Publicly Available

Voltage Technical Requirements and Specification

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Version Control

Version number	Date	Notes
V1	24 March 2025	Initial version published at EOI. Please note this document may be updated at ITT stage following market feedback and/or learnings in-between EOI and ITT stages of the tender process.

Introduction

This document contains the technical service requirements and specification for the reactive power service. It is made up of the following parts:

Part 1 – Regions of Needs and Reactive Power Requirements

Part 2 – Acceptable Locations

Part 3 – Voltage Specific Eligibility Criteria

Part 4 – Specifications

Part 5 – Definitions

Part 1 – Regions of Need and Reactive Power Requirements

Table 1 below lists out NESO's regional reactive power requirements and the identified substation location of need, and where required, the corresponding busbars[1]. For each location of need, a reactive power requirement has been identified, which is the reference point hereinafter referred to as **'reference substation'** as presented in Table 1. The reference substations have been selected based on the network topology and considering both pre- and post-fault voltage analysis. For solutions connected to other substations, hereinafter referred to as **'alternative acceptable substations'** rather than the reference substations, these can be considered to provide the necessary service.

Due to the locational nature of voltage issues and solutions, the effectiveness of the reactive power declines as the electrical distance from the reference substation increases. Additionally, a high volume of reactive power connected to one substation to achieve the desired voltage support at the reference substation could deteriorate the voltage profile at that substation below acceptable limits[2]. Therefore, an effectiveness factor should be considered, as explained in the next section.

Table 1 - Reactive Power Requirement

Region	Location Of Need		Reactive Power Requirement			
	Reference Substation	Busbar	Absorption Reactive Power (MVAr)		Injection Reactive Power (MVAr)	
			Dynamic	Static	Dynamic	Static
Humber	Grimsby West 400kV	-	-20	-	-	-
North West England	Heysham 400kV	-	-180	-	-	-
	Penwortham 400kV	-	-170	-	-	-
	Harker 400kV	-	-	-50	-	-
Mersey	Birkenhead 275kV	-	-120	-	-	-
South Yorkshire	Chesterfield 400kV	-	-75	-	+200	-
	Brinsworth 400kV	-	-100	-	-	-
East England	Grendon 400kV	-	-90	-	-	-

1 Some substations operate in a split configuration and the determined volume is calculated against the running arrangement or substation configuration

2 Acceptable limits refers to the voltage limits as described in the Security and Quality of Supply Standard (SQSS)

	Enderby 400kV	-	-85	-	+200	-
	Eaton Socon 400kV	-	-90	-	-	-
	Ryhall 400kV	4B	-	-	-	+200
	Ryhall 400kV	MC1	-	-	-	+200
East Midlands	Staythorpe 400kV	-	-	-	-	+200
	Stoke Bardolph 400kV	-	-	-	-	+100
West Midlands	Patford Bridge 400kV	PAFB4A	-	-	-	+200
	Patford Bridge 400kV	PAFB4B	-	-	-	+200
	Feckenham 400kV	-	-	-150	-	-
	Rugeley 400kV	-	-120	-	-	-
	Kitwell 275kV	-	-110	-	-	-
London	Amersham Main 400kV	AMEM4 R	-150	-	+100	-
	Amersham Main 400kV	AMEM4 M	-	-	+100	-
	Tilbury 275kV	-	-25	-	-	-
South Central	Bramley 400kV	-	-220	-	-	-
	Didcot 400kV	-	-200	-	-	-
	Fleet 400kV	-	-200	-	-	-
South Wales and West England	Hinkley Point 400kV	-	-100	-	-	-
	Minety 400kV	-	-140	-	-	-
	Seabank 400kV	-	-140	-	-	-
	Iron Acton 275kV	-	-100	-	-	-
	Imperial Park 400kV	-	-	-65	-	-
		Totals	-2700		+ 1700	

Part 2 – Acceptable Locations

All providers proposals must be connected to either a reference substation, or an alternative acceptable substation identified in the relevant table of each reference substation location. Providers may participate only in the location where the asset is physically connected or will be connected. If a substation location being listed is in more than one table, it indicates that the location can be accepted to provide voltage support towards more than one reference substation location. However, in these cases providers will be asked to select which one of these reference substation locations that their service will support within their tender submissions. Please see Section 14 and 15 of the Instructions to Tenderers document for more information on the bidding rules in relation to this and how it will be managed by NESO when assessing bids.

Each reference substation is represented in a table which contains all alternative acceptable substations where the potential solution can be connected. NESO is not accepting any submissions for the reactive power service in this Long-term 2029 tender that would connect at sites that fall outside of NESO’s defined alternative acceptable substations.

The alternative acceptable substations and corresponding effectiveness values are summarised for each reference substation location in the “LT2029 Voltage Effectiveness Tables” document. Each table presents the reference substation, their alternative acceptable substations towards the reference substation, and the corresponding effectiveness factors. Furthermore, separate effectiveness matrices have been computed to account for system operating conditions in which the reactive power volume has been determined. The effectiveness factors have been computed against the reference substation. The reference substation is the most effective location to connect reactive power support for voltage control purposes. The effectiveness factors have been calculated based on a defined network topology and reflect the voltage sensitivity when reactive power compensation is connected at different locations. The sensitivities are extracted from nodal equations used in the load flow formulation[3].

For alternative acceptable substations in each effectiveness table, the ‘Bus Bar Name’ column specifies the associated node. This specification is required for certain substations depending on the

3 In the load flow formulation, the Jacobian matrix is composed by partial derivatives of active and reactive powers with respect to voltage magnitude and phase angle. This matrix is then used to obtain the voltage sensitivities to the reactive power at each busbar. Sensitivities are normalized using the values of the reference point.

substation running arrangement, which may result in different effectiveness factors at various busbars or electrical nodes.

In order to illustrate the use of the effectiveness factors, we take reference substation 'Enderby 400 kV' as an example. This location has the following reactive power requirement as shown in Table 2. For simplicity, this example will focus solely on absorption requirement.

Table 2 - Reactive power requirement example

Reference Substation	Absorption (MVAr)	Injection (MVAr)
Enderby 400 kV	85	200

The effectiveness values presented in Tables 3 indicate that, to achieve the full reactive power compensation volumes outlined in Table 2 , the provider solutions at those locations would require to deliver the following capability, as shown in the same tables, using Equation 1:

$$(1) \quad Required\ reactive\ power\ volume\ \ (MVAr)=\frac{Tendered\ \ volume\ (MVAr)}{Effectiveness\ factor\ (\%)}$$

Table 3 –Reactive power substations effectiveness and required MVAr

Busbar Name	Substation Name	Effectiveness (%)	Required MVAr (absorption)
ENDE4 MC4	Enderby 400kV	100	85
RATS4 R3/4	Ratcliffe-On-Soar 400kV	79	108
STOB4 R1	Stoke Bardolph 400kV	72	118
WILE4 R2	Willington East 400kV	74	115

For solutions with reactive power capabilities lower than the target procurement volume of the reference substation location, the proportional volume can be calculated. For example, if the MVAr capability of the solution is 50 MVAr, the corresponding contribution at the reference substation 'Enderby 400kV' would be as shown in Table 5, using Equation 2:

$$(2) \quad Reactive\ power\ contribution\ (\%) = \frac{Solution\ capability\ (MVAr) \times Effectiveness\ factor\ (\%)}{Tendered\ volume\ (MVAr)}$$

Table 4 - MVAr contribution (absorption)

Busbar Name	Substation Name	Effectiveness (%)	MVAr Contribution (%) (absorption)
ENDE4 MC4	Enderby 400kV	100	50
RATS4 R3/4	Ratcliffe-On-Soar 400kV	79	46
STOB4 R1	Stoke Bardolph 400kV	72	42
WILE4 R2	Willington East 400kV	74	44

Part 3 – Voltage Eligibility Criteria

This section presents the voltage specific eligibility criteria. Each proposed solution must fulfil the described criteria to be considered for the Voltage Service aspect of the Long-term 2029 Tender.

- The solution must fulfil the overarching LT29 Eligibility Criteria, covered in the document "Long-term 2029 Eligibility Criteria"

- Solutions must be either: new or providing additional capability through incremental investment.
  - A new solution is defined as:
    - Any solution with a new connection offer or connection agreement received after 30/09/2024 or;
    - A solution with a connection registered on the TEC register after 30/09/2024
  - Incremental investment is defined as:
    - A solution with an existing connection agreement in place prior to 30/09/2024 or on the TEC register prior to 30/09/2024 but following 30/09/2024 is / has:
      - Making / made a modification to install additional reactive power capability (E.g.: increase their reactive power capability from 100 MVAr to 200MVAr) or,
      - Making / made a modification to provide service at 0MW (e.g. an existing generator installing a clutch), or,
      - Making / made a modification to do both of the above

See the LT29 Eligibility Criteria document for more information.

4.1 Location

All providers must be located at the reference substation or at an alternative acceptable substation, as described in Part 2.

4.2 Availability and Utilisation Profile

This tender is seeking 90% availability.

While there is no defined utilisation requirement (or payment for utilisation) we have provided an indicative utilisation profile for transparency. Please note that there is no contractual utilisation cap. The usage of each solution will depend on system conditions.

For the required absorption static services, it is expected that usage will primarily be overnight and during weekends. For the required injection static services, it is expected that usage will primarily occur during high flow and high demand periods. Although static solutions may still be instructed at other times when they are available dependant on the needs of the network.

For the dynamic service requirements, higher utilisation is anticipated, with reactive power output varying according to NESO instructions. Please refer to Sections 4.7 and 4.8 for more details.

Table 5 - Indicative utilisation

Service Requirement	Settlement Periods (SP)
Absorption Static Services	11,000
Injection Static Services	3,500
Dynamic Services	15,768

Table 7 is indicative only and is provided in good faith, NESO make no guarantee that actual usage will align with the values presented in Table 7 of this technical specification. NESO reserves the right to utilise assets in every settlement period for which they are available.

4.3 Sizing and Number of Solutions

Fixed-rating static service solutions should adhere to the sizing limits as detailed in Table 8. The maximum values indicated correspond to the typical sizing that can be switched in and out of service by a single circuit breaker without violating voltage step change limits at different voltage levels[4]. However, viable solutions may exist that exceed these maximum values shown in Table 8. This is because the relevant Transmission Owner (TO), as part of the connections application process, conducts technical assessments to verify whether connections are compliant with voltage step change limits. These assessments may vary to the values set out in Table 8 and should be what providers ultimately abide by in any tender submissions.

Table 6 – Fixed rating static service sizing limits

Limit	Connection Voltage (kV)	Total Reactive Power Absorption (MVAr)[5]	Total Reactive Power Injection (MVAr)[5]
Minimum	400	15	15
	275	15	15
Maximum	400	200	230
	275	100	150

There are no specified sizing limits for dynamic-type assets. However, these providers should still abide by any sizing limitations set out in the connection offer or connection agreement, similarly to static assets.

A solution may consist of smaller units with individual switching capability connected through the same connection point, which can be beneficial for compliance with voltage step change limits.

In the Long-term 2029 tender process there is a limit on the number of solutions that can be submitted by each Providers. For more information, please refer to the 'Long-term 2029 Instructions to Tenderers document. For avoidance of doubt, any change in the asset, MW value, MVAr value, site, topology, voltage level or connection type counts as a different solution.

4 Section 6 of the SQSS defines the limits for step changes

5 The presented values reflect the maximum reactive power output corresponding to a voltage of 1.0 p.u.

4.4 Reactive Power Capability

Unless otherwise stated, the reactive power capability should refer to the Grid Entry Point (GEP), defined as the point where the solution directly connects to the transmission system. Any equipment between the solution and the GEP that may impact the solution's performance must be considered when determining the reactive power capability. This equipment may include transformers, cables, circuits, and other components.

The Long-term 2029 tender seeks technologies that provide reactive power support services based on a technology-agnostic specification. Solutions are classified as either static or dynamic. In specific locations, where NESO require a dynamic service, only dynamic solutions will be accepted. However, where a static service is specified, solutions based on either static or dynamic assets may be proposed, such as a Mechanical Switched Reactor (MSR) or a Mechanical Switched Capacitor (MSC). In all cases the solution must comply with all technical and connections criteria independent of their MW output.

For each proposed solution within the tender submissions, Providers should declare the reactive power range at the GEP for both MVAr absorption and injection conditions, as follows:

- **Absorption capability** – MVAr at GEP (-ve) when the voltage at the GEP is equal to 1.0 p.u.
- **Injection capability** – MVAr at GEP (+ve) when the voltage at the GEP equal to 1.0 p.u.

For the purpose of the Long-term 2029 tender, all solutions will be assessed based on the declared absorption and the injection capability at the GEP (absolute value) where both absorption and injection services are required. Where only injection or absorption capability is required, solutions will be assessed solely on the required capability at GEP (absolute value) only. Please refer to the Contract Award Criteria for more details about the assessment methodology.

For avoidance of doubt, for non-zero MW solutions, the declared MVAr range must be accessible independently from its MW output.

The proposed solution must be compliant with all applicable Grid Code sections, including but not limited to:

1. The reactive power capability of Power Generating Modules, including Grid Forming Plant, should be in accordance with the applicable sections of ECC.6.3.2.
2. Plant for which there are no explicit reactive power provisions in the Grid Code, e.g., those that do not export MW, should meet the requirement as defined in Figure 1 and Figure 2 for synchronous and inverter based, respectively.
3. Any excitation and voltage control systems must be in accordance with the applicable sections of the Grid Code (e.g., ECC.6.3.8) and as specified in their Bilateral Connection Agreement. For the avoidance of doubt, Plant not explicitly catered for in the Grid Code should meet the requirements of ECC.6.3.8.3 or ECC.6.3.8.4 depending on their technology type. The performance requirements expected of the control system are detailed in the relevant parts of Appendix E of the Grid Code.
4. Providers are required to consider and account for transient and temporary voltage issues for any installation at all sites considering the obligations to be placed on connectees through the Bilateral Connection Agreement (BCA). All requirements regarding AC System Voltage Variations, covering TOV (Grid Code ECC.6.1.4, and TGN(E) 288 requirements) and Electromagnetic Transients, Voltage Fluctuations and Transformer Energisation, covering inrush (Grid Code ECC.6.1.7) must be met. Standard BCA templates can be found on the NESO website at: https://www.neso.energy/document/33976/download. TGN(E) 288 can be found at the following location: https://www.nationalgrid.com/sites/default/files/documents/TGN%28E%29_288_0.pdf.
5. Any proposed solution based on technologies not covered by the Grid Code must have the requirements agreed with NESO.

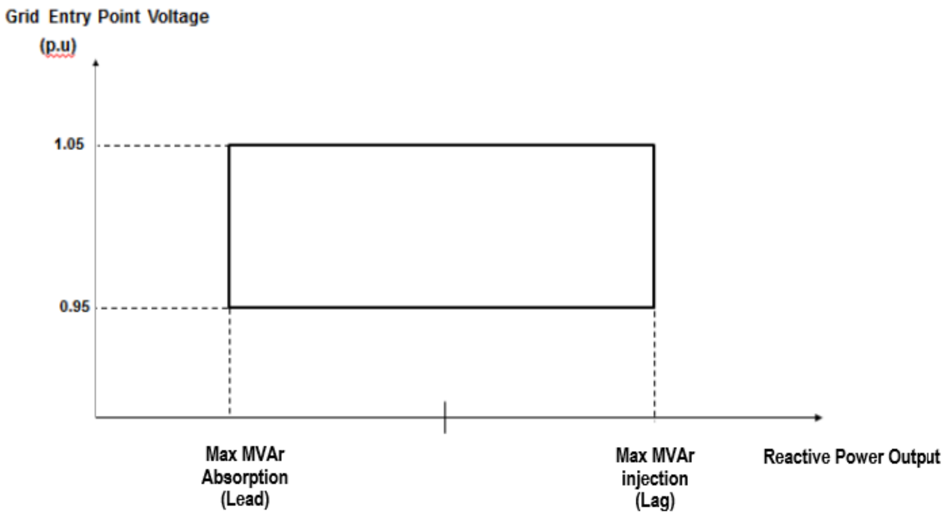

Figure 1: Reactive Capability requirement for Synchronous Plants not specified in the Grid Code

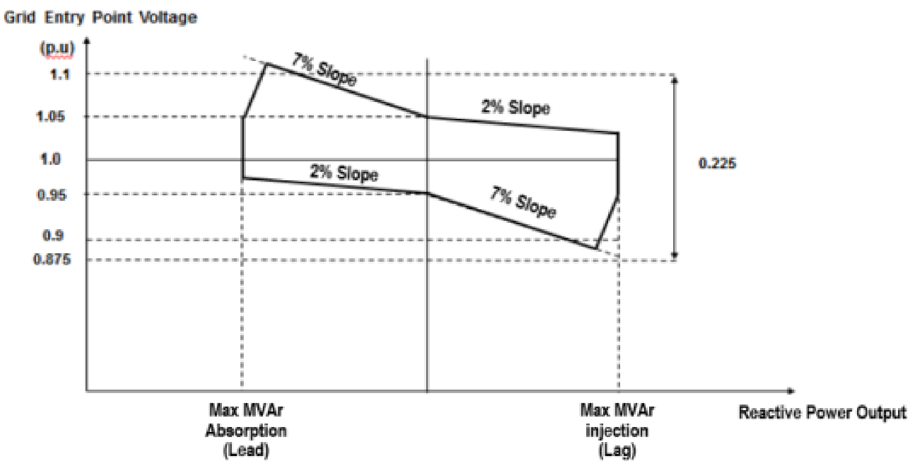

Figure 2: Reactive Capability requirement for Inverter Based Plant not specified in the Grid Code

For non GBGF-I solutions with dynamic reactive support capability, e.g., synchronous condensers, the solution must be able to operate in either Voltage Control Mode or Constant Reactive Power Control Mode:

6. In Voltage Control Mode, the reactive current shall be directly proportional to the deviation of the system voltage from the preselected setpoint and inversely proportional to the slope setting.

7. In Constant Reactive Power Mode, the control system responds to keep a target reactive power injected or absorbed at the GEP equals the preselected MVAr setpoint. The solution must still respond rapidly to sudden changes in system voltage, its output returning steadily to the target value over a definable subsequent period. In this mode, the Facility's excitation and voltage control must:

   7.1 Adjust the target voltage so that the MVAr output of the Facility equals the 'Constant Reactive Power Mode' setting. The Facility will thus still respond rapidly to sudden changes in system voltage, its output returning steadily to within (+/ - 2% of unit MVAr rating) of the target value over the subsequent 5 minute period.

   7.2 Should the voltage on the NETS vary outside adjustable preset limits, the Facility must automatically be switched to Target Voltage Mode to control the abnormal system voltage. This change of operating mode shall be alarmed to alert NESO to a possible abnormal system condition. The preset limits shall be adjustable between 0.93p.u. and 1.07p.u. with a resolution of 0.0025p.u.

   7.3 Constant Reactive Power Mode control must be achievable at any MVAr output and at any system voltage as defined in ECC.6.1.4 and frequencies as defined in ECC.6.1.2.1 of the Grid Code.

8. For GBGF-I solutions the 'Constant Reactive Power Mode' mode described in section 7 is not required, however if the provider wishes to offer the 'Constant Reactive Power Mode' mode the solution must be able to meet all other requirements set out in the technical specification when operating in this mode.

8 The solution must be able to switch between 'Voltage Control Mode' and 'Constant Reactive Power Mode' on instruction from NESO within an agreed time scale of no longer than 30 minutes.

9 The solution must be able to change the preselected voltage and MVAr setpoints on instruction from NESO within an agreed time scale of no longer than 30 minutes.

4.5 Fault Ride Through (FRT) Requirements

1. Solutions should meet the applicable sections of ECC.6.3.15 for their technology type. For solutions based upon Power Electronic Technology, e.g., STATCOM, they will need to meet the requirements of a Power Park Module in the Grid Code.

2. Solutions must be able to meet the relevant voltage duration curves for connections at or above 110kV as specified in ECC.6.3.15. This requirement must be met regardless of the connection voltage of the solution.

4.6 Oscillation Damping Capability

1. For dynamic solutions the Facility shall be capable of active and/or reactive power oscillation damping over a duration of 20s. The Power oscillation damping shall:

   1.1. Inherently or through a control system contribute to damping sub-synchronous frequency oscillations in the system's active or reactive power range over a frequency bandwidth of 0.3-2 Hz.

   1.2. Inject active or reactive current adequately in antiphase to achieve a reduction in oscillations (as described above) at the Grid Entry Point.

   1.3. Change the amount of active or reactive current injection proportional to the amplitude of the oscillations.

   1.4. Ensure the influence of any subsidiary control functions be no more than 10% of the machine rating.

   1.5. In addition, solutions based on GBGF-I technology are required to provide damping as described in this Guidance Note or future updated versions or equivalent publications from NESO.

   1.6. Solutions based on GBGF-S technology are required to provide damping as described in the future guidance.

   1.7. For Hybrid solutions, providers should agree with NESO a methodology for the demonstration of Oscillation Damping performance.

   1.8. For the avoidance of doubt active power damping requirement is only required for non 0MW solutions.

2. If the Facility is to operate with a Power Systems Stabiliser (PSS) capability as specified through its Bilateral Connection Agreement and GB Grid Code then this PSS mode shall be used instead of the Power Oscillation Damping specified in 4.6.1. If at any time during the length of the contract, the Facility is not operating with a PSS, then the Facility will need to meet the requirements specified in 4.6.1.

4.7 Dispatch

1. There must be a single point of dispatch.
2. Providers to be dispatched via EDL/EDT or signals over a VPN via IEC104 server connection.
3. Providers must acknowledge receipt of instruction within 2 minutes.
4. The minimum notice period required to deliver the contracted reactive power service must not exceed 30 minutes.
5. Providers must have capability of receiving and responding to instructions 24/7 for the duration of the contract period.
6. Providers must inform NESO of planned outages/periods of unavailability in line with the terms and conditions of the Long-term 2029 services agreement.

4.8 Control and Indication Facilities

1. Where applicable, the transformer tap position shall be provided for by the provider at the NESO operational metering System Control and Data Acquisition (SCADA) outstation interface, as specified in the provider's Bilateral Connection Agreement.

2. Where applicable, the following facilities for voltage/reactive power control to the NESO instructions shall be provided by the provider at a manned control point:
   2.1 Start-up of the solution.
   2.2 Target voltage setting for Voltage Control Mode (resolution 1kV).
   2.3 Target MVAr setting for Constant Reactive Power Control Mode (resolution 1MVAr).
   2.4 Control mode selection, i.e., Voltage Control Mode or Constant Reactive Power Control Mode.
   2.5 Slope setting (range 2% to 7%, resolution 0.5%.)

3. The following additional facilities for voltage/reactive power control shall be provided by the provider. The provider shall use all reasonable endeavours to adjust any of the following specified quantities upon NESO instruction within 24 hours notice. Adjustments including 3.1 and 3.2 shall not be made unless instructed by the NESO.
   3.1 The time for switching between Voltage Control Mode and Constant Reactive Power Control Mode. The value shall be within the range 5 minutes to 30 minutes, with a resolution of 5 minutes.

3.2 When operating in Voltage Control Mode, the control system shall be capable of operating to a Setpoint Voltage between 95% and 105% with a resolution of 0.25%.

4. Providers must provide, at the point of connection, operational and settlement metering for real time visibility and service settlement purposes.

5. Static reactive power compensation, such as SHRs or MSCs, must have Automatic Reactive Switching (ARS) functionality. The details of how the ARS functionality is provided for will need to be agreed between the provider, NESO and the relevant TO.

4.9 Model Provision

1. Solutions without dynamic reactive power capability must, prior to commissioning, submit a Root Mean Square - RMS model with all relevant electrical parameters, including saturation characteristics when applicable.
2. Solutions with dynamic reactive power capability must, prior to commissioning, submit a dynamic (Root mean Square - RMS) model and an electromagnetic transient (EMT) model in accordance with Grid Code PC.A.5.3 or PC.A.5.4 and PC.A.9 as appropriate. All solutions must also submit models in compliance with PC.A.5.8.
3. The provider must submit an open RMS model (i.e., transfer functions visible with no encryption on any block diagrams, equations or macros and not contain DLL code or requiring set up script to function) produced in DIgSILENT PowerFactory in a software version that is agreeable between NESO and the Provider.
4. The provider must submit an EMT model in a software version that is agreeable between the NESO and the provider 3 months before the Scheduled Commercial Operations date. Further to this the model must be accepted by NESO. Any model submitted should be in line with PC.A.9.4, PC.A.9.6 and PC.A.9.9. The model should be expected to be shared with the relevant TO and, if it applies, the relevant DNO. The model may also be shared with other users as a part of the compliance process. The provider must follow the requirements set out in the Guidance Notes for Electro-Magnetic Transient (EMT) Models equivalent documentation at time of connection.
5. The provider must submit a Performance Chart in accordance with Grid Code OC2.4.2.1.

4.10 Compliance Requirements

1. Compliance testing requirements should be discussed with NESO and will be determined based on the solution technology.
2. NESO shall provide a full set of test requirements no less than 1 year before the Scheduled Commercial Operations Date.
3. 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 provider's Facility to become operational.
4. For GBGF-I solutions all tests covered in ECP.A.9 shall be completed through physical testing. These tests must be completed to a methodology agreed with NESO.

Term / Acronym	Definition
MSC	Mechanical Switched Capacitance
MSR	Mechanical Switched Reactors
EDT	Electronic Data Transfer
EDL	Electronic Dispatch Logger
NESO	National Energy System Operator
TO	Transmission Owner
ARS	Automatic Reactive Switching
Reference Substation	Substation on the transmission network which has been identified as a site of reactive power need
Alternative Acceptable Substations	Substation on the transmission network where the reactive power service can be provided with reference to the Reference Substation
Reactive Power	The product of voltage and current and the sine of the phase angle between them measured in units of voltamperes reactive.
Solution	Any one asset or group of assets connected through one connection point/bay being proposed as a solution
Provider	Used to refer to whichever company is successful and contracted for provision of the reactive power service when referring to their obligations within the technical specification or the contract.
Static Asset	An asset which delivers the Reactive Power Service by absorbing or injecting an approximately constant level of reactive power level during normal operation.
Dynamic Asset	An asset which delivers the Reactive Power Service according to its control mode, which can be Constant Reactive Power Control Mode or Constant Voltage Control Mode.
Grid Entry Point	The point at which the solution connects to the transmission system (275kV or above).
Zero-MW Solution	A solution which can provide reactive power, without the capability of injecting or absorbing active power in steady-state condition, excluding any intrinsic operational losses, e.g., reactors, synchronous compensators, SVCs, and STATCOMs.

Non-Zero-MW Solution	A solution which can provide reactive power, with the capability of injecting or absorbing active power in steady-state condition beyond any intrinsic operational losses, e.g., generators, batteries, and wind farms.
GB Grid Forming Inverter or GBGF-I Plant	Any Power Park Module, HVDC System, DC Converter, OTSDUW Plant and Apparatus, Non-Synchronous Electricity Storage Module, Dynamic Reactive Compensation Equipment or any Plant and Apparatus (including a smart load) which is connected or partly connected to the Total System via an Electronic Power Converter which has a Grid Forming Capability.
GB Grid Forming Synchronous Plant or GBGF-S Plant	A Synchronous Power Generating Module, Synchronous Electricity Storage Module or Synchronous Generating Unit with a Grid Forming Capability.
Dynamic Reactive Power Capability	Capability of injecting or absorbing Reactive Power in a controlled manner which could be performed by diverse technologies, including but not limited to Synchronous Compensators, SVCs, STATCOMs, or Batteries.
Constant Reactive Power Control Mode	The control system responds to keep a target reactive power injected or absorbed at the GEP equals the preselected MVAr setpoint.
Voltage Control Mode	The unit reactive current shall be directly proportional to the deviation of the system voltage from the preselected setpoint and inversely proportional to the slope setting.
Setpoint	Preselect voltage or MVAr target value as instructed by the NESO.
Slope	The slope setting is equivalent to the percentage voltage change, based on nominal, that results in a change in reactive power from zero to the maximum absorption or injection.