Mid-Term Stability Market
Delivery year 2025/26
EOI Webinar
Technical Specification

We will start at 13:05 to allow time for everyone to connect.
This webinar has been recorded.

ESO

House keeping

- Please remain on mute during the webinar
- Videos have been disabled to maximise quality of bandwidth during this webinar
- To submit a query, please use the Q&A functionality that has been activated in teams
- If your query is confidential, please email it directly to the Stability Market team: box.stability@nationalgrideso.com
- This webinar has been recorded, a copy of the recording and the slides will be made available

Agenda

Technical Specification and Technical Requirements

Eligibility Criteria

Consultation timeline and next steps

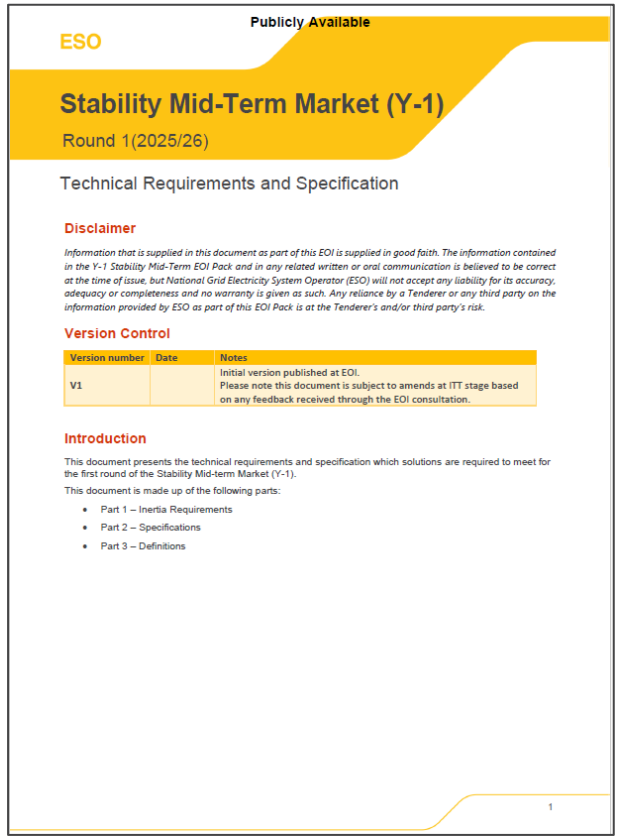
Q&A Session

Technical Requirements and Specifications

Document Summary

- Part 1 – Inertia Requirements
- Part 2 – Specifications
- Part 3 – Definitions

Initial version published at EOI: it may be updated at ITT stage



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Stability Mid-Term Market (Y-1)

Round 1(2025/26)

Technical Requirements and Specification

Disclaimer

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Version Control

Version number	Date	Notes
V1		Initial version published at EOI. Please note this document is subject to amends at ITT stage based on any feedback received through the EOI consultation.

Introduction

This document presents the technical requirements and specification which solutions are required to meet for the first round of the Stability Mid-term Market (Y-1).

This document is made up of the following parts:

- Part 1 – Inertia Requirements
- Part 2 – Specifications
- Part 3 – Definitions

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⚠ *In this webinar, key aspects of the document will be covered. Please refer to the document for full details.*

**EOI: Expression of Interest*
**ITT: Invitation to Tender*

Inertia Need – Mid-Term Round 1 2025/2026

- The first round of the Mid-Term (Y-1) Stability Market (aka Mid-Term 25/26) aims to procure 7 GVA.s if it is economical to do so.

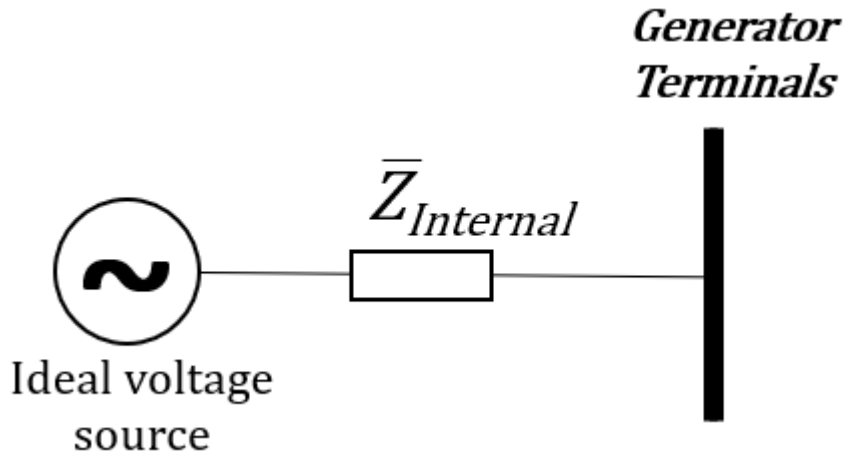
- There is no locational requirement for this inertia
  However, we have a requirement that no more than 12 GVA.s of inertia can be lost for a credible fault

- This is a technology agnostic tender however, all solutions must be Grid-Forming and meet the GB Grid Code definition of GBGF-I or GBGF-S

Grid Forming

GBGF-I

- An converter fitted with Grid Forming Equipment, such that the plant can be represented by an internal voltage source behind an impedance.
- Active Power delivered is directly proportional to the difference between the magnitude and phase of its Internal Voltage Source and the magnitude and phase of the voltage at the Grid Entry Point or User System Entry Point and the sine of the Load Angle.



GBGF-S

- A Generating Unit that delivers Power directly proportional to the difference between the magnitude and phase of its Internal Voltage Source and the magnitude and phase of the voltage at the Grid Entry Point or User System Entry Point and the sine of the Load Angle.
- More Detail in: ECC.6.3.19

Availability and Utilisation Requirements

- This tender requires 90% availability, for late starts this will be applied pro-rota.
- This will be assessed as part of the tender process
- There is no set utilisation for this tender, solutions will be dispatched in merit order to meet system needs.
- Within the contract there will be no utilisation cap

Technical Requirements

- There are no specific reactive power requirements for this tender, however all assets must meet their Grid Code obligations for reactive power provision (ECC.6.3.2)

- Solutions must meet the specification for Grid Forming in ECC.6.3.19

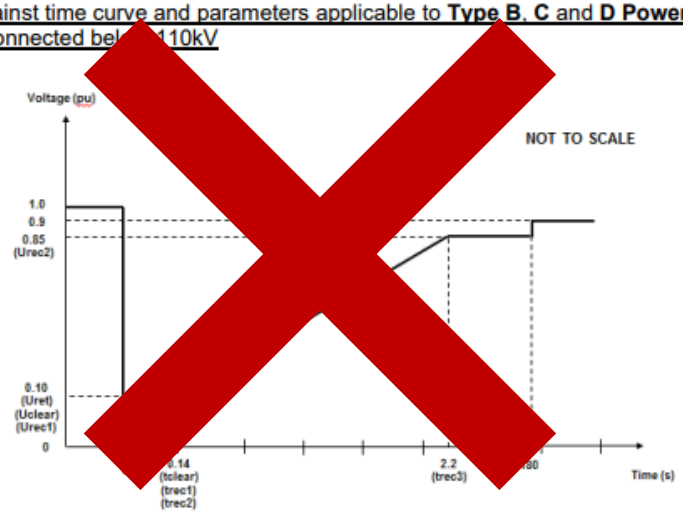
- Solutions must not be fitted with Rate of Change of Frequency (RoCoF) protection relays or any other equipment which may impede their ability to supply Active RoCoF Response Power.

Technical Requirements

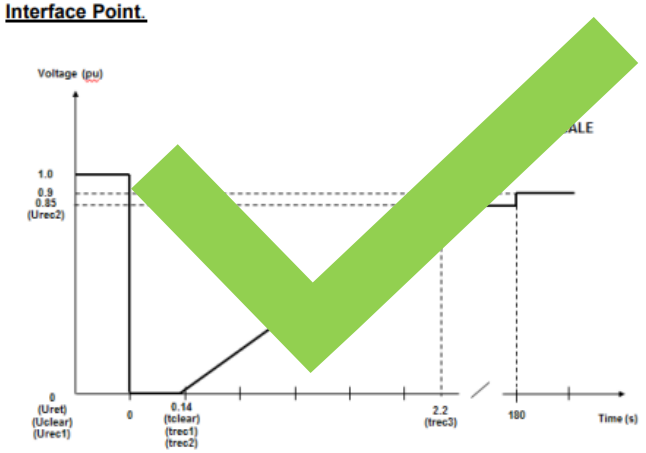
- Solutions connected at any voltage must meet the Fault Ride Through (FRT) requirements for connections connected above 110kV.

- Any solution connected to the distribution network must be able to withstand 0 p.u. voltage at the User System Entry Point for the duration of the local fault clearance time.

ECC.6.3.15.5 Voltage against time curve and parameters applicable to **Type B**, **C** and **D Power Park Modules** connected bel[illegible] 110kV



ECC.6.3.15.6 Voltage against time curve and parameters applicable to **Type D Power Park Modules** with a **Grid Entry Point** or **User System Entry Point** at or above 110kV, **DC Connected Power Park Modules** at the **HVDC Interface Point** or **OTSDUW Plant and Apparatus** at the **Interface Point**.



Control and Indication Facilities

- Where applicable, the following facilities for voltage control and control of the stability service shall be provided by the provider at a manned control point. This data shall be provided through a system elected by the ESO:
  - Start-up of machine and transition to Stability Compensation mode.
  - Shut-down of Stability Compensation mode.
  - Availability of Inertia
  - Target voltage setting (resolution 1kV) (for Target Voltage control mode).
  - Control mode selection (Target Voltage).
  - Slope setting (range 2% to 7%, resolution 0.5%.)

- To accurately monitor the performance of a Grid Forming Plant, each Grid Forming Plant shall be equipped with a dynamic monitoring facility in accordance with the requirements of ECC.6.6.1.2 or an alternative solution as agreed with The Company.

Model provision requirements

- The user must submit an open RMS model produced in DIgSILENT PowerFactory in a software version that is agreeable between the ESO and the provider
- The provider must submit an EMT model in a software version that is agreeable between the ESO and the Provider.
    - Any model submitted should be in line with PC.A.9.4 and PC.A.9.6. The model should be expected to be shared with the relevant TO and if it applies the relevant DNO.
    - For more information around Model Provision please see Guidance Notes for Electro-Magnetic Transient (EMT) Models
- Both models must be submitted 3 months before the schedule service start date and be accepted by the ESO

Compliance requirements

- As part of the Technical Requirements the Provider will be required to complete a set of Compliance tests (separate to the Proving Tests)
    - For Grid Forming Plant Owners, the Operational Notification Process contained in ECP.5 to ECP.7 shall apply in relation to the type of Plant to which the Grid Forming Capability is provided (be it a GBGF-S Plant or GBGF-I Plant) in order for the user's Facility to become operational.
    - For GBGF-I solutions all tests covered in ECP.A.9 shall be completed through physical testing
- In addition the Proving Tests will be required. The Proving Tests must be completed a month before the scheduled service start date.
- At this stage the details of the required proving tests have not been published. The Company shall provide a full set of Proving Test requirements no less than 1 year before the Scheduled Start Date.

Technical Eligibility Requirements

Eligibility Criteria

- Solutions must be able to provide the inertia service at 0MW export if they are GBGF-S. For GBGF-I technology, the asset must be able to provide contracted inertia irrespective of its MW output.

- Solutions must either be directly connected to the transmission system or if Embedded must have a User System Entry Point of 132kV
    - Solutions connected to Tertiary Windings of Supergrid Transformers and Grid Parks would be eligible to partake

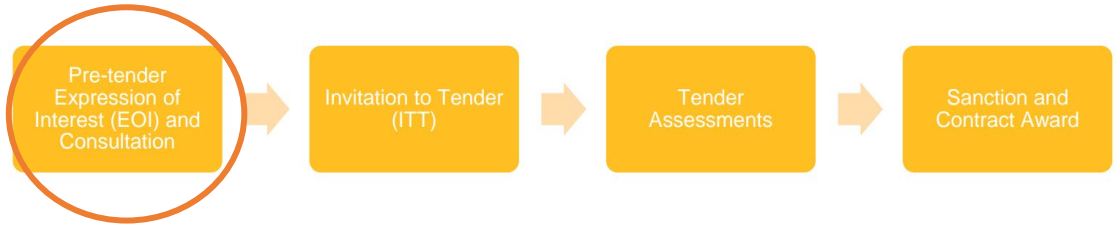
- Solutions must have an existing connection agreement (whether already connected or due to connect in time for contract start).
    - These connections could be “firm” or “non-firm” such that all the tender criteria are satisfied.
    - Bidders will need to evidence their connection agreement as part of their tender submission.
    - The connection agreement must enable the proposed solution in full.
    - Solutions that are part of an Active Network Management (ANM) scheme will not be eligible to partake in this tender.

Mid-Term 2025/26 timeline and next steps

Timeline

The Mid-Term 2025/2026 tender will follow the process outlined below, which consists of a Expression of Interest (EOI) followed by a combined commercial and technical Invitation to Tender (ITT).

We are currently in the 'Expression of Interest and Consultation' stage.



Indicative Timeline	
Task	**Date**
EOI Launch	**3 October 2023**
Consultation Deadline	3 November 2023
EOI Deadline	Early Bird Deadline: 1 December 2023 Backstop Deadline: 26 January 2024
ITT Launch	January 2024
ITT Window	January – April 2024
ITT Deadline	April 2024
ESO Internal Tender Assessments	April 2024 – July 2024
ESO Internal Sanction Process	August 2024
Contract Award	September 2024

Please note this timeline is subject to change/updates as the tender progresses.

Immediate next steps

To participate in the Mid-Term 25/26 tender process and be invited to the ITT, participants must express an interest by sending an email to: box.stability@nationalgrideso.com

Expressions of interested must be received by the **EOI deadline.**

EOI Deadline

The EOI deadline has been set on a staged basis, with **an Early Bird deadline** and a **Backstop deadline.**

- Early Bird deadline – **1 December 2023 5pm**
- Backstop deadline – **26 January 2024 5pm**

Expressing an interest does not result in an obligation to submit a full tender submission.

Consultation Deadline

As part of the EOI the market is invited to provide feedback on the documents that we have been publishing using the consultation feedback proforma.

Any market participant can respond to the consultation regardless of whether they are expressing an interest. Those who express an interest are encouraged to provide consultation feedback.

If a participant wishes to provide feedback it should be done using the **Consultation Proforma** and returned to box.stability@nationalgrideso.com

Providing feedback on the documents shared in this EOI is optional. Providing feedback does not result in an obligation to express an interest or to propose a tender submission.

The deadline to return any consultation feedback to ESO is **5pm 3rd November 2023.**

We will now open for Q&A

Please submit any queries via the Q&A functionality in teams

Any confidential queries should be sent directly to the team by email box.stability@nationalgrideso.com

Any questions that we are unable to answer will be taken away and responded to offline