

NOA Stability Pathfinder Phase 2

Heads of Terms



Legal disclaimer and copyright

Disclaimer

This guidance document has been prepared by National Grid Electricity System Operator (NGESO) and is provided voluntarily and without charge. Whilst NGESO has taken all reasonable care in preparing this document, no representation or warranty either expressed or implied is made as to the accuracy or completeness of the information that it contains and parties using information within the document should make their own enquiries as to its accuracy and suitability for the purpose for which they use it. Neither NGESO nor any other companies in the National Grid plc group, nor any directors or employees of any such company shall be liable for any error or misstatement or opinion on which the recipient of this document relies or seeks to rely other than fraudulent misstatement or fraudulent misrepresentation and does not accept any responsibility for any use which is made of the information or the document or (to the extent permitted by law) for any damages or losses incurred.

Copyright National Grid ESO 2020, all rights reserved.

Version control

Version	Date published	Page No.	Comments
1.0	30/09/2020		

Introduction

This document provides an overview of the terms that we intend to apply to NOA Stability Pathfinder Phase 2.

In October we will publish draft contract terms on which we will carry out a consultation with market participants.

Following the consultation we will issue a second draft of the contract terms to allow a follow up opportunity for any further comments.

The terms will be finalised prior to the launch of the economic assessment.

Further details on the timeline for the contract terms can be found in the “Invitation for Expressions of Interest” slide pack.

Alongside these slides, we are also sharing an Excel spreadsheet which contains calculation on how availability payments and rebates will be applied.

This is intended to allow providers an opportunity to review the payment mechanism and to inform their tender strategy.

The payment formulae will be included in the draft contract term which will provide an opportunity to amend if necessary.

Key Contract Terms

Contract Duration	<ul style="list-style-type: none"> ■ Tenders are invited for service commencement between 1st April 2022 and 1st April 2024* with a fixed end date of 31st March 2030 ■ All tenders compared over an 8-year period, regardless of the tendered service start date ■ Multiple tenders for stacked periods within the above timeframe are allowed on a mutually exclusive / all or nothing basis
Availability	<ul style="list-style-type: none"> ■ >90% availability for Short Circuit Level, inertia availability is a variable parameter and will be assessed accordingly ■ Allowance of 15 calendar days of planned & agreed outages per annum ■ Transmission Operator constraints that impact service availability will affect availability payments ■ Providers may be able to stack other services along with the stability service, so long as availability to deliver the additional capability is not affected. This includes generating / exporting and pumping / importing active power. ■ Specific mechanism to declare service (un)available, outside of Grid Code/REMIT requirements
Payment types	<ul style="list-style-type: none"> ■ The tendered availability price - a fixed £/Settlement Period - will apply for the first 3 years of the contract whereupon it will be indexed at CPI for the remainder of the contract ■ This price reflects provision of the Stability service as laid out in the technical parameters (Short-Circuit level, Inertia & Fast-Acting dynamic voltage) ■ Reactive Power will be paid for at a rate equivalent to ORPS ■ The provider is responsible for paying any use of system charges or levies, and reflecting these as necessary in their tendered availability price ■ Unlike the Stability Phase 1 contract, active power consumed (demand) to provide the service will not be reimbursed separately but should be factored into the availability price. This is to ensure equal treatment for the range of technologies that can participate in Phase 2.

*We will not fail an option at the EOI stage based on the connection date, allowing it to take part in the TO connections review. At this stage we will receive a better view of all options' start dates. If there are not enough options which connect before April 2024 to meet our needs, then we may consider buying options with later start dates.

Contract Payment structures

What are the payment structures?

	Availability	Reactive Power	Active Power (import & export)
Rate	<ul style="list-style-type: none"> Apr'22 onwards: Tendered price (£/SP) + CPI from year 4 of the contract 	<ul style="list-style-type: none"> Utilisation @ reactive default payment rate (£/MVARh) Leading & Lagging 	<ul style="list-style-type: none"> N/A
Paid by NGESO	<ul style="list-style-type: none"> Available; or Allowance of 15 days of agreed provider outage 	<ul style="list-style-type: none"> For MVARh delivered at ORPS 	<ul style="list-style-type: none"> N/A
Not-paid by NGESO	<ul style="list-style-type: none"> Unavailable; or Outage days in excess of 15 day allowance; 	<ul style="list-style-type: none"> n/a 	<ul style="list-style-type: none"> All circumstances
Rebate to NGESO	<ul style="list-style-type: none"> Annual Availability < performance level threshold (see overleaf for more detail) 	<ul style="list-style-type: none"> n/a 	<ul style="list-style-type: none"> n/a

Performance management

Availability performance factor:	<ul style="list-style-type: none">■ All providers must meet the 90% availability for SCL■ Providers will declare an availability% for inertia in the commercial tender that they must deliver against■ Availability outturn and payment will be calculated separately for SCL and inertia, though paid as a single amount■ Where SCL availability is <90%, or where inertia availability is below tendered parameter, there will be a rebate of availability payment (see associated spreadsheet)■ Unlike Stability Phase 1 contract, there is no summer/winter or day/night variability in the rebate calculation■ Payments will be made on a rolling monthly basis with any prior period rebate netted off that month's payments■ Separate annual reconciliation at each FY end to account for monthly variances in performance and to reclaim any outstanding rebate not netted-off to-date■ Maximum exposure to provider monthly and annually is zero■ The first 15 days of planned outages that are agreed by NGESO, will be treated as being available for SCL and Inertia■ We have included a spreadsheet as part of the EOI for you to test the calculation figures
Liquidated Damages:	<ul style="list-style-type: none">■ At the point of signing the contract post tender award, successful providers will be required to submit security against their liability for Liquidated Damages (LD) e.g. Parent Company Guarantee/Letter of Credit.■ LD will be £/day, relative to the individual tendered availability price with an overall cap■ Any delay in service delivery and failure to pay the LD will result in NGESO calling off against the security■ Where a provider fails to begin delivering the service, this will result in the full LD amount being due

Assurance

Assurance

Pre-Tender

No precondition for connection/land agreements but a Feasibility Study will be carried out prior to economic assessment

Study will prove capability of all proposed technologies that are put forward as part of the Expression Of Interest to deliver the Stability Service

The Connection Feasibility will allow a coordinated review with the TO of connections

The service start date submitted in the tender cannot be in advance of the connection date provided through the connection feasibility study

Letter of support from board approval/letter of intent from funding party on funding/sanction to support project

High level overview of how providers will meet the Post Tender Milestones – these will be finalised before contract signature.

Post-tender/Pre-service go-live

Conditions precedent – these will be similar to those required in Phase 1 and are set out later in this slide pack

Post tender milestones (in Appendices) – these will be similar to those required in Phase 1 with addition of testing of dispatch systems and are set out later in this slide pack

Deadline to sign contract post tender acceptance else acceptance is withdrawn

No material changes to contract terms will be allowed post tender award

Successful providers will be required to submit security as guarantee against Liquidated Damages

Post Service go-live

Liquidated damages where service delivery is delayed from tendered go-live date or not delivered at all

NGESO right to request ad-hoc test where we believe asset does not have capability to deliver the service - If the test fails, the service will be classed as unavailable until the asset reproves capability

Service Stacking

Service	Allow Service Stacking?	Pay for Stability Availability?
Wholesale Market	Yes	Yes, provided additional Stability capability is available
BM from PN=0MW	Yes	Yes, as asset must have additional capability and/or be able to provide stability at 0MW
BOA from non-0MW PN	Yes	Yes, provided additional Stability capability is available
Response and Reserve	Yes	Yes, provided additional Stability capability is available
Constraint Management	Yes	Yes, as asset must have additional Stability capability and/or be able to provide stability at 0MW
Enhanced Reactive	Yes	Yes
CM	Yes	Yes, as does not impact service delivery
Black Start	Yes	Yes, as does not impact service delivery

Guidance on "additional Stability capability" is set out in the Additional Criteria slide in the EOI pack.

For any other current/future services, these may be stacked alongside stability subject to agreement with NGENSO

Conditions precedent

Conditions precedent

The following contractual conditions need to be met for the service to commence:

- The provider becoming a party to the Balancing and Settlements Code (BSC)
- The provider becoming a party to the Connection and Use of System Code (CUSC)
- The registration of the provider's facility as a Balancing Mechanism Unit (BMU) with NGESO and Elexon
- The provider becoming bound by the relevant bi-lateral connection agreement with the relevant transmission or distribution network operator (BCA or BEGA)
- The provision of reactive meter details for payment for reactive power
- The successful completion of the Initial Proving Test following compliance with appropriate Post Tender Milestones (see overleaf)

NGESO has the right to terminate the contract if it feels the conditions precedent will not be sufficiently met to enable service commencement within 6 months of the tendered service start date

Post-Tender Milestones

Post Tender Milestones (PTM)

- To ensure the development of the facility is on course for meeting the service delivery date, there will be a review of progress against a set of PTMs
- As part of the tender submission, providers are required to provide a milestone plan outlining the steps necessary to complete their build / conversion project with associated timescales
- A checklist of relevant milestones (summarised below) is outlined in more detail in Schedule C of the contract
- Progress against the milestones will be measured formally at the PTM date (6 months prior to scheduled service start). If NGESO considers the agreed milestones will not be met within two months of the PTM date then it reserves the right to terminate the contract at that point.

PTM checklist

1. Financial means in place
2. Planning permission & necessary permits
3. Technical solution model / analysis
4. Proof of land ownership / control
5. Construction & procurement plans
6. Provision of technical requirements tables (from schedule E of the contract)
7. Building / engineering contracts
8. Certification of equipment installation
9. Pre-commissioning testing, connection & proving tests (& outages where existing generation asset)
10. Test despatch/communication systems
11. Conditions precedent obtained in full