

FIRM FREQUENCY RESPONSE

TENDER RULES AND STANDARD CONTRACT TERMS

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FIRM FREQUENCY RESPONSE TENDER RULES AND STANDARD CONTRACT TERMS

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INTRODUCTION TO FIRM FREQUENCY RESPONSE

Introduction

1. This is a general introduction to this **Document**. It includes a description of both dynamic and non-dynamic **Response**, a description of the service of **Firm Frequency Response**, and an explanation of how this **Document** interacts with the **Firm Frequency Response Agreements**.

Status of this Introduction

2. This introduction does not form part of this **Document** and therefore has no legally binding effect. This introduction may be updated by NGET from time to time to reflect any amendments to this **Document** or **Firm Frequency Response Agreements**, or to correct any errors or inaccuracies which may be discovered.

Background to Response

3. NGET has a statutory obligation to maintain **System Frequency** within $\pm 1\%$ of 50Hz, save in abnormal or exceptional circumstances. The **Frequency** is however normally controlled to within $\pm 0.4\%$ of the nominal value of 50Hz (i.e. 49.8 to 50.2 Hz). **System Frequency** is a continuously changing variable that is determined and controlled by the balance between **System Demand** and total **Generation**. If **Demand** is greater than **Generation** then the **Frequency** falls, while if **Generation** is greater than **Demand** then the **Frequency** rises. NGET must therefore ensure that sufficient **Generation** and/or **Demand** is held in automatic readiness to respond to all credible **Frequency** change contingencies.
4. **Response** represents the ability of a **Provider's** equipment to modify its **Active Power** in-feed to the **System** (or **Demand** presented to the **System**) in a time related manner to compensate for changes in **System Frequency**.
5. NGET categorises **Response** as either dynamic or non-dynamic, depending on the precise delivery characteristics. **Response** is dynamic if there is some **Response** delivered for all **Frequency** variations within the normal operating range of 49.8 to 50.2 Hz. **Response** is non-dynamic if there is no **Response** delivered within the operating range 49.8 to 50.2 Hz but a step-change in plant infeed of **Response** at a defined **Frequency** point(s) - for example **Demand** reduction or **Generation** triggered by a low **Frequency Relay**.
6. Dynamic **Response** is generally delivered by a continuous fast-acting speed governor or **Frequency** control actions from **Generating Plant**. These mechanisms deliver continuous changes in **Active Power** output, in response to second-by-second changes in **System Frequency**, in a direction which assists in the recovery to **Target Frequency**, by operating so as to provide **Primary Response**

and/or **Secondary Response** and/or **High Frequency Response**. These time related responses are defined in the following manner:

- **Primary Response**
The automatic increase in **Active Power** in response to a decrease in **System Frequency**, which effectively increases with time over the period 0 to 10 seconds from the time of the **Frequency** change (and fully available by the latter) and which must be sustainable for at least a further 20 seconds. In the event of a system in-feed loss the **Primary Response** may be thought of as acting to contain the falling **Frequency**.
 - **Secondary Response**
The automatic increase in **Active Power** in response to a decrease in **System Frequency**, which effectively increases with time over the period 0 to 30 seconds from the time of the **Frequency** change (and fully available by the latter) and which must be sustainable for at least a further 30 minutes. In the event of a system in-feed loss the **Secondary Response** may be thought of as acting to restore the **System Frequency** to within operational limits.
 - **High Frequency Response**
The automatic reduction in **Active Power** in response to an increase in **System Frequency**, which effectively increases with time over the period 0 to 10 seconds from the time of the **Frequency** change (and fully available by the latter) and which must be maintained at no lesser reduction thereafter.
7. Non-dynamic **Response** is the automatic variation in **Generation** or **Demand** in response to a pre-determined excursion in **System Frequency**, delivered from **Providers** who can guarantee a firm variation in the level of **Generation** or **Demand** with the operation of one or more **Relays** selectable down to **Settlement Period** resolution. This support is typically required when there has been a sudden and significant mismatch between **Demand** and **Generation** causing the **System Frequency** to increase or decrease rapidly above or below 50Hz and sufficiently to trigger the operation of the **Relay(s)**, i.e. when the **System Frequency** transgresses the selected trip setting(s).

Firm Frequency Response

8. **Firm Frequency Response** is the firm availability of either dynamic or non-dynamic **Response** across pre-determined service windows. Typically, dynamic **Firm Frequency Response** will be provided from a **Production BM Unit** and non-dynamic **Firm Frequency Response** will be provided from **Non-Balancing Mechanism Participants**, although this will not always be the case. **Firm Frequency Response** is procured by **NGET** using a monthly tendering process open to prospective service providers across **Great Britain**.

Overview of Structure

9. The structure of this **Document** and **Firm Frequency Response Agreements** is as follows:

(a) **Overall Structure**

This **Document** together with the **Firm Frequency Response Agreements** have been designed to create a straightforward and transparent contracting process.

(b) **This Document**

This **Document** is a single document incorporating terms of general application to all **Providers**, as well as sections dealing with service delivery from **BM Units** and from **Non-Balancing Mechanism Participants**. This **Document** may be varied or re-issued by **NGET** from time to time, although any variation or re-issue of this **Document** shall not affect the rights and obligations as between **NGET** and a **Provider** pursuant to any **FFR Contract** then in force, unless specifically agreed by **NGET** and that **Provider**.

(c) **Firm Frequency Response Agreements**

The **Firm Frequency Response Agreement** gives contractual effect to the relevant provisions of this **Document** as between **NGET** and the **Provider** and also contains the **Firm Frequency Response** service data specific to the **Provider's FFR Units** (by reference to which **Providers** submit **FFR Tenders** under this **Document**). There are two types of **Firm Frequency Response Agreement**, each designed for different types of service provider:

- **Balancing Mechanism** participants delivering **Firm Frequency Response** from **BM Unit(s)** (which may itself have two separate variants, one for dynamic and the other for non-dynamic **Firm Frequency Response**); and
- **Non-Balancing Mechanism Participants** delivering **Firm Frequency Response** from **Plant** and/or **Apparatus** which has not been separately registered by the **Provider** as a **BM Unit** (which may itself have two separate variants, one for dynamic and the other for non-dynamic **Firm Frequency Response**).

This **Document** and each **Firm Frequency Response Agreement** have been designed to apply to both **Firm Frequency Response** provided via an increase or decrease in

Generation and Firm Frequency Response provided via an increase or reduction in **Demand**.

SECTION 1

APPLICABILITY OF SECTIONS AND FIRM FREQUENCY RESPONSE AGREEMENTS

1.1 INTRODUCTION

- 1.1.1 This **Document** is divided into different sections, including sections dealing specifically with **Firm Frequency Response** provided from **BM Units** and **Firm Frequency Response** provided by **Non-Balancing Mechanism Participants**, and other sections of more general application.
- 1.1.2 Section 2 sets out the basis upon which **Participants** may tender terms for the provision of **Firm Frequency Response**, and successful tenders will result in a contract for the provision of **Firm Frequency Response** upon the terms set out in the applicable sections of this **Document** and the relevant **Firm Frequency Response Agreement**.
- 1.1.3 Section 3 sets out the terms for provision of dynamic **Firm Frequency Response** where the **Provider** provides **Firm Frequency Response** from **Generating Unit(s)** comprised within **Production BM Unit(s)**, which it has established and registered as such under and in accordance with the **Balancing and Settlement Code**.
- 1.1.4 Section 3A is presently left blank, but terms may be included in due course to apply in respect of the provision of non-dynamic **Firm Frequency Response** from **BM Units**, if any **Participant** wishes to tender on that basis.
- 1.1.5 Section 4 sets out the terms for provision of non-dynamic **Firm Frequency Response** from **Non-Balancing Mechanism Participants**.
- 1.1.6 Section 4A is presently left blank, but terms may be included in due course to apply in respect of the provision of dynamic **Firm Frequency Response** from **Non-Balancing Mechanism Participants**, if any **Participant** wishes to tender on that basis.
- 1.1.7 Section 5 contains general provisions applicable to all providers of **Firm Frequency Response**, whether dynamic or non-dynamic.
- 1.1.8 Section 6 contains defined terms used throughout this **Document**.

- 1.1.9 Section 7 contains the standardised formats which are to be used for certain communications between **NGET** and **Providers**, as more particularly referred to in Sections 2, 3 and 4.
- 1.1.10 Finally, Section 8 contains the provisions with respect to **FFR-Pre-Qualification Assessments** and **FFR Testing**, applicable to both **BM Units** and **Sites**.

1.2 FIRM FREQUENCY RESPONSE AGREEMENTS

- 1.2.1 Compliance with the various sections of this **Document** is given contractual effect as between **NGET** and a **Participant** or **Provider** by a separate **Firm Frequency Response Agreement** which, subject always to sub-paragraph 1.2.2, incorporates the relevant provisions of this **Document** *mutatis mutandis*.
- 1.2.2 Pursuant to the terms of a **Firm Frequency Response Agreement**, and with respect to any one or more **FFR Units**, **NGET** and a **Provider** may agree to modify, disapply and/or supplement any relevant provision of this **Document**, and this **Document** shall be read and construed accordingly.
- 1.2.3 For the avoidance of doubt, nothing in this **Document** shall create any rights and/or obligations as between two or more **Providers**.

1.3 REVISIONS TO THIS DOCUMENT

- 1.3.1 The latest version of this **Document** shall be published by **NGET** on its **Industry Information Website** and shall be identified by an issue number and date of publication.
- 1.3.2 This **Document** shall be reviewed by **NGET** from time to time and may be varied by **NGET** at its sole discretion, provided always that (with the exception of changes to the front page and table of contents and the introduction of terms into Sections 3A and 4A of this **Document** (together with associated terms into Section 5 to 8 (inclusive) as required)) any variations will ordinarily be published by **NGET** on its **Industry Information Website** not less than two calendar months prior to the date on which such variations come into effect.
- 1.3.3 For the avoidance of doubt, any variation and re-issue of this **Document** shall not affect the rights and obligations of **NGET** and a **Provider** under the terms of any extant **FFR Contract** in respect of which, unless the **Parties** otherwise agree in writing, the version of

this **Document** current as at the date on which that **FFR Contract** is formed shall continue to apply in accordance with its terms until expiry or termination of that **FFR Contract**.

- 1.3.4 This paragraph 1.3 shall not prejudice the provisions of sub-paragraph 2.3.9 whereby, in respect of one or more **FFR Contracts**, **NGET** and a **Provider** may agree amendments and/or additions to Sections 3 or 4 (as the case may be) and/or 5, 6, 7 and 8 of this **Document** by way of special conditions in Appendix 2 of the relevant **Firm Frequency Response Agreement**.

SECTION 2

TENDER RULES

2.1 INTRODUCTION

This Section 2 describes the monthly tendering process by which NGET will procure **Firm Frequency Response** from prospective **Providers**. Only if an **FFR Tender** submitted pursuant to this process is accepted by NGET (or where the context otherwise requires) will the provisions of Section 3 or 4 (as the case may be) and the remainder of this **Document** apply with respect to the provision of and payment for **Firm Frequency Response** in relation to the **BM Unit** or **Site(s)** in question.

2.2 FFR PRE-QUALIFICATION ASSESSMENT

2.2.1 It shall be a pre-condition to participating in any tender process described in this Section 2 that, at the time of submission of an **FFR Tender** and in respect of the **FFR Unit** in question, there subsists a **Firm Frequency Response Agreement** between NGET and the **Participant** relating to that **FFR Unit**.

2.2.2 [Subject to sub-paragraph 2.2.6.](#) NGET shall not enter into a **Firm Frequency Response Agreement** with respect to any **FFR Unit** unless that **FFR Unit** complies with each of the following mandatory requirements with respect to **Firm Frequency Response**:-

- (a) the capability (demonstrable to NGET's reasonable satisfaction) to provide **Response** of at least 10MW;
- (b) for dynamic **Firm Frequency Response**, the capability to operate in a **Frequency Sensitive Mode** so as to provide **Response** within the **Primary Response** and/or **Secondary Response** and/or **High Frequency Response** timescales;
- (c) for non-dynamic **Firm Frequency Response**, the availability of a constant level of **Demand** or **Generation** and the capability to provide **Response** by automatic operation of a **Relay** following the relevant **Frequency** excursion; and
- (d) for both dynamic and non-dynamic **Firm Frequency Response**, the availability of metering and/or monitoring facilities reasonably acceptable to NGET.

2.2.3 A single **FFR Unit** may comprise two or more **Sites** located (unless otherwise agreed by **NGET**) at the same **Premises** which together meet the mandatory requirements set out in sub-paragraph 2.2.2 provided that **NGET** is able to instruct and receive **Firm Frequency Response** in accordance with this **Document** via a single point of contact and control.

2.2.4 For the purposes of verifying compliance with sub-paragraphs 2.2.2 and 2.2.3, and with respect to any **FFR Unit**, **NGET** reserves the right to require any person wishing to enter into a **Firm Frequency Response Agreement** to submit to (at its own cost), and pass, an **FFR Pre-Qualification Assessment**, and in respect thereof the provisions of paragraphs 8.2 and 8.4 shall apply.

2.2.5 Furthermore, with respect to any **FFR Unit** which is the subject of a **Firm Frequency Response Agreement**, and for the purposes of verifying continued compliance with sub-paragraphs 2.2.2 and 2.2.3, **NGET** reserves the right at any time during the subsistence of that **Firm Frequency Response Agreement** to require the party thereto to submit to (at its own cost) an **FFR Pre-Qualification Assessment** with respect to that **FFR Unit**, and failure to submit to, or pass, such **FFR Pre-Qualification Assessment** shall entitle **NGET** to terminate that **Firm Frequency Response Agreement** in respect of that **FFR Unit** in accordance with sub-paragraph 5.4.4(c).

2.2.6 **NGET** may at its discretion enter into a **Firm Frequency Response Agreement** in circumstances where the **FFR Unit** is not yet compliant with any one or more of the mandatory requirements set out in sub-paragraph 2.2.2 provided always that:-

(a) the **Participant** is to undertake **Works** in order to achieve compliance in accordance with a **Works Programme**;

(b) the **Works Programme** is agreed in writing with **NGET**;

(c) the **Works Programme** requires an **FFR Pre-Qualification Assessment** to take place prior to commencement of the **Tendered Period**;

(d) the **Parties** shall comply with their respective obligations set out in the **Works Programme**; and

(e) the provisions of the Annexure to this Section 2 shall apply.

2.3 FFR TENDERS

2.3.1 Subject to and in accordance with the following provisions of this paragraph 2.3, on or by no later than the ~~fifth Business Day of a calendar month~~ date specified in sub-paragraph 2.3.2 (as the case may be), a **Participant** may, in the applicable form set out in Part A of Section 7, submit an **FFR Tender** by specifying:-

- (a) the **Tendered Unit**;
- (b) where the **FFR Tender** is for dynamic **Firm Frequency Response** set out in Section 3:-
 - (i) a **Minimum MEL** and **Maximum SEL**;
 - (ii) a **Part Load Point** range within the band defined by the **Minimum MEL** and **Maximum SEL**, shown by a **Maximum Part Load Point** and a **Minimum Part Load Point** (which for the avoidance of doubt may be equal so as to infer a single **Part Load Point**);
 - (iii) the applicable **FFR Capability Data Tables**, together with associated **Maximum Response Energy Deliverable**;
 - (iv) any period(s) in the **Tendered Period** in respect of which, in order to provide such **Firm Frequency Response**, the **Participant** would need to apply for additional **Transmission Entry Capacity** and/or **STTEC** and/or LDTEC for the relevant **Connection Site** pursuant to sub-paragraph 3.4.6, together with the amount (in MW) of such additional capacity; and
 - (v) whether or not **Firm Frequency Response** from the **Tendered Unit** is to be treated at all times during the **Tendered Period** as an **Applicable Balancing Service** in accordance with the **ABSVD Methodology Statement** and Section Q.6.4 of the **Balancing and Settlement Code**;
- (c) where the **FFR Tender** is for provision of non-dynamic **Firm Frequency Response** set out in Section 4, a single **Pre-Set Level**;
- (d) the **Tendered Period**, ~~to commence with effect from 00.00 hours on the first calendar day of the~~ (which may be a single period in excess of one calendar

month ~~next following that in which~~only where the **FFR Tender** is submitted on the first **Business Day** of March or September as provided in sub-paragraph 2.3.2(b));

- (e) the **Tendered Frames**, which may be different for **Working Days**, Saturdays and Sundays/**Bank Holidays**;
- (f) the **Tendered Prices**;
- (g) whether the **Window Revision Facility** is available;
- (h) any **Utilisation Restrictions**;
- (i) where applicable, the identity of, and other details in respect of, any agent appointed or to be appointed under and in accordance with paragraph 5.16 (save to the extent already specified in the relevant **Firm Frequency Response Agreement**); and
- (j) such other data and information (if any) specified in the form set out in Part A of Section 7.

~~2.3.2 Notwithstanding sub paragraph 2.3.1, with respect to all **FFR Tenders** comprising a **Tendered Period** in excess of one calendar month:-~~

2.3.2 Where an **FFR Tender** comprises:-

- (a) ~~unless otherwise indicated by NGET on its **Industry Information Website** prior to the start of that~~a **Tendered Period** of a single calendar month, then the **Participant** must submit the **FFR Tender** ~~shall be submitted to NGET~~by no later than the ~~first~~fifth **Business Day** of a calendar month; ~~and (b) — the~~ the **Tendered Period** ~~may at the option of the **Participant** must~~ commence ~~with effect from~~at 00.00 hours on the first calendar day of ~~any calendar month subsequent to that specified in sub paragraph 2.3.1(d)~~the first calendar month next following that in which the **FFR Tender** is submitted; and
- (b) a **Tendered Period** of a single period in excess of one calendar month, then the **Participant** must submit the **FFR Tender** on the first **Business Day** of March or September, and the **Tendered Period** cannot commence earlier than the next following 1st May or 1st November respectively.

2.3.3 Where a **Participant** submits more than one **FFR Tender** in respect of the same **FFR Unit**, the **Tendered Periods** in respect of each shall not to any extent overlap except where:-

- (a) the **FFR Tenders** do not have overlapping **Tendered Frames**; or
- (b) two (but not more) **FFR Tenders** have overlapping **Tendered Frames** and one of such **FFR Tenders** (but not the other) includes the **Window Revision Facility**; or
- (c) **FFR Tenders** comprise different **FFR Capability Data Tables** or **Pre-Set Levels** (as the case may be).

2.3.4 By submitting an **FFR Tender**, each **Participant** hereby warrants and undertakes to **NGET** that:-

- (a) with respect to any **Tendered Unit**, at the time of submission of the **FFR Tender** there are no existing or anticipated restrictions in any **Connection Agreement** and/or agreement for the supply of electricity to that **Tendered Unit** and/or for the acceptance of electricity into, and its delivery from, that **Tendered Unit** which would cause the **Provider** to breach at any time during the **Tendered Period** the warranty in sub-paragraphs 3.11.1 or 4.11.1 (as applicable); and
- (b) it has neither fixed nor adjusted the **Tendered Prices** under or in accordance with any agreement or arrangement with any other person, and that it has neither communicated to a person (other than its professional advisers) the amount or approximate amount of the **Tendered Prices** (other than in confidence in order to obtain quotations necessary for insurance purposes) nor entered into any agreement or arrangement with any other person to restrain that other person from tendering or to fix or adjust the **Tendered Prices** to be submitted by that other person; and
- (c) where, with respect to any **Tendered Unit** which is a **BM Unit**, it has indicated in the **FFR Tender** that **Firm Frequency Response** is either to be treated, or as the case may be not to be treated, as an **Applicable Balancing Service** for the purposes of the **ABSVD Methodology Statement** and Section Q.6.4 of the **Balancing and Settlement Code**, then if that **FFR Tender** is accepted by **NGET** in accordance with this Section 2 the **Participant** shall promptly take or desist from taking all actions necessary (without limitation as required by and in accordance with the **ABSVD Methodology Statement**) to ensure that, in

accordance with the **FFR Tender, Firm Frequency Response** from the **Tendered Unit** is treated, or as the case may be not to be treated, at all times during the **FFR Contracted Period** as an **Applicable Balancing Service** for such purpose,

and each **Participant** indemnifies **NGET** from and against any losses, liabilities, claims, expenses and demands which **NGET** might suffer as a result of the **Participant** being in breach of any warranty and/or undertaking set out in this sub-paragraph 2.3.4.

2.3.5 All **FFR Tenders** shall:-

- (a) be fully compliant with the requirements of this **Document**;
- (b) not be accompanied by statements that could be construed by **NGET** as rendering the **FFR Tender** equivocal and/or prevent its evaluation on an equal basis with other **FFR Tenders**;
- (c) subject always to sub-paragraph 2.3.5(e), be returned by post addressed to:
Contracts Administrator
FFR Tender
National Grid
NGT House
Warwick Technology Park
Gallows Hill
Warwick
CV34 6DA.
to be received on or by no later than 17.00 hours on the date specified in sub-paragraph ~~2.3.1 (or sub-paragraph 2.3.2(b) where applicable~~2.3.2 (as the case may be));
- (d) subject always to sub-paragraph 2.3.5(e), be contained in an envelope marked on the top left hand corner "Tender for FFR"; and
- (e) notwithstanding sub-paragraphs 2.3.5(c) and (d), **NGET** may at any time and by notice in writing to **Participants** on its **Industry Information Website**, prescribe one or more additional or alternative methods of submitting **FFR Tenders**.

2.3.6 If, in the sole judgement of **NGET**, a **Participant** has failed to submit a compliant **FFR Tender**, **NGET** reserves the right to:-

- (a) accept that **FFR Tender**; or
- (b) disqualify that **FFR Tender**; and/or
- (c) take any other action as it deems appropriate in the circumstances including requesting the **Participant** to amend any information set out in the **FFR Tender** (but not prices) and resubmit a non-compliant **FFR Tender** so that it is made compliant.

NGET's decision as to whether or not an **FFR Tender** is compliant shall be final, and the **Participant** may be notified of its decision without prior consultation or explanation.

- 2.3.7 If there are any amendments and/or additions which **Participants** require to be made to Sections 3 or 4 (as the case may be) and/or 5, 6, 7 and 8 of this **Document** as a condition of NGET's acceptance of an **FFR Tender**, these shall be indicated either on a separate sheet or by annotation on a copy of this **Document**, and in each case shall accompany the **FFR Tender**.
- 2.3.8 As a condition of accepting any **FFR Tender**, NGET reserves the right at its sole discretion to require amendments and/or additions to Sections 3 or 4 (as the case may be) and/or 5, 6, 7 and 8 of this **Document** including without limitation where necessary and/or desirable to take account of or otherwise reflect the technical or other conditions or features of the tendered **FFR Unit**.
- 2.3.9 Amendments and/or additions to Sections 3 or 4 (as the case may be) and/or 5, 6, 7 and 8 of this **Document**, either indicated by a **Participant** pursuant to sub-paragraph 2.3.7 or required by NGET pursuant to sub-paragraph 2.3.8, shall be incorporated into the relevant **FFR Contract(s)** by way of the inclusion of such amendments and/or additions as special conditions in Appendix 2 of the relevant **Firm Frequency Response Agreement**, and for the avoidance of doubt such amendments and/or additions shall have effect only with respect to the **FFR Tender** in question, and for the avoidance of doubt shall not thereby be incorporated into the **FFR Contract** between NGET and any other **Participant**.
- 2.3.10 No costs or expenses incurred by **Participants** in the course of preparing and/or submitting any **FFR Tender** shall be paid by NGET.
- 2.3.11 Where applicable, in accordance with regulation ~~23~~32 of the Utilities Contracts Regulations ~~1996~~2006, NGET will be required to communicate details of **FFR Contracts** to the European Commission, and in doing so NGET shall request the European Commission to

keep details of the **FFR Contracts** confidential and withhold publication in the Official Journal of the European Communities, and each **Participant** consents to the disclosure by **NGET** of information pursuant to this sub-paragraph 2.3.11 insofar as related to it and/or the contents of any **FFR Tender** submitted by it.

2.4 TENDER ASSESSMENT

- 2.4.1 As soon as reasonably practicable following receipt of the **FFR Tender**, **NGET** may request that the **Participant** provides clarification with regard to any one or more items of information contained in the **FFR Tender** for the purpose of enabling **NGET** to assess that **FFR Tender**, and the **Participant** shall provide such clarification in a timely manner.
- 2.4.2 When assessing **FFR Tenders**, **NGET** shall take account (in no particular order) of the **Tender Assessment Principles**.
- 2.4.3 Without limiting the generality of sub-paragraph 2.4.2, **NGET** may decide to reject an **FFR Tender** in the circumstances described in sub-paragraphs 3.12.4 and 4.12.4.

2.5 ACCEPTANCE OR REJECTION OF FFR TENDERS

- 2.5.1 ~~No~~Subject to sub-paragraph 2.5.3, no later than the twelfth **Business Day** of the calendar month, **NGET** shall notify in writing each **Participant** who has submitted an **FFR Tender** whether that **FFR Tender** has been accepted or rejected. **NGET's** decision shall be final and binding. Failing such notification by such date **NGET** shall be deemed to have rejected the **FFR Tender** concerned.
- 2.5.2 ~~Aceptance~~Subject to sub-paragraph 2.5.4, acceptance by **NGET** of an **FFR Tender** shall constitute formation of an **FFR Contract**, which shall be personal to the **Participant** and may not be assigned otherwise than in accordance with paragraph 5.5 without the consent of **NGET** (not to be unreasonably withheld or delayed).
- 2.5.3 Where the **Participant** has submitted an **FFR Tender** for an **FFR Period** of twelve or more consecutive calendar months, then **NGET** may postpone giving notification of whether the **FFR Tender** has been accepted or rejected in accordance with paragraph 2.5.1 by up to five **Business Days** after the twelfth **Business Day** of March or September (as the case may be).
- 2.5.4 Where **NGET** has accepted an **FFR Tender** in respect of an **FFR Unit** which is the subject of a **Works Programme**, such acceptance shall be conditional upon such **FFR Unit** passing an **FFR Pre-Qualification Assessment** in accordance with the **Works Programme** prior to the commencement of the **Tendered Period** (provided always that

NGET may waive such condition pursuant to paragraph 8 of the Annexure to this Section 2) and furthermore shall be subject to withdrawal by NGET pursuant to paragraph 3 of the Annexure to this Section 2.

2.6 MARKET INFORMATION

2.6.1 To assist **Participants** in the tender process described in this Section 2, **NGET** shall publish on its web-site such information as it reasonably considers to be relevant and helpful in the preparation of **FFR Tenders**.

2.6.2 Pursuant to sub-paragraph 2.6.1, ~~and subject always to sub paragraph 2.6.6~~, **NGET** shall use reasonable endeavours to publish on its web-site by the first **Business Day** of a calendar month, and in respect of the next following calendar month, an estimate of its requirement for **Response** across each **Settlement Period** in each type of **Service Day** (being **Working Days**, Saturdays and Sundays/**Bank Holidays**) in that calendar month.

2.6.3 Pursuant to sub-paragraph 2.6.1, ~~and subject always to sub paragraph 2.6.6~~, **NGET** shall use reasonable endeavours to publish on its web-site by the end of the sixth **Business Day** of a calendar month in which **FFR Tenders** are received, a report containing the following information with respect to those **FFR Tenders**:-

(a) the identity of each **Tendered Unit**;

(b) the **Tendered Prices**;

(c) the **Tendered Period**;

(ed) the **Tendered Frames**;

(e) in respect of dynamic **Response**, the volumes of **Response** tendered as follows:

(i) **Primary Response** (maximum value) at 0.2 Hz **Frequency Deviation**;

(ii) **Primary Response** (maximum value) at 0.5 Hz **Frequency Deviation**;

(iii) **Primary Response** (maximum value) at 0.8 Hz **Frequency Deviation**;

- (iv) **Secondary Response** (maximum value) at 0.2/0.2 Hz **Frequency Deviation**;
- (v) **Secondary Response** (maximum value) at 0.5/0.5 Hz **Frequency Deviation**;
- (vi) **High Frequency Response** (maximum value) at 0.2 Hz **Frequency Deviation**; and
- (vii) **High Frequency Response** (maximum value) at 0.5 Hz **Frequency Deviation**; and

(~~ef~~) in respect of non-dynamic **Response**, the volumes of **Response** tendered as follows:

- (i) **Automatic Response Energy Deliverable** by 10 seconds from **Frequency** transgression of the tendered **Pre-Set Level**; and
- (ii) **Automatic Response Energy Deliverable** by 30 seconds from **Frequency** transgression of the tendered **Pre-Set Level**.

2.6.4 Pursuant to sub-paragraph 2.6.1, ~~and subject always to sub paragraph 2.6.6~~, NGET shall use reasonable endeavours to publish on its web-site by the end of the thirteenth **Business Day** of the calendar month in which **FFR Tenders** are received, an indication of which of the **Tendered Units** comprised in such **FFR Tenders** are the subject of an **FFR Contract** as a result of the acceptance by NGET of one or more of such **FFR Tenders** pursuant to sub-paragraph ~~2.5.1~~ 2.5.1, and of those, which are the subject of a **Works Programme**.

2.6.5 Pursuant to sub-paragraph 2.6.1, ~~and subject always to sub paragraph 2.6.6~~, NGET shall use reasonable endeavours to publish on its web-site by the end of the ninth **Business Day** of each calendar month, and with respect to **FFR Contracts** subsisting during the immediately preceding calendar month, a report containing details of the **Primary Response** and/or **Secondary Response** and/or **High Frequency Response** volumes (in MWh) instructed (or deemed instructed) by NGET in respect of each **Service Day** pursuant to sub-paragraphs 3.4.2 and 4.4.2 and by reference to the categorisation of **Response** delivery set out in sub-paragraphs 2.6.3(~~ee~~) and (~~ef~~).

~~2.6.6 Notwithstanding sub paragraphs 2.6.2 to 2.6.5 inclusive, NGET may at its sole discretion change the scope, format and/or timing of information provided by NGET pursuant to this~~

~~paragraph 2.6 in order to align with the scope, format and/or timing of market information published by NGET under and in accordance with the CUSC as a result of the implementation of modifications to the CUSC consequent upon modification proposal CAP047.2.6.7~~

For the purposes of paragraph 5.6, each **Participant** consents to the disclosure by **NGET** of information pursuant to this paragraph 2.6 insofar as related to it and/or the contents of any **FFR Tender** submitted by it and/or any **FFR Contract** to which it is a party.

~~2.6.8~~2.6.7 **NGET** shall not be bound to comply with the provisions of this paragraph 2.6 with respect to the publication of information if and to the extent that to do so would in **NGET's** reasonable opinion restrict, distort or prevent competition in the provision of **Firm Frequency Response** or be likely to do so.

ANNEXURE TO SECTION 2

WORKS PROGRAMME

TIMESCALES

1. The **Participant** shall use its reasonable endeavours to procure that the **FFR Pre-Qualification Assessment** is passed prior to the commencement of the **Tendered Period** (“**Target Commencement Date**”) and in respect thereof time shall be of the essence. The **Parties** agree that the **Works Programme** represents an indicative schedule of progress of the **Works**. During progress of the **Works**, both **Parties** shall use their reasonable endeavours to agree any revisions to the precise technical specification for the **FFR Pre-Qualification Assessment** which are necessary to reflect any **Tendered Service Parameters** submitted by the **Participant** after such technical specification was agreed.
2. The **Participant** shall provide to NGET on a monthly basis (or at such lesser frequency as NGET may agree in writing) reports of how the **Works** are progressing which shall, inter alia, identify any delay or anticipated delay in completing the **Works** and how the **Participant** proposes to remedy or avoid any such delay or anticipated delay. Moreover, the **Participant** shall, if so requested by NGET, give to NGET such evidence as it shall reasonably require and, if necessary, allow NGET's representatives all reasonable access to the **Power Station** or **Site** (as the case may be) and to the **FFR Unit(s)**, to enable NGET to ascertain how the **Works** are progressing and that the **Works** are proceeding in accordance with the **Works Programme**.
3. If, following receipt of a monthly report pursuant to paragraph 2 above or in exercise of its rights pursuant to paragraph 2 above or otherwise, NGET believes that the **Works** will not be completed on or before the **Target Commencement Date**, then NGET may notify the **Participant** in writing that it has withdrawn its acceptance of any tender previously accepted by NGET in accordance with sub-paragraph 2.5 of Section 2, and such notice shall take effect immediately.
4. When the **Works** are completed, the **Participant** shall (at its own cost) conduct a **FFR Pre-Qualification Assessment** before the **Target Commencement Date** to demonstrate that the **FFR Unit(s)** is able to provide **Firm Frequency Response** in accordance with sub-paragraph 2.2.2 of Section 2 and paragraph 8.2 of Section 8. The **Participant** shall give NGET at least two weeks' prior written notice of the date when it proposes to conduct the **FFR Pre-Qualification Assessment** and (at NGET's option) the **FFR Pre-Qualification Assessment** shall be carried out in the presence of a reasonable number of NGET's non-participating representatives.
5. Following receipt of a notice issued by the **Participant** pursuant to paragraph 4 or 6 (as the case may be), both **Parties** shall use their reasonable endeavours to ensure that the **FFR Pre-Qualification Assessment** is conducted as soon as possible and shall agree the date and time of the **FFR Pre-Qualification Assessment**, provided always that, although NGET shall not unreasonably refuse to

carry out a **FFR Pre-Qualification Assessment** at any time and date that may be requested by the **Participant**, having regard to the cost implications NGET reserves the right to cancel any **FFR Pre-Qualification Assessment** previously agreed to be carried out. In such a case the **Parties** shall agree an alternative time and date when the **FFR Pre-Qualification Assessment** shall be carried out which shall be as soon as possible thereafter.

6. As soon as possible after the date on which the **FFR Pre-Qualification Assessment** has been completed, NGET shall notify the **Participant** whether it has passed or failed the **FFR Pre-Qualification Assessment**. Subject to the provisions of paragraph 8, in the event that NGET notifies the **Participant** that in NGET's opinion (and giving reasons for that opinion) the **Participant** has failed any **FFR Pre-Qualification Assessment**, the **Participant** shall as soon as possible respond to NGET. The **Participant** shall address the reason for the failure and shall subsequently notify NGET when the failure has been addressed, whereupon the provisions of paragraphs 4 and 5 shall apply.

7. Each **Party** shall bear its own costs in relation to the first **FFR Pre-Qualification Assessment**. In relation to the second and each subsequent **FFR Pre-Qualification Assessment** the **Participant** shall be responsible not only for its own costs but also shall reimburse to NGET all NGET's reasonable costs reasonably incurred as a direct result of the second and each subsequent **FFR Pre-Qualification Assessment** (not to exceed in relation to all tests £[50,000] in aggregate). For the avoidance of doubt, each **Party** shall bear the risk of, and the other **Party** shall have no liability to the **Party** in respect of, loss and damage to that **Party's Plant or Apparatus** caused during or as a result of any **FFR Pre-Qualification Assessment** (whether due wholly or partly to the other **Party's** default or the malfunction of its **Plant or Apparatus** or otherwise).

8. If the **Participant** fails to:-

8.1 conduct a successful **FFR Pre-Qualification Assessment** prior to the **Target Commencement Date**; or

8.2 pass a second successive **FFR Pre-Qualification Assessment** or any subsequent **FFR Pre-Qualification Assessment**.

then unless NGET otherwise elects to waive such requirement by notice in writing to the **Participant**, NGET's acceptance of the **FFR Tender** pursuant to sub-paragraph 2.5.4 of Section 2 shall be of no effect.

SECTION 3

FIRM FREQUENCY RESPONSE - BALANCING MECHANISM PARTICIPANTS (DYNAMIC)

3.1 INTRODUCTION

- 3.1.1 This Section 3 sets out the terms for provision of **Firm Frequency Response** where the **Provider** provides **Firm Frequency Response** from **Generating Unit(s)** comprised within **Production BM Unit(s)** which it has established and registered as such under and in accordance with the **Balancing and Settlement Code**.
- 3.1.2 The provisions of this Section 3 shall apply with respect to a **Participant** who has submitted an **FFR Tender** which has been accepted in respect of such **BM Unit(s)** by **NGET** pursuant to sub-paragraph 2.5.1 so as to form an **FFR Contract** or where the context otherwise requires.

3.2 WINDOW NOMINATION

- 3.2.1 No later than 17.00 hours on the fourteenth **Business Day** of each calendar month, **NGET** shall notify the **Provider** by facsimile in the form set out in Part B of Section 7 of those **Settlement Periods** (if any) comprised within each **FFR Contracted Frame** during each **Service Day** during the following calendar month in respect of which **NGET** requires **Firm Frequency Response** to be provided from one or more of the **FFR Contracted Units** (“the **FFR Nominated Window(s)**”).
- 3.2.2 Each notification of **FFR Nominated Windows** shall take account of any relevant **Utilisation Restrictions** in respect of the **FFR Contracted Units**, and any notification of unavailability made by the **Provider** pursuant to sub-paragraph 3.2.4.
- 3.2.3 The **Provider** shall acknowledge receipt of each notification of **FFR Nominated Windows** as soon as reasonably practicable by facsimile in the form set out in Part B of Section 7, but failure to do so shall not relieve the **Provider** of its obligations set out in this Section 3.
- 3.2.4 The **Provider** shall notify **NGET** by facsimile in the form set out in Part C of Section 7 forthwith upon becoming aware of the inability (howsoever caused) of any **FFR Contracted Unit** to provide **Firm Frequency Response** in all or any part of any **FFR Contracted Frame**, and with effect from the start of such inability until otherwise notified by the **Provider** by facsimile in the form set out in Part C of Section 7 that the ability of the **FFR Contracted Unit** to provide **Firm Frequency Response** is restored, **Firm Frequency**

Response shall be deemed to be unavailable from such **FFR Contracted Unit** for the purposes of sub-paragraph 3.5.5.

3.3 REVISIONS TO FFR NOMINATED WINDOWS

- 3.3.1 Where the **Provider** has made available in the **FFR Tender** the **Window Revision Facility**, NGET may revise the **FFR Nominated Windows** in respect of any **Service Day** by notice in writing to the **Provider** by facsimile in the form set out in Part D of Section 7 no later than 10.00 hours on the immediately preceding **Service Day** provided always that any revised **FFR Nominated Window** shall constitute one or more **Settlement Periods** comprised within an **FFR Contracted Frame**. For the avoidance of doubt, an **FFR Nominated Window** may be revised in accordance with this sub-paragraph 3.3.1 so as to create two or more **FFR Nominated Windows**.
- 3.3.2 Each notification of a revision to an **FFR Nominated Window** shall take account of any relevant **Utilisation Restrictions** in respect of the **FFR Contracted Units** and any notification of unavailability made by the **Provider** pursuant to sub-paragraph 3.2.4.
- 3.3.3 The **Provider** shall acknowledge receipt of each notification of a revision to an **FFR Nominated Window** as soon as reasonably practicable by facsimile in the form set out in Part D of Section 7, but failure to do so shall not relieve the **Provider** of its obligations set out in this Section 3.

3.4 PROVISION OF FIRM FREQUENCY RESPONSE

- 3.4.1 Where NGET shall have notified the **Provider** of the **FFR Nominated Windows** in respect of any **Service Day**:-
- (a) subject always to sub-paragraph 3.4.1(e), the **Provider** shall, no later than 11.00 hours on the immediately preceding **Service Day** and via electronic mail to a dedicated mailbox to be advised from time to time by NGET in the form set out in Part E of Section 7, specify a single **FFR Confirmed Part Load Point** for all **Settlement Periods** comprised within each such **FFR Nominated Window** as revised pursuant to paragraph 3.3 (being a figure within the **Part Load Point** range defined by the **Maximum Part Load Point** and the **Minimum Part Load Point**), and for the avoidance of doubt the same **FFR Confirmed Part Load Point** need not be specified for each such **FFR Nominated Window** in a **Service Day**;

- (b) where in respect of any **Service Day** no such notification is made by the **Provider** by such time, then that shall constitute an event of default for the purposes of paragraph 3.7 (but not so as to relieve the **Provider** of its obligation to provide **Firm Frequency Response** in the **FFR Nominated Window** when instructed by **NGET** pursuant to sub-paragraph 3.4.3);
- (c) without prejudice to sub-paragraph 3.7.1, **NGET** may at its discretion (but shall not be obliged to) notify the **Provider** by telephone of such event of default whereupon the **Provider** shall make the notification required by this sub-paragraph 3.4.1 without further delay and in any event within one hour of receipt of such notification from **NGET**;
- (d) where after expiry of such one hour period the **Provider** has still not made such notification then that shall constitute an additional event of default for the purposes of paragraph 3.7 (but not so as to relieve the **Provider** of its obligation to provide **Firm Frequency Response** in the **FFR Nominated Window** when instructed by **NGET** pursuant to sub-paragraph 3.4.3); and
- (e) the **Provider** shall not be obliged to make the notification specified in sub-paragraph 3.4.1(a), and sub-paragraphs 3.4.1(b) to (d) inclusive shall not apply, where the relevant **FFR Contract** comprises a single **Part Load Point** tendered by the **Provider** as a **Maximum Part Load Point** and **Minimum Part Load Point** which are identical, and in such a case such single **Part Load Point** shall constitute the **Confirmed Part Load Point** for the purposes of sub-paragraph 3.4.2.

3.4.2 Where **NGET** shall have notified the **Provider** of the **FFR Nominated Windows** in respect of any **Service Day**, and in respect of each **Settlement Period** comprised within such **FFR Nominated Window(s)** as revised pursuant to paragraph 3.3, the **Provider** shall procure the following in respect of the relevant **FFR Contracted Unit**:-

- (a) that the **Physical Notification** prevailing as at **Gate Closure** at all times matches the **FFR Confirmed Part Load Point**;
- (b) that at all times the prevailing **Maximum Export Limit** is not less than the **Minimum MEL** and the prevailing **Stable Export Limit** is not more than the **Maximum SEL**; and
- (c) that the **FFR Contracted Unit** is able to accept an instruction from **NGET** pursuant to sub-paragraph 3.4.3 to operate in a **Frequency Sensitive Mode**.

3.4.3 At any time prior to or during an **FFR Nominated Window**, **NGET** may, in respect of any one or more **Settlement Periods** in that **FFR Nominated Window** as revised pursuant to paragraph 3.3, instruct the **Provider** to operate any one or more of the **FFR Contracted Units** in a **Frequency Sensitive Mode** so as to provide the components of **Firm Frequency Response** comprised within the **FFR Contract**, being either **Primary Response** and **High Frequency Response**, or **Primary Response**, **Secondary Response** and **High Frequency Response**.

3.4.4 For the purpose of sub-paragraph 3.4.3:-

- (a) **Firm Frequency Response** shall be referred to as “**Mode D Frequency Response**”;
- (b) the term “instruction” means a communication whether by telephone or **Automatic Logging Device** or facsimile from **NGET** to the **Provider** instructing the **Provider** in accordance with this Section 3 to provide **Mode D Frequency Response**, and derivations of the term shall be construed accordingly;
- (c) the amendment of an instruction shall be deemed to be a new instruction;
- (d) an instruction will prevail until the first to occur of any of the following (each of which shall constitute a deemed instruction from **NGET** to cease operating the relevant **FFR Contracted Unit** in a **Frequency Sensitive Mode** in accordance with the original instruction):-
 - (i) the expiry of the **FFR Nominated Window**; or
 - (ii) subject always to sub-paragraph 3.4.4(e), receipt of a subsequent instruction from **NGET** countermanding the earlier instruction; or
 - (iii) subject always to sub-paragraph 3.4.4(e), the **De-Synchronisation** of the **FFR Contracted Unit** to which the instruction relates (and on each such occasion of **De-Synchronisation** otherwise than on the instruction of **NGET** the **Provider** shall notify **NGET** pursuant to sub-paragraph 3.4.7 of inability to provide **Firm Frequency Response**); and
- (e) an instruction will not be curtailed pursuant to sub-paragraphs 3.4.4(d)(ii) or (iii) solely by reason of the issue by **NGET** of a **Bid-Offer Acceptance** with respect

to the **FFR Contracted Unit** to which the instruction relates unless compliance with that **Bid-Offer Acceptance** would thereby cause the **FFR Contracted Unit** to operate at level of **Output** below its prevailing **Stable Export Limit**.

- 3.4.5 Where the **Provider** is instructed in accordance with sub-paragraph 3.4.3 to operate an **FFR Contracted Unit** so as to provide **Mode D Frequency Response**, the **Provider** shall operate that **FFR Contracted Unit** so as to provide, for any **Frequency Deviation**, at least the amount of **Primary Response** and/or **Secondary Response** and/or **High Frequency Response** set out respectively in the relevant **FFR Capability Data Tables** for the **De-Load** in question (as such tables are to be interpreted in accordance with paragraph 3.6).
- 3.4.6 The **Provider** shall ensure that the **Transmission Entry Capacity**, and if relevant the **STTEC**, for the relevant **Connection Site** shall be sufficient to enable it to comply with its obligations under this paragraph 3.4 at all times during **FFR Nominated Windows** and in respect of each **FFR Contracted Unit**, and accordingly shall make timely application for sufficient **Transmission Entry Capacity** and/or **STTEC** and/or LDTEC as and when required in accordance with the **CUSC**.
- 3.4.7 The **Provider** shall notify **NGET** by facsimile in the form set out in Part C of Section 7 forthwith upon becoming aware of the inability (howsoever caused) of any **FFR Contracted Unit** to provide **Firm Frequency Response** in all or any part of any **FFR Nominated Window** as revised pursuant to paragraph 3.3, and with effect from the start of such inability until notified by the **Provider** by facsimile in the form set out in Part C of Section 7 that the ability of the **FFR Contracted Unit** to provide **Firm Frequency Response** is restored, **Firm Frequency Response** shall be deemed to be unavailable from such **FFR Contracted Unit** for the purposes of sub-paragraph 3.5.6.

3.5 PAYMENT

- 3.5.1 In respect of each calendar month and each relevant **FFR Contracted Unit**, and subject always to the following provisions of this paragraph 3.5, paragraph 3.7 and sub-paragraph 5.12.2, **NGET** shall in accordance with paragraph 5.2 pay to the **Provider**:-
- (a) a payment (“the **Availability Payment**”) calculated as the **Availability Fee** multiplied by the aggregate number of hours comprised within **FFR Contracted Frames** during that calendar month; and
 - (b) a payment (“the **Window Initiation Payment**”) calculated as the **Window Initiation Fee** multiplied by the number of individual **FFR Nominated Windows** as revised pursuant to paragraph 3.3 during that calendar month; and

- (c) a payment (“the **Nomination Payment**”) calculated as the **Nomination Fee** multiplied by the aggregate number of hours comprised within **FFR Nominated Windows** as revised pursuant to paragraph 3.3 during that calendar month (for the avoidance of doubt whether or not the subject of an instruction pursuant to sub-paragraph 3.4.3).
- 3.5.2 In addition to sub-paragraph 3.5.1, where the **Window Revision Facility** is made available in the **FFR Tender**, **NGET** shall pay to the **Provider**, in respect of each calendar month and each relevant **FFR Contracted Unit**, a payment (“the **Window Revision Payment**”) calculated as the **Window Revision Fee** multiplied by the aggregate number of hours during that calendar month which are the subject of revision by **NGET** in accordance with paragraph 3.3 (which for this purpose shall comprise **Settlement Periods** originally falling either within or outside of **FFR Nominated Windows** and thereby ceasing to do so).
- 3.5.3 In addition to sub-paragraphs 3.5.1 and 3.5.2, **NGET** shall pay to the **Provider**, in respect of each calendar month and each relevant **FFR Contracted Unit**, an amount (“the **Response Energy Payment**”) calculated by reference to Paragraph 4.1.3.9A of the **Connection and Use of System Code** and such provisions shall be deemed incorporated herein *mutatis mutandis* on the basis that all references therein to the Frequency Response Power Delivery Data tables set out in the **Mandatory Services Agreements** shall be construed as references to the **FFR Power Delivery Data Tables**, and all references therein to Mode A Frequency Response shall be construed as references to **Mode D Frequency Response**.
- 3.5.4 For the avoidance of doubt:-
- (a) where an **FFR Nominated Window** is revised in accordance with sub-paragraph 3.3.1 so as to create two or more **FFR Nominated Windows**, the **Window Initiation Payment** shall be payable in accordance with sub-paragraph 3.5.1(b) in respect of each **FFR Nominated Window** so created, and the **Nomination Payment** shall be payable in accordance with sub-paragraph 3.5.1(c) in respect of hours comprised within each such **FFR Nominated Window**; and
- (b) where two or more **FFR Nominated Windows** are revised in accordance with sub-paragraph 3.3.1 so as to be consolidated into a reduced number of **FFR Nominated Window(s)**, the **Window Initiation Payment** shall be payable in accordance with sub-paragraph 3.5.1(b) in respect of such reduced number of **FFR Nominated Window(s)**, and the **Nomination Payment** shall be payable in

accordance with sub-paragraph 3.5.1(c) in respect of hours comprised within such reduced number of **FFR Nominated Window(s)**.

3.5.5 Following **NGET**'s assessment of under-delivery of **Response** from an **FFR Contracted Unit** during an **FFR Nominated Window** pursuant to sub-paragraph 3.14.2, the payments falling due to the **Provider** pursuant to this paragraph 3.5 in respect thereof shall be subject to a deduction as more particularly specified in sub-paragraph 3.14.2.

3.5.6 No payments shall be made by **NGET** to the **Provider** pursuant to this paragraph 3.5 in respect of any period or periods during which, in accordance with any provision of this Section 3 and in relation to any **FFR Contracted Unit**, **Firm Frequency Response** is deemed to be unavailable provided always that **NGET** may at its sole discretion ignore a period of unavailability for the purposes of this paragraph 3.5 where the period of unavailability is short in duration and the **Provider** has used all reasonable endeavours to restore availability as soon as practicable.

3.6 INTERPRETATION OF TABLES

3.6.1 The figures for **Firm Frequency Response** set out in the **FFR Capability Data Tables** shall be given in relation to specific **Frequency Deviations** and to specific levels of **De-Load** for a **FFR Contracted Unit**. Such tables shall, for the purposes of sub-paragraphs 3.4.5 and 3.5.3, be construed in accordance with this sub-paragraph 3.6.1. Subject to sub-paragraphs (d) and (e) below:-

- (a) for a **Frequency Deviation** at a given time differing from the figures given in a table, the level of **Firm Frequency Response** shall be calculated by linear interpolation from the figures specified in the table in respect of **Frequency Deviations**;
- (b) for a level of **De-Load** at a given time differing from the figures given in a table, the level of **Firm Frequency Response** shall be calculated by linear interpolation from the figures specified in the table in respect of levels of **De-Load**, and for the avoidance of doubt, **Mode D Frequency Response** shall not be instructed for any **De-Load** greater than the maximum level of **De-Load** given in the relevant **FFR Capability Data Table**;
- (c) in respect of any time in relation to which both paragraphs 3.6.1 (a) and (b) apply, the level of **Firm Frequency Response** shall be calculated by dual linear interpolation from the figures specified in the tables in respect of **Frequency Deviations** and in respect of levels of **De-Load**;

and

- (d) for any **Frequency Deviation** greater than the greatest **Frequency Deviation** given in the **FFR Capability Data Tables** (whether positive or negative), the level of **Firm Frequency Response** shall be calculated by reference to the greatest **Frequency Deviation** (positive or negative as the case may be) given in that table; and
- (e) for the purposes of calculating levels of **Firm Frequency Response** in respect of **Frequency Deviations** lower than those specified in the **FFR Capability Data Tables**, the relevant **FFR Capability Data Table** shall be deemed to specify a level of zero **Firm Frequency Response** for a **Frequency Deviation** of zero.

3.7 EVENTS OF DEFAULT AND CONSEQUENCES

- 3.7.1 Each of the occurrences or failures specified in the Annexure to this Section 3 as an event of default shall result in the consequences set out therein in relation to such occurrence or failure.
- 3.7.2 For the purposes of sub-paragraph 3.7.1, unless otherwise expressly stated in the Annexure to this Section 3, it is acknowledged that the same occurrence or failure may constitute more than one event of default.
- 3.7.3 For the avoidance of doubt, the consequences set out in respect of any event of default in the Annexure to this Section 3 shall not relieve the **Provider** of any of its obligations pursuant to the **Grid Code** nor relieve either of the **Parties** from any of their obligations pursuant to the **Connection and Use of System Code** or the **Balancing and Settlement Code**.

3.8 SUBSTITUTION OF FFR CONTRACTED UNITS

- 3.8.1 If the **Provider** anticipates that **Firm Frequency Response** may become unavailable from an **FFR Contracted Unit** during all or any part of any **Service Day**, the **Provider** may, subject always to sub-paragraphs 3.8.2 and 3.8.4 and (unless the unavailability is attributable to the technical capability of the **FFR Contracted Unit**) no later than two hours prior to **Gate Closure** for the first **Settlement Period** in the affected **FFR Nominated Windows** during that **Service Day**, request by facsimile in the form set out in Part F of Section 7 that **NGET** agree to the substitution of that **FFR Contracted Unit**

("the **Retired FFR Unit**") by any other **BM Unit** at the same **Grid Entry Point** (or, as the case may be, **Grid Supply Point**) which may be specified in the relevant **Firm Frequency Response Agreement** as suitable for nomination for such purpose ("the **Substitute FFR Unit**").

3.8.2 In any notification pursuant to sub-paragraph 3.8.1, the **Provider** shall indicate to **NGET** the affected **FFR Nominated Windows** during the **Service Day** in question in respect of which such substitution shall apply, provided always that:-

- (a) a **BM Unit** may not be nominated as a **Substitute FFR Unit** pursuant to sub-paragraph 3.8.1 in respect of an **FFR Nominated Window** for which it is already an **FFR Contracted Unit**; and
- (b) a **BM Unit** may not be nominated as a **Substitute FFR Unit** for more than one **FFR Contracted Unit** at the same time.

3.8.3 **NGET** shall, as soon as reasonably practicable and by facsimile in the form set out in Part F of Section 7, at its sole discretion either accede to or decline the **Provider**'s request pursuant to sub-paragraph 3.8.1.

3.8.4 The effect of substitution in accordance with this paragraph 3.8 shall be to treat the **Substitute FFR Unit** as the **FFR Contracted Unit** for all purposes of this Section 3 and the **Firm Frequency Response Agreement**, and for the duration of the relevant **FFR Nominated Window(s)** this Section 3 and the **Firm Frequency Response Agreement** shall be read and construed accordingly. Without limiting the foregoing, with respect to any **Substitute FFR Unit** and for the duration of the relevant **FFR Nominated Window(s)**, the technical, commercial and other parameters (including without limitation the **Availability Fee**, **Window Initiation Fee**, **Nomination Fee** and **Window Revision Fee** (if any) applicable to the **Retired FFR Unit** shall continue to apply.

3.9 **GRID CODE**

The provision by the **Provider** of **Firm Frequency Response** shall not relieve it of any of its obligations or affect such obligations (where applicable) set out in the **Grid Code** (including without limitation its obligations (if any) to provide Mode A Frequency Response when instructed by **NGET** pursuant to the **CUSC** and/or the **Grid Code**). For the avoidance of doubt, **NGET** shall not, in respect of any **FFR Nominated Window(s)** during which the **Provider** is instructed pursuant to sub-paragraph 3.4.3 to provide **Mode D Frequency Response**, instruct the **Provider** to provide Mode A Frequency Response in accordance with the **CUSC**.

3.10 MAINTENANCE OF FFR CONTRACTED UNITS

The **Provider** shall maintain the **FFR Contracted Units** to such a standard that the **Provider** can meet its obligations to provide **Firm Frequency Response** in accordance with the terms of this **Document** and the relevant **Firm Frequency Response Agreement(s)**.

3.11 WARRANTY AND INDEMNITY

3.11.1 The **Provider** hereby warrants to **NGET** that, where any **FFR Contracted Unit** is embedded in a **Distribution System** or **User System**, the availability and delivery of **Response** from that **FFR Contracted Unit** pursuant to and in accordance with this **Document** does not and will not cause the **Provider** to be in breach of or to otherwise be non-compliant with any **Connection Agreement** and/or agreement for the supply of electricity to that **FFR Contracted Unit** and/or for the acceptance of electricity into, and its delivery from, a **User System**.

3.11.2 The **Provider** agrees that it will not accept an instruction from **NGET** pursuant to paragraph 3.4 if compliance with such instruction would cause the **Provider** to be in breach or non-compliance as described in sub-paragraph 3.11.1, and if it declines to accept an instruction on such grounds the **Provider** will:-

- (a) notify **NGET** in accordance with sub-paragraph 3.4.7; and
- (b) provide to **NGET** to **NGET**'s reasonable satisfaction such written statement and all such supporting evidence as shall be necessary to demonstrate how compliance would cause such breach or non-compliance.

3.11.3 In the event that the **Provider** complies with an instruction from **NGET** which causes the **Provider** to be in breach or non-compliance as described in sub-paragraph 3.11.1 above, the **Provider** shall indemnify **NGET** against all and any claims which may be brought against **NGET** by the **Provider**'s host **Public Distribution System Operator** or any other person connected to or using the **Public Distribution System Operator**'s **User System** or any other **User System** or the owner of operator of any **User System** or any other person whatever arising out of or resulting from such breach or non-compliance.

3.12 PROVISION OF OTHER SERVICES

3.12.1 The **Provider** hereby undertakes to **NGET** that, on the date of submission of each **FFR Tender** and on the date of formation of any **FFR Contract** in respect thereof, it will not be a party to an agreement or arrangement with its host **Public Distribution System Operator** or electricity supplier or other person to provide any service from the **FFR Contracted**

Unit(s) the provision of which may impair the **Provider's** ability to provide **Firm Frequency Response** and/or perform its obligations under this **Document** and any **Firm Frequency Response Agreement**, and the **Provider** will indemnify **NGET** against any losses, liabilities, claims, expenses and demands which **NGET** might suffer as a result of the **Provider** bring in breach of the provisions of this sub-paragraph 3.12.1.

3.12.2 Where during the term of an **FFR Contract** the **Provider** intends to enter into an agreement or arrangement with its host **Public Distribution System Operator** or electricity supplier or other person to provide any service from the **FFR Contracted Unit(s)** the provision of which may impair the **Provider's** ability to provide **Firm Frequency Response** and/or perform its obligations under this **Document** and/or any **Firm Frequency Response Agreement**, the **Provider** shall notify **NGET**, in accordance with paragraph 5.8, as soon as reasonably practicable before entering into such agreement or arrangement. Upon and with effect from the entering into of any such agreement or arrangement, **NGET** may in its absolute discretion terminate the **FFR Contract** in question pursuant to sub-paragraph 3.15.2.

3.12.3 For the avoidance of doubt, the availability in any **Settlement Period** comprised in an **FFR Contracted Frame** of any increase in **Generation** from the **FFR Contracted Unit(s)** or any part thereof for the benefit of any person other than **NGET** (including without limitation the **Provider's** host **Public Distribution System Operator** or electricity supplier) shall be deemed for the purposes of sub-paragraphs 3.12.1 and 3.12.2 to impair the **Provider's** ability to provide **Firm Frequency Response**.

3.12.4 Where, during any one or more **Settlement Periods** in a **Tendered Period**, a **Participant** is required under the terms of any agreement with **NGET** to provide from a **Tendered Unit** a firm **Ancillary Service** (except with respect to **Reactive Power**) and such service provision either overlaps to any extent with a **Tendered Frame** and/or is otherwise inconsistent or in conflict with the delivery of **Firm Frequency Response**, then **NGET** may (at its option) either:-

- (a) require the **Participant** to declare or re-declare unavailable such service provision in accordance with the terms of such agreement for the duration of each such overlapping **Settlement Period** and otherwise as required to remove such inconsistency or conflict; and/or
- (b) require that the terms of such agreement are amended so as to remove such overlap and/or inconsistency or conflict,

and if the **Participant** fails to so declare or re-declare unavailable as required pursuant to sub-paragraph 3.12.4(a), or (as the case may be) for so long as such agreement is not so amended as required by **NGET** pursuant to sub-paragraph 3.12.4(b), **NGET** may (at its option) either reject the **FFR Tender** (if not by then accepted) or otherwise terminate the **FFR Contact** forthwith and at any time by notice in writing to the **Participant**.

3.13 COMMUNICATIONS

Any communications required by this Section 3 to be given in writing shall be made and deemed to have been received in accordance with paragraph 5.8 save as may be otherwise agreed by the **Parties**. Each of the **Parties** hereby agrees and acknowledges that any reference to a communication by telephone or facsimile given by **NGET** to the **Provider** or vice versa in this Section 3 shall, where appropriate, be deemed to include a communication given by means of **EDL**. Instructions and confirmations stored on **EDL** shall (except during periods when **EDL** is unavailable for whatever reason in which case communication by telephone or facsimile (whichever is appropriate) shall resume with immediate effect) be conclusive evidence of the giving and/or receipt of any communication required to be given pursuant to the terms of this Section 3. The **Parties** consent to the recording of all telephone conversations between them relating in whole or in part to this **Document**, and each **Party** agrees to notify its employees of that consent and obtain their consent to that recording if required by law.

3.14 MONITORING AND TESTING

Monitoring

3.14.1 The availability of **Firm Frequency Response** and the amount of **Response** delivered shall be monitored by **NGET** from time to time.

3.14.2 Without prejudice to the generality of sub-paragraph 3.14.1, and in accordance with the methodology set out below, **NGET** reserves the right to assess the delivery of **Response** by an **FFR Contracted Unit** in respect of any period during which **NGET** instructs the **Provider** to operate the **FFR Contracted Unit** in **Frequency Sensitive Mode** pursuant to sub-paragraph 3.4.2:-

- (a) the volume of **Response** actually delivered from the **FFR Contracted Unit** during that period shall be ascertained by reference to an operating profile derived from second by second output data derived (inter alia) from **Operational Metering Equipment**, and that operating profile shall be used to determine second by second spot values of **Response** delivered;

- (b) the volume of **Response** required to be delivered during that period shall be ascertained by reference to an operating profile derived by linear interpolation from the applicable **FFR Capability Data Tables**, and that operating profile shall be used to determine second by second spot values of **Response** required to be delivered;
- (c) **NGET** shall derive a percentage performance measure (PPM), where:

$$\text{PPM} = A/B * 100$$
and where:
A is the aggregate of each second by second spot value of **Response** delivered over the relevant period as determined pursuant to sub-paragraph 3.14.2(a), and
B is the aggregate of each second by second spot value of **Response** required to be delivered over the relevant period as determined pursuant to sub-paragraph 3.14.2(b);
- (d) where PPM as so derived is less than 70%, then the **Nomination Fee** attributable to all **Settlement Periods** in the **FFR Nominated Window** in question, the **Window Initiation Fee** for that **FFR Nominated Window** and the **Availability Fee** attributable to the duration of that **FFR Nominated Window**, shall each be reduced to zero.

3.14.3 The relationship between the **Parties** with respect to **Operational Metering Equipment** shall be regulated by Paragraph 6.7.3 of the **Connection and Use of System Code**.

3.14.4 The relationship between the **Parties** with respect to **Energy Metering Equipment** shall be regulated by Section L of the **Balancing and Settlement Code**.

Testing

3.14.5 Without prejudice to sub-paragraph 2.2.5, if at any time during an **FFR Contracted Period** **NGET** has reasonable grounds for believing that an **FFR Contracted Unit** does not have the capability to provide **Firm Frequency Response** in accordance with this **Document**, then **NGET** shall so notify the **Provider** in writing together with its reasons therefor, and **Firm Frequency Response** shall thenceforth be deemed to be unavailable from such **FFR Contracted Unit** for the purposes of sub-paragraph 3.5.6 until such time as it is demonstrated to **NGET**'s reasonable satisfaction that capability of the **FFR Contracted Unit** to provide **Firm Frequency Response** is restored, which may be by **FFR Testing** in accordance with paragraphs 8.3 and 8.4.

3.14.6 If, pursuant to sub-paragraph 3.14.5, an **FFR Contracted Unit** remains unavailable to provide **Firm Frequency Response** for more than two consecutive calendar months, then

NGET may in its absolute discretion terminate the **FFR Contract** in question pursuant to sub-paragraph 3.15.2.

3.15 TERMINATION OF FFR CONTRACTS

- 3.15.1 All **FFR Contracts** with respect to any **FFR Contracted Unit** shall automatically terminate upon and with effect from termination (for whatever reason) of the **Firm Frequency Response Agreement** with respect to that **FFR Contracted Unit** whether in accordance with paragraph 5.4 or otherwise.
- 3.15.2 Without prejudice to sub-paragraphs 3.15.1 and 3.15.3 and paragraph 5.4, **NGET** may in its absolute discretion terminate an **FFR Contract** in respect of the **FFR Contracted Unit** in question forthwith by notice in writing to the **Provider** in the following circumstances:-
- (a) where the **Provider** persistently fails to make available and/or provide **Firm Frequency Response** from any **FFR Contracted Unit** (including any **Substitute FFR Unit** in respect of periods when that **FFR Contracted Unit** is a **Retired FFR Unit**) and such failure amounts to an intentional or reckless breach or disregard by the **Provider** of its obligations under this Section 3 and the **Firm Frequency Response Agreement**; or
 - (b) in the circumstances set out in sub-paragraphs 3.4.6, 3.12.2, 3.12.4 and 3.14.6.
- 3.15.3 Where in respect of any **FFR Contract** the number of **FFR Nominated Windows** the subject of one or more events of default to which this sub-paragraph 3.15.3 is expressed in the Annexure to this Section 3 to apply (*Availability*) exceeds three in any calendar month, then **NGET** shall be entitled (at its sole discretion, but subject always to sub-paragraph 3.15.4) to terminate the **FFR Contract** in question forthwith by notice in writing to the **Provider**.
- 3.15.4 Before deciding (in its sole discretion) whether to exercise its rights to terminate any **FFR Contract** pursuant to sub-paragraph 3.15.3, **NGET** shall use reasonable endeavours to discuss with the **Provider** the circumstances giving rise to the relevant events of default (any such discussion to be confirmed in writing by **NGET**).
- 3.15.5 For the avoidance of doubt, **NGET's** rights pursuant to sub-paragraph 3.15.3 shall arise upon the occurrence of the third and each successive such **FFR Nominated Window** thereafter.

- 3.15.6 Upon each event of default to which this sub-paragraph 3.15.6 is expressed in the Annexure to this Section 3 to apply (*Failure to apply for sufficient TEC/STTEC/LDTEC*), **NGET** shall be entitled (at its sole discretion) to terminate the **FFR Contract** in respect of the **FFR Contracted Unit** in question forthwith by notice in writing to the **Provider**.
- 3.15.7 Upon each event of default to which this sub-paragraph 3.15.7 is expressed in the Annexure to this Section 3 to apply (*Notifications of Unavailability*), **NGET** shall be entitled (at its sole discretion) to terminate the **FFR Contract** in respect of the **FFR Contracted Unit** in question forthwith by notice in writing to the **Provider**.
- 3.15.8 Upon each event of default to which this sub-paragraph 3.15.8 is expressed in the Annexure to this Section 3 to apply (*Change to Applicable Balancing Service*), **NGET** shall be entitled (at its sole discretion) to terminate the **FFR Contract** in respect of the **FFR Contracted Unit** in question forthwith by notice in writing to the **Provider**.
- 3.15.9 Termination of any **FFR Contract** shall not affect any accrued rights or liability of either **Party** nor the coming into effect or continuance of any provision thereof which is expressly or by implication intended to come into force or effect after such termination.

ANNEXURE TO SECTION 3
EVENTS OF DEFAULT AND CONSEQUENCES

Events of Default	Consequences
<p>A. Availability In respect of any Settlement Period comprised in any FFR Nominated Window (as revised), and in respect of any FFR Contracted Unit:- (a) the Physical Notification in respect of that FFR Contracted Unit does not at the relevant time comply with sub-paragraph 3.4.2(a); and/or (b) the Maximum Export Limit and/or Stable Export Limit in respect of that FFR Contracted Unit does not at the relevant time comply with sub-paragraph 3.4.2(b); and/or (c) the FFR Contracted Unit is otherwise unable to accept an instruction from NGET pursuant to sub-paragraph 3.4.3 (including without limitation by reason of any unsuccessful application by the Provider to secure sufficient Transmission Entry Capacity and/or STTEC and/or LDTEC as required by sub-paragraph 3.4.6)</p> <p>(but so that occurrence of any or all of the events of default in respect of any FFR Contracted Unit in respect of the same Settlement Period shall constitute a single event of default).</p>	<p>For the purposes of paragraph 3.5, NGET may (at its option) in respect of that FFR Contracted Unit:- (a) deem the Availability Fee and Nomination Fee and Window Revision Fee (if applicable) for the Settlement Period(s) in question to be zero; and (b) apply a pro rata deduction to the Window Initiation Fee for the FFR Nominated Window in question by reference to the proportion of Settlement Periods in that FFR Nominated Window which are affected by any one or more of such events of default.</p> <p>In addition, in relation to each such affected FFR Nominated Window, the provisions of sub-paragraph 3.15.3 shall apply.</p>
<p>B. Failure to apply for sufficient TEC/STTEC A failure by the Provider to make a timely application for sufficient Transmission Entry Capacity and/or STTEC in accordance with the CUSC to enable it to comply with its obligations under paragraph 3.4 as required by sub-paragraph 3.4.6, whether being the required additional Transmission Entry Capacity and/or STTEC and/or LDTEC (if any) specified on the FFR Tender or otherwise, (but for the avoidance of doubt not a timely application made in accordance with CUSC but unsuccessful).</p>	<p>The provisions of sub-paragraph 3.15.6 shall apply.</p>
<p>C. Notifications of Unavailability A failure by the Provider to notify inability to provide Firm Frequency Response in respect of any FFR Contracted Unit as required under and in accordance with sub-paragraph 3.2.4 or 3.4.7 (as the case may be)</p>	<p>The provisions of sub-paragraph 3.15.7 shall apply.</p>
<p>D. Notifications of FFR Confirmed Part Load Point In respect of any Service Day, a failure by the Provider to notify the FFR Confirmed Part Load Point by 11.00 hours on the preceding Service Day as required under and in accordance with sub-paragraph 3.4.1(a)</p>	<p>For the purposes of paragraph 3.5, NGET may (at its option) in respect of that FFR Contracted Unit deem the Availability Fee, the Nomination Fee and the Window Revision Fee (if applicable) for the Service Day in question to be reduced by 50%.</p>
<p>E. Notification of Failure to notify FFR Confirmed Part Load Point Where event of default D applies, a subsequent failure by the Provider to notify the FFR Confirmed Part Load Point within one hour of notification from NGET of such event of default as required under and in accordance with sub-paragraph 3.4.1(c)</p>	<p>For the purposes of paragraph 3.5, instead of the consequences of event of default D NGET may (at its option) deem the Availability Fee, the Nomination Fee and the Window Revision Fee (if applicable) for the Service Day in question to be reduced to zero.</p>
<p>F. Changes to Applicable Balancing Service A breach by the Provider of the warranty and undertaking contained in sub-paragraph 2.3.4(c) or any part thereof.</p>	<p>The provisions of sub-paragraph 3.15.8 shall apply.</p>

SECTION 3A

FFR - BALANCING MECHANISM PARTICIPANTS (NON-DYNAMIC)

Not Used

SECTION 4 - FIRM FREQUENCY RESPONSE - NON BALANCING MECHANISM PARTICIPANTS (NON-DYNAMIC)

SECTION 4

FIRM FREQUENCY RESPONSE - NON-BALANCING MECHANISM PARTICIPANTS (NON-DYNAMIC)

4.1 INTRODUCTION

4.1.1 This Section 4 sets out the terms for provision of **Firm Frequency Response** where the **Provider** provides **Firm Frequency Response** either:-

- (a) as a **Non-Balancing Mechanism Participant**; or
- (b) from **Generating Unit(s)** and/or other **Plant** and **Apparatus** which are established and registered as a **BM Unit(s)** under and in accordance with the **Balancing and Settlement Code** but which do not and will not for the duration of any **FFR Contract** actively participate in the **Balancing Mechanism** during **FFR Nominated Windows** (as revised pursuant to paragraph 4.3).

4.1.2 The provisions of this Section 4 shall apply with respect to a **Participant** who has submitted an **FFR Tender** which has been accepted in respect of such **Generating Unit(s)** and/or other **Plant** and **Apparatus** by NGET pursuant to sub-paragraph 2.5.1 so as to form an **FFR Contract** or where the context otherwise requires.

4.2 WINDOW NOMINATION

4.2.1 No later than 17.00 hours on the fourteenth **Business Day** of each calendar month, NGET shall notify the **Provider** by facsimile in the form set out in Part B of Section 7 of those **Settlement Periods** (if any) comprised within each **FFR Contracted Frame** during each **Service Day** during the following calendar month in respect of which NGET requires **Firm Frequency Response** to be provided from one or more of the **FFR Contracted Units** (“the **FFR Nominated Window(s)**”).

4.2.2 Each notification of **FFR Nominated Windows** shall take account of any relevant **Utilisation Restrictions** in respect of the **FFR Contracted Units** and any notification of unavailability made by the **Provider** pursuant to sub-paragraph 4.2.4.

- 4.2.3 The **Provider** shall acknowledge receipt of each notification of **FFR Nominated Windows** as soon as reasonably practicable by facsimile in the form set out in Part B of Section 7, but failure to do so shall not relieve the **Provider** of its obligations set out in this Section 4.
- 4.2.4 The **Provider** shall notify **NGET** by facsimile in the form set out in Part C of Section 7 forthwith upon becoming aware of the inability (howsoever caused) of any **FFR Contracted Unit** to provide **Firm Frequency Response** in all or any part of any **FFR Contracted Frame**, and with effect from the start of such inability and for the duration of such **FFR Contracted Frame**, or if earlier until otherwise notified by the **Provider** by facsimile in the form set out in Part C of Section 7 that the ability of the **FFR Contracted Unit** to provide **Firm Frequency Response** is restored, **Firm Frequency Response** shall be deemed to be unavailable from such **FFR Contracted Unit** for the purposes of sub-paragraph 4.5.5.

4.3 REVISIONS TO FFR NOMINATED WINDOWS

- 4.3.1 Where the **Provider** has made available in the **FFR Tender** the **Window Revision Facility**, **NGET** may revise the **FFR Nominated Windows** in respect of any **Service Day** by notice in writing to the **Provider** by facsimile in the form set out in Part D of Section 7 no later than 10.00 hours on the immediately preceding **Service Day** provided always that any revised **FFR Nominated Windows** shall constitute one or more **Settlement Periods** comprised within an **FFR Contracted Frame**. For the avoidance of doubt, an **FFR Nominated Window** may be revised in accordance with this sub-paragraph 4.3.1 so as to create two or more **FFR Nominated Windows**.
- 4.3.2 Each notification of a revision to an **FFR Nominated Window** shall take account of any relevant **Utilisation Restrictions** in respect of the **FFR Contracted Units** and any notification of unavailability made by the **Provider** pursuant to sub-paragraph 4.2.4.
- 4.3.3 The **Provider** shall acknowledge receipt of each notification of a revision to an **FFR Nominated Window** as soon as reasonably practicable by facsimile in the form set out in Part D of Section 7, but failure to do so shall not relieve the **Provider** of its obligations set out in this Section 4.

4.4 PROVISION OF FIRM FREQUENCY RESPONSE

- 4.4.1 Where **NGET** shall have notified the **Provider** of the **FFR Nominated Windows** in respect of any **Service Day**, and in respect of each **Settlement Period** comprised within such **FFR Nominated Window(s)** as revised pursuant to paragraph 4.3, the **Provider** shall procure that the **FFR Contracted Unit** is able to accept an instruction from **NGET**

pursuant to sub-paragraph 4.4.2 to make available **Automatic Response** of an amount equal to the **Automatic Response Energy Deliverable**, initiated by the tripping of the **Relay** following a transgression in **System Frequency** above or below the **FFR Pre-Set Level**.

4.4.2 At any time during an **FFR Nominated Window** as revised pursuant to paragraph 4.3, **NGET** may instruct the **Provider** by telephone either to arm or disarm the **Relay**, but in default of such instruction the **Provider** shall be deemed to be instructed to arm the **Relay** so as to provide **Automatic Response** in accordance with sub-paragraph 4.4.1 throughout each **FFR Nominated Window**.

4.4.3 Following an instruction (including a deemed instruction) pursuant to sub-paragraph 4.4.2 to arm the **Relay**, in the absence of any subsequent instruction pursuant to sub-paragraph 4.4.2 to disarm the **Relay**, the **Provider** shall disarm the **Relay** upon expiry of the **FFR Nominated Window**.

4.4.4 Where the **Provider** is instructed (or deemed instructed) to arm the **Relay** in accordance with sub-paragraph 4.4.2, the **Provider** shall forthwith arm the **Relay** and, until the **Relay** is disarmed in accordance with sub-paragraph 4.4.2 or 4.4.3 (as the case may be), the **Provider** shall, following a transgression in **System Frequency** above or below the **FFR Pre-Set Level**, procure that the **Automatic Response Energy Deliverable** is delivered in accordance with sub-paragraph 4.4.1 and sustained until the first to occur of any of the following:-

- (a) the expiry of the **FFR Nominated Window** (or such longer period as **NGET** may agree with the **Provider** pursuant to sub-paragraph 4.4.5); or
- (b) receipt of an instruction from **NGET** by telephone or by facsimile in the form set out in Part G of Section 7 to cease provision of the **Automatic Response**; or
- (c) the expiry of the **Maximum Response Period** (if any) (or such longer period as **NGET** may agree with the **Provider** pursuant to sub-paragraph 4.4.5).

4.4.5 The **Parties** may from time to time agree in writing that the **Provider** shall sustain **Automatic Response** in accordance with this paragraph 4.4 for a period longer than that specified in sub-paragraph 4.4.4(a) and (c), and for the avoidance of doubt any payments due pursuant to paragraph 4.5 shall be calculated accordingly.

4.4.6 The **Provider** shall notify **NGET** by facsimile in the form set out in Part C of Section 7 forthwith upon becoming aware of the inability (howsoever caused) of any **FFR**

Contracted Unit to provide **Firm Frequency Response** in all or any part of any **FFR Nominated Window** as revised pursuant to paragraph 4.3, and with effect from the start of such inability and for the duration of such **FFR Nominated Window**, or if earlier until notified by the **Provider** by facsimile in the form set out in Part C of Section 7 that the ability of the **FFR Contracted Unit** to provide **Firm Frequency Response** is restored, **Firm Frequency Response** shall be deemed to be unavailable from such **FFR Contracted Unit** for the purposes of sub-paragraph 4.5.5.

4.5 PAYMENT

4.5.1 In respect of each calendar month and each relevant **FFR Contracted Unit**, and subject always to the following provisions of this paragraph 4.5, paragraph 4.7 and sub-paragraph 5.12.2, **NGET** shall in accordance with paragraph 5.2 pay to the **Provider**:-

- (a) a payment (“the **Availability Payment**”) calculated as the **Availability Fee** multiplied by the aggregate number of hours comprised within **FFR Contracted Frames** during that calendar month;
- (b) a payment (“the **Window Initiation Payment**”) calculated as the **Window Initiation Fee** multiplied by the number of individual **FFR Nominated Window** as revised pursuant to paragraph 4.3 during that calendar month; and
- (c) a payment (“the **Nomination Payment**”) calculated as the **Nomination Fee** multiplied by the aggregate number of hours comprised within **FFR Nominated Windows** as revised pursuant to paragraph 4.3 during that calendar month (for the avoidance of doubt whether or not the **Relay** has been instructed to be armed in all or part of any **FFR Nominated Window**).

4.5.2 In addition to sub-paragraph 4.5.1, where the **Window Revision Facility** is made available in the **FFR Tender**, **NGET** shall pay to the **Provider**, in respect of each calendar month and each relevant **FFR Contracted Unit**, a payment (“the **Window Revision Payment**”) calculated as the **Window Revision Fee** (if any) multiplied by the aggregate number of hours during that calendar month which are the subject of revision by **NGET** in accordance with paragraph 4.3 (which for this purpose shall comprise **Settlement Periods** originally falling either within or outside of **FFR Nominated Windows** and thereby ceasing to do so).

4.5.3 In addition to sub-paragraphs 4.5.1 and 4.5.2, **NGET** shall pay to the **Provider**, in respect of each calendar month and each relevant **FFR Contracted Unit**, an amount (“the **Response Energy Payment**”) calculated as the **Response Energy Fee** multiplied by the **Automatic Response Energy Deliverable** by 30 seconds multiplied by the aggregate

number of hours during that calendar month over which **Automatic Response** is delivered and sustained in accordance with sub-paragraph 4.4.4.

4.5.4 For the avoidance of doubt:-

- (a) where an **FFR Nominated Window** is revised in accordance with sub-paragraph 4.3.1 so as to create two or more **FFR Nominated Windows**, the **Window Initiation Payment** shall be payable in accordance with sub-paragraph 4.5.1(b) in respect of each **FFR Nominated Window** so created, and the **Nomination Payment** shall be payable in accordance with sub-paragraph 4.5.1(c) in respect of hours comprised within each such **FFR Nominated Window**; and
- (b) where two or more **FFR Nominated Windows** are revised in accordance with sub-paragraph 4.3.1 so as to be consolidated into a reduced number of **FFR Nominated Window(s)**, the **Window Initiation Payment** shall be payable in accordance with sub-paragraph 4.5.1(b) in respect of such reduced number of **FFR Nominated Window(s)**, and the **Nomination Payment** shall be payable in accordance with sub-paragraph 4.5.1(c) in respect of hours comprised within such reduced number of **FFR Nominated Window(s)**.

4.5.5 Following **NGET**'s assessment of unavailability of **Firm Frequency Response** or under-delivery of **Automatic Response** from an **FFR Contracted Unit** during an **FFR Nominated Window** pursuant to sub-paragraph 4.14.2, the payments falling due to the **Provider** pursuant to this paragraph 4.5 in respect thereof shall be subject to a deduction as more particularly specified in sub-paragraphs 4.14.2 to 4.14.4 inclusive.

4.5.6 No payments shall be made by **NGET** to the **Provider** pursuant to this paragraph 4.5 in respect of any period or periods during which, in accordance with any provision of this Section 4 and in relation to any **FFR Contracted Unit**, **Firm Frequency Response** is deemed to be unavailable provided always that **NGET** may at its sole discretion ignore a period of unavailability for the purposes of this paragraph 4.5 where the period of unavailability is short in duration and the **Provider** has used all reasonable endeavours to restore availability as soon as practicable.

4.6 NOT USED

4.7 EVENTS OF DEFAULT AND CONSEQUENCES

- 4.7.1 Each of the occurrences or failures specified in the Annexure to this Section 4 as an event of default shall result in the consequences set out therein in relation to such occurrence or failure.
- 4.7.2 For the purposes of sub-paragraph 4.7.1, unless otherwise expressly stated in the Annexure to this Section 4, it is acknowledged that the same occurrence or failure may constitute more than one event of default.
- 4.7.3 For the avoidance of doubt, the consequences set out in respect of any event of default in the Annexure to this Section 4 shall not relieve the **Provider** of its obligations (if any) pursuant to the **Grid Code** nor relieve either of the **Parties** from any of their obligations (if any) pursuant to the **Connection and Use of System Code** or the **Balancing and Settlement Code**.

4.8 SUBSTITUTION OF FFR CONTRACTED UNITS

- 4.8.1 If the **Provider** anticipates that **Firm Frequency Response** may become unavailable from an **FFR Contracted Unit** during all or any part of any **Service Day**, the **Provider** may, subject always to sub-paragraphs 4.8.2 and 4.8.4 and (unless the unavailability is attributable to the technical capability of the **FFR Contracted Unit**) no later than two hours prior to **Gate Closure** for the first **Settlement Period** in the affected **FFR Nominated Windows** during that **Service Day**, request by facsimile in the form set out in Part F of Section 7 that **NGET** agree to the substitution of that **FFR Contracted Unit** (“the **Retired FFR Unit**”) by any other **Site** at the same **Grid Entry Point** (or, as the case may be, **Grid Supply Point**) which may be specified in the relevant **Firm Frequency Response Agreement** as suitable for nomination for such purpose (“the **Substitute FFR Unit**”).
- 4.8.2 In any notification pursuant to sub-paragraph 4.8.1, the **Provider** shall indicate to **NGET** the affected **FFR Nominated Windows** during the **Service Day** in question in respect of which such substitution shall apply, provided always that:-
- (a) a **Site** may not be nominated as a **Substitute FFR Unit** pursuant to sub-paragraph 4.8.1 in respect of an **FFR Nominated Window** for which it is already an **FFR Contracted Unit**; and
 - (b) a **Site** may not be nominated as a **Substitute FFR Unit** for more than one **FFR Contracted Unit** at the same time.

4.8.3 NGET shall, as soon as reasonably practicable and by facsimile in the form set out in Part F of Section 7, at its sole discretion either accede to or decline the **Provider's** request pursuant to sub-paragraph 4.8.1.

4.8.4 The effect of substitution in accordance with this paragraph 4.8 shall be to treat the **Substitute FFR Unit** as the **FFR Contracted Unit** for all purposes of this Section 4 and the **Firm Frequency Response Agreement**, and for the duration of the relevant **FFR Nominated Window(s)** this Section 4 and the **Firm Frequency Response Agreement** shall be read and construed accordingly. Without limiting the foregoing, with respect to any **Substitute FFR Unit** and for the duration of the relevant **FFR Nominated Window(s)**, the technical, commercial and other parameters (including without limitation the **Availability Fee, Nomination Fee, Window Revision Fee** (if any) and **Response Energy Fee** applicable to the **Retired FFR Unit** shall continue to apply.

4.9 GRID CODE AND DISTRIBUTION CODE

The provision by the **Provider** of **Firm Frequency Response** shall not relieve it of any of its obligations or affect such obligations (where applicable) set out in the **Grid Code** (including without limitation its obligations (if any) to provide **Demand** control when instructed by NGET pursuant to **Grid Code OC 6**) or in the **Distribution Code** of its host **Public Distribution System Operator**.

4.10 MAINTENANCE OF FFR CONTRACTED UNITS

The **Provider** shall maintain the **FFR Contracted Units** to such a standard that the **Provider** can meet its obligations to provide **Firm Frequency Response** in accordance with the terms of this **Document** and the relevant **Firm Frequency Response Agreement**.

4.11 WARRANTY AND INDEMNITY

4.11.1 The **Provider** hereby warrants to NGET that, where any **FFR Contracted Unit** is embedded in a **Distribution System** or **User System**, the availability and delivery of **Response** from that **FFR Contracted Unit** pursuant to and in accordance with this **Document** does not and will not cause the **Provider** to be in breach of or to otherwise be non-compliant with any **Connection Agreement** and/or agreement for the supply of electricity to that **FFR Contracted Unit** and/or for the acceptance of electricity into, and its delivery from, a **User System**.

4.11.2 The **Provider** agrees that it will not accept an instruction from NGET pursuant to paragraph 4.4 if compliance with such instruction would cause the **Provider** to be in

breach or non-compliance as described in sub-paragraph 4.11.1, and if it declines to accept an instruction on such grounds the **Provider** will:-

- (a) notify **NGET** in accordance with sub-paragraph 4.4.6; and
- (b) provide to **NGET** to **NGET**'s reasonable satisfaction such written statement and all such supporting evidence as shall be necessary to demonstrate how compliance would cause such breach or non-compliance.

4.11.3 In the event that the **Provider** complies with an instruction from **NGET** which causes the **Provider** to be in breach or non-compliance as described in sub-paragraph 4.11.1 above, the **Provider** shall indemnify **NGET** against all and any claims which may be brought against **NGET** by the **Provider**'s host **Public Distribution System Operator** or any other person connected to or using the **Public Distribution System Operator**'s **User System** or any other **User System** or the owner of operator of any **User System** or any other person whatever arising out of or resulting from such breach or non-compliance.

4.12 PROVISION OF OTHER SERVICES

4.12.1 The **Provider** hereby undertakes to **NGET** that, on the date of submission of each **FFR Tender** and on the date of formation of each **FFR Contract** in respect thereof, it will not be a party to an agreement or arrangement with its host **Public Distribution System Operator** or electricity supplier or other person to provide any service from the **FFR Contracted Unit(s)** the provision of which may impair the **Provider**'s ability to provide **Firm Frequency Response** and/or perform its obligations under this **Document** and any **Firm Frequency Response Agreement**, and the **Provider** will indemnify **NGET** against any losses, liabilities, claims, expenses and demands which **NGET** might suffer as a result of the **Provider** being breach of the undertaking set out in this sub-paragraph 4.12.1.

4.12.2 Where during the term of an **FFR Contract** the **Provider** intends to enter into an agreement or arrangement with its host **Public Distribution System Operator** or electricity supplier or other person to provide any service from the **FFR Contracted Unit(s)** the provision of which may impair the **Provider**'s ability to provide **Firm Frequency Response** and/or perform its obligations under this **Document** and/or any **Firm Frequency Response Agreement**, the **Provider** shall notify **NGET**, in accordance with paragraph 5.8, as soon as reasonably practicable before entering into such agreement or arrangement. Upon and with effect from the entering into of any such agreement or arrangement, **NGET** shall have the right to terminate the **FFR Contract** in question pursuant to sub-paragraph 4.15.2.

4.12.3 For the avoidance of doubt, the availability in any **Settlement Period** comprised in an **FFR Contracted Frame** of any increase or reduction in **Demand** or **Generation** from the **FFR Contracted Unit(s)** or any part thereof for the benefit of any person other than **NGET** (including without limitation the **Provider's** host **Public Distribution System Operator** or electricity supplier) shall be deemed for the purposes of sub-paragraphs 4.12.1 and 4.12.2 to impair the **Provider's** ability to provide **Firm Frequency Response**.

4.12.4 Where, during any one or more **Settlement Periods** in a **Tendered Period**, the **Provider** is required under the terms of any agreement with **NGET** to provide from a **Tendered Unit** a firm **Ancillary Service** or similar service (except with respect to **Reactive Power**) and such service provision either overlaps to any extent with a **Tendered Frame** and/or is otherwise inconsistent or in conflict with the delivery of **Firm Frequency Response**, then **NGET** may (at its option) either:-

(a) require the **Provider** to declare or re-declare unavailable such service provision in accordance with the terms of such agreement for the duration of each such overlapping **Settlement Period** and otherwise as required to remove such inconsistency or conflict; and/or

(b) require that the terms of such agreement are amended so as to remove such overlap and/or inconsistency or conflict,

and if the **Provider** fails to do declare or re-declare unavailable as required pursuant to sub-paragraph 4.12.4(a), or (as the case may be) for so long as such agreement is not so amended as required by **NGET** pursuant to sub-paragraph 4.12.4(b), **NGET** may (at its option) either reject the **FFR Tender** (if not by then accepted) or otherwise terminate the **FFR Contact** forthwith and at any time by notice in writing to the **Provider**.

4.13 COMMUNICATIONS

Each of the **Parties** hereby agrees and acknowledges that any reference to a communication by telephone or facsimile given by **NGET** to the **Provider** or vice versa in this Section 4 shall, where appropriate, be deemed to include a communication given by means of an **Automatic Logging Device**, such mode of communication to commence within a date five **Business Days** following notification to the **Provider** by **NGET** to this effect. From the date on which such notification becomes effective, instructions and confirmations stored on the **Automatic Logging Device** shall (except during periods when the **Automatic Logging Device** is unavailable for whatever reason in which case communication by telephone or facsimile (whichever is appropriate) shall resume with immediate effect) be conclusive evidence of the giving and/or receipt of any communication required to be given pursuant to the terms of this Section 4. The **Parties** consent to the recording of all

telephone conversations between them relating in whole or in part to this **Document**, and each **Party** agrees to notify its employees of that consent and obtain their consent to that recording if required by law.

4.14 MONITORING AND TESTING

Monitoring

4.14.1 The availability of **Firm Frequency Response** and the amount of **Response** delivered shall be monitored by **NGET** from time to time.

4.14.2 Without prejudice to the generality of sub-paragraph 4.14.1, **NGET** reserves the right to assess the availability of **Firm Frequency Response** from an **FFR Contracted Unit** in accordance with the following provisions:-

- (a) the **Demand** or **Generation** profile of the **FFR Contracted Unit** from time to time shall be ascertained by reference to a combination of second by second or (at **NGET**'s option) minute by minute output data;
- (b) where the **FFR Contracted Unit** provides low **Frequency Response** by automatic reduction of **Demand**, then **NGET** shall, using its analysis software, derive a percentage performance measure for the **FFR Contracted Unit** for the **FFR Nominated Window** in question, based on the difference between (1) the **Automatic Response Energy Deliverable** by 30 seconds and (2) the lowest point in the **Demand** profile ascertained pursuant to sub-paragraph 4.14.2(a) (or, in the case of an applicable **Part Load Point** to which **Demand** is reduced, the difference between such lowest point in the **Demand** profile and such **Part Load Point**);
- (c) where the **FFR Contracted Unit** provides low **Frequency Response** by automatic increase of **Generation**, then **NGET** shall, using its analysis software, derive a percentage performance measure for the **FFR Contracted Unit** for the **FFR Nominated Window** in question, based on the difference between (1) the **Automatic Response Energy Deliverable** by 30 seconds and (2) the difference between the highest point in the **Generation** profile ascertained pursuant to sub-paragraph 4.14.2(a) and the **Maximum Available Output**;
- (d) where the **FFR Contracted Unit** provides high **Frequency Response** by automatic increase of **Demand**, then **NGET** shall, using its analysis software, derive a percentage performance measure for the **FFR Contracted Unit** for the **FFR Nominated Window** in question, based on the difference between (1) the **Automatic Response Energy Deliverable** by 30 seconds and (2) the difference between the highest point in the **Demand** profile ascertained pursuant to sub-paragraph 4.14.2(a) and the **Maximum Available Demand**;

- (e) where the **FFR Contracted Unit** provides high **Frequency Response** by automatic reduction of **Generation**, then **NGET** shall, using its analysis software, derive a percentage performance measure for the **FFR Contracted Unit** for the **FFR Nominated Window** in question, based on the difference between (1) the **Automatic Response Energy Deliverable** by 30 seconds and (2) the lowest point in the **Generation** profile ascertained pursuant to sub-paragraph 4.14.2(a) (or, in the case of an applicable **Part Load Point** to which **Generation** is reduced, the difference between such lowest point in the **Demand** profile and such **Part Load Point**); and
- (f) where, in respect of any **FFR Nominated Window**, the delivery of **Automatic Response** is assessed by **NGET** pursuant to sub-paragraph 4.14.3, then any deduction in the **Nomination Fee** attributable to each **Settlement Period** in such **FFR Nominated Window** pursuant to sub-paragraph 4.14.4 shall be in lieu of any deductions to the **Nomination Fee** otherwise required to be made in respect of such **Settlement Period** pursuant to this sub-paragraph 4.14.2.

4.14.3 Without prejudice to the generality of sub-paragraph 4.14.1, **NGET** also reserves the right to assess the delivery of **Automatic Response** from an **FFR Contracted Unit** in respect of any period during which the **Relay** is armed by the **Provider** in accordance with an instruction (or deemed instruction) from **NGET** pursuant to sub-paragraph 4.4.2 and at any time during that period the **System Frequency** transgresses the **FFR Pre-Set Level** (in this sub-paragraph 4.14.3 “a **Relevant Frequency Incident**”), in accordance with the following methodology:-

- (a) the level of **Demand** or **Generation** (as the case may be) immediately prior to, and for the remainder of the **FFR Nominated Window** after, the **Relevant Frequency Incident** shall be derived from the **Demand** or **Generation** profile (as the case may be) ascertained pursuant to sub-paragraph 4.14.2(a), in order to ascertain the **Automatic Response** delivered and sustained;

- (b) using its analysis software **NGET** shall derive a percentage performance measure (PPM), where:

$$\text{PPM} = C/D * 100$$

and where:

C is the difference between the level of **Demand** or **Generation** (as the case may be) immediately prior to the **Relevant Frequency Incident** and a level being (i) in the case of low **Frequency Response**, the lowest level of **Generation** or the highest level of **Demand** (as the case may be) or (ii) in the

case of high **Frequency Response**, the highest level of **Generation** or the lowest level of **Demand** (as the case may be), in each case during the period over which **Automatic Response** is required pursuant to sub-paragraph 4.4.4 to be sustained and derived from the operating profile ascertained pursuant to sub-paragraph 4.14.2(a), and

D is the **Automatic Response Energy Deliverable**.

- 4.14.4 The percentage performance measure derived pursuant to sub-paragraphs 4.14.2 and 4.14.3 shall be used to determine a percentage deduction in the **Nomination Fee** attributable to all **Settlement Periods** in the **FFR Nominated Window** in question, the **Window Initiation Fee** for that **FFR Nominated Window** and the **Availability Fee** attributable to the duration of that **FFR Nominated Window**, using the following table:-

Percentage Performance Measure	Percentage Deduction in Fees
<10%	100%
≥10%, <60%	50%
≥60%, <95%	25%
≥95%	0%

- 4.14.5 The **Provider** shall provide to **NGET** all information and reasonable assistance necessary for **NGET** to derive output data for the purposes of sub-paragraphs 4.14.2 to 4.14.4 inclusive, and shall allow **NGET**, its employees, agents, suppliers, contractors and sub-contractors necessary access to the **FFR Contracted Unit(s)** and such other parts of the **Premises** in connection therewith. Without limitation the **Provider** hereby grants to **NGET** the right to collect and record data from any **On-Site Monitoring Equipment**.

Testing

- 4.14.6 Without prejudice to the sub-paragraph 2.2.5 and the preceding provisions of this paragraph 4.14, if at any time during an **FFR Contracted Period** **NGET** has reasonable grounds for believing that an **FFR Contracted Unit** does not have the capability to provide **Firm Frequency Response** in accordance with this **Document**, then **NGET** shall so notify the **Provider** in writing together with its reason therefor, and **Firm Frequency Response** shall thenceforth be deemed to be unavailable from such **FFR Contracted Unit** for the purposes of sub-paragraph 4.5.5 until such time as it is demonstrated to **NGET's** reasonable satisfaction that capability of the **FFR Contracted Unit** to provide **Firm**

Frequency Response is restored, which may be by **FFR Testing** in accordance with paragraphs 8.3 and 8.4.

- 4.14.7 If, pursuant to sub-paragraph 4.14.6, an **FFR Contracted Unit** remains unavailable to provide **Firm Frequency Response** for more than two consecutive calendar months, then **NGET** may in its absolute discretion terminate the **FFR Contract** in question pursuant to sub-paragraph 4.15.2.

4.15 TERMINATION OF FFR CONTRACTS

- 4.15.1 All **FFR Contracts** with respect to any **FFR Contracted Unit** shall automatically terminate upon and with effect from termination (for whatever reason) of the **Firm Frequency Response Agreement** with respect to that **FFR Contracted Unit** whether in accordance with paragraph 5.4 or otherwise.

- 4.15.2 Without prejudice to sub-paragraphs 4.15.1 and 4.15.3 and paragraph 5.4, **NGET** may in its absolute discretion terminate an **FFR Contract** in respect of the **FFR Contracted Unit(s)** in question forthwith by notice in writing to the **Provider** in the following circumstances:-

(a) where the **Provider** persistently fails to make available and/or provide **Firm Frequency Response** from any **FFR Contracted Unit** (including any **Substitute FFR Unit** in respect of periods when that **Contracted BM Unit** is a **Retired FFR Unit**) and such failure amounts to an intentional or reckless breach or disregard by the **Reserve Provider** of its obligations under this Section 4 and the **Firm Frequency Response Agreement**; or

(b) in the circumstances set out in sub-paragraphs 4.12.2, 4.12.4 and 4.14.8.

- 4.15.3 Where in respect of any **FFR Contract** the number of **FFR Nominated Windows** the subject of one or more events of default to which this sub-paragraph 4.15.3 is expressed in the Annexure to this Section 4 to apply (*Unavailability*) exceeds three in any calendar month, then **NGET** shall be entitled (at its sole discretion, but subject always to sub-paragraph 4.15.4) to terminate the **FFR Contract** in question forthwith by notice in writing to the **Provider**.

- 4.15.4 Before deciding (in its sole discretion) whether to exercise its rights to terminate any **FFR Contract** pursuant to sub-paragraph 4.15.3, **NGET** shall use reasonable endeavours to discuss with the **Provider** the circumstances giving rise to the relevant events of default (any such discussion to be confirmed in writing by **NGET**).

- 4.15.5 For the avoidance of doubt, **NGET**'s rights pursuant to sub-paragraph 4.15.3 shall arise upon the occurrence of the third and each successive such **FFR Nominated Window** thereafter.
- 4.15.6 Upon each event of default to which this sub-paragraph 4.15.6 is expressed in the Annexure to this Section 4 to apply (*Arming/Disarming*), **NGET** shall be entitled (at its sole discretion) to terminate the **FFR Contract** in respect of the **FFR Contracted Unit** in question forthwith by notice in writing to the **Provider**.
- 4.15.7 Upon each event of default to which this sub-paragraph 4.15.7 is expressed in the Annexure to this Section 4 to apply (*Notification of Unavailability*), **NGET** shall be entitled (at its sole discretion) to terminate the **FFR Contract** in respect of the **FFR Contracted Unit** in question forthwith by notice in writing to the **Provider**.
- 4.15.8 Upon each event of default to which this sub-paragraph 4.15.8 is expressed in the Annexure to this Section 4 to apply (*Response Delivery*), **NGET** shall be entitled (at its sole discretion) to terminate the **FFR Contract** in respect of the **FFR Contracted Unit** in question forthwith by notice in writing to the **Provider**.
- 4.15.9 Termination of any **FFR Contract** shall not affect any accrued rights or liability of either **Party** nor the coming into effect or continuance of any provision thereof which is expressly or by implication intended to come into force or effect after such termination.

ANNEXURE TO SECTION 4
EVENTS OF DEFAULT AND CONSEQUENCES

Events of Default	Consequences
<p>A. <u>Unavailability</u> In respect of any Settlement Period comprised in any FFR Nominated Window (as revised), and in respect of any FFR Contracted Unit, Firm Frequency Response is unavailable (whether as shown by monitoring pursuant to sub-paragraph 4.14.2 or otherwise)</p>	<p>In relation to each affected FFR Nominated Window, the provisions of sub-paragraph 4.15.3 shall apply.</p>
<p>B. <u>Arming/Disarming</u> The Provider fails to comply with an instruction to arm or disarm a Relay under and in accordance with sub-paragraph 4.4.3 or 4.4.4 (as the case may be).</p>	<p>For the purposes of paragraph 4.5, NGET may (at its option) in respect of that FFR Contracted Unit:- (a) deem the Availability Fee, the Nomination Fee and the Window Revision Fee (if applicable) for the whole of the FFR Nominated Window in question to be zero; and (b) deem the Window Initiation Fee for the FFR Nominated Window in question to be zero</p> <p>In addition, in relation to each such affected FFR Nominated Window, the provisions of sub-paragraph 4.15.6 shall apply.</p>
<p>C. <u>Notification of Unavailability</u> A failure by the Provider to notify inability to provide Firm Frequency Response in respect of any FFR Contracted Unit forthwith in accordance with sub-paragraph 4.2.4 or 4.4.6 (as the case may be).</p>	<p>The provisions of sub-paragraph 4.15.7 shall apply.</p>
<p>D. <u>Response Delivery</u> A failure (for whatever reason) of the Relay(s) to trip and/or Automatic Response to be provided as required by paragraph 4.4.</p>	<p>The provisions of sub-paragraph 4.15.8 shall apply.</p>

SECTION 4A

FFR - NON-BALANCING MECHANISM PARTICIPANTS (DYNAMIC)

Not Used

SECTION 5

GENERAL PROVISIONS

5.1 INTRODUCTION

This Section contains those provisions which are generic to all **Participants** and **Providers** and apply to each of the other Sections.

5.2 PAYMENTS

5.2.1 On the eighteenth **Business Day** of each calendar month **NGET** shall send to the **Provider** a statement ("the **Monthly Statement**") setting out details of the following (to the extent applicable) in respect of the preceding calendar month:-

- (a) the aggregate number of hours comprised within **FFR Contracted Frames**;
- (b) the number of, and aggregate number of hours comprised within, **FFR Nominated Windows** and any revisions thereto;
- (c) the number and category of events of default described in the Annexure to Section 3 or 4 (as the case may be);
- (d) any unavailability of **Firm Frequency Response** or under-delivery of **Response** identified by **NGET** pursuant to metering and monitoring in accordance with paragraph 3.14 or 4.14 (as the case may be); and
- (e) the resulting **Availability Payment, Window Initiation Payment, Nomination Payment, Window Revision Payment** (if applicable) and **Response Energy Payment**.

5.2.2 Not Used.

5.2.3 If the **Provider** disagrees with any dates, times, facts or calculations set out in the **Monthly Statement**, it shall produce to **NGET** the evidence upon which it relies in support of such disagreement. The **Parties** shall discuss and endeavour to resolve the matter and any revisions to the **Monthly Statement** agreed as a result thereof shall appear in the **Monthly Statement** next following the date of resolution of the dispute. The dates, times, facts and calculations set out in the **Monthly Statement** shall be binding upon the **Parties** until such time as they are reversed or revised by agreement between the **Parties** or by an arbitrator appointed pursuant to paragraph 5.9.

5.2.4 Where:-

- (a) **NGET** discovers that any previous **Monthly Statement** contains an arithmetic error or omission; or
- (b) **NGET** becomes aware of any facts (other than facts falling within sub-paragraph 5.2.4(a)) which show that the **Provider** was not entitled to receive a payment already made,

NGET shall adjust the account between itself and the **Provider** accordingly in the next **Monthly Statement** which it issues, setting out the reason why the adjustment has been made, and the provisions of sub-paragraph 5.2.3 shall apply *mutatis mutandis* to such adjustments.

5.2.5 The due date of payment for the purposes of sub-paragraph 5.2.8 in respect of any disputed amount subsequently determined or agreed to be payable to the **Provider** shall be the date for payment of the relevant **Monthly Statement** from which the dispute arises.

5.2.6 **NGET** shall pay to the **Provider** the amount shown as due from **NGET** in a **Monthly Statement** within three **Business Days** of the date on which the **Monthly Statement** is or should be received. The **Provider** shall pay to **NGET** the amount shown as due from the **Provider** in a **Monthly Statement** within three **Business Days** of the date on which the **Monthly Statement** is issued.

5.2.7 If either **Party** ("the **Defaulting Party**") in good faith and/or with reasonable cause fails to pay under sub-paragraph 5.2.6 any amount properly due under this **Document**, such **Defaulting Party** shall pay to the other **Party** interest on such overdue amount from and including the due date of such payment to (but excluding) the date of actual payment (as well after as before judgement) at the **Base Rate** provided that should the **Defaulting Party** otherwise fail to pay any amount properly due under this **Document** on the due date then the **Defaulting Party** shall pay to the other **Party** interest on such overdue amount at the **Enhanced Rate** from the due date on which such payment was properly due to (but excluding) the date of actual payment. Interest shall accrue from day to day.

5.2.8 If, following a dispute or by virtue of sub-paragraphs 5.2.3 or 5.2.4, it is determined or agreed that the **Provider** was entitled to a further payment from **NGET**, the **Provider** shall be entitled to interest at the **Base Rate** on the amount of such further payment from the due date calculated in accordance with sub-paragraph 5.2.5 until the date of actual payment.

- 5.2.9 If following a dispute or by virtue of the provisions of sub-paragraphs 5.2.3 or 5.2.4 it is determined or agreed that the **Provider** was not entitled to any payment it has received, **NGET** shall be entitled to interest at the **Base Rate** on the amount so paid from the date of payment until the date of repayment or the date when **NGET** makes a payment to the **Provider** which takes such payment into account.
- 5.2.10 Notwithstanding any other provision of this **Document**, the **Parties** shall not be limited in any way as to the evidence upon which they may rely in any proceedings arising out of or in connection with payment for making available or providing **Firm Frequency Response** under this **Document** and/or any **Firm Frequency Response Agreement**, and the **Parties** agree that, in the event and to the extent that either **Party** succeeds in proving in any such proceedings that **Firm Frequency Response** was or was not made available or provided, the successful **Party** shall be entitled to repayment of the sums already paid or payment of sums not paid as the case may be in respect of **Firm Frequency Response** or its availability.
- 5.2.11 Save as otherwise expressly provided in this **Document** or in any **Firm Frequency Response Agreement**, sums payable by one **Party** to the other pursuant to this **Document** or any **Firm Frequency Response Agreement** whether by way of charges, interest or otherwise, shall (except to the extent otherwise required by law) be paid in full, free and clear of and without deduction, set-off or deferment in respect of any disputes or claims whatsoever provided that either **Party** shall be entitled to set off any payment due and payable by the other **Party** under this **Document** or in any **Firm Frequency Response Agreement** or in any other agreement to which they are both a party for the provision of **Balancing Services** against any payment it makes to that **Party**.
- 5.2.12 **NGET** represents and warrants to the **Provider** that it enters into each **Firm Frequency Response Agreement** as principal and not as agent for any other person.
- 5.2.13 All amounts specified in the relevant **FFR Tender** shall be exclusive of any **Value Added Tax** or other similar tax and **NGET** shall pay to the **Provider Value Added Tax** at the rate for the time being and from time to time properly chargeable in respect of the making available and/or provision of **Firm Frequency Response** under this **Document** and all **Firm Frequency Response Agreements**.
- 5.2.14 The **Provider** hereby warrants and represents to **NGET** that it consents to the operation of a self-billing system by **NGET** with regard to the payment for **Firm Frequency Response** to be provided and made available pursuant to this **Document** and all **Firm Frequency Response Agreements**, and will at all times throughout the term of each **FFR Contract** maintain such consent. The **Provider** hereby undertakes to do (at **NGET's** cost) all acts

and things reasonably necessary to enable **NGET** to comply with the regulations of HM Customs and Excise as regards such self billing.

- 5.2.15 The submission of all **Monthly Statements** and facts and other evidence in support thereof and any questions in connection therewith from **NGET** to the **Provider** and vice versa in accordance with this paragraph 5.2 must be made, in the absence of agreement to the contrary between the **Parties**, by 19.00 hours on the **Business Day** concerned.
- 5.2.16 All payments to be made by **NGET** to the **Provider** under this **Document** will be made by payment to the **Provider's** bank account details of which are notified by the **Provider** from time to time in accordance with paragraph 5.8.
- 5.2.17 The provisions of this paragraph 5.2 shall survive the termination of any **FFR Contract** and/or **Firm Frequency Response Agreement**.

5.3 LIMITATION OF LIABILITY

5.3.1 Subject to sub-paragraph 5.3.2 and save where any provision of this **Document** or any **Firm Frequency Response Agreement** provides for an indemnity or the payment of liquidated damages, the **Parties** agree and acknowledge that neither **Party** (the "**Party Liable**") nor any of its officers, employees or agents shall be liable to the other **Party** for loss arising from any breach of this **Document** or any **Firm Frequency Response Agreement** other than for loss directly resulting from such breach and which at the date of the **FFR Contract** concerned was reasonably foreseeable as not unlikely to occur in the ordinary course of events from such breach in respect of:

- (a) physical damage to the property of the other **Party**, its officers, employees or agents; and/or
- (b) the liability of such other **Party** to any other person for loss in respect of physical damage to the property of any person, subject, for the avoidance of doubt, to the requirement that the amount of such liability claimed by such other **Party** should be mitigated in accordance with general law,

provided further that the liability of any **Party** in respect of all claims for such loss shall not exceed £5 million per incident or series of related incidents.

5.3.2 Nothing in this **Document** or in any **Firm Frequency Response Agreement** shall exclude or limit the liability of the **Party Liable** for death or personal injury resulting from the negligence of the **Party Liable** or any of its officers, employees or agents and the **Party**

Liabe shall indemnify and keep indemnified the other **Party**, its officers, employees or agents, from and against all such and any loss or liability which such other **Party** may suffer or incur by reason of any claim on account of death or personal injury resulting from the negligence of the **Party Liabe** or any of its officers, employees or agents.

5.3.3 Subject to sub-paragraph 5.3.2, and save where any provision of this **Document** or any **Firm Frequency Response Agreement** provides for an indemnity or the payment of liquidated damages, neither the **Party Liabe** nor any of its officers, employees or agents shall in any circumstances whatsoever be liable to the other **Party** for:-

- (a) any loss of profit, loss of revenue, loss of use, loss of contract or loss of goodwill; or
- (b) any indirect or consequential loss; or
- (c) loss resulting from the liability of the other **Party** to any other person howsoever and whensoever arising save as provided in sub-paragraph 5.3.1(b) and sub-paragraph 5.3.2.

5.3.4 Each **Party** acknowledges and agrees that the other **Party** holds the benefit of sub-paragraphs 5.3.1, 5.3.2 and 5.3.3 for itself and as trustee and agent for its officers, employees and agents.

5.3.5 The rights and remedies provided by this **Document** and any **Firm Frequency Response Agreement** to the **Parties** are exclusive and not cumulative and exclude and are in place of all substantive (but not procedural) rights or remedies express or implied and provided by common law or statute in respect of the subject matter of this **Document** and any **Firm Frequency Response Agreement**, including (without limitation) any rights either **Party** may possess in tort which shall include actions brought in negligence and/or nuisance. Accordingly, each of the **Parties** hereby waives to the fullest extent possible such rights and remedies provided by common law or statute and releases the other **Party**, its officers, employees and agents to the same extent from all duties, liabilities, responsibilities or obligations provided by common law or statute in respect of the matters dealt with in this **Document** and any **Firm Frequency Response Agreement** and undertakes not to enforce any of the same except as expressly provided herein.

5.3.6 For the avoidance of doubt, the **Parties** acknowledge and agree that nothing in this **Document** or in any **Firm Frequency Response Agreement** shall exclude or restrict or otherwise prejudice or affect any of the rights, powers, privileges, remedies, duties and

obligations of the **Secretary of State** or the **Authority** under the **Act**, any **Licence** or otherwise howsoever.

5.3.7 Each of sub-paragraphs 5.3.1, 5.3.2, 5.3.3 and 5.3.4 shall:-

- (a) be construed as a separate and severable contract term, and if one or more of such sub-paragraphs is held to be invalid, unlawful or otherwise unenforceable the other or others of such sub-paragraphs shall remain in full force and effect and shall continue to bind the **Parties**; and
- (b) survive termination of the **FFR Contract** and/or **Firm Frequency Response Agreement** concerned.

5.3.8 For the avoidance of doubt, nothing in this paragraph 5.3 shall prevent or restrict any **Party** enforcing any obligation (including suing for a debt) owed to it under or pursuant to this **Document** or any **Firm Frequency Response Agreement**.

5.3.9 Each **Party** acknowledges and agrees that the provisions of this paragraph 5.3 have been the subject of discussion and negotiation and are fair and reasonable having regard to the circumstances as at the date of submission of the relevant **FFR Tender**.

5.4 TERMINATION OF FIRM FREQUENCY RESPONSE AGREEMENTS

Termination by either Party

5.4.1 Either **Party** may terminate a **Firm Frequency Response Agreement** by notice to the other **Party** upon and subject to the terms thereof.

Termination by the Provider

5.4.2 In the event that:-

- (a) **NGET** shall fail to pay (other than by inadvertent error in funds transmission which is discovered by the **Provider**, notified to **NGET** and corrected within five **Business Days** following such notification) any amount properly due or owing from it pursuant to this **Document** or any **Firm Frequency Response Agreement** according to its terms, and such non-payment continues unremedied and not disputed in good faith and upon reasonable grounds at the expiry of seven **Business Days** immediately following receipt by **NGET** of written notice from the **Provider** of such non-payment; or
- (b) in respect of **NGET**:-

- (i) an order of the High Court is made or an effective resolution passed for its insolvent winding-up or dissolution; or
- (ii) a receiver (which expression shall include (where relevant) an administrative receiver within the meaning of Section 29 of the Insolvency Act 1986) of the whole or any material part of its assets or undertaking is appointed; or
- (iii) an administration order under Section 8 of the Insolvency Act 1986 is made or any other steps are taken to appoint an administrator or a voluntary arrangement is proposed under Section 1 of that Act; or
- (iv) it enters into any scheme of arrangement (other than for the purpose of reconstruction or amalgamation upon terms and within such period as may previously have been approved in writing by the **Authority**); or
- (v) it is unable to pay its debts within the meaning of Section 123 (1) or (2) of the Insolvency Act 1986 save that such section shall have effect as if for £750.00 there was inserted £250,000 (and **NGET** shall not be deemed to be unable to pay its debts if any demand for payment is being contested in good faith by it with recourse to all appropriate measures and procedures),

and in any such case within twenty-eight days of appointment of the liquidator, receiver, administrative receiver, administrator, nominee or other similar officer, such person has not provided to the **Provider** a guarantee of future performance by **NGET** of all **FFR Contracts** in such form and amount as the **Provider** may reasonably require,

the **Provider** may declare by notice in writing to **NGET** that such event or events has become a termination event. Once the **Provider** has given notice of a termination event, all **Firm Frequency Response Agreements** to which the **Provider** is a party shall terminate.

Termination by NGET

5.4.3 In the event that:-

- (a) the **Provider** shall fail to pay (other than by inadvertent error in funds transmission which is discovered by **NGET**, notified to the **Provider** and

corrected within five **Business Days** thereafter) any amount properly due or owing from the **Provider** to **NGET** pursuant to this **Document** or any **Firm Frequency Response Agreement** according to its terms, and such non-payment continues unremedied and not disputed in good faith and upon reasonable grounds at the expiry of seven **Business Days** immediately following receipt by the **Provider** of written notice from **NGET** of such non-payment; or

- (b) in respect of the **Provider**:-
- (i) an order of the High Court is made or an effective resolution passed for its insolvent winding up or dissolution; or
 - (ii) a receiver (which expression shall include (where relevant) an administrative receiver within the meaning of Section 29 Insolvency Act 1986) of the whole or any material part of its assets or undertaking is appointed; or
 - (iii) an administration order under Section 8 of the Insolvency Act 1986 is made or any other steps are taken to appoint an administrator or a voluntary arrangement is proposed under Section 1 of that Act; or
 - (iv) it enters into any scheme of arrangement (other than for the purpose of a reconstruction or amalgamation upon terms and within such period as may previously have been approved in writing by the **Authority**); or
 - (v) it is unable to pay its debts (within the meaning of Section 123(1) or (2) of the Insolvency Act 1986 save that such sections shall have effect as if for £750.00 there was inserted £250,000 and the **Provider** shall not be deemed to be unable to pay its debts if any demand for payment is being contested in good faith by the **Provider** with recourse to all appropriate measures and procedures),

and in any such case within twenty-eight days of appointment of the liquidator, receiver, administrative receiver, administrator, nominee or other similar officer, such person has not provided to **NGET** a guarantee of future performance by the **Provider** of all **FFR Contracts** in such form and amount as **NGET** may reasonably require,

NGET may declare by notice in writing to the **Provider** that such event or events has become a termination event. Once **NGET** has given notice of a termination event all **Firm Frequency Response Agreements** to which the **Provider** is a party shall terminate.

5.4.4 In the event that, in respect of any **FFR Contracted Unit**:-

- (a) the **Provider** at any time ceases to be a party to an agreement for connection to and, where required, use of a **System**; or
- (b) the **Provider** ceases to be the **Lead Party** for the purposes of the **Balancing and Settlement Code**; or
- (c) the **Provider** fails to submit to or pass an **FFR Pre-Qualification Assessment** pursuant to sub-paragraph 2.2.5; or
- (d) **NGET** exercises its right to terminate an **FFR Contract** pursuant to the provisions of this **Document** on more than 3 occasions in any rolling 12 month period,

NGET may declare by notice in writing to the **Provider** that such event or events has become a partial termination event. Once **NGET** has given notice of a partial termination event the relevant **Firm Frequency Response Agreement** shall terminate with respect to the **FFR Contracted Unit(s)** in question.

5.4.5 Termination of any **Firm Frequency Response Agreement** (in whole or in part) shall be without prejudice to the rights and remedies to which a **Party** may be entitled thereunder and shall not affect any accrued rights or liabilities of either **Party** nor the coming into or continuance in force of any provision thereof which is expressly or by implication intended to come into force on or after such termination.

5.5 ASSIGNMENT

5.5.1 The **Provider** shall not assign or transfer nor purport to assign or transfer the benefit or burden of any **FFR Contract** and/or **Firm Frequency Response Agreement** save in the following circumstances:-

- (a) the **Provider** may assign or charge its benefit under an **FFR Contract** and/or **Firm Frequency Response Agreement** in whole or in part by way of security;

(b) upon the disposal of the whole or any part of the **Provider's** business or undertaking of which an **FFR Contracted Unit** forms part, the **Provider** may transfer its rights and obligations under the relevant **Firm Frequency Response Agreement** to the purchaser thereof with the prior written consent of **NGET** (which shall not be unreasonably withheld or delayed), and all extant **FFR Contracts** with respect to that **FFR Contracted Unit** shall thereupon be deemed to be transferred to such purchaser.

5.5.2 **NGET** shall not assign or transfer nor purport to assign or transfer the benefit or burden of any **FFR Contract** and/or **Firm Frequency Response Agreement** save to a person required by a licence granted under Section 6(1)(b) of the **Act** to contract for **Balancing Services**.

5.6 CONFIDENTIALITY AND ANNOUNCEMENTS

5.6.1 General Restrictions

(a) Subject to the exceptions provided in sub-paragraph 5.6.2, and to the extent otherwise expressly permitted or otherwise contemplated by this **Document** and/or any **Firm Frequency Response Agreement**, neither **Party** shall, at any time, whether before or after the expiry or sooner termination of any **FFR Contract** and/or **Firm Frequency Response Agreement**, without the prior consent of the other **Party** in writing, divulge or suffer or permit its officers, employees, agents or contractors to divulge to any person or permit use by any person (other than disclosure to or use by any of its or their respective officers or employees to the extent that such disclosure and use is required to enable such persons properly to carry out their duties in connection with any **FFR Contract** and/or **Firm Frequency Response Agreement**) of:-

- (i) any of the contents of any **FFR Tender** or any **Firm Frequency Response Agreement**;
- (ii) any commercially confidential information relating to the negotiations concerning the entering into of any **Firm Frequency Response Agreement**;
- (iii) any commercially confidential information which may come to a **Party's** knowledge in the course of such negotiations; or

- (iv) any commercially confidential information concerning the operations, contracts, commercial or financial arrangements or affairs of the other **Party**.
- (b) Each **Party** undertakes to use information referred to in sub-paragraph 5.6.1(a) and disclosed to it by the other **Party** solely for the purposes of any **FFR Contract** and/or **Firm Frequency Response Agreement** and shall not use it for any other purpose or for the purposes of any third party.

5.6.2 Exceptions

- (a) The restrictions imposed by sub-paragraph 5.6.1 shall not apply to the disclosure of any information:-
 - (i) which now or hereafter comes into the public domain otherwise than as a result of a breach of a confidentiality obligation or which either **Party** can show was in its written records prior to the date of disclosure of the same by the other **Party** or which it received from a third party independently entitled to disclose it;
 - (ii) which is required by law or pursuant to the rules of the **Electricity Supply Industry Arbitration Association in Great Britain** or pursuant to the rules or regulations of the Financial Services Authority to be disclosed to any person who is authorised by law or pursuant to the rules of the **Electricity Supply Industry Arbitration Association in Great Britain** or pursuant to the rules or regulations of the Financial Services Authority to receive the same;
 - (iii) which is required to be disclosed by the regulations of any recognised exchange upon which the share capital of the **Party** making the disclosure (or its parent undertaking) is or is proposed to be from time to time listed or dealt in, or is required to be disclosed by the Panel on Takeovers and Mergers;
 - (iv) to a court, arbitrator or administrative tribunal in the course of proceedings before it to which the disclosing **Party** is a party;
 - (v) in accordance with the provisions of the **Balancing and Settlement Code** or pursuant to any **Licence** of the **Party** concerned;

- (vi) to any parent, subsidiary or fellow subsidiary undertaking on a "need to know" basis only;
 - (vii) to any authorised consultants, banks, financiers, insurers or professional advisers to the disclosing **Party**;
 - (viii) required or expressly permitted to be disclosed under the terms of any agreement or arrangement (including this **Document**, the **Grid Code**, the **Connection and Use of System Code**, the **Distribution Code** and the **Fuel Security Code** (if any)) to which the **Parties** have agreed to be bound.
- (b) In this sub-paragraph 5.6.2, the words "parent", "subsidiary" and "undertaking" shall have the meanings as provided in Sections ~~258~~[1161](#) and ~~259~~[1162](#) of the Companies Act ~~1985~~[2006](#).

5.6.3 Third parties

Before either **Party** discloses any information in any of the circumstances described in sub-paragraph 5.6.2(a)(vi) and (vii) (other than to its authorised professional advisers), it shall notify the other **Party** of its intention to make such disclosure and procure the execution and delivery to that **Party** of an undertaking executed by the person to whom the disclosure is proposed to be made being in the same terms *mutatis mutandis* as the undertakings contained in this paragraph 5.6.

5.6.4 Public announcements

- (a) Subject to sub-paragraph 5.6.4(b), no public announcement or statement regarding the signature, performance or termination of any **FFR Contract** and/or **Firm Frequency Response Agreement** shall be issued or made unless before it is issued or made both the **Parties** have been furnished with a copy of it and have approved it (such approval not to be unreasonably withheld or delayed).
- (b) Neither **Party** shall be prohibited from issuing or making any such public announcement or statement to the extent expressly permitted or otherwise contemplated by this **Document** and/or any **Firm Frequency Response Agreement** or if it is necessary to do so in order to comply with any applicable law or the regulations of any recognised stock exchange upon which the share capital of such **Party** is from time to time listed or dealt in.

5.6.5 Procedures

With respect to the information referred to in sub-paragraph 5.6.1(a), both **Parties** shall ensure that:-

- (a) such information is disseminated within their respective organisations on a “need to know” basis only;
- (b) employees, directors, agents, consultants and professional advisers who are in receipt of such information are made fully aware of the **Party’s** obligations of confidence in relation thereto; and
- (c) any copies of such information, whether in hard copy or computerised form, will clearly identify the information as confidential.

5.6.6 Termination

Notwithstanding any other provision of this **Document** and/or any **Firm Frequency Response Agreement**, the provisions of this paragraph 5.6 shall continue to bind a person after termination of any **FFR Contract** and/or **Firm Frequency Response Agreement**, in whole or in part, for whatever reason.

5.7 WAIVER

No delay by or omission of any **Party** in exercising any right, power, privilege or remedy under this **Document** or any **Firm Frequency Response Agreement** shall operate to impair such right, power, privilege or remedy or be construed as a waiver thereof. Any single or partial exercise of any such right, power, privilege or remedy shall not preclude any other or further exercise thereof or the exercise of any other right, power, privilege or remedy. Payment of any sum or the submission of any **Monthly Statement** by NGET to the **Provider** under this **Document** or any **Firm Frequency Response Agreement** shall not operate to impair or be construed as a waiver of any right, power, privilege or remedy NGET may have against the **Provider** under this **Document** and/or any **Firm Frequency Response Agreement** or otherwise whatsoever and howsoever arising or arisen.

5.8 NOTICES

- 5.8.1 Any notice or other communication to be given by one **Party** to the other under, or in connection with the matters contemplated by this **Document** or any **Firm Frequency Response Agreement**, shall unless otherwise expressly agreed herein be addressed to the

recipient and sent to the address or facsimile number of such other **Party** set out in the relevant **Firm Frequency Response Agreement** for the purpose and marked for the attention of the person so given or to such other address or facsimile number and/or marked for such other attention as such other **Party** may from time to time specify by notice given in accordance with this paragraph 5.8 to the **Party** giving the relevant notice or other communication to it.

5.8.2 Any notice or other communication to be given by one **Party** to the other **Party** under, or in connection with the matters contemplated by, this **Document** or any **Firm Frequency Response Agreement** shall unless otherwise expressly agreed herein be in writing and shall be given by letter delivered by hand or sent by first class prepaid post (airmail if overseas) or facsimile, and shall be deemed to have been received:-

- (a) in the case of delivery by hand, when delivered; or
- (b) in the case of first class prepaid post, on the second day following the day of posting or (if sent airmail from overseas) on the fifth day following the day of posting; or
- (c) in the case of facsimile, on acknowledgement by the addressee's facsimile receiving equipment (where such acknowledgement occurs before 17.00 hours on the day of acknowledgement) and in any other case on the day following the day of acknowledgement.

5.9 DISPUTE RESOLUTION

5.9.1 Save where expressly stated in this **Document** or in any **Firm Frequency Response Agreement** to the contrary and subject to any contrary provision of the **Act** or any **Licence**, any dispute or difference of whatever nature howsoever arising under, out of or in connection with this **Document** or any **Firm Frequency Response Agreement** between the **Parties** shall be and is hereby referred to arbitration pursuant to the arbitration rules of the **Electricity Supply Industry Arbitration Association** in force from time to time.

5.9.2 Whatever the nationality, residence or domicile of either **Party** and wherever the dispute or difference or any part thereof arose, the ~~law~~laws of England and Wales shall be the proper law of any reference to arbitration hereunder and in particular (but not so as to derogate from the generality of the foregoing) the provisions of the Arbitration Act 1996 (notwithstanding anything in Section 108 thereof) shall apply to any such arbitration wherever the same or any part of it shall be conducted.

5.10 JURISDICTION

- 5.10.1 Subject and without prejudice to paragraph 5.9 and to sub-paragraph 5.10.4, both **Parties** irrevocably agree that the courts of England and Wales and the courts of Scotland are to have jurisdiction to settle any disputes which may arise out of or in connection with this **Document** and/or any **Firm Frequency Response Agreement** and that accordingly any suit, action or proceeding (together in this paragraph 5.10 referred to as "**Proceedings**") arising out of or in connection with this **Document** and/or any **Firm Frequency Response Agreement** may be brought to such courts.
- 5.10.2 Each **Party** irrevocably waives any objection which it may have now or hereafter to the laying of the venue of any **Proceedings** in any such court as is referred to in this paragraph 5.10 and any claim that any such **Proceedings** have been brought in an inconvenient forum and further irrevocably agrees that judgment in any proceedings brought in the courts of England and Wales or the courts of Scotland shall be conclusive and binding upon such **Party** and may be enforced in the courts of any other jurisdiction.
- 5.10.3 Each **Party** which is not incorporated in any part of **Great Britain** agrees that if it does not have, or shall cease to have, a place of business in **Great Britain** it will promptly appoint, and shall at all times maintain, a person in **Great Britain** to accept service of process on its behalf in any **Proceedings** in **Great Britain**.
- 5.10.4 For the avoidance of doubt nothing contained in the foregoing provisions of this paragraph 5.10 shall be taken as permitting a party to commence **Proceedings** in the courts where this **Document** or any **Firm Frequency Response Agreement** otherwise provides for **Proceedings** to be referred to arbitration.

5.11 GOVERNING LAW

This **Document** and each **Firm Frequency Response Agreement** and **FFR Contract** shall be governed by and construed in all respects in accordance with English law.

5.12 FORCE MAJEURE

- 5.12.1 In so far as either **Party** is prevented from performing any of its obligations under this **Document** and/or any **Firm Frequency Response Agreement** due to an event or circumstance of **Force Majeure**, then neither the **Provider** nor **NET** (as the case may be) shall be deemed to be in breach of such obligations for so long as the circumstance of **Force Majeure** continues to prevent such performance.

- 5.12.2 If **NGET** is unable to accept the provision of **Firm Frequency Response** and/or issue an instruction pursuant to sub-paragraph 3.4.2 or 4.4.2 (as the case may be) due to an event or circumstance of **Force Majeure**, it shall not be obliged to make any payment to the **Provider** pursuant to paragraph 3.5 or 4.5 (as the case may be) in respect of the period during which the event or circumstance of **Force Majeure** continues to prevent such acceptance and/or ability to issue an instruction.
- 5.12.3 The **Party** affected by the **Force Majeure** shall give to the other **Party** immediately upon becoming aware of an event or circumstance of **Force Majeure**, a written communication describing the **Force Majeure** (including, without limitation, the nature of the occurrence and its expected duration) and the obligations which it is prevented from performing and shall continue to furnish regular reports with respect thereto to the other **Party** during the period of **Force Majeure**.
- 5.12.4 As soon as is reasonably practicable, following an event or circumstance of **Force Majeure**, the **Parties** shall meet to discuss how best to continue their respective obligations as set out in this **Document** and the relevant **Firm Frequency Response Agreement**.
- 5.12.5 For the avoidance of doubt the non-performance of either **Party's** obligations pursuant to this **Document** and any **Firm Frequency Response Agreement** arising prior to the event or circumstance of **Force Majeure**, shall not be excused as a result of the event or circumstance of **Force Majeure**.
- 5.12.6 Either **Party** shall have a right to terminate the provisions of the relevant **FFR Contract** and/or **Firm Frequency Response Agreement** if a **Party** has been prevented from performing its obligations under this **Document** and such **Firm Frequency Response Agreement** due to an event or circumstance of **Force Majeure** for a continuous period of two calendar months.

5.13 SEVERANCE OF TERMS

If any provision of this **Document** or any **Firm Frequency Response Agreement** is or becomes or is declared invalid, unenforceable or illegal by the courts of any jurisdiction to which it is subject or by order of the Commission of the European Communities or by order of the **Secretary of State**, such invalidity, unenforceability or illegality shall not prejudice or affect the remaining provisions of this **Document** and such **Firm Frequency Response Agreement** and the relevant **FFR Contract** which shall continue in full force and effect notwithstanding such invalidity, unenforceability or illegality.

5.14 ENTIRE AGREEMENT

This **Document** and the relevant **Firm Frequency Response Agreement** contain or expressly refer to the entire agreement between the **Parties** with respect to the subject matter of such agreements, and expressly excludes any warranty, condition or other undertaking implied at law or by custom, and supersedes all previous agreements and understandings between the **Parties** with respect thereto and each of the **Parties** acknowledges and confirms that it is not aware of any representation, warranty or other undertaking not fully reflected in the terms of this **Document** and each relevant **Firm Frequency Response Agreement** upon which it has relied in entering into this **Document** and each relevant **Firm Frequency Response Agreement**. To the extent that any such representation, warranty or other undertaking exists, each **Party** irrevocably and unconditionally waives any right it may have to claim damages for breach of warranty and/or to rescind any **Firm Frequency Response Agreement** and/or **FFR Contract**, unless such warranty or misrepresentation was made or given fraudulently.

5.15 THIRD PARTY RIGHTS

The **Parties** acknowledge and agree for the purposes of the Contracts (Rights of Third Parties) Act 1999 that no rights, powers of benefits are or shall be conferred on any person pursuant to this **Document** or any **Firm Frequency Response Agreement** save as expressly provided in this **Document** or such **Firm Frequency Response Agreement**.

5.16 APPOINTMENT OF AGENT

For the purposes of both making and receiving communications and payments to and from **NGET** under Section 4 of this **Document** the **Provider** may appoint an agent to act on its behalf, and in connection therewith the **Parties** agree that:-

- 5.16.1 such appointment shall be acknowledged in the relevant **Firm Frequency Response Agreement** or otherwise notified to **NGET** by the **Provider** by not less than twenty-eight calendar days' prior notice in writing, and in either case termination or other expiry of such appointment shall be notified to **NGET** by not less than twenty-eight calendar days' prior notice in writing from the **Provider**;
- 5.16.2 such appointment shall not relieve the **Provider** from any liability or obligation under this **Document** or any **Firm Frequency Response Agreement**;
- 5.16.3 until **NGET** is notified of termination or expiry of such appointment pursuant to subparagraph 5.16.1, communications and payments made to and by such agent under this

Document shall be effective as if made to and by the **Provider**, and without limiting the foregoing such agent shall have full power and authority to accept payments from **NGET** under this **Document** on behalf of the **Provider** in valid discharge of **NGET**'s obligations in respect thereof; and

- 5.16.4 for the purposes of sub-paragraph 5.6.1, each of the **Parties** gives its consent to the disclosure by the other to such agent of the information referred to therein insofar as disclosed for the purposes of any **FFR Contract** and/or **Firm Frequency Response Agreement** and the **Parties**' respective obligations under this **Document**, and in connection therewith the **Provider** shall procure that such agent observes the restrictions set out in paragraph 5.6 (as if references to the relevant **Party** were to such agent, and for the avoidance of doubt on the basis that the exceptions set out in sub-paragraph 5.6.2 apply as if references to a **Party** were references to such agent) and shall be responsible under this **Document** for any failure by such agent to observe such restrictions.

SECTION 6

INTERPRETATION AND DEFINITIONS

6.1 INTRODUCTION

This Section sets out general rules to be applied in interpreting this **Document** and **Firm Frequency Response Agreements**. A **Firm Frequency Response Agreement** may have its own further interpretation rules and defined terms which apply only to that **Firm Frequency Response Agreement**.

6.2 INTERPRETATION AND CONSTRUCTION

6.2.1 In this **Document** and in each **Firm Frequency Response Agreement**:-

- (a) the interpretation rules in this paragraph 6.2; and
- (b) the words and expressions defined in paragraph 6.3,

shall, unless the subject matter or context otherwise requires or is inconsistent therewith, apply.

6.2.2 Save as otherwise expressly provided in this **Document**, in the event of any inconsistency between the provisions of any **Firm Frequency Response Agreement** and this **Document**, the provisions of the **Firm Frequency Response Agreement** shall prevail in relation to the subject matter thereof.

6.2.3 In this **Document** and in each **Firm Frequency Response Agreement**:-

- (a) unless the context otherwise requires, all references to a particular paragraph or Section shall be a reference to that paragraph or Section in or to this **Document**, and all references to a particular Clause or Appendix shall be a reference to that Clause or Appendix in or to a **Firm Frequency Response Agreement**;
- (b) a table of contents and headings are inserted for convenience only and shall be ignored in construing this **Document** or a **Firm Frequency Response Agreement**;
- (c) references to the words “include” or “including” are to be construed without limitation to the generality of the preceding words;

- (d) unless the context otherwise requires any reference to an Act of Parliament or any part or section or other provision of or section to an Act of Parliament shall be construed, at the particular time, as including a reference to any modification, extension or re-enactment thereof then in force and to all instruments, order or regulations then in force and made under or deriving validity from the relevant Act of Parliament; and
- (e) references to the masculine shall include the feminine and references in the singular shall include the plural and vice versa and words denoting persons shall include any individual, partnership, firm, company, corporation, joint venture, trust, association, organisation or other entity, in each case whether or not having separate legal personality.

6.3 DEFINITIONS

The following terms shall have the following meanings:

"the Act"	means the Electricity Act 1989;
"ABSVD Methodology Statement"	means the document entitled "Applicable Balancing Services Volume Data Methodology Statement" as published by NGET as the same may be amended from time to time;
"Active Power"	means the product of voltage and the in-phase component of alternating current measured in units of Watts and standard multiples thereof i.e. 1000 Watts = 1kW 1000 kW = 1MW 1000 MW = 1GW 1000 GW = 1TW;
"Ancillary Services"	means System Ancillary Services and/or Commercial Ancillary Services , as the case may be;
"Apparatus"	means all equipment in which electrical conductors are used, supported or of which they may form a part;
"Applicable Balancing Service"	has the meaning attributed to it in the Balancing and

Settlement Code;

“Authorised Electricity Operator”	means any person (other than NGET in its capacity as operator of the GB Transmission System) who is authorised to generate, transmit, distribute or supply electricity;
“Authority”	means the Gas and Electricity Markets Authority established by section 1 of the Utilities Act 2000;
“Automatic Logging Device”	means any electronic apparatus or other device capable of relaying instructions and confirmations between NGET and the Provider and/or memorising and storing any instructions and confirmations so given;
“Automatic Response”	means either the automatic reduction of Demand or increase of Generation following a fall in System Frequency below the applicable Pre-Set Level , or the automatic increase of Demand or reduction of Generation following an increase in System Frequency above the applicable Pre-Set Level , as the case may be;
“Automatic Response Energy Deliverable”	means the amount of Automatic Response to be delivered from an FFR Contracted Unit for the FFR Pre-Set Level as set out or referred to in the Firm Frequency Response Agreement ;
“Availability Fee”	means the fee (£/h) described as such in an FFR Tender ;
“Availability Payment”	has the meaning attributed to it in sub-paragraph 3.5.1(a) or 4.5.1(a) as the case may be;
“Balancing and Settlement Code (BSC)”	has the meaning attributed to it in the Transmission Licence ;
“Balancing Mechanism”	has the meaning attributed to it in the Transmission Licence ;

“Balancing Services”	has the meaning attributed to it in the Transmission Licence ;
“Bank Holiday”	means any day (other than Sunday) on which clearing banks are closed for normal banking business in sterling in the city of London;
“Base Rate”	means, in respect of any day, the rate per annum which is equal to the base lending rate from time to time of Barclays Bank plc as at the close of business on the immediately preceding Business Day ;
“Bid-Offer Acceptance”	has the meaning attributed to it in the Grid Code ;
“BM Unit”	has the meaning attributed to it in the BSC , except for the purposes of this Document the reference to “a Party ” in the BSC shall be a reference to the Provider ;
“BM Unit Data”	has the meaning attributed to it in the Grid Code ;
“Business Day”	means a week-day other than a Saturday on which banks are open for domestic business in the City of London;
“Commercial Ancillary Services”	means Ancillary Services other than System Ancillary Services ;
"Connection Agreement"	means any agreement in respect of the connection (including the maintenance and modification of that connection) of Plant and Apparatus to a Distribution System ;
“Connection and Use of System Code (CUSC)”	means the Connection and Use of System Code designated by the Secretary of State as from time to time modified;
“Connection Site”	has the meaning attributed to it in the CUSC ;
“Consumption BM Unit”	has the meaning attributed to it in the BSC ;

“CUSC Framework Agreement”	has the meaning attributed to it in the Transmission Licence ;
“Customer”	means a person to whom electrical power is provided (whether or not he is the same person as the person who provides the electrical power) other than power to meet Station Demand of that person;
“De-Load”	has the meaning attributed to it in the Grid Code ;
“Defaulting Party”	has the meaning attributed to it in sub-paragraph 5.2.7;
"Demand"	has the meaning attributed to it in the CUSC ;;
“De-Synchronised”	has the meaning attributed to it in the Grid Code ;
"Distribution Code(s)"	means the Distribution Code(s) drawn up by Public Distribution System Operators pursuant to the terms of their respective Licence(s) as from time to time revised in accordance with those Licences ;
“Distribution Licence”	means a licence issued under section 6(1)(c) of the Act ;
“Distribution System”	means the system consisting (wholly or mainly) of electric lines owned or operated by any Authorised Electricity Operator and used for the distribution of electricity from Grid Supply Points or generation sets or other entry points to the point of delivery to Customers or Authorised Electricity Operators , and includes any Remote Transmission Assets operated by such Authorised Electricity Operator and any electrical plant and meters owned or operated by the Authorised Electricity Operator in connection with the distribution of electricity, but shall not include any part of the GB Transmission System ;
“Document”	means this issue of the Firm Frequency Response Tender Rules and Standard Contract Terms;
“Dynamic Parameters”	has the meaning attributed to it in the Grid Code ;

“EDL”	means the electronic despatch logging mechanism by which NGET communicates with the Provider and the Provider communicates with NGET in respect of the FFR Contracted Units for the purposes of operation of the Balancing Mechanism and the utilisation of Ancillary Services ;
“Electricity Supply Industry Arbitration Association ”	has the meaning attributed to it in the Grid Code ;
“Energy Metering Equipment”	has the meaning attributed to the phrase “Metering Equipment” in the Balancing and Settlement Code ;
“Enhanced Rate”	means, in respect of any day, the rate per annum which is 4% above the base lending rate from time to time of Barclays Bank plc as at the close of business on the immediately preceding Business Day ;
“External Interconnection”	has the meaning attributed to it in the Grid Code ;
“FFR Assessments and Testing”	has the meaning attributed to it in paragraph 8.1;
“FFR Capability Data Tables”	means the data tables set out or referred to as such in the Firm Frequency Response Agreement ;
“FFR Confirmed Part Load Point”	means, in respect of any Service Day , the Part Load Point notified as such by the Provider pursuant to sub-paragraph 3.4.1(a) or (c), being a figure within the Part Load Point range defined by the Maximum Part Load Point and the Minimum Part Load Point , or (where applicable) the Part Load Point specified as such pursuant to sub-paragraph 3.4.1(e);
“FFR Contract”	means each and every contract between NGET and the Provider for the provision by the Provider to NGET of Firm Frequency Response upon and subject to the terms of an FFR Tender , this Document and the relevant Firm Frequency Response Agreement , formed upon acceptance by NGET of that FFR

	Tender pursuant to sub-paragraph 2.5.1 and ending upon expiry of the FFR Contracted Period or earlier termination pursuant to paragraph 3.15 or 4.15 (as the case may be);
“FFR Contracted Frame”	means a Tendered Frame comprised within an FFR Tender which has been accepted by NGET pursuant to sub-paragraph 2.5.1;
“FFR Contracted Period”	means the tendered period comprised within an FFR Tender which has been accepted by NGET pursuant to sub-paragraph 2.5.1;
“FFR Contracted Unit”	means an FFR Unit comprised within an FFR Tender which has been accepted by NGET pursuant to sub-paragraph 2.5.1;
“FFR Nominated Window”	has the meaning attributed to it in sub-paragraph 3.2.1 or 4.2.1 (as the case may be);
“FFR Power Delivery Data Tables”	means the data tables set out or referred to in the Firm Frequency Response Agreement ;
“FFR Pre-Qualification Assessment”	has the meaning attributed to it in paragraph 8.2;
“FFR Pre-Set Level”	means the Pre-Set Level comprised within an FFR Tender which has been accepted by NGET pursuant to sub-paragraph 2.5.1;
“FFR Tender”	means a tender for provision of Firm Frequency Response submitted pursuant to paragraph 2.3;
“FFR Testing”	has the meaning attributed to it in paragraph 8.3;
“FFR Unit”	means either (1) a single BM Unit or (as the case may be) Site or (2) two or more Sites which together meet the requirements of sub-paragraph 2.2.3;
“Firm Frequency Response”	means the firm availability of either dynamic or non-

dynamic **Response** provided upon and subject to the terms of this **Document**;

“Firm Frequency Response Agreement(s)”

means the agreement or agreements to which **NGET** and the **Provider** are a party more particularly referred to in paragraphs 1.2 and 2.2;

"Force Majeure"

means, in relation to either **Party**, any event or circumstance which is beyond the reasonable control of such **Party** (not being, without limitation an event or circumstance caused by the negligence or lack of care and attention of that **Party** or its officers or employees) but subject thereto including act of God, strike lockout or other industrial disturbance, act of the public enemy, war declared or undeclared, threat of war, terrorist act, blockade, revolution, riot, insurrection, civil commotion, public demonstration, sabotage, act of vandalism, lightning, fire, storm, flood, earthquake, accumulation of snow or ice, lack of water arising from weather or environmental problems, explosion, governmental restraint, Act of Parliament, other legislation, bye law and Directive (not being any order, regulation or direction under Section 32, 33, 34 and 35 of the **Act**);

“Frequency”

means the number of alternating current cycles per second (expressed in Hertz) at which a **System** is running;

“Frequency Deviation”

has the meaning attributed to it in the **CUSC**;

“Frequency Sensitive Mode”

has the meaning attributed to it in the **Grid Code**;

“Fuel Security Code”

means the document of that title designated as such by the **Secretary of State** as from time to time amended;

“Gas Turbine Unit”

means a **Generating Unit** driven by a gas turbine, (for instance by an aero-engine);

“Gate Closure”

means, in relation to a **Settlement Period**, the spot

	time one hour before the spot time at the start of that Settlement Period , or otherwise as may be defined from time to time in the BSC ;
“Gate Closure Period”	means the period between Gate Closure and the spot time at the start of the associated Settlement Period ;
“GB Transmission System”	has the meaning attributed to it in the CUSC ;
“Generating Plant”	has the meaning attributed to it in the CUSC ;
“Generating Unit”	unless otherwise provided in any Firm Frequency Response Agreement , means any Apparatus which produces electricity including for the avoidance of doubt a CCGT Unit ;
"Generation"	means the electrical output (in MW) of a Generating Unit ;
“Genset”	has the meaning attributed to it in the Grid Code ;
“Great Britain”	has the meaning attributed to it in Schedule 1 of the Transmission Licence ;
"Grid Code"	means the Grid Code drawn up pursuant to the Transmission Licence as from time to time revised in accordance with the Transmission Licence (and references in this Document or any Firm Frequency Response Agreement to any specific provision or part of the Grid Code shall be construed as references to such provision or part as from time to time amended);
“Grid Code CC”	means the Connection Conditions of the Grid Code ;
“Grid Code OC”	means the Operating Codes of the Grid Code ;
“Grid Entry Point”	means a point at which a Generating Unit or a CCGT Module or a CCGT Unit , as the case may be, which is directly connected to the GB Transmission System , connects to the GB Transmission System ;

“Grid Supply Point”	means a point of supply from the GB Transmission System to a Distribution System or a Non-Embedded Customer ;
“High Frequency Response”	has the meaning attributed to it in the Grid Code ;
“Industry Information Website”	the site established by NGET on the World-Wide Web for the publication of information for the use of Participants, Providers and other interested persons in accordance with such restrictions on access as may be determined from time to time by NGET ;
<u>“LDTEC”</u>	<u>has the meaning attributed to it in the CUSC;</u>
“Lead Party”	has the meaning attributed to it in the BSC ;
"Licence"	means any one or more as appropriate of the Licences granted pursuant to section 6 of the Act ;
“Mandatory Services Agreements”	has the meaning attributed to it in the CUSC ;
“Maximum Available Demand”	means, in respect of an FFR Contracted Unit providing high Frequency Response by automatic increase of Demand , the amount set out and specified as such in the Firm Frequency Response Agreement for the FFR Pre-Set Level ;
“Maximum Available Output”	means, in respect of an FFR Contracted Unit providing low Frequency Response by automatic increase in Generation , the amount set out and specified as such in the Firm Frequency Response Agreement for the FFR Pre-Set Level ;
“Maximum Export Limit”	the meaning attributed to it in the Grid Code ;
“Maximum Part Load Point”	means the Part Load Point specified as such in the FFR Tender , being less than or equal to the Minimum MEL ;

“Maximum Response Energy Deliverable”	means, for a Part Load Point and by reference to the applicable FFR Capability Data Tables , the maximum amounts of Response to be delivered from an FFR Contracted Unit as either Primary Response and High Frequency Response , or Primary Response, Secondary Response and High Frequency Response , and for given Frequency Deviations , as specified in the FFR Tender ;
“Maximum Response Period”	means the period (if any) specified in the FFR Tender comprising part of the Utilisation Restrictions ;
“Maximum SEL”	means the maximum prevailing Stable Export Limit in FFR Nominated Windows specified in the FFR Tender ;
“Minimum MEL”	means the minimum prevailing Maximum Export Limit in FFR Nominated Windows specified in the FFR Tender ;
“Minimum Part Load Point”	means the Part Load Point specified as such in the FFR Tender , being greater than or equal to the Maximum SEL ;
“Mode D Frequency Response”	has the meaning attributed to it in sub-paragraph 3.4.4(a);
“Monthly Statement”	has the meaning attributed to it in sub-paragraph 5.2.1;
“NGET”	means National Grid Electricity Transmission plc, a company registered with number 2366977 and whose registered office is situated at 1-3 Strand, London, WC2N 5EH, which expression shall include its permitted successors and/or assigns;
“Nomination Fee”	means the fee (£/h) described as such in an FFR Tender ;
“Nomination Payment”	has the meaning attributed to it in sub-paragraph 3.5.1(c) or 4.5.1(c) (as the case may be);

“Non-Balancing Mechanism Participant”	means a Provider providing Firm Frequency Response from an FFR Unit comprising one or more Sites ;
“Non-Embedded Customer”	means a Customer , except for a Public Distribution System Operator , receiving electricity direct from the GB Transmission System irrespective of from whom it is supplied;
“On-Site Monitoring Equipment”	means all and any monitoring and/or metering equipment located at the Premises in respect of any Site ;
“Operational Metering Equipment”	means meters, instrument transformers (both voltage and current), transducers metering protection equipment including alarms circuitry and their associated outstations as may be necessary for the purposes of the Grid Code CC 6.5.6 and the corresponding provision of the relevant Distribution Code ;
“Part 1 System Ancillary Services”	has the meaning attributed to it in the Grid Code ;
“Part 2 System Ancillary Services”	has the meaning attributed to it in the Grid Code ;
“Participant”	means a Party (not being NGET) who wishes to become a Provider ;
“Parties”	means NGET of the one part and its counterparty to a Firm Frequency Response Agreement of the other part, and “Party” shall be construed accordingly;
“Part Load Point”	means, in respect of an FFR Unit , either (1) an operating level from which dynamic Response is delivered or (2) an operating level more particularly specified in the Firm Frequency Response Agreement either (i) from which Automatic Response is delivered or (ii) to which Demand or Generation (as the case may be) is respectively reduced or

	increased by way of delivery of Automatic Response ;
“Party Liable”	has the meaning attributed to it in sub-paragraph 5.3.1;
“Physical Notification”	has the meaning attributed to it in the Grid Code ;
"Plant"	means fixed and movable items used in the Generation and/or supply and/or transmission and/or distribution of electricity other than Apparatus ;
“Power Station”	means an installation comprising one or more Generating Units (even where separately sited) owned or controlled by the same Provider which may reasonably be considered as being managed as one Power Station ;
“Premises”	means the land and buildings of which a BM Unit or Site forms part, which may include a Power Station ;
“Pre-Set Level”	means Frequency level at which non-dynamic Firm Frequency Response is provided from an FFR Unit , being the level, or one of the levels, specified as such in the Firm Frequency Response Agreement ;
“Primary Response”	has the meaning attributed to it in the Grid Code ;
“Production BM Unit”	has the meaning attributed to it in the BSC ;
“Proceedings”	has the meaning attributed to it in sub-paragraph 5.10.1;
“Provider”	means a Participant who has submitted an FFR Tender which has been accepted by NGET pursuant to sub-paragraph 2.5.1;
“Public Distribution System Operator”	has the meaning attributed to it in the CUSC ;
"Reactive Power”	has the meaning attributed to it in the Grid Code ;

“Relay”	means an electrical measuring relay intended to operate when its characteristic quantity (Frequency) reaches the relay setting by an increase or decrease (as the case may be) in Frequency together with the associated and supporting equipment thereto;
“Relevant Frequency Incident”	has the meaning attributed to it in sub-paragraph 4.14.3;
“Remote Transmission Assets”	means any Plant and Apparatus or meters owned by NGET which (a) are embedded in a Distribution System or a User System and which are not directly connected by Plant and/or Apparatus owned by NGET to a sub-station owned by NGET and (b) are by agreement between NGET and such Public Distribution System Operator or User under the direction and control of such Public Distribution System Operator or User ;
“Response”	has the meaning attributed to it in the CUSC ;
“Response Energy Fee”	means, with respect to non-dynamic Firm Frequency Response , the fee (£/MW/h) described as such in an FFR Tender ;
“Response Energy Payment”	has the meaning attributed to it in sub-paragraph 3.5.3 or 4.5.3 (as the case may be);
“Retired FFR Unit”	has the meaning attributed to it in sub-paragraph 3.8.1 or 4.8.1 (as the case may be);
“Secondary Response”	has the meaning attributed to it in the Grid Code ;
“Secretary of State”	has the meaning attributed to it in the Act ;
“Service Day”	means a period commencing at 00.00 hours on a calendar day and ending at 00.00 hours on the next following calendar day;
“Settlement Period”	means a period of 30 minutes ending on the hour or

	half hour in each hour during a Day ;
“Site”	means a Generating Unit and/or other Plant and Apparatus not established and registered by the Provider as BM Unit(s) under and in accordance with the Balancing and Settlement Code ;
“STTEC”	has the meaning attributed to it in the CUSC ;
“Stable Export Limit”	has the meaning attributed to it in the Grid Code ;
“Station Demand”	has the meaning attributed to it in the CUSC ;
“Steam Unit”	means a Generating Unit whose prime mover converts the heat-energy in steam to mechanical energy;
“Substitute FFR Unit”	has the meaning attributed to it in sub-paragraph 3.8.1 or 4.8.1 (as the case may be);
“Supplier BM Unit”	has the meaning attributed to it in the BSC ;
“System”	means any User System or the GB Transmission System as the case may be;
“System Ancillary Services”	means Part 1 System Ancillary Services and Part 2 System Ancillary Services ;
<u>“Target Commencement Date”</u>	<u>has the meaning attributed to it in paragraph 1 of the Annexure to Section 2;</u>
“Target Frequency”	has the meaning attributed to it in the CUSC ;
“Tender Assessment Principles”	means the principles from time to time published by NGET for the purposes of this Document ;
“Tendered Frame”	means the hours of service availability tendered in each Service Day during a Tendered Period , being one or more continuous periods of whole Settlement Periods ;
“Tendered Unit”	means an FFR Unit the subject of an FFR Tender ;

“Tendered Period”	means the period (in whole calendar months) the subject of an FFR Tender; either:- <u>(a) a single complete calendar month; or</u> <u>(b) a single period in excess of one calendar month;</u> <u>in each case commencing as provided in sub-paragraph 2.3.2 of Section 2, in respect of which the Participant tenders to provide Firm Frequency Response;</u>
“Tendered Prices”	means the tendered prices for each Tendered Unit comprised in an FFR Tender , being an Availability Fee , a Nomination Fee , a Window Initiation Fee , and where applicable a Response Energy Fee and a Window Revision Fee ;
<u>“Tendered Service Parameters”</u>	<u>means the data tendered by the Participant for a Tendered Period in the form set out in Part A of Section 7;</u>
“Transmission Entry Capacity”	has the meaning attributed to it in the CUSC ;
“Transmission Licence”	means the licence granted to NGET under section 6(1)(b) of the Act ;
“User”	means a person who is party to the CUSC Framework Agreement other than NGET ;
“User System”	means any System owned or operated by a User comprising:- (a) Generating Units ; and/or (b) Distribution Systems (and/or other systems consisting (wholly or mainly) of electric lines which are owned or operated by a person other than a Public Distribution System Operator); and Plant and/or Apparatus connecting: (c) Generating Units and/or Distribution Systems (and/or other systems consisting (wholly or mainly) of electric lines which are owned or operated by a person other than a

	<p>Public Distribution System Operator); or</p> <p>(d) Non-Embedded Customers;</p> <p>to the GB Transmission System or to the relevant other User System, as the case may be, including any Remote Transmission Assets operated by such User or other person and any Plant and/or Apparatus and meters owned or operated by the User or other person in connection with the distribution of electricity but does not include any part of the GB Transmission System;</p>
“Utilisation Restrictions”	means the restrictions on utilisation of Firm Frequency Response (if any) specified in an FFR Tender ;
“Value Added Tax”	means Value Added Tax as defined by the Value Added Tax Act 1994 and any modification or re-enactment thereof and any new tax of a similar nature;
“Window Initiation Fee”	means the fee (£/window) described as such in an FFR Tender ;
“Window Initiation Payment”	has the meaning attributed to it in sub-paragraph 3.5.1(b) or 4.5.1(b) (as the case may be);
“Window Revision Facility”	means the ability for NGET to revise FFR Nominated Windows as more particularly described in paragraph 3.3 or 4.3 (as the case may be);
“Window Revision Fee”	means the fee (£/h) (if any) described as such in an FFR Tender ;
“Window Revision Payment”	has the meaning attributed to it in sub-paragraph 3.5.2 or 4.5.2 (as the case may be);
“Working Day”	means Monday to Friday inclusive but excluding Bank Holidays ;
<u>“Works”</u>	<u>those works relating to the FFR Unit(s) more particularly specified in the Works Programme;</u>
<u>“Works Programme”</u>	<u>the programme for the completion of the Works agreed</u>

by the **Participant** with **NGET** in accordance with sub-paragraph 2.2.6 of Section 2 which shall be substantially in the format set out in Part H of Section 7.

SECTION 7

NOTIFICATION FORMATS

7.1 INTRODUCTION

This Section 7 contains the standardised formats which are to be used for certain communications between NGET and a **Participant** or the **Provider**, as more particularly referred to in Section 2, 3 and 4.

7.2 FORMATS

The formats which follow comprise:-

Part A: **FFR Tenders** (in two versions, one for **BM Units** and the other for **Non-Balancing Mechanism Participants**)

Part B: Nomination of **FFR Nominated Windows**

Part C: Notification of Unavailability/Restoration of Availability

Part D: Revisions to **FFR Nominated Windows**

Part E: [Notification of FFR Confirmed Part Load Point](#)

[Part F:](#) Substitution of **FFR Contracted Units**

Part ~~F~~G: Instruction to Cease Provision of **Automatic Response**

[Part H:](#) **Works Programme**

PART A - FFR TENDER FORM

Version for BM Units (Dynamic) - Section 3

<i>Tendered Unit*</i>				
<i>Maximum Part Load Point (MW)</i>				
<i>Minimum Part Load Point (MW)</i>				
<i>Minimum MEL (MW)</i>				
<i>Maximum SEL (MW)</i>				
<i>Applicable FFR Capability Data Tables</i>				
<i>Additional TEC and/or STTEC and/or LDTEC requirements (if applicable)</i>	<i>From:..... To:..... MW:.....</i>			
<i>Maximum Response Energy Deliverable (MW)</i>	<i>Primary Response (max. value)</i>	@ 0.2 Hz deviation		
		@ 0.5 Hz deviation		
		@ 0.8 Hz deviation		
	<i>Secondary Response (max. value)**</i>	@ 0.2/0.2 Hz deviation		
		@ 0.5/0.5 Hz deviation		
	<i>High Frequency Response (max. value)</i>	@ 0.2 Hz deviation		
@ 0.5 Hz deviation				
<i>Tendered Period</i>	<i>From:..... [first calendar day of (month/year)] To: :..... [last calendar day of (month/year)]</i>			
<i>Tendered Frames per Service Day</i>	<i>WORKING DAYS</i> <i>From:</i> <i>To:</i>			
	<i>SATURDAYS</i> <i>From:</i> <i>To:</i>			
	<i>SUNDAYS/BANK HOLIDAYS</i> <i>From:</i> <i>To:</i>			
<i>Tendered Prices</i>	<i>Availability Fee (£/h)</i>			
	<i>Window Initiation Fee (£/window)</i>			

	<i>Nomination Fee (£/h)</i>			
<i>Window Revision Facility</i>	<i>YES/NO</i>			
	<i>Window Revision Fee (£/h)</i>			
<i>Utilisation Restrictions</i>	<i>Maximum number of FFR Nominated Windows per Service Day (if applicable)</i>			
	<i>Maximum FFR Nominated Window revisions (hours) (if applicable)</i>			
	<i>Maximum number of hours capable of nomination as FFR Nominated Windows (if applicable)</i>			
	<i>Minimum FFR Nominated Window duration (multiples of whole Settlement Periods)</i>			
	<i>Other (specify)</i>			
<i>Applicable Balancing Service***</i>	<i>YES/NO</i>			

* Tenderer to specify **BM Unit ID**

** Where Tender is for Primary Response and High Frequency Response only, Secondary Response to be tendered with zero MW

*** Tenderer to specify whether or not Firm Frequency Response from the FFR Unit is to be treated at all times during the Tendered Period as an Applicable Balancing Service in accordance with the ABSVD Methodology Statement and Section Q.6.4 of the BSC

Signed by:(signature)

Name:

For and on behalf of

Date:

Version for Non-Balancing Mechanism Participants (Non-Dynamic) - Section 4

<i>Tendered Unit*</i>				
<i>Pre-Set Level</i>		(Hz)	(Hz)	(Hz)
<i>Tendered Period</i>	<i>From:..... [first calendar day of (month/year)] To: :..... [last calendar day of (month/year)]</i>			
<i>Tendered Frames per Service Day</i>	<i>WORKING DAYS From: To:</i>			
	<i>SATURDAYS From: To:</i>			
	<i>SUNDAYS/BANK HOLIDAYS From: To:</i>			
<i>Tendered Prices</i>	<i>Availability Fee (£/h)</i>			
	<i>Window Initiation Fee (£/window)</i>			
	<i>Nomination Fee (£/h)</i>			
	<i>Response Energy Fee (£/MW/h)</i>			
<i>Window Revision Facility</i>	<i>YES/NO</i>			
	<i>Window Revision Fee (£/h)</i>			
<i>Utilisation Restrictions</i>	<i>Maximum number of FFR Nominated Windows per Service Day (if applicable)</i>			
	<i>Maximum Response Period (mins) (if applicable)</i>			
	<i>Maximum FFR Nominated Window revisions (hours) (if applicable)</i>			
	<i>Maximum number of hours capable of nomination as FFR Nominated Windows (if applicable)</i>			
	<i>Minimum FFR Nominated Window duration (multiples of whole Settlement Periods)</i>			
	<i>Other (Specify)</i>			

* Tenderer to specify postal address (as the case may be) for each constituent **Site**

Signed by:(signature)

Name:

For and on behalf of

Date:

PART B - NOMINATION OF FFR NOMINATED WINDOWS

From: NGET Control Centre, Wokingham

Fax: 0870 602 4808

To:

Fax:

Date:

Time:

Applicable Month:

MM/YYYY

		FFR Nominated Windows							
FFR Contracted Unit	Date:	(1) From:	(1) To:	(2) From:	(2) To:	(3) From:	(3) To:	(4) From:	(4) To:
FFR Contracted Unit	Date:	(1) From:	(1) To:	(2) From:	(2) To:	(3) From:	(3) To:	(4) From:	(4) To:

Signed by:(signature)

Name:

For and on behalf of NGET

From:

Fax:

To: NGET Control Centre, Wokingham

Fax: 0870 602 4808

Date:

Time:

We confirm receipt of your notification of FFR Nominated Windows as set out above.

Signed by:(signature)

Name:

For and on behalf of

PART C - NOTIFICATION OF UNAVAILABILITY/RESTORATION OF AVAILABILITY

From: **Fax:**

To: NGET Control Centre, Wokingham **Fax:** 0870 602 4808

Date: **Time:**

In accordance with sub-paragraph 3.2.4/3.4.7 or 4.2.4/4.2.6 (as applicable) of the Firm Frequency Response Tender Rules and Standard Contract Terms, we hereby notify unavailability / restoration (delete as appropriate) of an FFR Contracted Unit as follows:-

FFR Unit	Applicable FFR Nominated Windows		
	Service Day: dd/mm/yy	Service Day: dd/mm/yy	Service Day: dd/mm/yy
<i>ID</i>			
Status	From: To:	From: To:	From: To:
<i>Unavailable / Restored</i>	From: To:	From: To:	From: To:

Signed by:(signature)

Name: for and on behalf of

PART E - NOTIFICATION OF FFR CONFIRMED PART LOAD POINT

[To be sent via email to dedicated electronic mailbox : address to be confirmed]

FFR Contracted Unit

(BMU ID)

From:

Tel :

To:

**National Grid Control Centre,
Wokingham**

Email

Address :

Applicable FFR

Service Day

Day : _____

Date : _____ (dd/mm/yy)

**FFR Confirmed
Part Load Point**

**Applicable FFR
Nominated Window**

**Applicable FFR
Nominated Window End**

Start Time

Time

PN (MW)

* If there is more
nominated windows
required please add
rows for the
Confirmed Part Load
Point (flat MW
profile) applicable to
each nominated
window.

We hereby confirm that the above FFR Confirmed Part-Load Point(s) (flat MW profile) will apply across the FFR Nominated Windows in the applicable Service Day.

BACK-UP PROCESS (UNAVAILABILITY OF EMAIL)

(Please fill in details below if sent via fax)

Signed by:(signature)

Name : for and on behalf of
.....

Destination Fax

Number: (as specified in Firm Frequency Response)

Agreement)

FOR NGET USE ONLY

Received By:

Time Received :

PART F - SUBSTITUTION OF FFR CONTRACTED UNITS

From: **Fax:**

To: NGET Control Centre, Wokingham **Fax:** 0870 602 4808

Date: **Time:**

In accordance with paragraph 3.8 or 4.8 (as applicable) of the Firm Frequency Response Tender Rules and Standard Contract Terms, we hereby request substitution of an FFR Contracted Unit as follows:-

FFR Nominated Windows			
Retired FFR Unit	Service Day: dd/mm/yy	Service Day: dd/mm/yy	Service Day: dd/mm/yy
<i>ID</i>	From:	From:	From:
Substitute FFR Unit	To:	To:	To:
<i>ID</i>	From: To:	From: To:	From: To:

Signed by:(signature)

Name: for and on behalf of

.....

From: NGET Control Centre, Wokingham **Fax:** 0870 602 4808

To: **Fax:**

Date: **Time:**

In accordance with sub-paragraphs 3.8.3 or 4.8.3 (as applicable) of the **Firm Frequency Response** Tender Rules and Standard Contract Terms, we hereby [ACCEPT][REJECT] your request for substitution of the **FFR Contracted Unit** as set out in the above table.

Signed by:(signature)

Name: (for and on behalf of NGET)

PART G - INSTRUCTION TO CEASE PROVISION OF AUTOMATIC RESPONSE

From: NGET Control Centre, Wokingham

Fax: 0870 602 4808

To:

Fax:

Date:

Time:

In accordance with sub-paragraph 4.4.5(b) we hereby instruct the provider to cease provision of Automatic Response at the time shown in the table below:

FFR Contracted Unit	Cease Provision of Automatic Response At :
	<p align="center">Service Day: dd/mm/yy</p>
<p align="center"><i>ID</i></p>	<p align="center">Time :</p>

Signed by:(signature)

Name: for and on behalf of NGET

PART H - WORKS PROGRAMME

<u>MILESTONE ACTIVITY</u>	<u>LATEST TARGET DATE</u>
<u>1.</u>	
<u>2.</u>	
<u>3.</u>	
<u>4.</u>	
<u>5.</u>	
<u>6.</u>	
<u>7.</u>	
<u>8.</u>	
<u>9.</u>	
<u>10.</u>	
<u>11.</u>	
<u>12.</u>	
<u>13.</u>	
<u>14.</u>	
<u>15.</u>	
<u>16.</u>	
<u>17.</u>	
<u>18.</u>	
<u>19.</u>	
<u>20.</u>	

SECTION 8
FFR ASSESSMENTS AND TESTING

8.1 INTRODUCTION

This Section 8 sets out the provisions with respect to **FFR Pre-Qualification Assessments** and **FFR Testing** (referred to in this Section 8 as “**FFR Assessments and Testing**”). Paragraph 8.2 describes **FFR Pre-Qualification Assessments** which **NGET** may require to be carried out by the **Provider** in respect of an **FFR Unit** pursuant to sub-paragraph 2.2.4 to verify compliance by that **FFR Unit** with sub-paragraphs 2.2.2 and 2.2.3. Paragraph 8.3 describes the **FFR Testing** which the **Provider** may carry out in order to demonstrate to **NGET**’s reasonable satisfaction that an **FFR Contracted Unit** has the ability to provide **Firm Frequency Response** in accordance with this **Document**. Paragraph 8.4 contains general provisions which apply to both **FFR Pre-Qualification Assessments** and **FFR Testing**.

8.2 FFR PRE-QUALIFICATION ASSESSMENT

Dynamic Firm Frequency Response

8.2.1 The **FFR Pre-Qualification Assessment** with respect to dynamic **Firm Frequency Response** to be provided under Section 3 shall take the form of any one or more (as determined by **NGET** at its sole discretion) of the **Response** tests more particularly described in the **NGET** publication entitled “Grid Code Compliance Testing and Submission of the Connection Condition Compliance Report” as revised or reissued from time to time.

Non-dynamic Firm Frequency Response

8.2.2 The **FFR Pre-Qualification Assessment** with respect to non-dynamic **Firm Frequency Response** to be provided under Section 4 shall comprise a detailed test programme to be agreed between the **Parties** (not to be unreasonably withheld or delayed), and shall meet the following objectives:-

- to check that the steady state, calibration accuracy of the **Relay** is within tolerances; and
- to test whether the transient performance of the **Relay** is within tolerances; and if required, to adjust and re-check.

The test should demonstrate that results are unaffected by reasonable supply voltages variations; and consistent relay operation under various **Frequency** disturbance conditions.

By way of illustration, a detailed test programme may comprise the following procedures:-

(a) **Scope**

The scope is to calibrate the low **Frequency Relays** by injecting downstream of the instrument VTs.

(b) **Responsibilities**

The **Provider** is responsible for providing and setting up the appropriate frequency injection and recording equipment and conducting the test in accordance with the agreed test procedure.

NGET is responsible for witnessing the test if it so requires, and the test result obtained will be made available to **NGET** for analysis purposes.

(c) **Required Documentation/Information**

Relay specification.

Injection end Frequency Meter specification and calibration certificate.

Injection end Voltage Meter specification and calibration certificate.

Recording/monitoring equipment specification (if used).

(d) **Test Configuration**

If done with the low **Frequency Relay** installed on site the circuit breakers are to be isolated such that the operation of the primary trip relays do not cause the Site(s) to actually trip (except test 4).

If the low **Frequency Relay** calibration is carried out away from the site installation the relays should be installed before test 4 is carried out.

The input to the trip relays and any monitoring units are to be isolated from their respective VTs and wired together to the output of the injection equipment.

All tests are to be carried out at nominal input voltage unless stated otherwise. The low **Frequency Relay** should be configured with a frequency measurement time setting of 10 periods.

The test will be repeated for each low **Frequency Relay** at the **Premises**.

(e) **Procedures**

Company	
Site Name	
Location on Site	
Relay Serial No.	

(i) **Course Steady State Trip Relay Functioning**

Set the first protection stage of the low **Frequency Relay** to 49.65Hz and disarm the other three stages*. Adjust the injected frequency in steps of 0.5Hz from 47.00Hz to 52.00Hz first in ascending, then descending order. Record the actual source frequency (Fs) and the trip relay position. Repeat all tests for the remaining three stages.

Target Hz	Up								Down							
	TR 1		TR 2		TR 3		TR 4		TR 1		TR 2		TR 3		TR 4	
	Fs	T/N	Fs	T/N	Fs	T/N	Fs	T/N	Fs	T/N	Fs	T/N	Fs	T/N	Fs	T/N
47.0	47.0		47.0						47.0		47.0					
47.5	47.5		47.5						47.5		47.5					
48.0	48.0		48.0						48.0		48.0					
48.5	48.5		48.5						48.5		48.5					
49.0	49.0		49.0						49.0		49.0					
49.5	49.5		49.5						49.5		49.5					
50.0	50.0		50.0						50.0		50.0					
50.5	50.5		50.5						50.5		50.5					
51.0	51.0		51.0						51.0		51.0					
51.5	51.5		51.5						51.5		51.5					
52.0	52.0		52.0						52.0		52.0					

*If the low **Frequency Relay** is being used only two stages will need to be tested.

(ii) **Fine Steady State Trip Relay Functioning**

Adjust the injected frequency in steps of 0.05Hz to 50Hz in ascending, then descending order. Record the actual source frequency and the trip relay position.

Target Hz	Up								Down							
	TR 1		TR 2		TR 3		TR 4		TR 1		TR 2		TR 3		TR 4	
	Fs	T/N	Fs	T/N	Fs	T/N	Fs	T/N	Fs	T/N	Fs	T/N	Fs	T/N	Fs	T/N
49.50	49.50	T	49.50	T					49.50	T	49.50	T				
49.55	49.55	T	49.55	T					49.55	T	49.55	T				
49.60	49.60	T	49.60	T					49.60	T	49.60	T				
49.65	49.65	T	49.65	T					49.65	T	49.65	T				
49.70	49.70	N	49.70	N					49.70	N	49.70	N				
49.75	49.75	N	49.75	N					49.75	N	49.75	N				
49.80	49.80	N	49.80	N					49.80	N	49.80	N				
49.85	49.85	N	49.85	N					49.85	N	49.85	N				
49.90	49.90	N	49.90	N					49.90	N	49.90	N				
49.95	49.95	N	49.95	N					49.95	N	49.95	N				
50.00	50.00	N	50.00	N					50.00	N	50.00	N				

(iii) **Steady State Operation of Trip Relays**

(A) **At Nominal Voltage**

Slowly ramp down the injected frequency at nominal voltage from 49.75Hz to 49.60Hz within approximately one minute. Record the frequencies at which the relay changes state. Repeat the test five times to verify repeatability of the test.

Test Number	Frequency Operating Levels (Fs)			
	Trip Relay 1	Trip Relay 2	Trip Relay 3	Trip Relay 4
1				
2				
3				
4				
5				

4								
---	--	--	--	--	--	--	--	--

(v) **Trip Relay Transient Test**

For each test, start with the frequency at 50Hz and rapidly ramp it down within 5 to 15 seconds to the new target frequency without any undershoot in the injected frequency. Record the relay position after each test.

Test Number	Final State of Play			
	Trip Relay 1	Trip Relay 2	Trip Relay 3	Trip Relay 4
50 to 49.68				
50 to 49.67				
50 to 49.66				
50 to 49.65				
50 to 49.64				
50 to 49.63				

Monitoring and Metering

8.2.3 Monitoring and metering with respect to an **FFR Unit** shall be sufficient for the purposes of paragraph 3.14 or 4.14 (as the case may be), and shall monitor and meter the **FFR Unit** individually without reference to any other **Plant** and **Apparatus** not forming part of the **FFR Unit**.

8.3 FFR TESTING

8.3.1 **FFR Testing** shall be designed to demonstrate the capability of the **FFR Contracted Unit** to deliver dynamic or non-dynamic (as the case may be) **Response** in accordance with an **FFR Contract**. The detailed test programme shall be notified by the **Provider** to **NGET** and shall be subject to **NGET's** prior agreement in writing (not to be unreasonably withheld or delayed), but will entail the **FFR Contracted Unit** operating according to normal operating procedures. For the purpose of testing, signal inputs will be simulated to model actual **Frequency** changes as closely as possible.

8.3.2 It is intended that **FFR Testing** will be carried out on the date(s) and during the period(s) notified by the **Provider** to **NGET** but shall be subject to **NGET's** prior agreement in writing (not to be unreasonably withheld or delayed).

8.3.3 The requirements with respect to monitoring equipment facilities and data for the purpose of **FFR Testing** are to be agreed between **NGET** and the **Provider** in writing prior to the

commencement of any **FFR Testing**, such agreement not to be unreasonably withheld or delayed.

8.3.4 Communications between the **Provider** and **NGET** in the course of the conduct of **FFR Testing** shall comply with paragraph 3.13 or 4.13 (as applicable).

8.4 GENERAL

8.4.1 **NGET** shall appoint suitably qualified representatives to witness **FFR Assessments and Testing**, and the **Provider** shall afford **NGET's** representatives with access to all information and data relevant to the **FFR Assessments and Testing** together with such access to the relevant **FFR Contracted Unit(s)** as is reasonably required by them to witness the **FFR Assessments and Testing**.

8.4.2 **NGET** shall use all reasonable endeavours to ensure that, whilst they are at the **Provider's** premises for such purpose, its representatives shall comply with all rules and procedures in relation to health, safety and working standard at such premises (insofar as the same have been made known by the **Provider** to **NGET** and to such representatives in advance) and to use all reasonable endeavours to ensure that such persons are provided with all protection and safety clothing, tools and equipment reasonably necessary for their protection.

8.4.3 The **Provider** shall be responsible for ensuring that all **FFR Assessments and Testing** is carried out without hazard to any person or to the **FFR Contracted Unit(s)** or to any other equipment at the **Provider's** premises, and accordingly the **Provider** shall be responsible for its own loss whether direct (such as damage to the **FFR Contracted Unit**) or indirect (such as loss of revenue or increased cost of working) as well as any liability to any third party for death, personal injury or loss or damage to property where such loss or liability arises in connection with the **FFR Assessments and Testing** and the **Provider** shall indemnify **NGET** in respect of any such loss or liability.

8.4.4 The **Provider** may change or stop any **FFR Assessments and Testing** if at any time its appointed site representative reasonably believes that there is a significant possibility of damage to plant or injury to persons resulting from that **FFR Assessments and Testing**.

8.4.5 Information acquired by **NGET** in connection with the **FFR Assessments and Testing** may only be used by **NGET's** personnel to the extent that use of such information is required to enable such persons to carry out their properly authorised duties. Such information shall not be disclosed by **NGET** to any third party save in the course of any judicial or arbitral process or where it is required, or expressly permitted, to disclose such data pursuant to the terms of its **Licence**, the **Balancing and Settlement Code**, the **Grid Code** or any other

legal requirement. Subject thereto **NGET** shall procure that its relevant personnel are contractually bound not to disclose such information to any third party save as permitted above or to employees of **NGET** whose province it is to know the same.