**Initial Frequency Ride-Through Capability Report**

Resource Entity or Interconnecting Entity Name: XYZ Wind Project, LLC [**NOTE**: Name of the Resource Entity or Interconnecting Entity, not the name of the facility]

1. Resource Entity or Interconnecting Entity Data Universal Numbering System (DUNS) Number: 000123456
2. IBR/WGR Site Name: Greyrock [**NOTE**: The Resource Name as registered with ERCOT]
3. IBR/WGR Unit Name(s): GRYRCK\_UNIT1 [**NOTE**: Resource Name as it appears in ERCOT’s Network Operations Model]
4. Nodal Operating Guide Section(s) with which the Resource cannot comply: [**NOTE**: *specific* Nodal Operating Guide sub-sections]

NOG § 2.6.2.1(3); 2.6.2.1(5); 2.6.2.1(6)

1. Current frequency ride-through capability in a format similar to the table in NOG Section 2.6.2.1(1):

|  |  |
| --- | --- |
| Frequency (f) in (Hz) | Minimum Ride-Through Time (seconds) |
| f > 61.8 | Trips at ≥61.8 Hz |
| 61.6 < f ≤ 61.8 | 220 |
| 61.2 < f ≤ 61.6 | 499 |
| 58.8 ≤ f ≤ 61.2 | Continuous |
| 58.4 ≤ f < 58.8 | 499 |
| 57.0 ≤ f < 58.4 | 220 |
| f < 57.0 | Trips at ≤ 57.0 Hz |

1. Known frequency ride-through limitations of the IBR, Type 1 WGR or Type 2 WGR as compared to the requirements in NOG Sections 2.6.2.1(1)-(5):

* Resource cannot meet ROCOF requirement in § 2.6.2.1(3)
* Resource cannot meet phase angle jump requirement in § 2.6.2.1(3)
* Resource cannot meet the requirement in § 2.6.2.1(5) to not disconnect any individual turbine during frequency conditions where ride-through is required.

1. A detailed description of the technical limitation preventing the Resource from meeting the ride-through requirement(s), including a letter signed by an officer or executive of the original equipment manufacturer (or subsequent support company if the original equipment manufacturer is no longer in business) or an engineering consulting firm verifying the limitations:

* Resource cannot meet ROCOF requirement in § 2.6.2.1(3) because the protection system is hard coded and cannot be changed. *See*, OEM letter in file named *OEM\_technical\_limitations.pdf*.
* Resource cannot meet phase angle jump requirement in § 2.6.2.1(3) because the protection system is hard coded and cannot be changed. *See*, OEM letter in file named *OEM\_technical\_limitations.pdf*.
* Resource cannot meet the requirement in § 2.6.2.1(5) to not disconnect any individual turbine during frequency conditions where ride-through is required because turbine controls currently disconnect individual turbines during frequency conditions where ride-through is required and cannot be modified because doing so would damage equipment. *See*, OEM letter in file named *OEM\_technical\_limitations.pdf*.

(i) If a Resource Entity cannot address the entire plant design with a letter required in Section 2.6.2.1(1)(g), the Resource Entity must supplement a letter from the original equipment manufacturer for its equipment (or subsequent support company if the original equipment manufacturer is no longer in business) or an engineering consulting firm by providing a notarized attestation sworn to by the Resource Entity’s highest-ranking representative, official, or officer with binding authority over the entity attesting to the efforts made to obtain the letter, why those efforts failed, and which parts of the plant design is attested to. The attestation shall also include a detailed description of the technical limitation(s) preventing the Resource from meeting the ride-through requirement, including any information on technical limitations on all or part of the Resource which the Resource Entity is able to obtain from original equipment manufacturers or an engineering consulting firm under Section (g) above.

* [Resource Entity] could not obtain a letter from the OEM addressing the entire plant because the OEM would provide limitations only for its equipment. [Resource Entity] had to attest to the balance of the plant limitation related to protection system settings it cannot change because they are hard coded. Attached is a notarized letter from [Resource Entity’s] V.P. of operations attesting to the efforts [Resource Entity] made to obtain the letter, why those efforts failed, and which parts of the plant design is attested to. *See*, file named *Officer Attestation.pdf*.

1. Available software, firmware, settings or parameterization modifications the Resource Entity will implement to maximize the frequency ride-through capability of the IBR, Type 1 WGR or Type 2 WGR within known equipment limitations, to the greatest extent possible:

* [Resource Entity] will upgrade its Power Plant Controller software from V 2.11 to V 3.4 which will change anti-islanding capabilities to allow the Resource to ride through frequency conditions beyond those defined in NOG § 2.6.2.1(1) to the maximum level the equipment allows.
* [Resource Entity] will upgrade its converter firmware from V 1.6 to V 1.8 which will allow the Resource to not reduce active current injection during frequency conditions requiring ride-through.

1. To the extent the Resource Entity chooses to implement changes to existing equipment other than software, firmware, settings or parameterization modifications that increase the frequency ride-through capability, identification of any such equipment modifications:

* [Resource Entity] intends to replace its existing Uninterruptible Power Supply which will allow the Resource to not experience momentary cessation.

1. Expected post-modification Resource capability in a format similar to the table in Section 2.6.2.1(1) and documentation of any expected remaining limitation(s) following implementation of such modifications:

|  |  |
| --- | --- |
| Frequency (f) in (Hz) | Minimum Ride-Through Time (seconds) |
| f > 61.8 | Trips at ≥61.9 Hz |
| 61.6 < f ≤ 61.8 | 350 |
| 61.2 < f ≤ 61.6 | 600 |
| 58.8 ≤ f ≤ 61.2 | Continuous |
| 58.4 ≤ f < 58.8 | 600 |
| 57.0 ≤ f < 58.4 | 350 |
| f < 57.0 | Trips at ≤ 56.9 Hz |

1. A schedule for implementing the modification(s):

9/30/25: Submit model containing modified settings and parameters to ERCOT and TSP for review/approval pursuant to Planning Guide § 5.5(6)

10/1/25 – 10/25/25: ERCOT review/approval of model

10/25/25 – 11/30/25: Upgrade converter firmware from V 1.6 to V 1.8

11/15/25 – 12/15/25: Upgrade Power Plant Controller software from V 2.11 to V 3.4

12/1/25 – 1/15/26: Implement protection setting changes to ensure the Resource’s frequency ride-through capability is set to the maximum level the equipment allows to meet or exceed the requirements of NOG Sec. 2.6.2.1(1) - (5) as required in NOG Sec. 2.6.2.1(6)

1/15/26: Submit as-built data to ERCOT pursuant to Planning Guide

1. A model accurately representing expected performance reflecting all technical limitations, or a statement that there are no new models available other than what is currently submitted to ERCOT that already reflect all technical limitations in frequency ride-through capability:

* A NOGRR245 Maximized model was submitted in RIOO with Change Request #CR123

1. A description of any limitation that cannot be accurately represented in a model:

* [Resource Entity] cannot accurately represent the phase angle jump technical limitation in the model because the method for the inverter controls to disconnect individual turbines during frequency conditions where ride-through is required cannot be shown in PSCAD because [explain].