

Firm Frequency Response Review

Outline Change Proposals – Decision
to Implement
(OCP – 17)



25TH November 2016

On the 30th September 2016 National Grid published a Firm Frequency Response Outline Change Proposal (OCP) which described a number of potential changes to the FFR Standard Contract Terms (SCTs).

Views from the industry were collated over the following 20 business days and now, in accordance with paragraph 1.2.5 of the SCTs, National Grid is publishing its intention with regards to each of these items. This will then be followed by the Detailed Change Proposals (DCP) and an update of the SCTs in a further 20 business days to lay out the wording and timing of these changes, as per paragraph 1.2.7 of the SCTs

As a reminder the following proposals were proffered:

- 1) Reducing the entry level from 10MW to 1MW
- 2) Adding Volume to existing contracts
- 3) Transparency of Testing
- 4) Events of Default
- 5) Operational Data Sharing
- 6) MPAN & Supplier Information

This document outlines NGET decisions on whether to implement, modify or withdraw the changes in line with 1.2 of the SCTs. It shall also include some non-confidential responses to the comments made on the OCP.

The Detailed Change Proposal (DCP) and the amended SCTs will be published within 20 business days of this publication, no later than 23rd December 2016 and the amended SCTs which will become effective on the Final implementation date for the appropriate changes and will be found on the Firm Frequency Response web page

<http://www2.nationalgrid.com/UK/Services/Balancing-services/Frequency-response/Firm-Frequency-Response/Firm-Frequency-Response-Information/>

Summary and timeline for Implementation

Proposal	NGET Proposal	Proposed Implementation Date
Reduce Entry Level	Yes 1MW	1 st April 2017
Adding Volume	Yes	1 st February 2017
Transparency of Testing	Yes	1 st April 2017
EOD Clarification	Yes	1 st February 2017
Operational Data Sharing	Yes	1 st April 2017
MPAN information	Yes	1 st April 2017
Supplier Information	Yes	Subject to Working group review

National Grid would like to express their thanks for all those parties who gave due consideration to the proposals and responses received.

For further information please contact

Steve Miller

Contract Services,
System Operator
National Grid House,
Warwick Technology Park,
Gallows Hill,
Warwick, CV34 6DA
steve.k.miller@nationalgrid.com

CONTENTS

1.	Reduce the Entry Level from 10MW to 1MW	3
2.	Adding Volume to Existing Contracts	4
3.	Transparency of testing	5
4.	Events of Default	6
5.	Operational Data Sharing	7
6.	MPAN and Supplier Information	8
7.	Housekeeping	9
8.	Questions and Responses	10

Reduce Entry Level to 1MW

1. Reduce Entry Level 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?

Summary of Responses

Out of the 23 respondents to the OCP, the majority were in favour of reducing the entry level from 10MW, with some responses noting that 3MW may be a more suitable compromise. There was also a general theme around on-boarding and for NGET to ensure that a robust mechanism was in place to test and assess these units once under contract.

Of those who were not in favour, the general themes included:

A DSR Aggregation Model exists for service providers with 1MW units and these help with DSR growth.

Decision

National Grid has decided that the opportunity to enter the market at 1MW will provide an aggregated benefit to the end consumer by offering flexibility to the service providers. It also notes that this is an opportunity to grow within a contract by having the additional ability to add volume to existing contracts, subject to conditions.

For the avoidance of doubt National Grid intends to implement this proposal to allow service providers to enter the FFR market at 1MW and will be effective from the 1st April 2017; therefore the earliest you can tender an asset for 1MW would be tender round 88 ending at 17:00pm on 3rd April 2017.

The amendments to the SCTs will also be effective from the 1st April 2017.

Adding Volume to Existing Contracts

2. Adding Volume to Existing 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?

Summary of Responses

Of the 23 respondents of this proposal, 22 were in favour and one against the introduction to allow service providers to add volume to existing contracts. It was clear from the responses that this was favoured as long as the option was accessible for all parties and the bids were from discrete competitive tender rounds, and only once a subsequent contract is awarded should they be merged. In addition we have decided not to mandate providers to reach 10MW within a year as this would be seen as counter-productive and would reduce the flexibility that we are trying to offer.

Decision

National Grid will be implementing this change and the amendments will be reflected in the SCTs and will be effective from the 1st Feb 2017, first tender round 86 ending 17:00 on 1st February 2017

For the avoidance of doubt and after careful consideration overlapping contracts would also be considered, i.e. a service provider would not necessarily have to add volume to existing service term – with the same start and end time.

Transparency of Testing

3. 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 ensuring 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?

Summary of Responses

Of the 23 respondents of this proposal, of those who chose to comment the vast majority were in favour of ensuring that the specific requirements of testing are clearly documented and there is a robust mechanism in place to ensure that the service provider is aware of their obligations. It is also notes that NGET must ensure that the adequate resources and processes are in place to on-board new providers and support them through the process of compliance testing.

*NGET are in the process of reviewing the **DSR Battery Storage Test Procedure for Frequency Response**, this revision will provide precise details of what tests are required, how they are to be presented and also the process for submitting tested data. This should also answer many questions that new providers have on the testing requirements and why.*

Decision

The specific questions asked in this Outline Change Proposal will be addressed in the specific Framework Agreements for BM and NBM and would only be applicable for new entrants into the market effective from 1st April 2017.

Events of Default



4. *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 a provider could receive an Event of Default per Settlement period. The intent is that a provider would only receive one Event of Default per nominated window/ 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?

Summary of Responses

All 23 respondents were either in favour or did not comment on this proposal; therefore National Grid will implement this and make the necessary changes to remove any ambiguity.

Decision

The clarification to the Events of Default will be reflected in the SCTs effective from the 1st Feb 2017

Operational Data Sharing

5. Operational Data Sharing

Over the past couple of years National Grid have been working closely with the Distribution Network Operators (DNOs) 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 our 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?

Summary of Responses

The majority of responses were supportive of this implementation and agreed it was in the best interests of the whole electricity system for National Grid and the DNOs to work more closely together. Some comments enquired as to whether the plans would result in additional work for counterparties, to which the answer is no.

It was also highlighted that some DNOs are looking into the provision of balancing services and thus whether this represented a conflict of interest. No plans are yet firm in this area, and it is also felt that the data being shared would not offer any benefit in this case due to the level of data being shared. It should also be noted that other uses of the system, such as the Balancing Mechanism, and Short Term Operating Reserve, are fully transparent in their procurement and operations.

Decision

On consideration National Grid has decided to proceed with the implementation of operational data sharing, and such details will be incorporated into the SCTs to go live from 1st April 2017. In-line with some comments received, National Grid will put in place Non-Disclosure Agreements with the relevant DNOs.

If any party wishes to opt-out of this arrangement, provisions will be made for them to do so within the relevant changes to the SCTs.

MPAN & Supplier Information

6. 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?

Summary of Responses

Responses to this proposal were split with some parties in favour and others not.

Furthermore, the first session of the working group has been held and will meet again in the near future.

It is clear that the issue laid out is complicated and there is no clear route forward at present, and that any changes are likely to be more far reaching than a change to the SCTs.

It is also worth noting that the SCTs do allow ad-hoc changes to be made if these are required to comply with code changes.

Decision

With the above points mentioned, National Grid has decided to amend this change, and proceed with the requirement to provide MPAN information only. National Grid would like to make clear that this does not bear relation to the imbalance volume, but rather is required in case of a Disconnection Event in order to consolidate information on system response.

Existing FFR Framework Agreements will therefore be updated to reflect the need to provide this information and this need will be effective from 1st April 2017. NGET do not intend to ask existing providers with prevailing Framework Agreements to sign onto new agreements or amend them, however we would still expect providers to provide MPAN information as agreed.

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 NGET no longer publish.
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

Questions and Responses

The following section will summarise some of the responses received. National Grid has selected a number of responses to each question to ensure we capture the essence of the feedback and where possible useful further information from the respondents.

National Grid also notes that some of the responses were **confidential** and they have not been included in this section.

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?

- “Open Energi agree that reduction in the MW level will encourage entry to the market and reduce barriers. The experience with bridging and runway contracts has shown that reducing this MW threshold will encourage entry and this can also be seen in international markets. Whether the appropriate de-minimus is 1MW or 3MW is a question for National Grid to answer internally depending on the impact to the control room. In order to decrease the barrier further without impact on the control room there are two further alternatives”
- “The ADE supports the proposed reduction in the MW threshold, and we prefer a threshold of 1MW rather than 3MW. However, a 3MW threshold would nevertheless be a substantial improvement. The experience with bridging and runway contracts has shown that reducing the megawatt threshold will encourage entry, and this benefit can also be seen in international markets such as PJM.”
- “We are not convinced that the case for reducing the FFR entry threshold has been made. The current threshold of 10MW avoids excessive fragmentation and administrative complexity in the market. We also note that small amounts of FFR can still participate in the market via aggregators, which may in fact bring additional benefits”
- “The entry level should align to Short Term Operating Reserve (STOR) currently set to 3MW. Alternatively, if 1MW were to be progressed we would advocate the same reduction applied to the STOR minimum threshold. This would align to the Capacity Market minimum threshold.”
- “E.ON fully supports National Grid’s proposal to reduce the 10MW thresholds to 1MW which seems to be the most appropriate threshold to allow a larger number of new entrants into the market and completely avoid the use of the Bridge contract.”

Questions and Responses

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?

- “Yes – providers should be allowed to add volume to existing contracts for the same service period, subject to them meeting the 10MW capacity threshold in the first instance.”
- “Open Energi believe the key to the success of this change is allowing growth under a tender. Merging tenders is also a positive change. Two of the pillars of the Power Responsive campaign are Customer-Led Products and Certainty & Stability - this change is at the centre of both these pillars.”
- “The ADE supports the proposal to allow volume to be added in the manner proposed, provided the added volume obtains a contract through the normal tender process on a competitive basis. Two of the pillars of the Power Responsive campaign are Customer-Led Products and Certainty & Stability – this change is at the centre of both these pillars. However, this change should not preclude any party from submitting a separate tender that is not to be combined with an existing contract. For merging tenders the ADE agrees with the principle of a volume weighted price. This price would reflect the reality of that aggregated unit. If the unit could be disaggregated then two separate units could be bid and there would be no need for the merge in the first place. In order to ensure a level playing field, it could be appropriate to improve the transparency in the weight of Primary, Secondary and High in assigning prices in the tender.”
- “Again, this should be positive for increasing bids in the mechanism and procuring more flexible capacity for the TSO, therefore is a welcome change. However we disagree with the proposal to mandate service providers to reach 10MW capacity within a year. This would be a barrier for small providers who would enter the FFR market as new entrants where the threshold reduced to 1MW.”
- “This proposal provides some merits however also introduces more complexity that may not be necessary if the minimum threshold is reduced as per question 1. It is also unclear whether the introduction of this flexibility will be alongside FFR bridging contracts (that already allow growth) or provide a replacement. Does National Grid envisage rolling out this proposal to other balancing services such as STOR and Fast Reserve?”
- “E.ON believes that Providers should be able to tender in the same unit and add volume to existing contracts for the same service period. Aggregator’s portfolios should be expected to grow over the years through the progressive addition of new sites. National Grid should be prepared to deal with small volumes being tendered in order to join existing FFR Contracted Units even after a Provider has reached its first 10MWs.”

Questions and Responses

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?

- Q4" This appears to be a sensible precaution to ensure delivery of capacity. However there must be some flexibility allowed for given potential delays in DNO grid connections and for force majeure and other reasons for delays which are uncontrollable."
- Q5 "This would depend on the reasons for the delay. If it is for a reason completely out of the project's control (for example a DNO delay in connecting the project) a flexible approach should be permitted."
- Q4 "We also believe forfeitable bid bonds should be introduced as a matter of course for successful tenders secured on newbuild assets to reduce speculative bid behaviour."
- Q4 Providing Mandatory Works schedule for small individual assets (for example under 1 MW) could trigger a lot of administrative work on the Service Provider side. From National Grid's perspective it may also be quite burdensome to read all Works schedule and regularly monitor the works progress. In addition, with the short term solution proposed in question 2, below 10 MW Service Providers do not benefit from tendering for long term volumes they have not commissioned yet if they have contracts in which volume can be added when available. National Grid should be entitled to ask for a Mandatory Works schedule at Aggregated Facility level whenever it is needed but it may not be useful to automatically include one when an asset hasn't been commissioned."
- Q5 "Yes, this is clearly necessary, as long as the delay is not a result of hold ups from NG's end."

Questions and Responses

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?

- “Yes, the clause should not be ambiguous.”
- “We also believe (albeit the extent of the impact of this issue is currently unclear) that the method for determining performance, based on random sampling, has the potential to heavily negatively penalise the contract over the whole tender period based just on one half hour window of poor performance. This does not compare favourably to the EFR method rewarding availability and performance, and presents a significant financial risk to investors in energy storage which may be heavily reliant on FFR to supplement their core operations.”
- “Greater clarity is always beneficial.”
- “Any measures to clarify and simplify the mechanism would be welcome, therefore this is supported in principle, however there is some confusion as to what it would mean in practice. For example, a site being unavailable for a half-hour period should not mean one Event of Default issued and this making them ineligible for the entire FFR nominated window. We presume the intention is in fact that one default event will be issued should an asset go offline, for however long, rather than continued event notifications being issued for every settlement period.”

Questions and Responses

Question 7 - Do you agree that the SCTs are amended to include the ability to share operational information with DNOs?

- “Yes – increased operational information sharing with DNOs should improve the overall management of the system.”
- “There has been a historic lack of communication and information sharing between the DNOs and National Grid as TSO, causing potential problems for the TSO – for example the lack of visibility of ‘embedded’ generation and in particular solar PV. As the storage industry develops there is a need for all grid operators to be aware of the energy storage capacity and capabilities on the network and therefore we welcome this suggestion to promote greater information sharing. Further clarity on the definition and scope of ‘operational data’ and ‘service provided’ is necessary before making changes to data management policies in any contract between National Grid and storage assets, in order to protect commercial sensitivities.”
- UKPR “No we do not agree that the SCTs should be amended to enable National Grid to share counter party’s information with DNOs. We treat our commercial despatch decisions with the strictest of confidentiality furthermore a number of DNOs are actively developing aggregator models to participate in the provision of balancing services and provide direct competition therefore it is wholly inappropriate that this level of commercially sensitive information be shared with our competitors.”
- “E.ON sees no problem with National Grid sharing this data with the DNO and recognises the benefits this could provide for the DNO in managing their network. However, it is important that it is stipulated that the DNO cannot share this data with any third parties. In the case of aggregators, FFR units may include ‘buffer assets’ which are included in the Unit to improve reliability but are not counted towards the unit capacity and due to cost or other reasons are rarely activated. In these cases, it would be extremely difficult for the DNO to identify which assets within a FFR unit were or were not utilised following a FFR event.”

Questions and Responses

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?

- “We support the preliminary measures on MPAN and supplier information pending further discussions by the industry workgroup.”
- “The ADE agrees that non-BM providers should declare MPANs to National Grid. There is value in providing an MPAN, this allows grid to monitor where a service is coming from & ensure there is no overlap GEOG. It is also consistent with the information required by the Capacity Market and other Grid products. However, we do disagree with providing Supplier information. We would have significant concerns if National Grid were to share commercial information, including the existence of DSR contracts, with Suppliers, as the Suppliers are direct competitors of DSR aggregators. A Supplier may have to be asked for these details, in which case they can take actions to block the presence of the aggregator at that client. Equally there is no obligation for an aggregator to be informed when their clients change Supplier. As such, we believe this would lead to an anti-competitive and unbalanced market.”
- “We agree it is an important issue, as described in the consultation document, of non-BM units potentially receiving more for energy delivered than BM units. It is important to investigate the implications further, for the system and for flexible technologies and in the meantime it should be kept under review in relation to the FFR.”
- UKPR “No as per our response to the STOR OCP presently we see no reason that this information should be shared for the 2017/2018 year.”
- In principle, E.ON sees no issue with MPAN data and supplier information being included in the SCT's as long as these remain confidential documents between National Grid and the provider. There may be challenges around managing this process however, as an asset owner (providing flexibility to an aggregator) may change their supplier at any time during their contract without necessarily informing the aggregator. With the MPAN data provided by the Aggregator National Grid could use existing industry settlement data flows to assign volumes to the relevant supplier.