PUBLIC

Resource Integration Topics

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Outline:

- Quarterly Stability Assessment (QSA)
- Advanced Grid Support (AGS) FAQ
- Timing of Commissioning Requests submitted for Part 1, 2 and 3

Quarterly Stability Assessment (QSA)

Planning Guide 5.3.5, Quarterly Stability Assessment

QSA 45 deadline

- FIS studies finalized and posted in RIOO-IS 45 days prior to quarterly stability assessment deadline.
- Dynamic models (PSEE, PSCAD, TSAT (UDM)) and MQT report submitted in RIOO-IS.

Issue's seen in previous QSA's

– 10 day comment period for FIS

- Needs to be complete before QSA deadline
- TSPs need to plan for it

– Dynamic/PSCAD Model Review

- Dependent on FIS Stability study
- Need to meet PG 6.9 15 to 30 days prior to QSA deadline • PSSE Model Quality Test Required
- PSCAD Model Quality Test, Unit Model Validation and Template is required. PSCAD template is required starting August 1st QSA.

From Planning guide Section 5.3.5 (2): Last Day for an IE to meet prerequisites as listed in paragraph (4) below	45 day deadline
Prior August 1	June 17
Prior November 1	September 17
Prior February 1	December 18
Prior May 1	March 17

All-Inclusive Generation Resource Initial Synchronization Date	Last Day for an IE to meet prerequisites as listed in paragraph (4) 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

- TSAT Model Required – If PSSE model is UDM, then TSAT model should be UDM and should include MQT

Advanced Grid Support (AGS) FAQ

1. **How is AGS applicability determined for Energy Storage Resources (ESRs)?**

According to Nodal Operating Guide Section 2.14, the AGS requirements apply to those portions of any ESR modifications adding MW capacity, on an aggregate nameplate basis, on or after April 1, 2026. A facility increasing MVA capacity but unchanged gross MW would not be subject to AGS-ESR. A facility increasing gross MW would be subject to AGS-ESR for the MW increase regardless if they have a MW self-limit at the POI unless the gross MW change is to compensate the power losses behind the POI.

2. **Does "adding MW capacity" refer to MW or MVA?**

Nodal Operating Guide § 2.14(1)(b) explicitly references "MW capacity".

3. **If a project increases gross MW but has a self-limit at the POI, does AGS apply?**

Yes. AGS applies to the MW increase regardless of whether the project has a MW self-limit at the POI. Self-Limiting Facility (SLF) status does not exempt a project from AGS requirements for added MW capacity.

4. **For portions of any ESR modifications adding MW capacity and amended in the SGIA post 4/1/2026 are required to meet AGS requirements. For example, if a project is replacing a portion of the ESR inverters for a 100 MW resource (say 60 MW) that leads to a new MW rating of 102 MW, the additional 2 MW would be required to meet AGS. Does that mean the replaced portion of inverters all would need to be GFM that lead to that increase (say the 2 MW was distributed across all the inverters)?**

Additional 2 MW will be subject to AGS, however, it doesn't require the ESR project must maintain 100 MW as grid following. For example, the 60 MW with new inverters can be implemented as AGS, not just the additional 2 MW.

Advanced Grid Support (AGS) FAQ (Contd)

Modeling

5. **How should the portion subject to AGS be modeled?**

The portion of a project with a MW increase must be modeled as a separate aggregate unit for the purposes of AGS compliance.

Study Requirements

6. **What if a project has completed stability studies but has not yet signed the SGIA before April 1, 2026?**

After 4/1/2026, the ESR will be required to meet AGS requirement with updated stability study and models. Projects that completed stability studies but are not targeting QSA should re-study their stability results to ensure AGS compliance prior to QSA.

7. **Will ERCOT review stability studies submitted without an IA for storage using Grid Forming (GFM) inverters?**

If the SGIA is signed after 4/1/2026, the ESR must meet NOG § 2.14(2).

Timing of Commissioning Requests submitted for Part 1, 2 and 3

Part 1, 2 and Part 3 requests should only be submitted when the Resource is ready

- **Telemetry**: Accurate and working telemetry and communication systems from the generation site to the QSE to ERCOT must be tested and proven reliable (48 hours of good quality data) prior to submittal of the Part 1 checklist for energization and Part 2 checklist for synchronization of all new or modified RE and TSP facilities.

  Note: If insufficient telemetry data is provided during the modeling process, there is a high risk of delay in the energization, synchronization, and commissioning of the new generator.

- **Part 1: Planning Guide (PG) 5.5(2),** ERCOT has received an Electric Service Identifier(s) (ESI ID(s)), and the ESI ID has been 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).
- **Part 1: Nodal Protocol 3.22.1.2 (3),** Subsynchronous Resonance (SSR) study completed and SSO mitigation implemented prior to Initial Energization.
- Frequency Ride Through and Voltage Ride Requirements have been met and submitted to GRI prior to Part 2 or 3 request.

If Energization, Synchronization or Commissioning Date is delayed, the RE/QSE should notify ERCOT immediately and withdraw the request. The request should be re-submitted with an accurate date the Resource is planning to Energize, Synchronize or Commission.

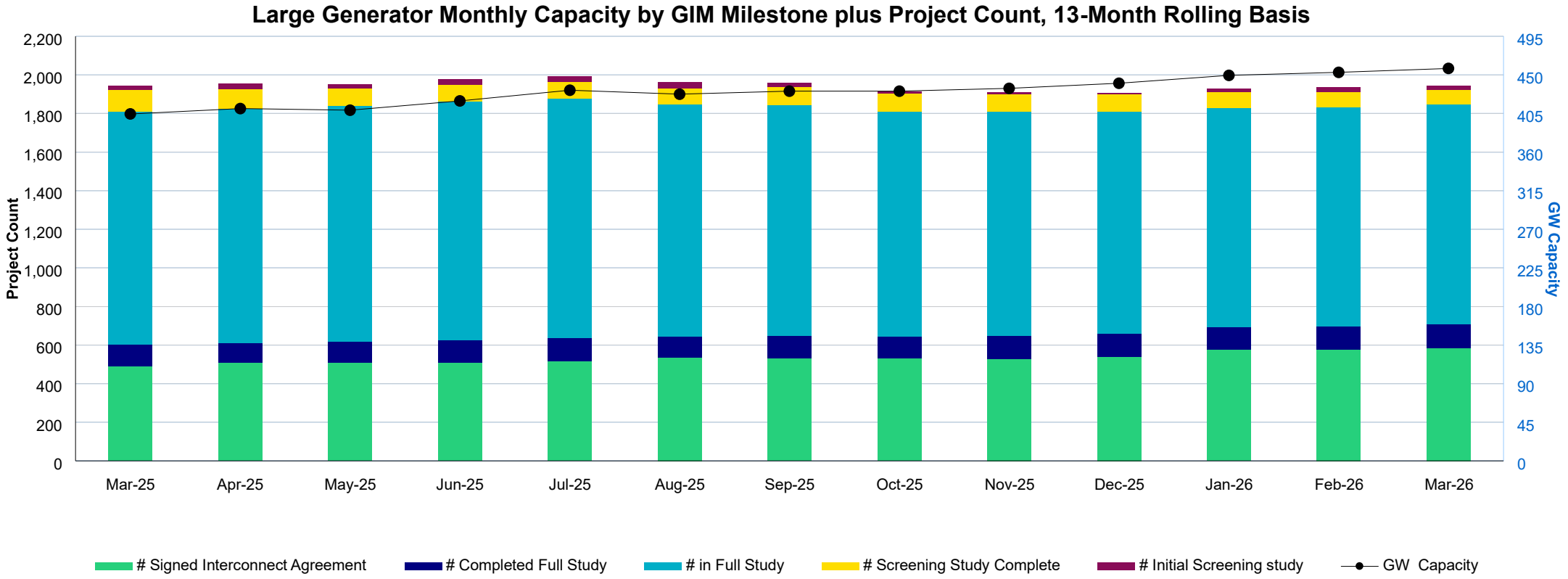
Active Revision Requests

PGRR124: ESR Maintenance Exception to Modifications

PGRR142: In-kind Definition for Generation

Generation Interconnection Requests

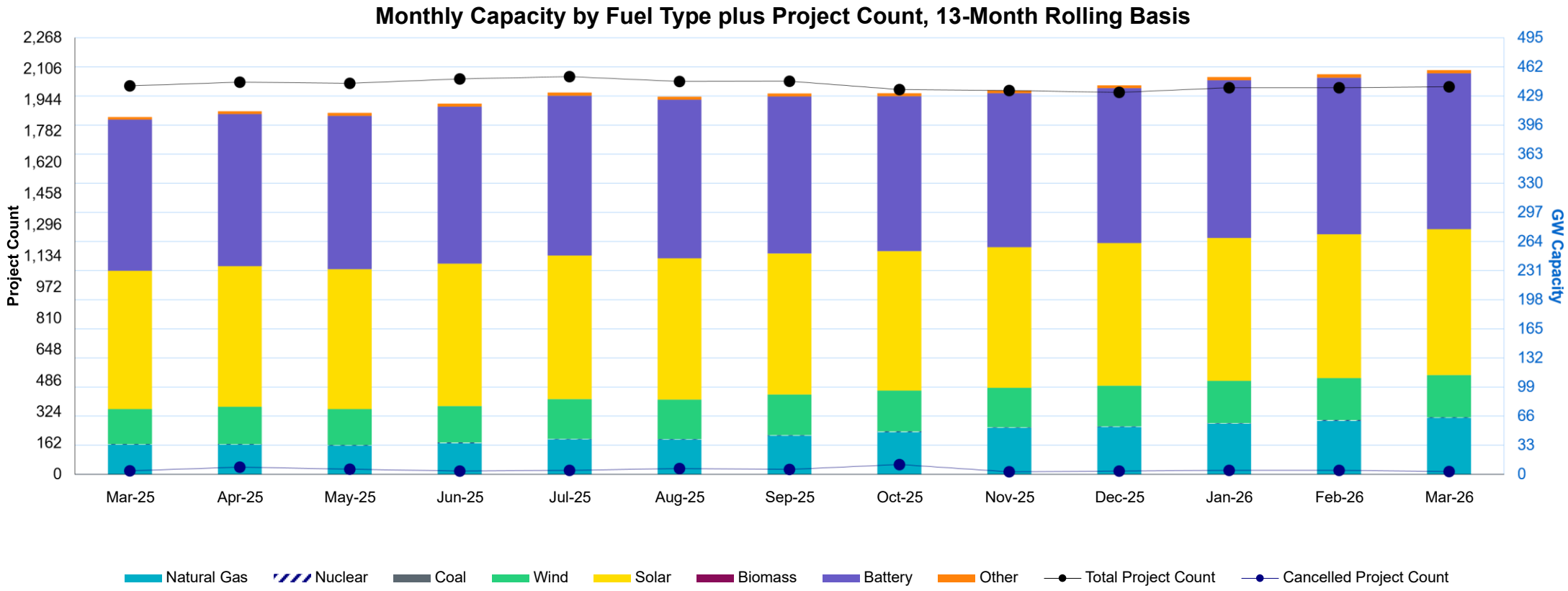
2,013 active generation interconnection requests totaling 458 GW as of March 31st, 2026
(Solar 165 GW, Wind 48 GW, Gas 64 GW, Battery 177 GW / 371 GWh, and Other 4 GW)



A break-out by zone can be found in the monthly Generator Interconnection Status (GIS) reports available on the ERCOT Resource Adequacy Page: http://www.ercot.com/gridinfo/resource

Generation Interconnection Requests

Small Gen- 28 projects Not Model Ready, 43 projects Model Ready



Questions/Comments?

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