

Firm Frequency Response (FFR) Development

Outline Change Proposals Document (OCP-01)

28th October 2011

nationalgrid

THE POWER OF ACTION

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Executive Summary

This Outline Change Proposal (OCP) document is published in line with the Firm Frequency Response (FFR) Tender Rules and Standard Contract Terms (SCTs) Issue #4 published on the 1st April 2009. From time to time National Grid will review the SCTs and where areas for improvement are identified raise an OCP to implement changes to the document.

During recent months National Grid has reviewed the SCTs and identified a number of areas for improvement. These were discussed with the industry at a workshop on the 22nd August 2011. After considering the feedback received at the workshop, it is now believed that there is value in taking forward a number of these changes.

The key areas for improvement are:

- The process for amending the SCTs
- The tender dates
- Simplification of the Tender Sheets
- Performance monitoring

This document outlines the proposed amendments to the SCTs and discusses the reasons why National Grid considers these amendments to be improvements to the current terms. We welcome any comments you have on these amendments.

**Responses to this consultation should be sent to
energy.operations@uk.ngrid.com**

by 5pm on 11th November 2011

Section 1

Introduction to the FFR Service

Firm Frequency Response (FFR)

1. National Grid has a licence obligation to control frequency within the limits specified in the 'Electricity Supply Regulations', i.e. $\pm 1\%$ of nominal system frequency (50.00Hz) save in abnormal or exceptional circumstances. 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.
2. The requirement for Frequency Response varies depending on the time of year, week and day, being a function of the system demand profile at that time. National Grid procures this requirement from the mandatory frequency response market, bilateral agreements and Firm Frequency Response. FFR is procured via a monthly competitive tender process from both those who participate in the Balancing Mechanism (BM) and those who do not.
3. FFR is a contracted Balancing Service whereby the service provider delivers an automatic change in output as a response to the system frequency. There are two types of Frequency Response: Dynamic and Non Dynamic Response. Dynamic Frequency Response is a continuously provided service used to manage the normal second by second changes on the system. While Non Dynamic Frequency Response is usually a discrete service triggered at a defined frequency deviation.
4. The contractual provisions relating to the FFR service are contained in the *Firm Frequency Response Tender Rules and Standard Contract Terms Issue #4* which is available on the National Grid website.¹ Any developments implemented as part of this review will be incorporated into Issue #5.

Amending the Standard Contract Terms

5. Paragraph 1.2 of the FFR Standard Contract Terms obliges National Grid to review the SCTs from time to time, and where at any time National Grid wishes to propose one or more amendments, then it may do so by formulating an Outline Change Proposal (OCP), the contents of which shall include without limitation:-
 - i) the rationale for the amendment(s), including whether or not required as a result of a Proposed Legal Requirement or Change in Law;
 - ii) if applicable, details of the Proposed Legal Requirement or Change in Law; and
 - iii) the Proposed Implementation Date.
6. Each OCP shall be notified by National Grid to all signatories of FFR Framework Agreements (FFR Providers) in writing, giving a reasonable opportunity and, in any event, not less than 10 Business Days to review and provide National Grid with written comments. National Grid shall then consider in good faith, any written comments submitted by the Provider and shall, insofar as is reasonably practicable, address such comments in any Detailed Change Proposal (DCP).

¹ http://www.nationalgrid.com/NR/rdonlyres/CD646068-51A3-4C02-84B3-35F45A8B41E4/33114/FFR_Standard_Terms_and_Conditions_v4.pdf

7. This OCP considers a range of areas within the SCTs with a view to proposing amendments with an Implementation Date of 1st May 2012, and invites responses from both existing, and potential future FFR Providers.
8. None of the amendments proposed in this OCP are considered by National Grid to be required as a result of any Proposed Legal Requirement or Change in Law.
9. It should be noted by Providers and other interested parties that this OCP, insofar as it summarises the SCTs, is intended for guidance only and should not be relied upon, and Providers and other interested parties are directed to the SCTs available on the National Grid website.

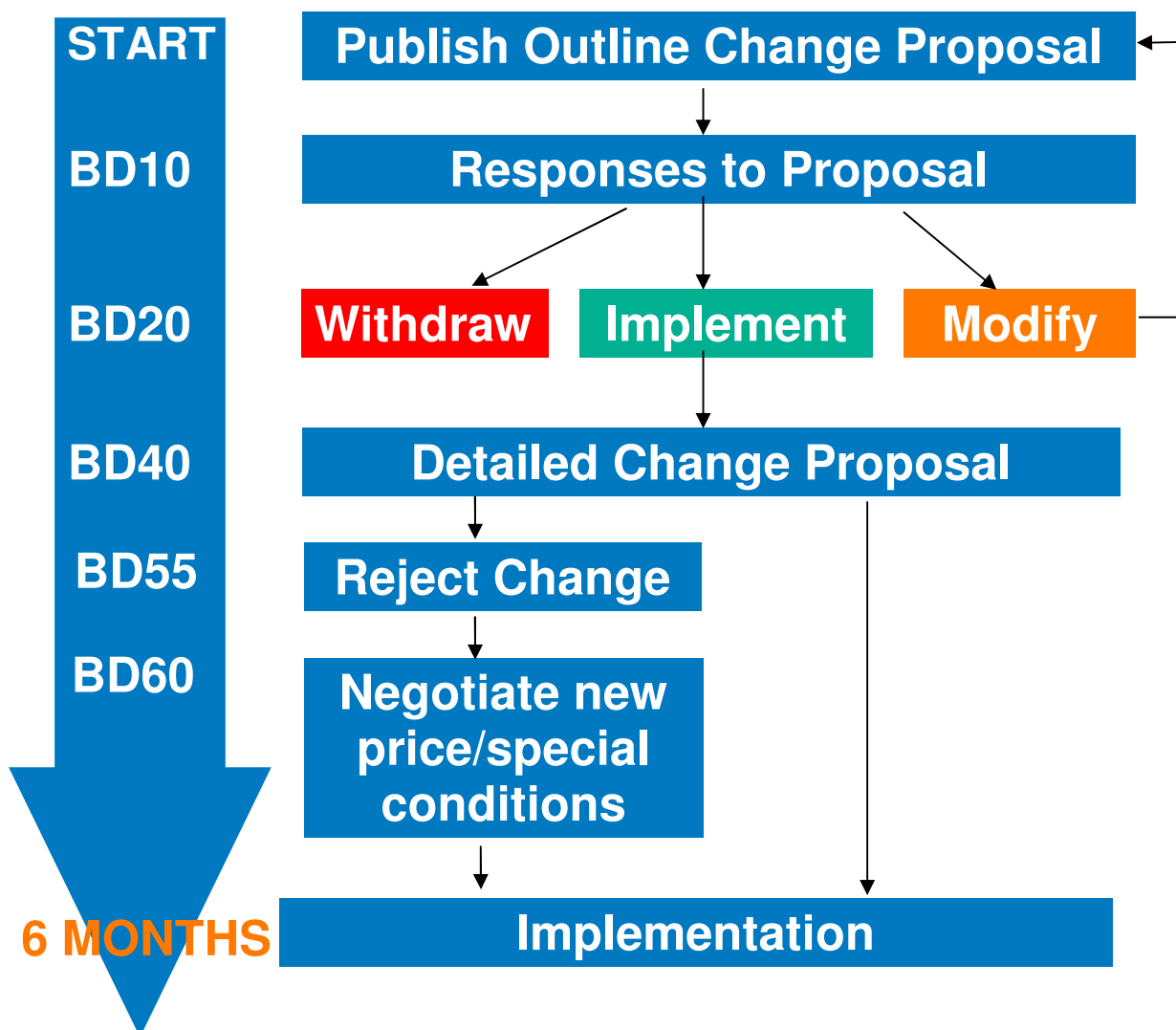
Fundamental Review

10. A workshop to consider a range of potential changes to the SCTs was held in August 2011, some attendees at the FFR Review Workshop considered that a more fundamental review of the requirement for the FFR Service was needed. These comments have been noted and will be considered in due course. National Grid believes there is value in continuing to develop specific changes to the detail of the SCTs for those who are currently using the service. A fundamental review of the requirement for the FFR service is out of the scope of this OCP.

Section 2 Amendment Process

11. The current process for amending the SCTs was introduced into paragraph 1.2 of the SCTs following the 2008 FFR Review. Consequently, this review is the first time the process has been used for FFR. A similar process was implemented for both Fast Reserve and STOR. The STOR terms have been updated twice since the new amendment process. During the first use of the process potential areas for improvement were identified, particularly with regards to the timescales associated with some parts of the process. During the second review changes to improve the process were proposed and implemented. A high-level summary of the FFR change process and the key timescales is included in Figure 1 below.

Figure 1 - Summary of process and timescales for amending SCTs



12. Following publication of an OCP, sub-paragraph 1.2.4 of the SCTs obliges National Grid to give all Providers a reasonable opportunity and, in any event, not less than 10 Business Days, to review and provide National Grid with written comments on the content of that OCP.
13. Whilst the drafting indicates that there may be scope for National Grid to provide in excess of 10 Business Days for a Provider to respond with written comments, sub-paragraph 1.2.5 of the SCTs then dictates that where National Grid fails to make a decision as to withdrawal, modification or implementation of that OCP within 20 Business Days of its publication, then the OCP it shall be deemed to have been withdrawn with immediate effect.
14. Very little scope is therefore provided for a period in excess of 10 Business Days to be afforded to Providers, whilst furthermore, it limits National Grid to a maximum of 10 Business Days to give due consideration to all of the points raised in response to the OCP prior to deciding to either withdraw, modify or implement it via the publication of a DCP.
15. In view of this, National Grid proposes that the SCTs should be amended to provide for a minimum of 20 Business Days for a Provider to respond to an OCP. This proposal is consistent with the current 28-day period (including non-Business Days) which industry respondents have to respond to CUSC Amendment Proposals and proposed modifications to the suite of Charging Methodologies. The proposal is also consistent with the changes already made in the STOR SCTs.
16. Following this, National Grid also proposes that a further 20 Business Days should be provided for National Grid to give consideration to all of the issues raised by Providers in their responses, which would therefore extend the overall timescales associated with National Grid's decision to proceed with a DCP to 40 Business Days subsequent to the publication of the OCP.

Question 1 – Do you consider that the response time permitted for Providers to respond to an OCP should be increased from the current 10 Business Days, to 20 Business Days? If not, can you recommend a more appropriate timescale?

Question 2 – Do you consider that a period of 20 Business Days following receipt of responses to an OCP from Providers is an appropriate timescale for National Grid to give due consideration to these responses and notify of its intention to either withdraw or modify the proposals, or implement them via the publication of a DCP? If not, can you recommend a more appropriate timescale?

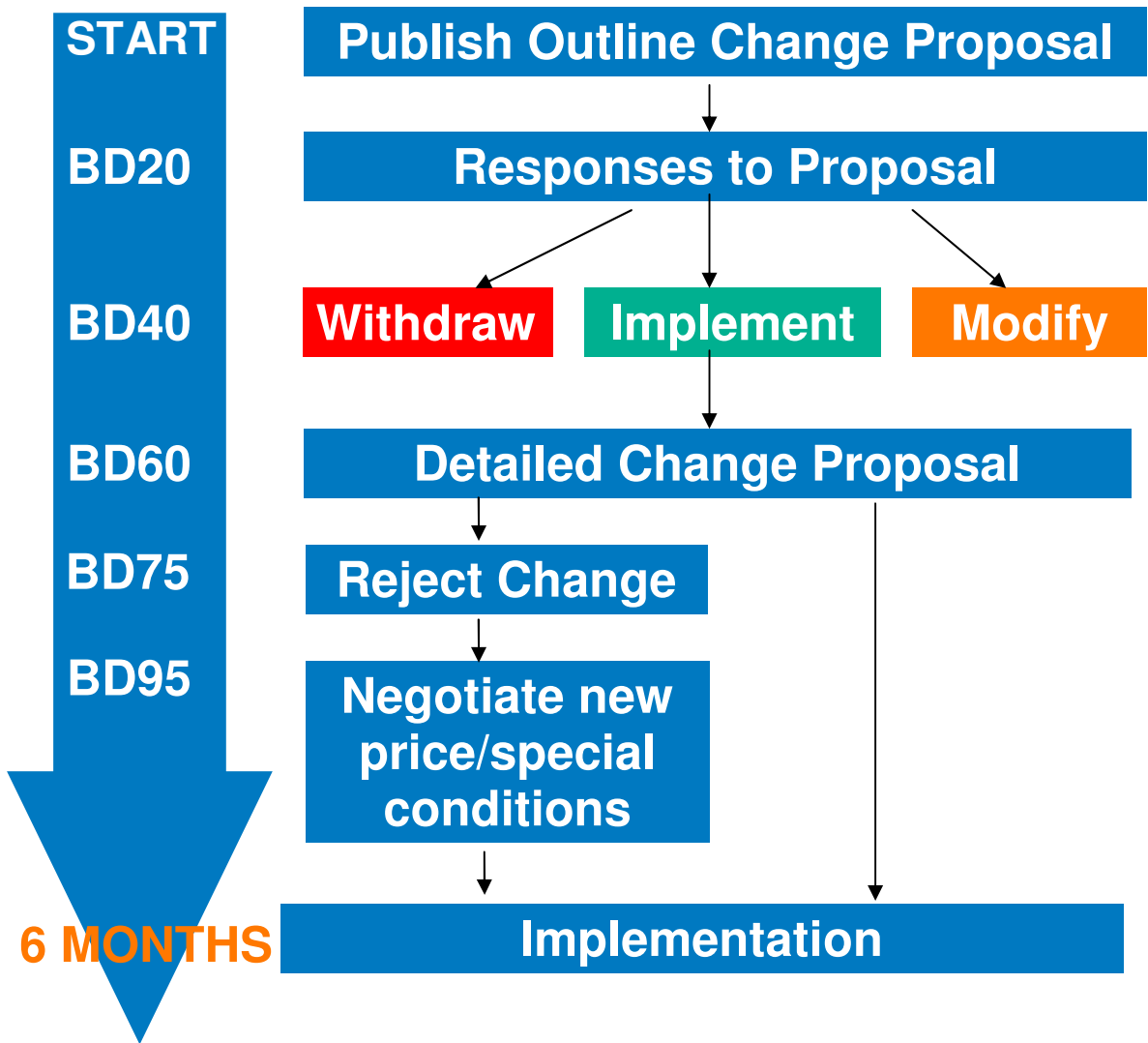
17. Sub-paragraph 1.2.10(a) of the SCTs sets out the process for the rejection of Detailed Change Proposals to subsisting FFR contracts. This process allows Affected FFR Providers a period of 15 Business Days after publication of a DCP to notify National Grid that it wishes to reject the application of those changes to a subsisting FFR Contract. Sub-paragraph 1.2.13 of the SCTs then allows 5 Business Days for National Grid and an Affected FFR Provider to negotiate in good faith, amendments to the FFR Framework Agreement by way of Special Condition(s) in order to negate the impact of a DCP with respect to the FFR Contract in question such that the FFR Provider is in no better/worse position after the coming into effect of the DCP than it would have been had that DCP not come into effect. In the event that no such agreement is reached within that period of 5 Business Days, then the matter(s) may be referred to Expert Determination.
18. Similarly, sub-paragraphs 1.2.10(b) and 1.2.16 of the SCTs provides the same timescales for an increase in contract prices to be negotiated in limited circumstances to reflect any increase in net costs of the FFR Provider.

19. National Grid considers that a period of 5 Business Days is insufficient time for these issues to be negotiated and resolved consequent upon a DCP. National Grid therefore proposes to increase the timescales to 20 Business Days to facilitate the possibility of a successful resolution.

Question 3 – Do you consider that an increased period of 20 Business Days would be more appropriate than the current timescales in the interests of arriving at a mutually beneficial negotiation of Special Condition(s) or contract prices? If not, can you recommend a more suitable timescale?

20. If each of the proposals contained in this Section were to be implemented, the process would look like the summary in Figure 2 below.

Figure 2 - Summary of proposed process/timescales for amending SCTs



21. Sub-paragraph 1.2.11 of the SCTs specifies that the FFR Provider may only seek an increase in contract prices consequent upon a DCP in limited circumstances. Where those circumstances do not apply, and the FFR Provider is unable to reject the application of the

DCP to a subsisting FFR Contract (because the DCP reflects a change in law), then it is proposed that the FFR Provider should be entitled to terminate the FFR Contract. A new termination right is therefore proposed for the FFR Provider, to be included in the termination provisions of the SCTs.

Housekeeping

22. In addition to the changes already proposed to Section 1 a number of housekeeping changes will be required.
23. A small change will be made to sub-paragraph 1.2.7 by the deletion of the cross reference to sub-paragraph 2.3.4(b)(ii) and the words “as the case may be” at the end of sub-paragraph 1.2.7. Given the proposed revised process and timescales it will no longer be relevant or justified.
24. In addition the cross reference to sub-paragraph 2.3.3 in sub-paragraph 1.2.7 is incorrect and should be amended to sub-paragraph 2.3.2. It is however proposed to simplify the sub-paragraph making it clear that the Tender Month referred to is the Tender Month immediately prior to the Final Implementation Date.
25. The cross reference in sub-paragraph 1.2.21(a) should in fact refer to sub-paragraph 1.2.13 and not 1.3.13 and it is proposed that such a change be made to the next issue of the SCTs

Section 3

Tender Dates

26. The current Tender Dates are unnecessarily complex and have the potential to cause confusion. There are two separate Market Days each month depending on the length of the tender, the results of the tender are released separately to the window nominations, and providers tendering long term could receive a window nomination before their tender has been officially accepted or rejected. Table 1 describes the current tender dates.

Table 1 - Current Tender Dates

Business Day	Action
BD1	Market Day for Single Month and Long Term Tenders
BD3	Market Day for Short Term Tenders
BD5	Tender Report
BD10	Results Day
BD14	Window Nomination
BD15	Results Day for Long Term Tenders

27. The tender rules are covered in Section 2 of the SCTs and the nomination process is described in paragraphs 3.2.1, 4.2.1 and 4A.2.1. The tender rules are necessary to ensure there is a clear structure to the tender and that all providers are treated equally. A tender may be considered invalid if the tender rules are not followed.
28. Single Month and Long Term tenders must be received by Business Day (BD) one each month and Short Term tenders must be received by Business Day three each month. This can cause confusion with tenders arriving on the wrong day or the tender envelope not being clearly marked with the length of the tender. Each of these has the risk of a tender being considered invalid.
29. Another complexity is that the results of the tender are released separately to the window nominations. On Business Day ten providers are notified whether their tender has been successful. This notification does not define the windows during which the provider will be nominated to provide the service. The service windows are nominated on Business Day fourteen. This gap in dates leaves providers in the position where they know they have been accepted for FFR but they have not had confirmation of the time or duration which they will be required to provide the service.
30. The process for Long Term tenders requires tenders to be submitted on the first day of the calendar month. They must be submitted at least three months ahead of the month in which a provider wishes to start delivery the service. During the process alternative tenders are invited this means that results are not published until Business Day fifteen in the month preceding the service month.
31. Where a provider has tendered for a Long Term Tender starting in the earliest possible month, they would receive the nominations for their first month ahead of receiving the results of the tender. This is because Window Nominations are made on Business Day fourteen however the Results Day for long term tenders is on Business Day fifteen.
32. With these issues in mind National Grid proposes to simplify the Tender Dates so that the Market Day for all tenders is the first Business Day of the month and that both the results and window nomination are announced on the twelfth Business Day of the month for all tenders. Table 2 describes the new tender dates.

Table 2 - Proposed Tender Dates

Business Day	Action
BD1	Market Day for all tenders
BD3	Tender Report
BD12	Results Day for all tenders and Window Nomination

33. Under this process all tenders will be received on Business Day one this will allow tenders of different lengths to be sent in a single envelope and avoid confusion between dates. Providers will receive the results and, if they have successful tenders for the subsequent month, their first window nomination on the same day.

Question 4 - Do you consider the new proposed tender dates to be an appropriate simplification? If not, can you recommend a more suitable timescale?

Section 4

Tender Sheet Simplification

34. The Tender Sheets for dynamic providers request that providers tender the “Maximum Response Energy Deliverable”. This OCP proposes to remove this value from the tender sheets as it is a duplication of information already provided in the Framework Agreement and can in some circumstance be misleading.
35. The contracted level of response is already held in Providers’ Framework Agreements in the capability matrix. Where a BM provider tenders in a single part load point the maximum response deliverable is simply the response at that part load point. Where a BM provider tenders a range of part load points the tender is assessed against the minimum response capability so requesting the maximum figures to be included on the tender sheets is misleading.
36. It is proposed that the requirement to provide Maximum Response Energy Deliverable on the tender sheets is removed for BM units and simplified for non BM units. For BM units the tendered Frequency Response will be derived from the tendered part load point(s), MEL and the Frequency Matrix for the unit in the Framework Agreement. For non BM units a provider will be required to indicate whether they are providing Primary, Secondary and/or High response and the amount tendered at 0.5Hz deviation. These values will be used with reference to the matrix in the Framework Agreement to work out the full scope of the tendered response. This simplification of the tender sheets will require changes to section 2.3 of the SCTs and an update to the proforma pack.
37. To ensure the level of response tendered is transparent to all providers, the Tender Reports will include the level of Frequency Response derived from the matrix in the Framework Agreement. To make sure the Tender Report more accurately reflects the level of response used in the assessment where a range of part load points have been tendered the minimum capability will be included in the report. This will require changes to section 2.6 of the SCTs.
38. The aim of this change is to reduce the potential for providers to submit invalid tenders by avoiding the duplication of information and to remove the confusion caused by requesting the maximum response energy when in some cases this will not be the capability which the tender is assessed against.

Question 5 - Do you consider the removal of maximum response capability from the tender sheets to be an appropriate simplification? If not, please explain your reasons.

Question 6 – Do you consider that publishing the minimum response energy for units which have tendered a range of part load points in the Tender Report is appropriate?

Section 5

Performance Monitoring

39. The current terms for performance monitoring could benefit from clarification development and alignment. There are some aspects of the monitoring which are not clear and so provide neither the provider nor National Grid certainty on how monitoring should be performed and how this affects payments.
40. National Grid proposes to update the principles for performance monitoring in the FFR Standard Contract Terms and to provide additional clarification in a Performance Monitoring Explanation document. The revised SCTs would reference the Performance Monitoring Explanation document and where it can be found. The document would look to explain in more detail the process used to calculate performance measures.

Current Methodology in Standard Contract Terms

41. The methodology for performance monitoring is covered in sections 3.14, 4.14 and 4A.14. The methodology currently described in the standard contract terms can be summarised as follows:

- The methodology uses second by second spot data derived from operational metering to assess the amount of response delivered.
- For dynamic providers, the required response level is calculated from second by second spot values derived by linear interpolation from the response capability matrix. Over a sample period, each second by second spot value is summed up to give a total response delivered and a total response expected. The ratio of these total values is used to calculate a Percentage Performance Measure (PPM).
- For non dynamic providers the required response level is the contracted value of Automatic Response Energy Deliverable and the delivered response is the minimum difference between the units output before the incident and its output during the period the unit is expected to respond. The ratio of these values is used to calculate a Percentage Performance Measure (PPM).
- For BM units where the PPM is less than 70%, Nomination, Availability and Window Initiation fees can all be set to zero for the window in question.
- For non BM units the PPM is converted to a Performance Factor (PF) using the table below. The PF is used to calculate the deduction of the payments for the entire calendar month.

Table 3 - Conversion of Percentage Performance Measure to Performance Factor

Percentage Performance Measure	Performance Factor
<10%	100%
≤10%, <60%	50%
≥60%, <95%	25%
≥95%	0%

Issues with Methodology

42. There are a number of issues which make this methodology difficult to implement fairly:

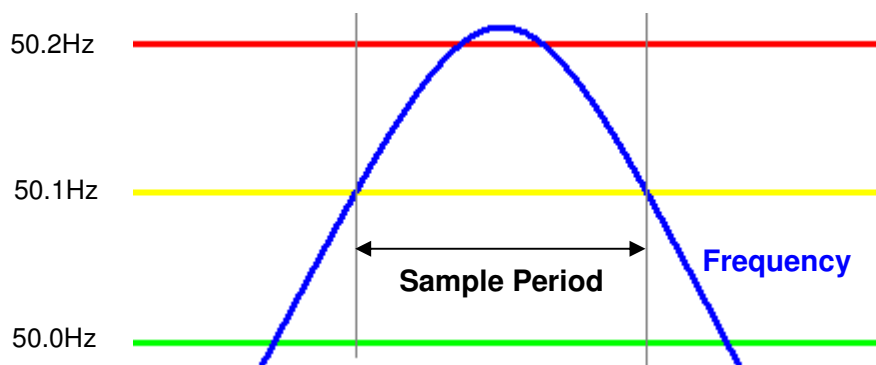
- **The duration over which the performance should be monitored is not defined.** For Dynamic providers, a unit could be assessed over any period and be found to be under performing. The payment would then be removed for the whole window or reduced for the whole month. In order to improve the methodology we should define the period which we would sample.
- **The methodology for dynamic monitoring is not clear on whether low and high frequency response are treated separately.** As high and low frequency response require the unit to change its output in opposite directions it needs to be clear how response is calculated to ensure that the measured high frequency response does not cancel out the low frequency response. If these are not treated separately over a period where the frequency averages at 50Hz a unit providing no response would be measured the same as one providing full response.
- **There is no escalation if a unit repeatedly under performs.** Each underperformance incident is treated as a separate event and the route to terminate the contract for repeated issues is not clear.
- **The methodology is different for BM and non BM providers.** Unless there is a good reason to treat BM and non BM providers differently, both should be treated similarly to ensure fairness. Currently there is a significant difference in the impact on payment between types of provider.

Dynamic Response - Proposed Methodology

43. In order to resolve these issues a new methodology is being proposed which will require changes to sections 3.14 and 4A.14 in the SCTs:

- Where National Grid has uncertainty over the performance of an FFR unit its performance will be monitored during incidents.
- Each month National Grid will monitor the unit's performance during at least four events where the frequency has exceeded the operational limits.
- The sample period will start when the frequency goes outside of 50.1 or 49.9 and will end when the frequency returns to this level (Up to 30 minutes).

Figure 3 - Proposed Sample Period

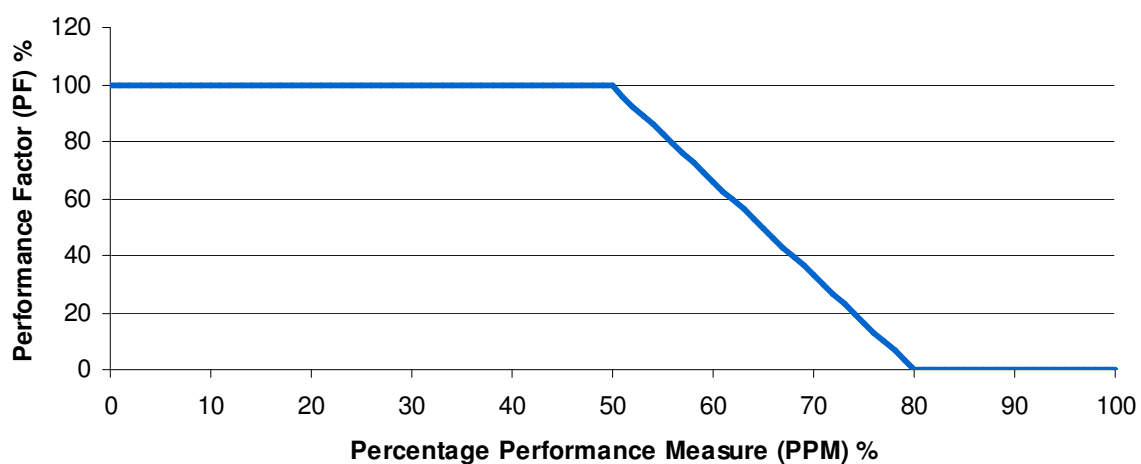


- Second by second spot data will be collected from the operational metering over this sample period.
- The capability matrix and the frequency will be used to calculate second by second spot values which will be added together to give a total value of response expected.
- Each second the response delivered will be compared with the expected delivery if the unit has delivered more response than expected it will be capped. The capped delivery each second will be summated to give a total value of response delivered.
- The ratio of the capped delivered response and the expected response will be used to give a percentage performance measure.
- The deduction to the payment for the window would be based on a performance factor calculated using the bands in Table 4. Any unit where the PPM is less than 50% will have 100% deducted so receive no payment for that window. Any unit where the performance is greater than or equal to 80% will have no deduction so receive the full payment. Between 50% and 80% there will be a linear sliding scale of payment.

Table 4 - Proposed Conversion of Percentage Performance Measure to Performance Factor

Percentage Performance Measure	Performance Factor
<50%	100%
≥ 50%, <80%	$PF = -3.33PPM + 264.4$
≥ 80%	0%

Figure 4 - Proposed Conversion of Percentage Performance Measure to Performance Factor

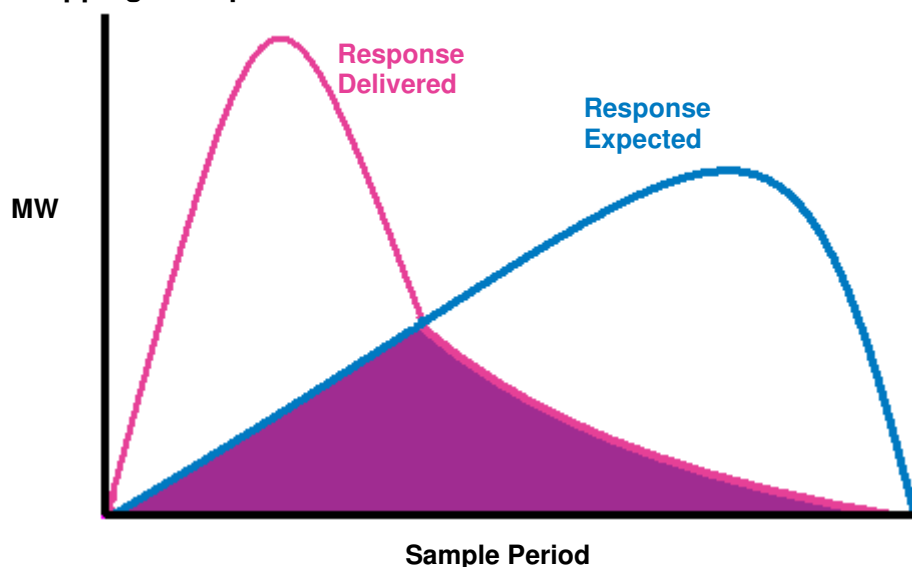


- The deduction would apply to all payments relevant during that nominated window apart from the Response Energy Payment. An example of how this could work in practice is provided in Appendix One.

- If the performance were under 80%, an EoD will be incurred. Each EoD will cause the total monthly payment to be reduced by 5%.
- Where in the previous three months the unit has had more than three events of default National Grid will have the right to terminate the contract.
- This methodology will be applied to both BM and non BM providers.
- The core principle of the methodology will be contained in the SCTs however a separate Performance Monitoring Guidance document will be published to make the methodology more transparent.

44. This methodology is based around the monitoring of performance during frequency incidents. The provision of dynamic response is important both during times when the frequency is deviating within operational limits and during incidents where the frequency has a large deviation. This approach has been chosen because during a period where there is a large deviation we are likely to get a clearer and more accurate view of whether a unit has responded as contracted. This does not mean response to small deviations is of less importance.
45. Four incidents where the frequency deviates outside operational limits are considered to be a representative sample to get an indication of a unit's performance within the limits of the systems which are currently used. This methodology is not perfect as depending on the incidents selected it could show a unit's response in a more or less favourable light than had other incidents been chosen. It should however pick up if a unit has an ongoing issue with response provision and incentivise providers to deliver the contracted response at all times.
46. The methodology uses capping. This is included because in some circumstances a provider may over deliver in one part of the sample period but under deliver in another. This will generally mean that the unit is not following the frequency as we would expect. To ensure that units with such an issue are flagged by the methodology the output is capped.
47. In the example below if capping did not take place any response delivered under the pink line would be included in the measurement which could lead to the response over the period appearing acceptable. However the response has not followed the frequency. If capping is introduced only the purple area is taken into account. The purple area gives a better indication of whether the unit is providing response as expected.

Figure 5 - Capping Example



48. A full payment is provided for delivery over 80% this is not intended to indicate that only 80% delivery is expected. This value is included to give some level of allowance to take into account the inherent difficulties with completely defining the performance. Given these inaccuracies the 80% threshold should ensure we do not penalise providers unduly.
49. Anything below 50% receives no payment for the window. This level of under performance has the potential to cause significant issues in our ability to restrain a frequency deviation and manage the system.
50. In between these two key thresholds there is a linear scale. This is proposed after feedback at the workshop which suggested the large step changes in the banded approach currently used for non BM providers are unpopular. The advantage of the linear scale is that there are no step changes however it may give a false sense of accuracy to the calculation.
51. The introduction of events of default for specific occurrences of under performance aims to clarify the escalation route should a provider repeatedly under perform. This will require changes to section 3.7, 4A.7,3.15, 3A.15 and the annexures to sections 3 and 4A.
52. At the FFR Review a number of providers wanted to ensure the methodology was transparent. It is proposed that a more detailed description of the methodology is included separately to the terms. This document could also include figures in the methodology which will need updating as the characteristics of the system change moving forward.

Question 7 - Do you consider the proposed methodology for performance monitoring an improvement to the current methodology?

Question 8 – Would you support the introduction of a Performance Monitoring Guidance document?

Non-Dynamic Frequency Response

53. The Methodology for monitoring non-dynamic frequency response is proposed to remain the same. Given the more back and white nature of non-dynamic response this methodology is already simpler and clearer. This section may be an area for future reviews once we have more experience of such contracts.

Section 6 Other Issues

Bribery Act Clause

54. National Grid is committed to the prevention, deterrence and detection of fraud, bribery and all other corrupt business practices. National Grid has zero tolerance toward such behaviour. Losses due to fraud, bribery and all other corrupt business practices can be more than just financial in nature; they can potentially damage the company's reputation as well. The reputation of National Grid for lawful and responsible business behaviour is of paramount importance and is one of its greatest assets².
55. National Grid has developed a standard Bribery Act Clause to further affirm our commitment to the prevention and detection of fraud. It is further proposed that this Bribery Clause, detailed in Appendix 2, be included in the FFR Standard Contract Terms.

Question 9 - Do you have any comments regarding the inclusion of a Bribery Clause in the FFR Standard Contract Terms?

Formation of FFR Contracts

56. National Grid notifies each provider in writing to communicate whether a tender has been accepted. This is done through a Tender Acceptance and/or Tender Rejection letter. The issuing of a FFR Tender Acceptance letter constitutes a legally binding contract between the FFR Provider and National Grid for provision by the FFR Provider of FFR (the "FFR Contract").
57. A FFR Tender Acceptance may relate to one or more units, depending on the tender submission and subsequent acceptance of the individual FFR Provider. In an effort to provide greater clarity, National Grid proposes to specify in the SCTs that the FFR Tender Acceptance is created in respect of each individual FFR unit.
58. National Grid proposes that section 2.5 of the SCTs should be amended to clearly state that FFR contracts will be formed with respect to individual units listed on a FFR Tender Acceptance letter.

Question 10 - Do you agree that National Grid should make it clear that contracts are formed with individual units within a FFR Tender Acceptance letter?

²National Grid Anti Fraud and Bribery Policy - http://www.nationalgrid.com/NR/rdonlyres/39B443D1-95E5-4000-82F0-88E5F45B78CE/32290/antifraudandbriberypracticespolicy_final.pdf

Section 9 Responses

59. National Grid welcomes responses from the industry regarding any of the issues raised in this OCP, in addition to any other issues that industry members consider worthy of raising with a view to improving the way in which the FFR service currently operates. More specifically, National Grid would welcome responses to the following questions:

Question 1 – Do you consider that the response time permitted for Providers to respond to an OCP should be increased from the current 10 Business Days, to 20 Business Days? If not, can you recommend a more appropriate timescale?

Question 2 – Do you consider that a period of 20 Business Days following receipt of responses to an OCP from Providers is an appropriate timescale for National Grid to give due consideration to these responses and notify of its intention to either withdraw or modify the proposals, or implement them via the publication of a DCP? If not, can you recommend a more appropriate timescale?

Question 3 – Do you consider that an increased period of 20 Business Days would be more appropriate than the current timescales in the interests of arriving at a mutually beneficial negotiation of Special Condition(s) or contract prices? If not, can you recommend a more suitable timescale?

Question 4 - Do you consider the new proposed tender dates to be an appropriate simplification? If not, can you recommend a more suitable timescale?

Question 5 - Do you consider the removal of maximum response capability from the tender sheets to be an appropriate simplification? If not, please explain your reasons.

Question 6 – Do you consider that publishing the minimum response energy for units which have tendered a range of part load points in the Tender Report is appropriate?

Question 7 - Do you consider the proposed methodology for performance monitoring an improvement to the current methodology?

Question 8 – Would you support the introduction of a Performance Monitoring Guidance document?

Question 9 - Do you have any comments regarding the inclusion of a Bribery Clause in the FFR Standard Contract Terms?

Question 10 - Do you agree that National Grid should make it clear that contracts are formed with individual units within a FFR Tender Acceptance letter?

60. Any questions regarding the content of this Outline Change Proposals Document should be directed to Sarah Hall on **01926 654196**. All responses to this Document should be emailed to energy.operations@uk.ngrid.com by no later than **5pm on 11th November, 2011**. Please note that unless marked as 'Confidential', all responses will be published on the National Grid website.

Appendix 1 Worked Example

This Appendix gives a worked example of how the Percentage Performance Measure will be used to calculate the payment.

Tender:

A provider tenders the following prices and is accepted to provide frequency response during January.

Available:	10:00 to 24:00
Nominated Windows:	10:00 to 22:00
Availability Price:	£100/h
Nomination Price:	£100/h
Window Initiation Fee:	£100/window
Window Revision Fee:	£0

Example One

Incident	PPM	PF	Availability Payment for day	Nomination payment for day	Window Initiation Fee	EOD
One	100%	0%	£1,400 (Full)	£1,200 (Full)	£100	No
Two	80%	0%	£1,400 (Full)	£1,200 (Full)	£100	No
Three	97%	0%	£1,400 (Full)	£1,200 (Full)	£100	No
Four	100%	0%	£1,400 (Full)	£1,200 (Full)	£100	No

Month Payment Deduction = 0%
 January Payment = 31 X (1,400+1,200+100) = £83,700

Example Two

Incident	PPM	PF	Availability Payment for day	Nomination payment for day	Window Initiation Fee	EOD
One	82%	0%	£1,400 (Full)	£1,200 (Full)	£100	No
Two	40%	100%	£200	£0	£0	Yes
Three	10%	100%	£200	£0	£0	Yes
Four	60%	64.6%*	£625	£425	£35	Yes

*PF = PPM x -3.33 + 264.4 = 60 x -3.33 + 264.4 = 64.6

Monthly Payment Deduction = EODs x 5% = 3 x 5% = 15%
 January payment = (1-0.15) x (28 x (1,400+1,200+100) + 2 x 200 + (625 + 425 + 35))
 = £65,522

Appendix 2

Proposed Bribery Clause

Proposed Bribery Clause for Inclusion in the SCTs

1. **ANTI-BRIBERY**
- 1.1 Each **Party** shall:
 - 1.1.1 comply with all **Relevant Requirements**;
 - 1.1.2 not engage in any activity, practice or conduct which would constitute an offence under sections 1, 2 or 6 of the Bribery Act 2010 if such activity, practice or conduct had been carried out in the UK;
 - 1.1.3 have and shall maintain in place, throughout the term of a **Firm Frequency Response Agreement**, its own policies and procedures, including **Adequate Procedures**, to ensure compliance with the **Relevant Requirements** and this paragraph [1], and will enforce them where appropriate; and
 - 1.1.4 procure and ensure that all of its **Associated Persons** and/or other persons who are performing services in connection with a **Firm Frequency Response Agreement** comply with this paragraph [1].
- 1.2 If either **Party** breaches this paragraph 1 then, without prejudice to any other rights or remedies, the other **Party** may immediately terminate the **Firm Frequency Response Agreement** and any subsisting **FFR Contract** on written notice to the **Party** in breach.

The following definitions will be added to paragraph 6.3 (Definitions).

“**Adequate Procedures**” shall be determined in accordance with section 7(2) of the Bribery Act 2010 (and any guidance issued under section 9 of that Act);

“**Associated Person**” shall have the meaning ascribed to it in section 8 of the Bribery Act and shall include but is not limited to any employees, agents and/or subcontractors of the FFR Provider or National Grid as applicable in relation to the provision of the Commercial Ancillary Services.;

“**Bribery Act**” shall mean the Bribery Act 2010;

“**Relevant Requirements**” shall mean all applicable laws, statutes, regulations, and codes relating to anti-bribery and anti-corruption including but not limited to the Bribery Act;

N.B. – Numbering will change when included in SCTs

Appendix 3

Glossary of Terms

BD	Business Day
BM	Balancing Mechanism
CUSC	Connection and Use of System Code
DCP	Detailed Change Proposals
EoD	Event of Default
FFR	Firm Frequency Response
MW	MegaWatt
OCP	Outline Change Proposals
PF	Performance Factor
PPM	Percentage Performance Measure
SCTs	Standard Contract Terms
STOR	Short Term Operating Reserve