

# Firm Frequency Response Review

Outline Change Proposals  
Document (OCP – 17)

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**30 September 2016**

**This Outline Change Proposals Document (OCP-17) takes the opportunity to review the Firm Frequency Response service and its associated documentation to add additional flexibility and improve the service more generally.**

**It is envisaged that any resulting amendments to the service will be implemented no earlier than 01 January 2017.**

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## Executive Summary

To ensure that the FFR service continues to attract new entrants and facilitates competition, National Grid has taken on board comments from current and prospective service providers, which has fed into this current OCP. The outcome is that the following items are being proposed:

- Reducing the entry level from 10MW to 1MW
- Adding Volume to existing contracts
- Transparency of Testing
- Events of Default
- Operational Data Sharing
- MPAN & Supplier Information
- Housekeeping

In the course of reviewing frequency response, National Grid is revising the volumes, methods, and methodologies for the procurement of frequency response. It is envisaged that over the coming months, the industry will see increased transparency in these aspects.

Views are invited from the industry on each of the areas highlighted in this document, in addition to any other issues that industry members consider worthy of raising with a view to improving the FFR service.

Responses to this consultation should be sent to [commercial.operation@nationalgrid.com](mailto:commercial.operation@nationalgrid.com)

by 5pm on Friday 28 October 2016

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## INTRODUCTION

National Grid has a licence obligation to control frequency within the limits specified in the Electricity Supply Regulations, i.e. +/- 1% of nominal system frequency, 50.00Hz. National Grid must, therefore, ensure that sufficient generation and / or demand is held in automatic readiness to manage all credible circumstances that might result in frequency variations.

National Grid forecasts ahead of time and refines throughout the interim to real time, the response requirement to be held, based primarily on the largest loss of generation and demand on the system; weather conditions; transmission conditions; etc.

The response to meet low frequency events, caused by circumstances where demand is greater than generation, is currently met by response in two timescales:

Primary response: an increase in active power from a response provider within 10 seconds which must be maintained for a further 20 seconds;

Secondary response: an increase in active power from a response provider within 30 seconds which must be maintained for a further 30 minutes.

By contrast, high system frequency incidents are situations where generation is greater than demand and consequently system frequency rises. The response required from the high frequency response service provider is a reduction in active power, within 10 seconds to be maintained thereafter.

## REDUCING THE ENTRY LEVEL FROM 10MW TO 1MW

The current terms stipulate that a service provider must have the capability to provide response of at least 10MW as per 2.2.2(a). The biggest challenge for new entrants and the main reason for FFR Bridging is the 10MW threshold, so to continue to meet our objectives of achieving scale from DSR in Balancing Services and ensuring the market values the service; we are proposing to reduce this threshold to 1MW for new entrants.

This change could increase administration for all parties therefore National Grid really welcomes views and thoughts on this proposal.

**Question 1 – do you agree with the new proposal of reducing the entry level from 10MW to 1MW, or would a more appropriate level such as 3MW be preferred?**

## ADDING VOLUME TO SUBSISTING CONTRACTS

Currently a provider is unable to add volume to existing contracts that have been secured through a previous tender, as there is no framework or mechanism in place to monitor and assess performance from two or more contracts from the same FFR unit.

However NGET believe that this is something that would be of interest to the Industry and we would like your views and thoughts on how this would work effectively.

- Example, you have a subsisting FFR contract for Dec 2016 for 12 months from an aggregated unit SKM-01 for 10MW for 24 hours a day ; In Oct 2016 , you then bid an additional 10MW from the same unit for the exactly the same contract period. You now have 20MW from SKM-01 from Dec 2016 for 12 months, but built from two independent bids in separate tender rounds.

Other considerations, at the moment our systems cannot manage two contracts from the same defined unit, therefore if you were successful we would seek to terminate existing contract and apply a volume weighted average price to the new contract(s).

This is an opportunity for service providers to grow a virtual power plant and we would expect service providers to work towards reaching 10MW within a year? Mandate them?

**Question 2 - do you agree with the provision to allow providers to tender in the same unit and add volume to existing contracts for the same service period?**

## TRANSPARENCY OF TESTING

National Grid is proposing outlining the specific parameters for meeting the required tests in the Framework Agreements.

- a) The current **DSR Battery Storage Test Procedure for Frequency Response** stipulates that certain technical parameters of the service must be defined in the contractual agreements such as the 'k' factor, which is effectively the delay in providing proportional response and the 't' which is the sustainability of response required, this will help provide National Grid standardise products and provide the consistency and transparency.

National Grid is technology neutral, but recognises that demand side response providers have different characteristics compared to conventional plant and is therefore reworking the **DSR Battery Storage Test Procedure for Frequency Response** to reflect these characteristics.

- b) Also where an asset hasn't been connected and therefore commissioned and tested we will insist that a Mandatory Works schedule is included in the Framework Agreement and where necessary a cure plan.
- c) If a provider has secured a contract in advance of commissioning and does not meet the mandatory works schedule and therefore delayed in commencing the FFR service, save for events outside of the reasonable control of the provider then the provider must declare themselves unavailable, until National Grid is satisfied that it has met the required provisions of the schedule.

**Question 3: Do you agree that we should add more detail in the Framework Agreements around the specific testing requirements.**

**Question 4: Do you also agree that a Mandatory Works schedule should be included in all Framework Agreements where the asset hasn't been commissioned?**

**Question 5: Do also agree that a service provider must be declared unavailable in event the testing is delayed?**

## EVENTS OF DEFAULT

There is some confusion on what constitutes an event of default as per Annexure to Section 3. In the availability section it currently reads:-

*In respect of any **Settlement Period** comprised in any **FFR Nominated Window** (as revised), **Firm Frequency Response** is unavailable or deemed unavailable (but so that occurrence of any or all of the **Events of Default** in respect of the same **Settlement Period** shall constitute a single **Event of Default**).*

This could be implied that you could receive an Event of Default per Settlement period. The intent is that a provider would only receive one Event of Default per nominated per service day.

**Question 6: Do you agree that the current clause could be confusing and therefore should be re-written so only one Event of Default is received per service day?**

## OPERATIONAL DATA SHARING

Over the past couple of years National Grid have been working closely with the Distribution Network Operators (DNOs) to understanding the changes to the energy landscape and how these are provided across the whole system. The amount of distributed generation and demand control is increasing. This brings new challenges in keeping the whole electricity system secure therefore it is important that National Grid works closely with the DNOs to better understand the risks and opportunities. In order to do this we need the ability to share a degree of operational data including

instructions with DNOs, which out current balancing services contracts terms and conditions do not facilitate.

The information National Grid is proposing to share is:

- MPAN; in order to identify the location of the asset on the system
- Operational data relating to the generator (ramp rates etc.).
- Contracted MW and service provided
- Service instructions.

Both National Grid and the DNOs believe that by sharing this information, we will gain better insights into the operation of the system, and build a better awareness of the interactions between DNO constraints and System Operator constraints. In doing this, it should maximise the value of Distributed Energy Resources (DER) as a commodity and ensure the continued growth of this sector. In particular we are hoping to show whether services can be offered concurrently to DNOs and National Grid which would increase potential earnings for DER.

**Question 7:**

Do you agree that the SCTs are amended to include the ability to share operational information with DNOs?

**PROVISION OF MPAN AND SUPPLIER INFORMATION**

National Grid is aware that a consequence of European Codes could mean that allocated energy volumes for balancing services providers will be required to be allocated to the system operator. Further, because Non-BM volumes are not allocated to the system operator, their suppliers receive imbalance payment for any volume delivered. Since the introduction of single cash-out price, this price is able to reach up to £3000/MWh.

The described situation leads to two scenarios:

1. It is perceived that there is not a level playing field between BM and Non-BM providers of balancing services, since Non-BM providers could receive a financial incentive for their delivered energy in addition to their utilisation price (if applicable); whereas BM providers only receive a utilisation price.
2. The cost for imbalance volume is allocated to market participants which ultimately will be levied on the end consumer.

A working group will be formed to evaluate this issue and explore potential solutions, including key members of the industry. For the purpose of this OCP, it is proposed that, as a preliminary measure, the MPAN information and Supplier information is provided for each unit and/or sub-site. These will likely be important in addressing the issue.

**Question 8:**

Do you agree that the SCTs are amended to mandate Non-BM providers to provide National Grid with both MPAN data and Supplier information for each of their units and/or sub-sites?

**Question 9:**

Do you have any general comments on the situation described above?

## HOUSEKEEPING

The following points are considered to be housekeeping changes to the SCTs i.e. non material changes.

1. 4A.1.3 – Needs to reflect the new LT Triggered Dynamic Framework Agreements
2. 2.6.2 will be removed as this refers to the pre-tender report which we no longer publish anymore
3. Where reference is to facsimile also include email
4. Various incorrect references, cross-references and numbering in the FFR SCTs will be updated and corrected

## RESPONSES

National Grid welcomes responses from the industry on any of the topics raised in this Outline Change Proposals Document. In addition if you would like to raise any other topics for improvement to the FFR service, please include this in your response.

Any questions regarding the content of this Outline Change Proposals Document should be directed to Steve Miller ([steve.k.miller@nationalgrid.com](mailto:steve.k.miller@nationalgrid.com)).

All responses to this document should be emailed to [commercial.operation@nationalgrid.com](mailto:commercial.operation@nationalgrid.com) by no later than 5pm on **Friday 28<sup>th</sup> October 2016**. Please note that unless marked as 'Confidential', all responses will be published on the National Grid Website.

Any resulting amendments to the FFR service will be implemented no earlier than 01 January 2016.