/1/24 until it maximizes its FRT capability? [Sec. 2.6.2.1(7)]

Choose an item.

1. If the proposed Resource has a SGIA dated before 8/1/24 and will not meet Operating Guides Sections 2.6.2.1(1)-(5), will it be able to ride through the frequency conditions in the table in Section 2.6.2.1.1(2)? [Sec. 2.6.2.1.1(1)]

Choose an item.

If no, please provide the information required in Operating Guides Section 2.11

Click or tap here to enter text.

Click or tap here to enter text.

1. ​I attest the proposed Resource’s designed maximum FRT performance capability will meet or exceed or achieve as close as reasonably possible, the capability and performance requirements in Operating Guides Section 2.6.2.1: (i) by 12/31/25; (ii) by its synchronization date if the Resource will synchronize after 12/31/25; or (iii) by the end of any extension obtained for the Resource.

Choose an item.

If not, why will the proposed Resource’s designed maximum FRT performance capability not exceed or achieve as close as reasonably possible, the capability and performance requirements in Operating Guides Section 2.6.2.1 by: (i) 12/31/25; (ii) its synchronization date; or (iii) by the end of any extension obtained for the Resource?

Click or tap here to enter text.

1. If already submitted, I attest all dynamic models including PSSE, TSAT, and PSCAD for the proposed Resource are accurate and reflect designed maximum FRT performance capability.

Choose an item.

If no, explain why the models are not accurate or do not reflect designed maximum FRT performance capability.

Click or tap here to enter text.

1. If not already submitted, I attest all dynamic models including PSSE, TSAT, and PSCAD for the proposed Resource will be accurate and reflect designed maximum FRT performance capability when submitted.   
   Choose an item.

If no, explain why the models will not be accurate or will not reflect designed maximum FRT performance capability when submitted.

Click or tap here to enter text.

# Voltage Ride-Through

1. I attest the proposed Resource’s designed maximum VRT performance capability (consistent with Good Utility Practice) will meet or exceed or achieve as close as reasonably possible, the capability and performance in Operating Guide Sections 2.9.1, 2.9.1.1 or 2.9.1.2, as applicable

Choose an item.

If no, why can you not attest the proposed Resource will meet or exceed or achieve as close as reasonably possible, the capability and performance in Operating Guide Sections 2.9.1, 2.9.1.1 or 2.9.1.2, as applicable.

Click or tap here to enter text.

1. After maximizing the proposed Resource’s designed maximum VRT performance capability (consistent with Good Utility Practice), will all instantaneous over-current or over-voltage protection systems installed and activated to trip the Resource use filtered quantities or time delays sufficient to prevent misoperation while providing the desired equipment protection?   
   Choose an item.
2. After maximizing the proposed Resource’s designed maximum VRT performance capability (consistent with Good Utility Practice), will all alternating current instantaneous over-voltage protection that could disrupt power output use a measurement period of at least one cycle (of fundamental frequency)?

Choose an item.

1. After maximizing the proposed Resource’s designed maximum VRT performance capability (consistent with Good Utility Practice), will the Resource use Rate of Change of Frequency measurement quantities to reduce power output or trip offline during fault conditions and subsequent recovery to a steady-state operating point within the applicable ride-through profiles in Operating Guides Section 2.9.1.1(1) or 2.9.1.2(1), as applicable?

Choose an item.

1. After maximizing the proposed Resource’s designed maximum VRT performance capability (consistent with Good Utility Practice), will the Resource use phase angle jump measurement quantities to reduce power output or trip offline during fault conditions and subsequent recovery to a steady-state operating point within the applicable ride-through profiles in Operating Guides Section 2.9.1.1(1) or 2.9.1.2(1), as applicable?

Choose an item.

1. If already submitted, I attest all dynamic models including PSSE, TSAT, and PSCAD for the proposed Resource are accurate and reflect the Resource’s designed maximum VRT performance capability.  
   Choose an item.

If no, explain why the models are not accurate or do not reflect the proposed Resource’s designed maximum VRT performance capability

Click or tap here to enter text.

1. If not already submitted, I attest all dynamic models including PSSE, TSAT, and PSCAD for the proposed Resource will be accurate and reflect the Resource’s designed maximum VRT performance capability when submitted.  
   Choose an item.

If not, explain why the models will not be accurate or not reflect the proposed Resource’s designed maximum VRT performance capability when submitted.

Click or tap here to enter text.

1. Based on the proposed Resource’s designed maximum VRT performance capability, provide the ride-through time (in seconds) at the specified voltage levels in the table below:

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Ride-through capability (seconds)** | | |
| **POIB Voltage (pu)** | **Legacy Requirements** | **Preferred Requirements (WGR / PVGR or ESR)** | **Design** | |
| 1.8 | May trip | 0.0002\* | Click or tap here to enter text. | |
| 1.7 | May trip | 0.001\* | Click or tap here to enter text. | |
| 1.6 | May trip | 0.003\* | Click or tap here to enter text. | |
| 1.4 | May trip | 0.015\* | Click or tap here to enter text. | |
| 1.2 | 0.2 | 1.0 | Click or tap here to enter text. | |
| 1.175 | 0.5 | 1.0 | Click or tap here to enter text. | |
| 1.15 | 1.0 | 1.0 | Click or tap here to enter text. | |
| 0.9 - 1.1 | continuous | continuous | Choose an item. | |
| 0.7 | 1.394 | 3.0 / 6.0 | Click or tap here to enter text. | |
| 0.5 | 1.039 | 2.5 / 3.0 | Click or tap here to enter text. | |
| 0.25 | 0.594 | 1.2 | Click or tap here to enter text. | |
| 0.13 | 0.381 | 0.381 | Click or tap here to enter text. | |
| 0 | 0.15 | 0.16 / 0.32 | Click or tap here to enter text. | |
| \* These requirements are from IEEE 2800-2022 | | | |

I attest the table above accurately represents the designed maximum VRT performance capability of the proposed Resource and all its inter-dependent systems (such as plant controls, turbine controls and/or inverter controls - not just protective relay settings).

Choose an item.

Click or tap here to enter text.

1. Provide a complete designed maximum VRT performance capability curve (0-10 seconds) superimposed on the minimum applicable requirement. A separate curve may be necessary to show sub-cycle overvoltage capability.  
   NOTE: Submit pdf, image, or excel for curve.

Click or tap here to enter text.

**Respond to Questions 9 – 11 if the proposed** **Resource: (i) has a SGIA dated on or after 8/1/24 or (ii) is implementing a modification as described in Planning Guide Section 5.2.1(1)(c) for which a GIM was initiated on or after 8/1/24, otherwise proceed to Question 12:**

1. Will the proposed Resource’s designed maximum VRT performance capability be set to meet or exceed the requirements in Operating Guides Section 2.9.1.1(1)-(7) **by 12/31/25**?

Choose an item.

If no, request an extension pursuant to Operating Guides Section 2.9.1(6) and submit the information set forth in Operating Guides Section 2.12.1.2(2).

Click or tap here to enter text.

1. If the proposed Resource’s designed maximum VRT performance capability will not meet Operating Guides Section 2.9.1.1(7) by 12/31/25, are you requesting an extension to meet Operating Guides Section 2.9.1.1(7)? [Sec. 2.9.1.1(8)]

Choose an item.

If yes, submit the information set forth in Operating Guides Section 2.12.1.2(2).

Click or tap here to enter text.

1. If the proposed Resource is a Type 3 Wind-Powered Generation Resource, are you requesting an extension to meet the VRT requirements in Table A of Operating Guides Section 2.9.1.1(1)? [Sec. 2.9.1.1(9)]

Choose an item.

If yes, submit the information set forth in Operating Guides Section 2.12.1.2(2).

Click or tap here to enter text.

**Respond to Questions 12-13 if the Resource has a SGIA dated before 8/1/24**:

1. Will the proposed Resource’s designed maximum VRT performance capability be able to meet or exceed the (Legacy VRT Requirements) in Operating Guides Sections 2.9.1.2(1)-(7) by 12/31/25 or its Commercial Operations Date (COD)? [Sec. 2.9.1(1)(b) and 2.9.1.2(8)]

Choose an item.

If no and you are going to request an extension to meet or exceed Operating Guides Sections 2.9.1.2(1)-(7) pursuant to Operating Guides Section 2.9.1.2(9), submit an Initial Voltage Ride-Through Capability Report (IVRTCR) and meet or exceed the VRT requirements in effect on 5/1/24 until the proposed Resource’s VRT designed performance capability is maximized. [Sec. 2.9.1.2(9)]

Click or tap here to enter text.

1. If the proposed Resource’s designed maximum VRT performance capability will not be able to meet or exceed the (Legacy VRT Requirements) in Operating Guides Sections 2.9.1.2(1)-(7) even with an extension, are you requesting an exemption pursuant to Operating Guides Section 2.9.1.2(9)?

Choose an item.

If yes, submit an IVRTCR. [Sec. 2.9.1.2(9)]

Click or tap here to enter text.

If yes, will the proposed Resource’s designed maximum VRT performance capability be able to meet or exceed the VRT requirements in effect on 5/1/24? [Sec. 2.9.1.2(9)]

Choose an item.

# IEEE 2800-2022

1. By the latter of 12/31/25 or its COD, will the proposed Resource maximize its designed performance capabilities with respect to the requirements in IEEE 2800-2022 Sections 5, 7, and 9 to the fullest extent the equipment allows in accordance with Good Utility Practice? [Sec. 2.9.1(8)]

Choose an item.

If no, describe which parts of IEEE 2800-2022 Sections 5, 7 and 9 the proposed Resource will be able to meet (if any) and which it will not be able to meet.

Click or tap here to enter text.

1. Will the proposed Resource be configured to inject negative sequence current for unbalanced faults (in addition to increased positive-sequence reactive current) as described in IEEE 2800 Section 7.2.2.3.4?  
   Choose an item.

If no, describe why the proposed Resource will not be configured to inject negative sequence current for unbalanced faults (in addition to increased positive-sequence reactive current).

Click or tap here to enter text.

If yes, complete the following table and provide additional explanation, if necessary.

|  |  |  |
| --- | --- | --- |
| **Parameter** | **Requirement** | **Design** |
| Negative Sequence Current Injection allowable range to lead negative sequence voltage | 90 to 100 degrees  (90 to 150 for Type 3 WGR) | Click or tap here to enter text. degrees |

Click or tap here to enter text.

1. Complete the following Performance Specifications per IEEE 2800-2022 Section 7.2.2.3.5, Table 13 (NOTE: Maximizing capability does not imply actual performance must match the fastest response times and settling times):

|  |  |  |
| --- | --- | --- |
| **Parameter** | **Capability Requirement** | **Design** |
| IBR unit Step Response Time | ≤ 2.5 cycles (NA for Type 3 WGR) | Click or tap here to enter text. cycles |
| IBR unit Settling Time | ≤ 4 cycles ; ≤  6 cycles for Type 3 WGR | Click or tap here to enter text. cycles |
| IBR unit Settling band | -2.5% / +10% of IBR unit max current | Click or tap here to enter text.% / Click or tap here to enter text. % of IBR unit maximum current |

Provide any additional information you deem relevant.

Click or tap here to enter text.

1. Will the proposed Resource use current blocking?

Choose an item.

If yes, please describe any use of current blocking to ride through disturbances. **Note**: Current blocking is not allowed within the continuous or mandatory operations regions (“no trip zones”) and, if used in the “may trip” regions, current exchange must restart in ≤ 5 cycles (IEEE 2800-2022 Section 7.2.3).

Click or tap here to enter text.

Click or tap here to enter text.

If yes, please provide restart time in the following table:

|  |  |  |
| --- | --- | --- |
| **Parameter** | **Requirement** | **Design** |
| Restart time after return to mandatory operations region | <5 cycles | Click or tap here to enter text. cycles |

1. Provide the proposed Resource’s designed Rate of Change of Frequency ride-through capability in the following table (*See* IEEE 2800-2022 Section 7.3.2.3.5):

|  |  |  |
| --- | --- | --- |
| **Parameter** | **Requirement** | **Design** |
| Rate of Change of Frequency (RoCoF) (df/dt) | 5 Hz/s | Click or tap here to enter text. Hz/s |
| RoCoF average measuring window | >.1 sec | Click or tap here to enter text. seconds |

1. Provide the proposed Resource’s designed phase angle jump (change) ride-through capability in the following table (*See* IEEE 2800-2022 Section 7.3.2.4):

|  |  |  |
| --- | --- | --- |
| **Parameter** | **Requirement** | **Design** |
| Phase angle jump (change) | 25 deg | Click or tap here to enter text. degrees |

1. Provide the proposed Resource’s designed consecutive voltage deviations ride-through data (*See*, IEEE 2800-2022 Section 7.2.2.4):

|  |  |  |
| --- | --- | --- |
| **Parameter** | **Requirement** | **Design** |
| # of excursions in a 10 second window | 4 | Click or tap here to enter text. |
| # of excursions in a 120 second window | 6 | Click or tap here to enter text. |
| # of excursions in an 1800 second window | 10 | Click or tap here to enter text. |
| # of excursions below 50% at POI in a 10 second window | 2 | Click or tap here to enter text. |
| # of excursions below 50% in a 120 second window | 3 | Click or tap here to enter text. |

1. I attest the proposed Resource owner will collaborate with the interconnecting TSP(s) to ensure any auto-reclosing settings are coordinated with the Resource multiple fault ride-through capability to not result in unnecessary tripping of the Resource.

Choose an item.

1. I attest the proposed Resource owner will maximize the performance of the proposed Resource’s protection systems, controls, and other plant equipment (within equipment limitations and in accordance with Good Utility Practice) to exceed, or achieve as close as reasonably possible, the capability and performance set forth in IEEE 2800-2022 sections 5, 7 and 9.

Choose an item.

If no, why can you not attest the proposed Resource owner will maximize the performance of the Resource’s protection systems, controls, and other plant equipment (within equipment limitations and in accordance with Good Utility Practice) to exceed, or achieve as close as reasonably possible, the capability and performance set forth in IEEE 2800-2022 sections 5, 7 and 9?

Click or tap here to enter text.

# Extension Request

1. Are you requesting an extension for the proposed Resource under Operating Guide Sections 2.6.2.1(7); 2.9.1(6); 2.9.1.1(8) or (9); or 2.9.1.2(9)?

Choose an item.

If yes, please complete the following table:

|  |  |  |
| --- | --- | --- |
| Section for which you request an extension | Yes/No | If yes, date on which you want the extension to end |
| Section 2.6.2.1(7) | Choose an item. | Click or tap to enter a date. |
| Section 2.9.1(6) | Choose an item. | Click or tap to enter a date. |
| Section 2.9.1.1(8) | Choose an item. | Click or tap to enter a date. |
| Section 2.9.1.1(9) | Choose an item. | Click or tap to enter a date. |
| Section 2.9.1.2(9) | Choose an item. | Click or tap to enter a date. |

If yes, what is the proposed Resource’s COD?

Click or tap to enter a date.   
  
If yes, for each section for which you are requesting an extension, provide the information set forth in Operating Guides Sections 2.11.1 (for frequency ride-through extensions) or 2.11.2 (for voltage ride-through extensions).

Click or tap here to enter text.

Click or tap here to enter text.

If yes, please provide the information in Operating Guides Section 2.12.1.2 as applicable for the extension requested.

Click or tap here to enter text.

Click or tap here to enter text.

# Exemption Request

1. Do you intend to request an exemption pursuant to Operating Guide Section 2.6.2.1(7) for the proposed Resource?

Choose an item.

If yes, specify the sub-section(s) of Operating Guides Section 2.6.2.1 for which you seek the exemption and provide the information set forth in Operating Guides Section 2.11.1:

Click or tap here to enter text.

Click or tap here to enter text.

Section 2.6.2.1(1)? Choose an item.

Section 2.6.2.1(3)? Choose an item.

Section 2.6.2.1(4) Choose an item.

Section 2.6.2.1(5) Choose an item.

Section 2.6.2.1(6) Choose an item.

1. Do you intend to request an exemption pursuant to Operating Guides Section 2.9.1.2(9) for the proposed Resource?

Choose an item.

If yes, specify the sub-section(s) of Operating Guides Section 2.9.1.2 for which you seek the exemption and provide the information set forth in Operating Guides Section 2.11.2:

Click or tap here to enter text.

Click or tap here to enter text.

Section 2.9.1.2(1)? Choose an item.

Section 2.9.1.2(3)? Choose an item.

Section 2.9.1.2(4)? Choose an item.

Section 2.9.1.2(5)? Choose an item.

Section 2.9.1.2(6)? Choose an item.

Section 2.9.1.2(7)? Choose an item.

1. Do you intend to request an exemption pursuant to Operating Guide Section 2.9.1(5) for the proposed Resource?

Choose an item.

If yes, please provide the information set forth in Operating Guides Section 2.11.2.

Click or tap here to enter text.

Click or tap here to enter text.