

AGGREGATION VERSION

DATED _____ **201[]**

NATIONAL GRID ELECTRICITY TRANSMISSION PLC (1)

AND

[] (2)

**FIRM FREQUENCY RESPONSE AGREEMENT
(NON-BALANCING MECHANISM PARTICIPANT (DYNAMIC))
RELATING TO SITE(S) AT []**

[TENDER RULES AND STANDARD CONTRACT TERMS SECTION 4A]

CONTRACT LOG NO: []

SUBJECT TO CONTRACT

DRAFT []

[DATE]

REF: []

THIS **FIRM FREQUENCY RESPONSE AGREEMENT** is made on the [] day of [] 201[]

BETWEEN

- (1) **NATIONAL GRID ELECTRICITY TRANSMISSION PLC** a company registered in England with number 2366977 whose registered office is at 1-3 Strand, London, WC2N 5EH (“**NGET**”, which expression shall include its successors and/or permitted assigns); and
- (2) [] a company registered in [] with number [] whose registered office is at [] (“**Provider**”, which expression shall include its successors and/or permitted assigns).

WHEREAS

- (A) This **Firm Frequency Response Agreement** is entered into in respect of one or more **FFR Units** each comprising one or more **Sites** in anticipation of the submission by the **Provider** of **FFR Tenders** in respect of such **FFR Units** in accordance with the **Tender Rules and Standard Contract Terms**.
- (B) Accordingly, the applicable provisions of this **Firm Frequency Response Agreement** shall apply with respect to each **FFR Tender** submitted by the **Provider**, and with respect to each relevant **FFR Unit** shall form part of each and any **FFR Contract** formed in relation thereto.
- (C) None of the **FFR Units** are established and registered as a **BM Unit** or a collection or **BM Units** in accordance with the **Balancing and Settlement Code** in respect of which the **Provider** is the **Lead Party**.

NOW IT IS HEREBY AGREED as follows:

1. DEFINITIONS, INTERPRETATION AND CONSTRUCTION

Unless the subject matter or context otherwise requires or is inconsistent therewith, and unless defined herein, terms and expressions defined and rules of construction set out in Section 6 of the **Tender Rules and Standard Contract Terms** have the same meanings, interpretations or constructions in this **Firm Frequency Response Agreement**. Unless the subject matter or context otherwise requires or is inconsistent therewith, in this **Firm Frequency Response Agreement** the terms set out in Appendix 1 shall have the meanings set out respectively therein.

2. TENDER RULES AND STANDARD CONTRACT TERMS

2.1 Subject to Sub-Clause 2.2, the **Parties** hereby agree to be bound by, and to comply with, the applicable provisions of the **Tender Rules and Standard Contract Terms** with respect to the submission of **FFR Tenders** and any **FFR Contract** formed pursuant thereto, in each case insofar as relating to the provision of Dynamic **Firm Frequency Response** as described in Section 4A of the **Tender Rules and Standard Contract Terms** (and for the purpose of this **Firm Frequency Response Agreement** “**FFR Contract**” shall be construed accordingly).

2.2 The **Tender Rules and Standard Contract Terms** shall be read and construed subject to the special conditions (if any) set out in Appendix 2.

2.3 The **Provider** agrees that the relevant provisions as to determination of the payments to be made between **NGET** and the **Provider** in consequence of events of default set out in Section 4A of the **Tender Rules and Standard Contract Terms** reflect the legitimate interest of **NGET** as **Great Britain System Operator** in ensuring compliance by the **Provider** with the **Tender Rules and Standard Contract Terms**, and furthermore are reasonable in light of **NGET**'s roles and responsibilities in such capacity and the anticipated harm and the difficulty of estimating or calculating actual damages. The **Provider** accordingly waives the right to contest those provisions as an unreasonable penalty or otherwise.

3. **COMMENCEMENT AND TERM**

3.1 This **Firm Frequency Response Agreement** shall come into force on the date hereof and shall continue in force and effect until terminated by either **Party** by not less than two months notice in writing to the other (but not so as to expire during the subsistence of any **FFR Contract** in respect of any **FFR Unit**) or until earlier termination in accordance with the **Tender Rules and Standard Contract Terms**.

3.2 In accordance with the **Tender Rules and Standard Contract Terms**, this **Firm Frequency Response Agreement** may terminate in respect of one or more of the **FFR Units**, and such termination shall be without prejudice to the continuing effect of the **Firm Frequency Response Agreement** in relation to any other **FFR Units**.

4. **PROVISION OF FIRM FREQUENCY RESPONSE**

Without limiting the generality of Sub-Clause 2.1, upon the formation of each **FFR Contract** pursuant to and in accordance with the **Tender Rules and Standard Contract Terms**, the **Provider** hereby agrees to provide **Firm Frequency Response** to **NGET** from the relevant **FFR Unit(s)** upon and subject to the provisions of this Clause 4, Section 4A and the other applicable terms and conditions set out in the **Tender Rules and Standard Contract Terms** and by reference to Clause 5.

5. **DATA TABLES**

5.1 For the purposes of each and every **FFR Tender** in respect of any **FFR Unit**, the **Parties** hereby agree that for any **FFR Confirmed Part Load Point** the **Frequency Response** to be provided from that **FFR Unit**, and (where applicable) the payments to be made by **National Grid** in respect thereof, shall be ascertained by reference to the applicable **FFR Capability Data Tables** and **FFR Power Delivery Data Tables** set out and described as such in Appendix 4.

5.2 For the purposes of Sub-Clause 5.1, the **Parties** hereby agree that:-

- (a) the figures set out in such **FFR Capability Data Tables** represent, for each applicable aggregated **Genset De-Load**, the amount of **Rapid Response**, **Primary Response**, **Secondary Response** and **High Frequency Response** referred to therein;
- (b) such **FFR Capability Data Tables** include a summary response table whose figures represent, for each applicable aggregated **Genset De-Load**, the capabilities in respect of **Rapid Response**, **Primary Response**, **Secondary Response** and **High Frequency Response** at given levels of aggregated **De-Load** referred to therein; and

- (c) the figures set out in such **FFR Power Delivery Data Tables** represent, for each aggregated **Genset De-Load**, the **Frequency Response** that is deemed to be delivered in respect of **Rapid Response, Primary Response, Secondary Response** and **High Frequency Response**.

6. **AGGREGATION AND SUBSTITUTION OF FFR UNITS**

For the purposes of the **Tender Rules and Standard Contract Terms** and the provisions of this **FFR Agreement**, the **Parties** hereby agree that:

- (a) the term “**Aggregated Facility**” shall mean any of the notional facilities specified in Part 2 of Appendix 3 to which one or more **FFR Units** may from time to time be allocated or re-allocated by the **Provider** in accordance with the provisions of Appendix 7 for the purposes of enabling **Firm Frequency Response** to be made available and despatched from such **FFR Units** on an aggregated basis via such **Aggregated Facility** and which together shall (if the subject of a **FFR Contract**) comprise the **Contracted FFR Unit** for the purpose of the **Tender Rules and Standard Contract Terms**;
- (b) the **Provider** may from time to time nominate a new **FFR Unit** (“**New FFR Unit**”) for the purposes of allocation to an **Aggregated Facility** following **NGET’s** acceptance of such **New FFR Unit** pursuant to and in accordance with the provisions set out in Appendix 7; and
- (c) the **FFR Units** (if any) shown in Appendix 5 shall be suitable for nomination by the **Provider** as **Substitute FFR Units** under and in accordance with the provisions of the **Tender Rules and Standard Contract Terms**, although such inclusion in Appendix 5 shall not prejudice the discretion of **NGET** to accept or decline any nomination made by the **Provider**.

7. **PROVIDER’S AGENT**

In accordance with paragraph 5.16 of the **Tender Rules and Standard Contract Terms**, and unless and until otherwise notified by the **Provider** pursuant thereto, the details (if any) set out in Appendix 6 designate an **FFR Provider’s Agent** for the purposes of all **FFR Contracts**, and where so designated the provisions of Appendix 6 shall apply.

8. **VARIATIONS**

No variation to this **Firm Frequency Response Agreement** shall be effective unless made in writing and signed by or on behalf of both **NGET** and the **Provider**.

9. **NOTICES**

For the purposes of this **Firm Frequency Response Agreement**, unless and until otherwise notified by the relevant **Party** to the other in accordance with paragraph 5.8 of the **Tender Rules and Standard Contract Terms**, any notice or other communication to be given in writing by **NGET** or the **Provider** to the other under, or in connection with matters contemplated by, this **Firm Frequency Response Agreement** shall be sent to the following address and/or facsimile number and marked for the attention of the person named below:

NGET:

Contract Services

National Grid Electricity Transmission plc

National Grid House

Warwick Technology Park

Gallows Hill

Warwick CV34 6DA

Facsimile number:

For the attention of: The Company Secretary

Copy to: The Contract Services Manager

Facsimile number:

Provider:

Address: [

Facsimile number:

For the attention of:]

10.

COUNTERPARTS

This **Firm Frequency Response Agreement** may be signed in any number of counterparts and by the **Parties** on separate counterparts, each of which when signed shall constitute an original but all the counterparts shall together constitute but one and the same instrument. For the purposes of this Clause 10, the delivery of a facsimile copy of a signed counterpart of this **Firm Frequency Response Agreement** shall be deemed to be a valid signature thereof provided that the **Party** so delivering a facsimile hereby undertakes to deliver an original copy of this **Firm Frequency Response Agreement** forthwith following such facsimile transmission.

IN WITNESS WHEREOF the hands of the duly authorised representatives of the parties hereto at the date first above written

SIGNED on behalf of)

NATIONAL GRID)

ELECTRICITY TRANSMISSION plc)

SIGNED on behalf of)

[])

DRAFT

APPENDIX 1 – FURTHER DEFINITIONS

“ Aggregated Facility ”	has the meaning given in Clause 6(a);
“ Allocated ”	means, in relation to an FFR Unit , allocated at the relevant time to an Aggregated Facility in accordance with the provisions of Appendix 7 and “ Unallocated ” shall be construed accordingly;
“ Allocation Notification ”	has the meaning given in Paragraph 2.2 of Appendix 7;
“ Commencement Date ”	the date being the Service Day from which this Firm Frequency Response Agreement shall apply as specified in Clause 3;
“ Tender Rules and Standard Contract Terms ”	the document entitled “Firm Frequency Response Tender Rules and Standard Contract Terms” published by NGET and as revised from time to time in accordance with its terms; and
“ New FFR Unit ”	has the meaning given in Clause 6(b).

APPENDIX 2 – SPECIAL CONDITIONS

PART 1 – VARIATION TO TENDER RULES AND STANDARD CONTRACT TERMS

The **Parties** acknowledge and agree that it is necessary to modify, disapply and/or supplement the provisions of Section 4A of the **Tender Rules and Standard Contract Terms** to accommodate unit specific or **Site** specific technical requirements of the **FFR Units**.

The **Parties** acknowledge and agree that, as between **The Company** and the **Provider** and for the purposes of this **Firm Frequency Response Agreement**, the **Tender Rules and Standard Contract Terms** shall be and are hereby modified, disappplied and supplemented as follows:

Paragraph 4A.1 INTRODUCTION

1. Sub-paragraphs 4A.1.1 and 4A.1.2 shall be modified to read as follows:

“4A.1.1 This Section 4A sets out the terms for provision of **Firm Frequency Response** where the **FFR Provider** provides **Firm Frequency Response** from **Dynamic Demand** and/or from **Generating Units** and/or other **Plant and Apparatus** as a **Non-Balancing Mechanism Participant**.

4A.1.2 The provisions of this Section 4A shall apply with respect to an **FFR Provider** who has submitted an **FFR Tender** which has been accepted in respect of such **Dynamic Demand** and/or **Generating Units** and/or other **Plant and Apparatus** by **National Grid** pursuant to sub-paragraph 2.5.1 so as to form an **FFR Contract** or where the context otherwise requires.”.

Paragraph 4A.4 PROVISION OF FIRM FREQUENCY RESPONSE

2. Paragraph 4A.4 shall be modified and supplemented by the addition of the words “and/or **Generating Units** and/or other **Plant and Apparatus**” after the words “**Dynamic Demand**” in line 3 of sub-paragraph 4A.4.5.

Paragraph 4A.14 MONITORING AND TESTING

3. Sub-paragraphs 4A.14.1 and 4A.14.2 shall be modified to read as follows:

“4A.14.1 The availability of **Firm Frequency Response** and the amount of **Response** delivered shall be monitored by **National Grid** from time to time.

4A.14.2 Without prejudice to the generality of sub-paragraph 4A.14.1, and in accordance with the methodology set out below, **National Grid** reserves the right to assess the delivery of **Response** by a **Contracted FFR Unit** in respect of any period during which **National Grid** instructs (or is deemed to have instructed) the **FFR Provider** to operate the **Contracted FFR Unit** in **Firm Frequency Sensitive Mode** pursuant to sub-paragraph 4A.4.2 (“the **Sample Period**”) in accordance with this sub-paragraph 4A.14.

(a) the volume of **Response** actually delivered from the **Contracted FFR Unit** during the **Sample Period** shall be ascertained by reference to an operating profile derived from second by second output data derived (inter alia) from **Agreed Operational Metering Equipment**, and that assumed operating profile shall be used to determine assumed second by second spot values of **Response** delivered and for the avoidance of doubt the **Response** considered to have been delivered is capped by the **Response** required at any second;

(b) the volume of **Response** required to be delivered during the **Sample 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) **National Grid** shall derive a percentage performance measure (PPM), where:-

$$\text{PPM} = \text{A/B} * 100$$

and where:-

A is the aggregate of each second by second spot value of **Response** assumed to be delivered over the **Sample Period** as determined pursuant to sub-paragraph 4A.14.2(a), and

B is the aggregate of each second by second spot value of **Response** required to be delivered over the **Sample Period** as determined pursuant to sub-paragraph 4A.14.2(b);”

Section 4A GENERAL

- 4.1 For the purposes of Section 4A generally, the definitions of “**Response**”, “**Primary Response**” and “**Secondary Response**” provided in Section 6 of the **Tender Rules and Standard Contract Terms** shall be modified and supplemented by including output from **Generating Units** and/or other **Plant and Apparatus**.
- 4.2 All references to a “**Frequency Sensitive Load Device**” shall be modified and construed as references to a **Contracted FFR Unit**.

Part 2 – MANDATORY WORKS PROVISIONS

Target Completion Date

1. The **Provider** shall use its reasonable endeavours to procure that each of the **FFR Unit(s)** satisfies the **Mandatory Works Provisions** by the conduct of a successful **End-to-End Test** in accordance with paragraph 13 by no later than the applicable **Target Completion Date** (or any applicable **Revised Target Completion Date**).
2. The **Parties** agree that the **Mandatory Works Provisions** represent an indicative schedule of progress of the **Works** and indicative date(s) upon which an **End-to-End Test(s)** (referred to as 'National Grid testing' in **Part 3** of Appendix 2) shall be carried out for the purposes of ascertaining whether the **Mandatory Works Provisions** have been satisfied in respect of each of the **FFR Unit(s)**.
3. The **Provider** 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 the **Provider** 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 each of the **FFR Unit(s)**, to enable **NGET** to ascertain how the **Works** are progressing.

Delays

4. If at any time after acceptance by **NGET** of the relevant **FFR Tender** for dynamic **Firm Frequency Response** either **Party** has reason to believe that the **Mandatory Works Provisions** in respect of a relevant **FFR Unit(s)** will not be satisfied in accordance with paragraph 13 by the applicable **Target Completion Date** (or, where applicable, by any **Revised Target Completion Date** agreed by the **Parties** or determined as reasonable by **Expert Determination**), then that **Party** shall promptly so notify the other in writing giving reasons for its belief to a reasonable level of detail.
5. Where either **Party** has served notice on the other pursuant to paragraph 4, the **Provider** shall as soon as reasonably practicable after such notice but in any event

(where such notice is served no later than 40 **Business Days** prior to the **Target Completion Date**) no later than 30 **Business Days** prior to the **Target Completion Date**, prepare at its own cost and submit to **NGET** a plan (a "**Cure Plan**", the form of which shall be approved by **NGET** prior to submission) the steps it proposes to take to either:

- 5.1 remedy any delay(s) in any aspect of the **Mandatory Works Provisions**; or, where this is not reasonably practicable;
- 5.2 procure that the **Mandatory Works Provisions** are satisfied in accordance with paragraph 13 as soon as reasonably practicable after the applicable **Target Completion Date**

and in the case of paragraph 5.2 the **Provider** shall specify in the **Cure Plan** a reasonable extension to such **Target Completion Date** (or, as the case may be, to any existing **Revised Target Completion Date** agreed by the **Parties** or determined as reasonable by **Expert Determination** pursuant to paragraph 7.3) ("**the Revised Target Completion Date**").

6. No later than 20 **Business Days** following receipt of a **Cure Plan** from the **Provider**, **NGET** shall notify the **Provider** in writing either:

- 6.1 of its rejection of the **Cure Plan** on grounds that it does not believe the **Cure Plan** is reasonable in all circumstances, and shall give reasons for its belief to a reasonable level of detail, whereupon paragraph 7 shall apply; or

- 6.2 of its acceptance of the **Cure Plan** whereupon, where pursuant thereto the **Mandatory Works Provisions** are to be satisfied after the **Target Completion Date**, paragraph 8 shall apply.

If **NGET** shall fail to make any such notification by such dates then it shall be deemed to have accepted the **Cure Plan**, and where pursuant thereto the **Mandatory Works Provisions** are to be satisfied after the **Target Completion Date**, paragraph 8 shall apply.

7. If **NGET** rejects the **Cure Plan** in accordance with paragraph 6.1, then:-

- 7.1 no later than 5 **Business Days** after receipt of such notice of rejection the **Provider** may dispute the same and notify **NGET** in writing of its intention to refer the matter to **Expert Determination**;
- 7.2 the **Parties** shall thereupon endeavour to resolve their disagreement but the **Provider** may refer the matter to **Expert Determination** at any time before expiry of the period of 15 **Business Days** after the **Provider's** notice pursuant to this paragraph 7 whereupon, where the **Mandatory Works Provisions** are to be satisfied after the **Target Completion Date** pursuant to the **Cure Plan**, paragraph 8 shall apply; and
- 7.3 for the purposes of this paragraph 7, the **Expert** shall be requested to consider the reasonableness of the **Provider's Cure Plan** (including any **Revised Target Completion Date** stated therein) having regard to (inter alia):-
- 7.3.1 **NGET's** stated objections thereto;
- 7.3.2 the **Provider's** obligation pursuant to paragraph 5 to procure that the **Mandatory Works Provisions** are satisfied as soon as reasonably practicable;
- 7.3.3 the circumstances giving rise to the anticipated delay in the **Works**; and
- 7.3.4 the steps and time reasonably necessary for the **Provider** to procure satisfaction of the **Mandatory Works Provisions**,

and where the **Expert** considers such proposed **Revised Target Completion Date** to be unreasonable in any respect then he shall be requested to specify an alternative **Cure Plan** (including where applicable an alternative **Revised Target Completion Date**) that he considers to be reasonable in all the circumstances.

8. Where this paragraph 8 applies, with effect from the applicable **Target Completion Date** and until the first to occur of:

8.1 the date on which the **Mandatory Works Provisions** with respect to the relevant **FFR Unit(s)** are satisfied in accordance with paragraph 13;

8.2 the date on which **NGET** serves notice on the **Provider** pursuant to paragraph 10;

8.3 the **Revised Target Completion Date** agreed by the **Parties** or determined as reasonable by **Expert Determination**;

8.4 the date being either:-

8.4.1 unless paragraph 8.4.2 applies, six (6) months after the applicable **Target Completion Date**; or

8.4.2 where delay is due to an event or circumstance of **Force Majeure**, twelve (12) months after such **Target Completion Date**;

or, in each case, if later, the **Revised Target Completion Date** agreed by the **Parties** or determined as reasonable by **Expert Determination** pursuant to paragraph 7.3, the **Parties'** respective rights and obligations under the **FFR Contract** (including as to payment) shall be suspended as more particularly provided in paragraph 9 provided always that paragraph 8.4 shall not apply where any delays in the **Works** is wholly or mainly caused by a **National Grid Default**.

9. In respect of the period of suspension of a **FFR Contract** pursuant to paragraph 8 and with respect to the **FFR Contract** in question, dynamic **Firm Frequency Response** shall be deemed unavailable from the relevant **FFR Unit(s)**, and no **Availability Fees** shall accrue due to the **Provider**; and

10. If at any time during the suspension of a **FFR Contract** pursuant to paragraph 8, **NGET** is of the reasonable option that the **Provider** is failing to diligently carry out

the relevant **Cure Plan** and is consequently not going to be able to fully implement such **Cure Plan** in all material respects within the timetable set out in such **Cure Plan** and/or satisfy the **Mandatory Works Provisions** with respect to the relevant **FFR Unit(s)** in accordance with paragraph 13 by the **Revised Target Completion Date** (agreed by the **Parties** or determined as reasonable by **Expert Determination**), then it may so notify the **Provider** in writing giving reasons for its view together with any supporting evidence whereupon such **FFR Contract** shall cease to be suspended as provided for in paragraph 8.

11. if either:-

11.1 the **Provider** fails to prepare and submit to **NGET** a **Cure Plan** by the date specified in paragraph 5; or

11.2 **NGET** rejects the **Provider's Cure Plan** pursuant to paragraph 6.1 and the **Provider** fails to refer the dispute to **Expert Determination** by the date specified in paragraph 7; or

11.3 a **FFR Contract** ceases to be suspended otherwise than by reason of satisfaction of the **Mandatory Works Provisions** in accordance with paragraph 13;

then, with effect from such applicable date (being either the date specified in paragraphs 5 or 7 or the date on which the relevant **FFR Contract** ceases to be suspended) and for so long as the **Mandatory Works Provisions** remain to be satisfied in accordance with paragraph 13, **NGET** may terminate the relevant **FFR Contract** forthwith by notice in writing to the **Provider**.

12. Where paragraph 11 applies and until the earlier of:-

12.1 termination of a **FFR Contract** pursuant thereto; and

12.2 satisfaction of the **Mandatory Works Provisions** with respect to the relevant **FFR Unit(s)** in accordance with paragraph 13,

dynamic **Firm Frequency Response** shall be deemed to be unavailable from the relevant **FFR Unit(s)** for the purposes of the **Tender Rules and Standard Contract Terms**, and **NGET's** rights and remedies with respect thereto shall be preserved.

Completion of Works

13. When the **Works** with respect to a **FFR Unit(s)** are completed, the **Provider** shall so notify **NGET** in writing whereupon the **Provider** shall demonstrate to **NGET's** reasonable satisfaction that the **Mandatory Works Provisions** with respect to the relevant **FFR Unit(s)** have been satisfied, by means of the performance of an **End-to-End Test**. The **Provider** shall also (on request) provide to **NGET** any such additional evidence as **NGET** may reasonably require for the purposes of verifying that such **Mandatory Works Provisions** have been so satisfied.
14. Both **Parties** agree that the intention is to carry out an **End-to-End Test(s)** on those dates specified in **Part 3** of Appendix 2 in relation to the relevant **FFR Unit(s)**, but in any event no later than the **Target Completion Date** (or, where applicable, any **Revised Target Completion Date** agreed by the **Parties** or determined as reasonable by **Expert Determination**). Each **Party** reserves the right by notice in writing to the other **Party** to cancel any **End-to-End Test** on such date(s), in which case the **Parties** shall agree an alternative time and date when the **End-to-End Test** shall be carried out which shall be as soon as possible thereafter, and the **Party** cancelling the original **End-to-End Test** shall reimburse to the other **Party** that other **Party's** reasonable costs (if any) incurred in preparing for the **End-to-End Test** on that date.
15. As soon as possible after the date on which the **End-to-End Test** has been completed, **NGET** shall notify the **Provider** whether it reasonably considers that the relevant **FFR Unit** has or has not satisfied the **Mandatory Works Provisions**. Subject to the provisions of paragraph 16, in the event that **NGET** notifies the **Provider** that in **NGET's** reasonable opinion (and giving reasons for that opinion) the **Mandatory Works Provisions** have not been satisfied in respect of such **FFR Unit**, the **Provider** shall as soon as possible respond to **NGET**. The **Provider** shall address the reason for the non-compliance and shall subsequently notify **NGET** when the non-compliance has been addressed, whereupon the provisions of paragraphs 13 and 14 shall apply.
16. Save as otherwise provided in paragraph 14, each **Party** shall bear its own costs in relation to the first **End-to-End Test** in relation to any **FFR Contract**. In relation to the second and each subsequent **End-to-End Test** in relation to that **FFR Contract**

the **Provider** shall be responsible not only for its own costs but also shall reimburse **NGET** all **NGET's** reasonable costs reasonably incurred as a direct result of the second and each subsequent **End-to-End Test** (not to exceed in relation to all tests the sum of £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 **End-to-End Test** (save to the extent that such loss or damage is caused by that other **Party's** breach of its obligations under this **Firm Frequency Response Agreement** or the **Tender Rules and Standard Contract Terms**, and in such case subject always to paragraph 5.3 of the **Tender Rules and Standard Contract Terms**).

17. Where the **Provider** fails to pass a second successive **End-to-End Test** or any subsequent **End-to-End Test** in relation to any **FFR Contract** then unless **NGET** otherwise elects to waive such requirement by notice in writing to the **Provider**, **NGET** may terminate the **FFR Contract** by notice in writing to the **Provider**.
18. For the avoidance of doubt:-
 - 18.1 any period of suspension of a **FFR Contract** pursuant to this Appendix 2 Part 2 shall not have the effect of extending the **FFR Contracted Service Term** with respect to the **FFR Contract**; and
 - 18.2 sub-paragraph 5.12 of the **Tender Rules and Standard Contract Terms** shall not apply with respect to any event or circumstances of **Force Majeure** which delays or prevents the progress of the **Works**.

Replacement of FFR Unit(s)

19. The **Provider** may request, by notice in writing to **NGET**, that any **FFR Unit(s)** be replaced for the remainder of the **FFR Contract** by another unit(s) (the "**Replacement FFR Unit(s)**") owned or operated by the **Provider**. **NGET** may (acting reasonably) either accede to or decline such request, and in reaching its decision shall have regard to the proximity and similarity of the **Replacement FFR Unit(s)** to the relevant **FFR Unit(s)**. If **NGET** accepts such request, the replacement of the relevant **FFR Unit(s)** by the relevant **Replacement FFR Unit(s)** shall not become effective until such time as the **FFR Contract** is duly amended by agreement in writing signed by or on behalf of **NGET** and the **Provider** to reflect such replacement.

20. Subject always to the provision of paragraph 19, the effect of replacement in accordance with the provision thereof shall be to treat the **Replacement FFR Unit(s)** as the **FFR Unit(s)** for all purposes of Section 4 of the **Tender Rules and Standard Contract Terms** and this **FFR Contract**, and for the duration of such replacement Section 4 of the **Tender Rules and Standard Contract Terms** and this **FFR Agreement** shall be read and construed accordingly.

21. In this Appendix 2 Part 2, the following terms shall have the meanings set opposite each:

“Cure Plan”

shall mean the plan defined as such in paragraph 5 or any alternative plan specified by **Expert Determination** in the circumstances described in paragraph 7;

“End-to-End Test”

means the test(s) specified by **National Grid** for the purposes of ascertaining whether the **Mandatory Works Provisions** have been satisfied in respect of the relevant **FFR Unit(s)**;

“Mandatory Works Provisions”

means, in respect of the relevant **FFR Unit(s)**, the provision and programme for completion of the Works to ensure that:

(i) the relevant **FFR Unit(s)** is capable of providing dynamic **Firm Frequency Response** in accordance with the **FFR Contract**; and

(ii) the necessary communications and metering is installed and commissioned to provide metering data in accordance with paragraph 4.14 of the **Tender Rules and Standard Contract Terms** in the case of the relevant **FFR Unit(s)**;

“National Grid Default”

means a breach by **NGET** of any of any of its obligations to the **Provider** under any contract (including pursuant to this **FFR Contract** and the **Tender Rules and Standard Contract Terms**) or any negligent act or omission by **NGET**;

“Replacement FFR Unit(s)”

shall have the meaning ascribed to it in paragraph 19;

“Revised Target Completion Date”

means has the meaning given to that term in paragraph 5;

“Target Completion Date”

means with respect to any **FFR Unit(s)**, the date specified as being ‘Available for FFR Service’ in **Part 3** of Appendix 2;

“Works”

means all those works relating to the relevant **FFR Unit(s)** more particularly set out in Schedule 6.

Part 3 – MANDATORY WORKS PROVISIONS TABLE

FFR Unit: []

Work Action	Date
Outline planning	
Connection agreed	
Gensets ordered	
Full planning	
Switchgear ordered	
Batteries ordered	
Site works commence	
Commissioned and testing	
National Grid testing	
Available for FFR service	

APPENDIX 3 – FFR UNITS AND AGGREGATED FACILITY

Part 1 – FFR Units

<u>FFR Unit</u>	<u>Site</u>	<u>Address</u>	<u>MW</u>

Part 2 – Aggregated Facility

	Aggregated Facility ID	Allocated FFR Units
	[]	
<u>Aggregated Facility</u>		

APPENDIX 4 – DATA TABLES

SECTION A

FFR POWER CAPABILITY DATA TABLES

Station:

Site(s):

Table 1		Low Frequency Response - Mode D						
Aggregated De-Load (MW)	δf_p (Hz)	Rapid Response (MW)	Primary Response (MW)	Secondary Response (MW)				
				$\delta f_s = -0.1\text{Hz}$	$\delta f_s = -0.2\text{Hz}$	$\delta f_s = -0.3\text{Hz}$	$\delta f_s = -0.4\text{Hz}$	$\delta f_s = -0.5\text{Hz}$
	-0.1							
	-0.2							
	-0.3							
	-0.4							
	-0.5							
	-0.6							
	-0.7							
	-0.8							
	-0.1							
	-0.2							
	-0.3							
	-0.4							
	-0.5							
	-0.6							
	-0.7							
	-0.8							
	-0.1							
	-0.2							
	-0.3							
	-0.4							
	-0.5							
	-0.6							
	-0.7							
	-0.8							
	-0.1							
	-0.2							
	-0.3							
	-0.4							
	-0.5							
	-0.6							
	-0.7							
	-0.8							
	-0.1							
	-0.2							
	-0.3							
	-0.4							
	-0.5							
	-0.6							
	-0.7							
	-0.8							
	-0.1							
	-0.2							
	-0.3							
	-0.4							

-0.5							
-0.6							
-0.7							
-0.8							

Station:

Site(s):

Table 2		High Frequency Response (MW) – Mode D					
Aggregated De-Load (MW)	δf_p (Hz)	Rapid Response (MW)	Frequency Deviation from Target Frequency				
			$\delta f_h = +0.1$ Hz	$\delta f_h = +0.2$ Hz	$\delta f_h = +0.3$ Hz	$\delta f_h = +0.4$ Hz	$\delta f_h = +0.5$ Hz
	+0.1						
	+0.2						
	+0.3						
	+0.4						
	+0.5						

[In relation to the levels of Response capability pursuant to Section 3 of the **Tender Rules and Standard Contract Terms** and Table 2 above it is agreed that for low operating outputs, the **High Frequency Response** capability will be limited such that the general level will under normal operating conditions not be caused to drop below [] MW.]

[For the purpose of sub-paragraph 3.6.1(a) of the **Tender Rules and Standard Contract Terms** the level of **Response** capability for a **Frequency Deviation** of 0.0 Hz shall be 0.0 MW.]

SECTION B

FFR POWER DELIVERY DATA TABLES

Station:

Site(s):

Rapid Response Power Delivery - Mode D						
Frequency	aggregated Genset De-Load (MW)					
Deviation (Hz)						
-0.1						
-0.2						
-0.3						
-0.4						
-0.5						

Primary Response Power Delivery - Mode D						
Frequency	aggregated Genset De-Load (MW)					
Deviation (Hz)						
-0.1						
-0.2						
-0.3						
-0.4						
-0.5						

Primary & Secondary Response Power Delivery - Mode D						
Frequency	aggregated Genset De-Load (MW)					
Deviation (Hz)						
-0.1						
-0.2						
-0.3						
-0.4						
-0.5						

High Frequency Response Power Delivery - Mode D						
Frequency	Aggregated De-Load (MW)					
Deviation (Hz)						
+0.1						
+0.2						
+0.3						
+0.4						
+0.5						

The figures for aggregated **Genset De-Load** in the tables shall be taken from the figures for aggregated **Genset De-Load** shown in Table 1 of this Section A.

APPENDIX 5 - SUBSTITUTE FFR UNITS

FFR UNIT	SUITABLE SUBSTITUTE FFR UNIT

DRAFT

APPENDIX 6 – PROVIDER’S AGENT

[NOT USED]

[FFR Provider’s Agent

Name:

Address:

Contact Details:

*In connection with each and every **FFR Contract**, the **Provider’s Agent** is hereby authorised by the **Provider** to:*

- i. make and receive on behalf of the **Provider** all notifications with respect to window nominations and revisions, pursuant to paragraphs 4A.2 and 4A.3;*
- ii. specify on behalf of the **Provider** the **FFR Confirmed Part Load Point** pursuant to paragraph 4A.4;*
- iii. notify **NGET** on behalf of the **Provider** of any inability (and resumption of ability) to provide **Firm Frequency Response** pursuant to paragraph 4A.4;*
- iv. receive on behalf of the **Provider** the following payments pursuant to paragraph 4A.5:*
 - the **Availability Payment**;*
 - the **Window Initiation Payment**;*
 - the **Nomination Payment**;*
 - the **Window Revision Payment**; and*
 - the **Response Energy Payment**.*
- v. make on behalf of the **Provider** all notifications with respect to substitution of **Contracted FFR Units** pursuant to paragraph 4A.8;*
- vi. notify **NGET** on behalf of the **Provider** of the **Provider’s** intention to enter into an arrangement which could impair the **Provider’s** ability to provide **Firm Frequency Response** pursuant to paragraph 4A.12; and*
- vii. provide to **NGET** on behalf of the **Provider** all information and reasonable assistance necessary for **NGET** to derive required output data; and*
- viii enter into discussion with **NGET** on behalf of the **Provider** regarding circumstances giving rise to default.*

*All references above to paragraphs shall be to paragraphs in the **Tender Rules and Standard Contract Terms**.]*

**APPENDIX 7 – NEW FFR UNITS, ALLOCATION AND RE-ALLOCATION OF FFR UNITS
TO AN AGGREGATED FACILITY**

Introduction of New FFR Units

1. The **Provider** may, with **NGET**'s written consent, propose a **New FFR Unit** in accordance with the following provisions:
 - 1.1 each **New FFR Unit** proposed by the **Provider** shall be detailed in the form specified in Appendix 8 and submitted by the **Provider** to **NGET** by facsimile;
 - 1.2 each notice shall be signed by the **Provider** and counter-signed by or on behalf of the owner or operator of the proposed **New FFR Unit**;
 - 1.3 the proposed **New FFR Unit** shall then be subject to approval by **NGET** (at its sole discretion) and subject to passing a **FFR Pre-Qualification Assessment** and, to the extent required by **NGET**, **Reproving Test** in accordance with the provisions of Section 7 of the **Tender Rules and Standard Contract Terms** and, for the avoidance of doubt, Section 7 shall apply in respect of such **New FFR Unit**. If so approved, the notice form shall be counter-signed by or on behalf of **NGET** and returned to the **Provider** by facsimile; and
 - 1.4 the proposed **New FFR Unit** shall be eligible for the purposes of allocation to an **Aggregated Facility** in accordance with this Appendix 7 from the date such notice referred to in Paragraph 1.3 above is countersigned and returned by **NGET** to the **Provider**.

Allocation and re-allocation

- 2.1 It is agreed by the **Parties** that for the purposes of each and any **FFR Tender** or **FFR Contract** with respect to an **Aggregated Facility**, the **Provider** may:
 - 2.1.1 allocate to that **Aggregated Facility** one or more **FFR Units** which are at that time **Unallocated**; or
 - 2.1.2 re-allocate to that **Aggregated Facility** any **FFR Unit** that at that time is already allocated to another **Aggregated Facility**, and in each case in accordance with the procedure set out in Paragraph 2.2.
- 2.2 Any such allocation or re-allocation of an **FFR Unit** to an **Aggregated Facility** shall be notified by the **Provider** in the form specified in Appendix 9 (an "**Allocation Notification**") in accordance with Paragraph 2.3.
- 2.3 An **Allocation Notification** shall only be valid if:
 - 2.3.1 received by **NGET** not later than 14.00 hours on the Wednesday immediately preceding commencement of the **Tendered Service Week** or **Tendered Service Month** in which the allocation or reallocation is expressed to take effect;

- 2.3.2 **NGET** is satisfied that appropriate communications and metering equipment have been installed at the **FFR Unit** to be allocated to the **Aggregated Facility** to enable the instruction and monitoring of the delivery of **Firm Frequency Response** from the **Aggregated Facility**; and
- 2.3.3 an aggregation methodology (approved by **NGET**) has been developed by the **Provider** to determine the provision of **Firm Frequency Response** from the **Aggregated Facility**.
- 2.4 With respect to each valid **Allocation Notification**, **NGET** shall confirm the same by counter-signing the **Allocation Notification** and returning it to the **Provider** by facsimile no later than 09.00 hours on the Friday immediately preceding the relevant **Tendered Service Week** or **Tendered Service Month** in which the allocation or re-allocation is expressed to take effect.
- 2.5 The **Provider** may not make in excess of twenty-five (25) **Allocation Notifications** during any period of twelve (12) calendar months provided always that any confirmation by **NGET** of a valid **Allocation Notification** pursuant to Paragraph 2.3 shall be effective and conclusive in confirming the same notwithstanding that such limit is thereby exceeded.
- 2.6 If an **Allocation Notification** does not meet the requirements of Paragraph 2.3, then it shall be invalid and treated as if it were never submitted.

*Removal of **Unallocated FFR Units***

- 3.1 The **Parties** may agree in writing from time to time that an **Unallocated FFR Unit** shall be removed from this **Firm Frequency Response Agreement** and cease to be eligible for the purposes of allocation or reallocation in accordance with this Appendix 7. Any such notice shall be notified in the form specified in Appendix 10 and submitted by the **Provider** to **NGET** by facsimile.
- 3.2 Such proposed removal shall then be subject to approval by **NGET** (at its sole discretion) within five (5) days of receiving the notice referred to in Paragraph 3.1 above, and duly counter-signed by or on behalf of **NGET** and returned to the **Provider** by facsimile.

APPENDIX 8 – INTRODUCTION OF NEW FFR UNIT

FORM OF REQUEST FOR NEW FFR UNIT

From: []

Fax: []

To: National Grid, Contracts & Settlements

Fax: 01926 656613

Date:

Time:

In accordance with Appendix 7 of the **Firm Frequency Response Agreement**, this is a proposal to introduce the following new **FFR Unit**:-

OPERATIONAL DETAILS FOR NEW FFR UNIT

FFR Unit	
FFR Unit owner address and contact details	
FFR Unit operator (if different) consenting to this request	
Site address & co-ordinates	
Technical / site contact (contact name and telephone number of both duty and standby personnel)	
Capacity (MW)	
Make of Meter	
Model of Meter	
Serial Number of Meter	
Accuracy Class of the Meter	

CONFIRMATION BY PROVIDER:

Signed
by:(signature)

Name:

For and on behalf of []

.....

CONFIRMATION BY OWNER/OPERATOR:

We, the undersigned, hereby acknowledge and undertake to National Grid Electricity Transmission plc as follows:

- (i) we are the owner and/or operator and/or site owner of the **FFR Unit** described above, and the information set out above is true and accurate;
- (ii) we have agreed terms with the **Provider** referred to above in order to facilitate the availability and despatch of **Firm Frequency Response** from the **FFR Unit** described above;
- (iii) we hereby grant to National Grid Electricity Transmission plc and its agents and contractors audit and inspection rights to the **FFR Unit** (upon not less than 5 Business Days notice) for the purposes of the provision of **Firm Frequency Response**; and
- (iv) we hereby agree that we shall hold confidential and not disclose to any person, upon the terms of paragraph 5.6 of the Standard Contract Terms, all and any information disclosed to us by the **Provider** under the **Firm Frequency Response Agreement**.

Signed by:(signature) Name:

For and on behalf of []

.....
(National Grid Only)

The above amendment(s) shall take effect on :- (DD/MM/YY)
---	---------------------

From: National Grid, Contracts & Settlements **Fax:** 01926 656612
To: [] **Fax:** []
Date: **Time:**

We APPROVE/REJECT* (*deleted as appropriate) your proposed introduction of a new **FFR Unit** as set out above. [We further agree to comply with the owner/operator’s reasonable health, safety, environmental and security policies that we are made aware of in writing when we audit an **FFR Unit** provided that such policies do not affect our ability to carry out the audit.]

Signed(signature) **Name:**

For and on behalf of National Grid Electricity Transmission plc

APPENDIX 9 – ALLOCATION OR RE-ALLOCATION OF AN FFR UNIT

From:

Fax:

To: National Grid, Contracts & Settlements Fax: 01926 656612

Date:

Time:

In accordance with Appendix 7 of the **Firm Frequency Response Agreement**, the following **FFR Unit** shall be allocated or re-allocated to the below mentioned **Aggregated Facility** as follows:

FFR UNIT	FROM AGGREGATED FACILITY	TO AGGREGATED FACILITY	LOCATION	CAPACITY (MW)
TOTAL				MW

The above amendment(s) shall take effect on:(DD/MM/YY)
---	-----------------

Signed by:
(signature)

Name:

For and on behalf of:

.....

**From: National Grid, Contracts & Fax: 01926 656612
Settlements**

To:

Fax:

Date:

Time:

In accordance with Paragraph 2.4 of Appendix 7 of the **Firm Frequency Response Agreement**, we **ACKNOWLEDGE AS VALID/REJECT AS INVALID** * (*delete as appropriate) your notice of allocation or re-allocation of the **FFR Unit** as set out in the above table.

Signed by: Name:
(signature)

For and on behalf of National Grid Electricity Transmission plc

APPENDIX 10 – REQUEST TO REMOVE FFR UNIT

From:

Fax:

To: National Grid, Contracts & Settlements Fax: 01926 656612

Date:

Time:

In accordance with Appendix 7 of the **Firm Frequency Response Agreement**, this is a proposal to remove the following **Unallocated FFR Unit** from the **Firm Frequency Response Agreement**:-

FFR UNIT	LOCATION	CAPACITY (MW)	REASON FOR REMOVAL

<p>The above amendment(s) shall take effect on:</p>	<p>.....(DD/MM/YY)</p>
--	------------------------

Signed by:
(signature)

Name:

For and on behalf of:

CONFIRMATION BY OWNER/OPERATOR:

We, the undersigned, hereby acknowledge and undertake to National Grid Electricity Transmission plc that we are the owner and/or operator of the **FFR Unit** described above, and the information set out above is true and accurate;

Signed **Name:**
by:(signature)

For and on behalf of []

.....
.....

(National Grid Only)

The above amendment(s) shall take effect on :- (DD/MM/YY)
---	---------------------

From: National Grid, Contracts & Settlements **Fax:** 01926 656612
To: [] **Fax:** []
Date: **Time:**

In accordance with Paragraph 3.2 of Appendix 7 of the **Firm Frequency Response Agreement**, we APPROVE/REJECT* (*delete as appropriate) your proposal as set out above.

Signed **Name:**
by: (signature)

For and on behalf of National Grid Electricity Transmission plc