

4. **BLACK START CAPABILITY**

[Note: this clause will need substantial amendment to reflect the circumstances of any individual case, for example the type of Black Start Plant, use of distillate fuel, whether or not new capital costs are involved etc. Text in square brackets in italics only for use if Auxiliary Unit is registered as a separate BM Unit to the main Module/Unit.]

4.1 **Introduction**

The **Generator** agrees to provide **The Company** with the **Part 2 System Ancillary Service** of **Black Start Capability**, and this Clause 4 and Schedule E set out provisions relating to such service including the payments to be made by **The Company** to the **Generator** in respect thereof.

4.2 **Definitions**

In this Clause 4 and Schedule E the following terms shall have the meanings ascribed to them below:-

“Acceptable Security”	has the meaning attributed to it in Sub-Clause 4.6.3.3;
“Annual Availability Shortfall Payments”	means the payments calculated in accordance with Schedule E, Section 2, Part II to be made by the Generator to The Company in the circumstances set out in Annexure C to this Clause 4 and representing repayment of part of the Works Contribution Payment ;
“Assessment Period”	has the meaning attributed to it in Sub-Clause 4.15.1;
“Assurance Visit”	has the meaning attributed to it in Sub-Clause 4.19.2;
“Auxiliaries”	means any item of Plant and/or Apparatus not directly a part of the boiler Plant or BS Genset(s) , but required for the boiler Plant 's or BS Genset(s) functional operation including without limitation the BS Auxiliary Unit(s) ;
“Auxiliary Contracted MW”	means the respective level of MW available for Black Start from each BS Auxiliary Unit(s) specified in Schedule E, Section 1, Part II;
“Black Start”	means the procedure necessary for a recovery from a Total Shutdown or Partial Shutdown ;
“Black Start Availability Price”	means the price specified in Schedule E, Section 3,

Part I;

- “Black Start Capability”** means the actions required of the **Generator** contained in Sub-Clause 4.8.5 in addition to and without prejudice to the **Generator’s** obligations under the **Grid Code** with regard to **Black Start Capability**;
- “Black Start Instruction”** has the meaning attributed to it in Sub-Clause 4.10.1;
- “Black Start Plant”** means the **BS Genset(s)**, the **BS Auxiliary Unit(s)** and other **Plant** and **Apparatus** at the **Power Station** used to provide the **Black Start Service**;
- “Black Start Service”** means the obligations of the **Generator** more particularly referred to in Sub-Clause 4.8 (which shall be in addition to and without prejudice to the **Generator’s** obligations under the **Grid Code** with regard to **Black Start Capability**), to include in addition the procedure for running down and testing of **Plant** in **Reproving Assessments**;
- “Black Start Station”** has the meaning attributed to it in the **Grid Code**;
- “Black Start Test”** means any **Capability Assessment**, **Reproving Assessment**, test pursuant to **Grid Code** OC5, exercise pursuant to Sub-Clause 4.12, or **Remote Synchronisation Test** involving monitoring and/or inspection of the **Black Start Plant** and/or changes to the production profile of any **BM Unit** at the **Generator’s Power Station**;
- “Black Start Test Main Unit”** means, in relation to any **Black Start Test**, any **BM Unit** comprising a **BS Genset** subject to that **Black Start Test**;
- “Black Start Test Parameters”** means, in respect of any **Black Start Test**, the parameters agreed between the **Parties** pursuant to Sub-Clause 4.20.7 as amended pursuant to Sub-Clause 4.20.11;
- “Black Start Test Period”** means, in relation to any **Black Start Test**, the period from and including the start time to and including the end time each as comprised within the **Black Start**

Test Parameters;

“Black Start Test Settlement Period”	means a Settlement Period comprised in a Black Start Test Period ;
“BM Start-Up Instruction”	has the meaning attributed to it in Sub-Clause 5.2;
“BM Start-Up Payment”	has the meaning attributed to it in Sub-Clause 5.2;
“BM Start-Up Price”	has the meaning attributed to it in Sub-Clause 5.2;
“BS Auxiliary Unit(s)”	means those [Gas Turbine Units] identified in Schedule E, Section 1, Part II;
“BS Genset(s)”	means the CCGT Module(s) or Generating Unit(s) specified in Schedule E, Section 1, Part 1;
“Capability Assessment”	has the meaning attributed to it in Sub-Clause 4.20.1(b);
“Competent Authority”	has the meaning attributed to it in the CUSC ;
“Connection Event”	has the meaning attributed to it in Sub-Clause 4.8.5(b);
“Consents”	means all and any consent, licence, approval, permission, wayleave or other right of whatever nature whether governmental or regulatory in character or otherwise necessary for the provision of by the Generator of the Black Start Service , including without limitation the construction and installation of the BS Auxiliary Unit(s) ;
“Contribution Instalment Limit”	means, in respect of a Refurbishment Works Stage , the maximum sum payable by The Company (as part of the Works Contribution Payment) in respect of Valid Invoices submitted in respect of that Refurbishment Works Stage ;
“Distillate Exercise Price”	means the price specified in Schedule E, Section 3, Part II;
“Distillate Supplement Price”	means the price specified in Schedule E, Section 3, Part II;

“Escrow Account”	has the meaning attributed to it in Sub-Clause 4.6.3.3;
“Event of Default”	has the meaning attributed to it in Sub-Clause 4.13;
“Expiry Date”	means 24:00 hours on the date immediately preceding the [] anniversary of the Service Commencement Date ;
“Force Majeure Works Contribution Refund Payment”	means a payment to be made by the Generator to The Company by way of repayment of part of the Works Contribution Payment as more particularly described in Schedule E, Section 2, Part III;
“Fuel Type”	means the type of fuel which the Generator intends to use at the Black Start Station during the Black Start Test Period , [forming part of the Black Start Test Parameters];
“Legal Requirement”	means any order of a Competent Authority , Act of Parliament, Directive, regulations or licence, consent or similar provision issued by a Competent Authority ;
“Local Joint Restoration Plan”	means a plan specific to each Power Station at which Black Start Plant is located to enable a rapid restoration of the GB Transmission System in the event of a Black Start and which is more particularly described in Sub-Clause 4.8.5;
“Minimum Non Zero Time”	has the meaning attributed to the term in Appendix 1 of Grid Code BC1 ;
“Monthly Availability Payment”	means an amount determined in accordance with Sub-Clause 4.6.1(b);
“Outstanding Works”	has the meaning attributed to it in paragraph 5(a) of Part I of Annexure A to this Clause 4;
“Partial Shutdown”	means the same as a Total Shutdown except that all generation has ceased in a separate part of the Total System and there is no supply from External Interconnections or other parts of the Total System to that part of the Total System and, therefore, that part of the Total System is shutdown, with the result

	that it is not possible for that part of the Total System to begin to function again without The Company's direction relating to a Black Start ;
“Power Island”	means an isolated Power Station , or groups of isolated Power Stations , together with complementary Demand ;
“Rated Bank”	has the meaning attributed to it in Sub-Clause 4.6.3.3;
“Refurbishment Works”	means those works relating to the BS Auxiliary Unit(s) more particularly specified in Part II of Annexure A to this Clause 4;
“Refurbishment Works Stages”	has the meaning attributed to it in paragraph 1(a) of Part I of Annexure A to this Clause 4;
“Refurbishment Works Timetable”	has the meaning attributed to it in paragraph 1 of Part I of Annexure A to this Clause 4;
“Relevant Third Parties”	has the meaning attributed to it in Sub-Clause 4.12.1;
“Remote Synchronisation”	means Synchronisation of the Generator's Plant and Apparatus by closure of a circuit breaker which is not under the direct control of the Generator ;
“Remote Synchronisation Test”	means the test more particularly described in Annexure D to this Clause 4;
“Repayment Amount”	means payments calculated in accordance with Schedule E, Section 2, Part I to be made by the Generator to The Company in the circumstances set out in Annexure B to this Clause 4 and representing repayments in whole or in part of Monthly Availability Payments ;
“Reproving Assessment”	means a test which The Company may require the Generator to carry out to verify the restoration of Black Start Capability as more particularly described in Sub-Clause 4.9.4;
“Service Commencement Date”	means 00.00 hours on [];
“Shutdown”	means the condition of a Generating Unit where the

	generator rotor is at rest or on barring;
“ Standard Exercise Price ”	means the price specified in Schedule E, Section 3, Part II;
“ Station Board ”	means a switchboard through which electrical power is supplied to the Auxiliaries of a Power Station which may be interconnected with a Unit Board ;
“ Station Contracted MW ”	means that amount of Active Power specified in Schedule E, Section 1, Part I (or such other amount agreed from time to time between the Generator and the Grid Operator pursuant to Sub-Clauses 4.8.8 to 4.8.12 inclusive) which, for the avoidance of doubt shall not include Active Power supplied by the BS Auxiliary Unit(s) to the BS Genset(s) for the purposes of a Black Start ;
“ Technical Parameters ”	means those technical parameters related to the Black Start Service set out in Schedule E, Section 1, Part III (as the same may be revised from time to time in accordance with Sub-Clauses 4.8.8 to 4.8.12 inclusive);
“ Time to Connection Event ”	means the period of time specified as such in Schedule E, Section 1, Part III (or such other period of time agreed from time to time between The Company and the Generator pursuant to Sub-Clauses 4.8.8 to 4.8.12 inclusive);
“ Total Shutdown ”	means the situation existing when all generation has ceased and there is no electricity supply from External Interconnections and, therefore, the Total System has shutdown with the result that it is not possible for the Total System to begin to function again without The Company ’s directions relating to a Black Start ;
“ Transmission Entry Capacity ”	has the meaning attributed to it in Paragraph 11.3 of the CUSC ;
“ Unit Board ”	has the meaning attributed to it in the Grid Code ;
“ Valid Invoice(s) ”	has the meaning attributed to it in Sub-Clause 4.6.2.2;

“Valid Invoice Deadline”	has the meaning attributed to it in Sub-Clause 4.6.2.4;
“Valid Invoice Failure Payment”	means the payment to be made by the Generator to The Company by way of repayment of part of the Works Contribution Payment as more particularly described in Sub-Clause 4.6.2.4 and calculated in accordance with Part IV of Annexure A to Clause 4;
“Works Commencement Date”	means such date as the Generator shall notify to The Company in writing for commencement of the Refurbishment Works in accordance with paragraph 1 of Part I of Annexure A to this Clause 4;
“Works Completion Certificate”	means a certificate in the form set out in Part III of Annexure A to this Clause 4 issued by the Generator , upon completion or (where agreed by The Company) substantial completion of the Refurbishment Works ;
“Works Contribution Payment”	means the payment to be made by The Company to the Generator by way of reimbursement of the cost of the Refurbishment Works as more particularly described in Sub-Clause 4.6.1(a);
“Works Contribution Refund Payment”	means a payment calculated in accordance with Schedule E, Section 2, Part IV to be made by the Generator to The Company representing repayment of all or part of the Works Contribution Payment ;
“Works Contribution Refund Trigger Event”	has the meaning attributed to it in paragraph 15 of Part I of Annexure A to this Clause 4;
“Works Target Completion Date”	means such date as the Generator shall notify to The Company in writing for completion of the Refurbishment Works in accordance with paragraph 1 of Part I of Annexure A to this Clause 4 being a date no later than 24 calendar months after the Service Commencement Date ;

4.3 Not Used

4.4 Works

Both **Parties** shall comply with their respective obligations set out in Annexure A to this Clause 4 in relation to the refurbishment of **Plant** and **Apparatus** at the **Power Station** and associated works more particularly described in the **Refurbishment Works Timetable**.

4.5 **Term**

4.5.1 The obligations of the **Generator** hereunder to provide the **Black Start Service** shall apply at all times from the **Service Commencement Date** until the **Expiry Date** subject to and in accordance with the provisions of this Clause 4 and, save where expressly provided otherwise in this Clause 4 and the Schedules, “term of Clause 4” shall be construed accordingly.

4.5.2 If the provisions of this Clause 4 shall not by then have terminated, not later than 12 months prior to the **Expiry Date** the **Parties** shall meet to discuss whether the provisions of this Clause 4 should be extended for a period beyond the **Expiry Date** and if so the duration of such extension and the terms (including prices) upon which the **Black Start Service** shall continue to be provided by the **Generator**. In the absence of any agreement between the **Parties** the provisions of this Clause 4 shall cease to apply in respect of periods after the **Expiry Date**.

4.6 **Payments**

Payments for Availability of Black Start Service

4.6.1 **The Company** shall make the following availability payments to the **Generator** in accordance with the terms of this Clause 4:-

- (a) the sum of £[] (“the **Works Contribution Payment**”), subject to and in accordance with Sub-Clauses 4.6.2 and 4.6.3; and
- (b) with effect from the **Service Commencement Date**, and in accordance with Sub-Clause 4.6.4, a **Monthly Availability Payment** (“the **Monthly Availability Payment**”) calculated in accordance with Schedule E, Section 2, Part I in respect of all **Settlement Periods** in each calendar month in which the **Black Start Plant** shall have the **Black Start Capability**.

For the avoidance of doubt, in accordance with the provisions of this Clause 4 the **Works Contribution Payment** may become repayable by the **Generator** to **The Company** (in whole or in part) by way of a **Valid Invoice Failure Payment, Force Majeure Works Contribution Refund Payment, Annual Availability Shortfall Payments** and/or a **Works Contribution Refund Payment** (but not otherwise), and the **Monthly Availability Payments** may become repayable by the **Generator** to **The Company** (in whole or in part) by way of **Repayment Amounts** (but not otherwise).

Works Contribution Payment

4.6.2 Payment of the **Works Contribution Payment** shall be dealt with in the following manner:-

- 4.6.2.1 Provided always that the **Generator** provides to **The Company**:-

- (a) **Acceptable Security** in accordance with Sub-Clause 4.6.3.3;
and
- (b) **Valid Invoice(s)** evidencing the cost to the **Generator** following completion of the **Refurbishment Works**,

The Company shall, by reference to the first **Final Monthly Statement** issued after receipt by **The Company** of the confirmed **Refurbishment Works Timetable** provided by the **Generator** in accordance with paragraph 1 of Part I (Refurbishment Works) of Annexure A to this Clause 4 (or any earlier **Final Monthly Statement** at **The Company's** sole discretion), pay to the **Generator** the **Works Contribution Payment** plus any value added tax payable on such amount. For the avoidance of doubt, **The Company** shall not be obliged to make any payment in addition to the **Works Contribution Payment** in respect of any works undertaken by the **Generator** in respect of the maintenance, refurbishment or replacement of the **Black Start Plant** during the term of this Clause 4.

4.6.2.2 For the purposes of Sub-Clause 4.6.2.1, "**Valid Invoice(s)**" shall mean any invoice(s) in respect of works undertaken as part of the **Refurbishment Works** which are issued by either:-

- (a) third party contractors, subject always to a maximum aggregate amount of £[] (exclusive of VAT) in respect of such invoice(s); and/or
- (b) the **Generator**, subject always to a maximum aggregate amount of £[] (exclusive of VAT) in respect of such invoice(s),

provided always that where any such invoice is issued by the **Generator**, such invoice includes a description which is reasonably satisfactory to **The Company** of the works undertaken by the **Generator** as part of the **Refurbishment Works** to which such invoice relates.

4.6.2.3 Following receipt of any invoice in respect of the **Refurbishment Works** submitted by the **Generator** in accordance with Sub-Clause 4.6.2.1, **The Company** shall, as soon as reasonably practicable thereafter, notify the **Generator** where **The Company** determines (acting reasonably) that such invoice is not a **Valid Invoice** within the meaning set out in Sub-Clause 4.6.2.2 and the **Generator** shall use reasonable endeavours to submit a replacement invoice which is a **Valid Invoice** before the **Valid Invoice Deadline**.

4.6.2.4 If **Valid Invoice(s)** in respect of any aspect of the **Refurbishment Works** are not received by **The Company** by the date being three calendar months after the date of issue by the **Generator** of the **Works Completion Certificate** ("**the Valid Invoice Deadline**"), **The Company** may require the **Generator** to pay to **The Company** a **Valid Invoice Failure Payment**.

4.6.2.5 If in respect of a **Refurbishment Works Stage** the actual cost incurred by the **Generator** for completion of that **Refurbishment Works Stage** (as evidenced by **Valid Invoices** submitted to **The Company** in accordance with Sub-Clause 4.6.2.1) is less than or equal to ninety percent of the **Contribution Instalment Limit** specified for that **Refurbishment Works Stage** in the **Refurbishment Works Timetable**, then the **Generator** shall repay to **The Company** an amount being the difference between the actual cost of completion of that **Refurbishment Works Stage** and the relevant **Contribution Instalment Limit** (together with interest thereon at the **Base Rate** and including any value added tax payable on such amount).

Security

4.6.3 The following provisions shall apply with respect to security against possible repayments of the **Works Contribution Payment**:

4.6.3.1 The **Generator** shall, as a condition of the payment by **The Company** of the **Works Contribution Payment** pursuant to Sub-Clause 4.6.2 and until payment of:-

- (a) any **Works Contribution Refund Payment**; or
- (b) any **Annual Availability Shortfall Payment** applicable to the **Assessment Period** ending on the **Expiry Date** (or completion of the calculation indicating that no such **Annual Availability Shortfall Payment** is applicable); or
- (c) any **Force Majeure Works Contribution Refund Payment** applicable to the relevant calendar month (or completion of the calculation indicating that no such **Force Majeure Works Contribution Refund Payment** is applicable),

provide security against possible repayment of the **Works Contribution Payment** under this **Agreement** as provided below.

4.6.3.2 Until payment of any **Works Contribution Refund Payment**, **Force Majeure Works Contribution Refund Payment** applicable to the relevant calendar month (or completion of the calculation indicating that no such **Force Majeure Works Contribution Refund Payment** is applicable) or any **Annual Availability Shortfall Payment** applicable to the **Assessment Period** ending on the **Expiry Date** (or completion of the calculation indicating that no such **Annual Availability Shortfall Payment** is applicable) the security shall be **Acceptable Security** against payment of the amount referred to in Sub-Clause 4.6.3.4 below. Where such **Acceptable Security** is a bond or letter of credit this shall (except in the case of the final period) be issued for a period of not less than six months and thereafter replaced by the **Generator** at least 45 days prior to the expiry of the previous bond, letter of credit or other equivalent **Acceptable**

Security. If the **Generator** fails to so provide a replacement bond, letter of credit or other equivalent **Acceptable Security**, **The Company** shall be entitled to call the bond, letter of credit or other equivalent **Acceptable Security**.

4.6.3.3 In this Sub-Clause 4.6.3 "**Acceptable Security**" shall mean:-

- (a) a first demand without proof or conditions irrevocable performance bond in a form reasonably satisfactory to **The Company** issued by a **Rated Bank** payable in Sterling in London; or
- (b) an irrevocable standby letter of credit in a form reasonably satisfactory to **The Company** issued by a **Rated Bank** payable in Sterling in London; or
- (c) a cash deposit in Sterling in an **Escrow Account**; or
- (d) such other form of security acceptable to **The Company** which shall be in such form as is included in **The Company's** then current policy and procedure.

A "**Rated Bank**" shall mean a City of London branch of a bank with a rating of at least A- (Standard and Poor's long term rating) or A3 (Moody's long term rating).

An "**Escrow Account**" shall mean a separately designated bank account in the name of **The Company** established by a mandate signed by both **The Company** and the **Generator** at a branch of Barclays Bank PLC or another bank in the City of London as notified by **The Company** to the **Generator**, bearing from (and including) the date of deposit of principal sums to (but excluding) the date of withdrawal of principal sums from such account a reasonable commercial rate of interest which shall be payable to the **Generator** but mandated for withdrawal of principal only by way of a call by **The Company** as referred to in Sub-Clause 4.6.3.5 below or by way of payment to the **Generator** to the extent of any reduction in the amount so secured and mandated for the transfer of any interest accrued to the **Escrow Account** quarterly to such bank account as the **Generator** may specify. **The Company** agrees to take any steps required to be taken by it for the release from the **Escrow Account** and payment to the **Generator** of such interest and any amount of principal in excess of the amount required to be secured at the relevant time.

4.6.3.4 The secured amount as referred to in Sub-Clause 4.6.3.2 above shall be for the maximum amount payable in respect of the **Works Contribution Refund Payment** as provided in Schedule E, Section 2, Part IV at the relevant date including any value added tax payable on such amount.

4.6.3.5 **The Company** shall be entitled to call upon the security if:-

- (a) any **Works Contribution Refund Payment, Force Majeure Works Contribution Refund Payment** or **Annual Availability Shortfall Payment** has become payable under this **Agreement** and has not been paid by the **Generator** in accordance with Clause [8][4 of the **MASA**]; or
- (b) other equivalent **Acceptable Security** of the required amount has not been put in place within the time periods provided for in this Sub-Clause 4.6.3. Where the security has been called for this reason, **The Company** shall repay the amount so called when the **Generator** puts in place the appropriate replacement security in accordance with this Sub-Clause 4.6.3.

4.6.3.6 If any bank or banks being the issuer of a bond or letter of credit shall suffer at any time a change of rating so as to fall below that required above the **Generator** shall forthwith on the **Generator** becoming aware of such occurrence notify **The Company** and within 14 days of the **Generator** becoming aware of such change of rating provide to **The Company** a replacement bond or letter of credit from a **Rated Bank** on the same terms as to amount and **Expiry Date** as the security being replaced or equivalent **Acceptable Security**. For the avoidance of doubt any such change of rating shall not during such 14 days constitute a breach under this **Agreement**, provided that the replacement security shall be provided, and from the date of its provision the security which it replaces shall be released by **The Company**.

4.6.3.7 The **Generator** shall on reasonable notice to **The Company** be entitled to request the substitution of any form of security then in place with any other **Acceptable Security** and on such replacement security being put in place **The Company** shall release the previous security. The **Generator** may provide different securities to **The Company** at any time, each securing a different amount, provided that such securities do not exceed six in number at any time and that the aggregate is equal to the amount required to be secured under this Sub-Clause 4.6.3.

Monthly Availability Payments and Repayment Amounts

4.6.4 In respect of each calendar month in the period commencing on the **Service Commencement Date** and ending on the **Expiry Date**, **The Company** shall calculate in accordance with the formulae set out in Schedule E, Section 2, Part I and by reference to the **Black Start Availability Price** (after indexation pursuant to Sub-Clause 4.6.5):-

- (a) the **Monthly Availability Payment**; and
- (b) any **Repayment Amount**,

and in connection therewith:-

- (i) where the **Monthly Availability Payment** exceeds the **Repayment Amount**, **The Company** shall pay the difference to the **Generator** in accordance with Clause [8][4 of the MASA]; or
- (ii) where the **Repayment Amount** exceeds the **Monthly Availability Payment**, the **Generator** shall pay the difference to **The Company** in accordance with Clause [8][4 of the MASA].

Indexation

4.6.5 The **Black Start Availability Price** shall be subject to indexation during the term of this Clause 4 in accordance with the provisions of Schedule E, Section 3, Part III. For the avoidance of doubt the **Works Contribution Payment** shall not be subject to indexation.

4.7 **Impact of Force Majeure on Availability Payments**

4.7.1 For the avoidance of doubt, and without prejudice to Sub-Clause 4.24, for the purposes of Sub-Clauses 4.6.1(b) and 4.6.4 the **Black Start Service** shall be unavailable and no **Monthly Availability Payment** or **Repayment Amount** shall fall due in respect of and to the extent of any **Settlement Period** in which the **Generator** is unable to provide the **Black Start Service** due to **Force Majeure**.

4.7.2 In respect of each **Settlement Period** when the **Generator** is unable to provide the **Black Start Service** due to **Force Majeure**, the **Generator** shall pay to **The Company** in accordance with Clause [8][4 of the MASA] the **Force Majeure Works Contribution Refund Payment** calculated in accordance with the formulae set out in Schedule E, Section 2, Part III.

4.8 **Black Start Service**

Service Description

4.8.1 Subject to the provisions of this Clause 4, with effect from the **Service Commencement Date** and thereafter in all **Settlement Periods** until the **Expiry Date**, and in consideration of **The Company's** payments to the **Generator** in accordance with Sub-Clause 4.6, the **Generator** hereby agrees at all times (save where the **Generator** notifies **The Company** pursuant to Sub-Clause 4.9.1 that the **Black Start Plant** does not have the **Black Start Capability**) to maintain the **Black Start Plant** in a condition such that it is able to:-

- (a) provide the **Black Start Capability** as described in Sub-Clauses 4.8.5 to 4.8.7 inclusive; and
- (b) comply with valid instructions for initiation and implementation of the **Local Joint Restoration Plan**.

so that, in the event of a **Total Shutdown** or a **Partial Shutdown** of the **GB Transmission System**, [at least one of] the **BS Genset(s)** is able to **Start-Up** from **Shutdown** and to energise a part of the **GB Transmission System** and thereafter the local **User System** (in accordance with the **Local Joint Restoration Plan**) and/or be

Synchronised to the **GB Transmission System** and the local **User System** (in accordance with the **Local Joint Restoration Plan**) upon instruction from **The Company**, within 2 hours (or such other longer period agreed by **The Company** in writing), without an external electrical power supply.

4.8.2 Subject to the other provisions of this **Agreement** the **Generator** hereby further agrees with effect from the **Service Commencement Date** and thereafter until the **Expiry Date** to provide and maintain at the **Power Station** (and, where necessary, replenish) all necessary consumables (which shall include supplies of raw water, demineralised water, [distillate fuel stocks] and arrangements for supplies of gas) and communication channels for the **BS Genset** and the **BS Auxiliary Unit(s)** and other related supplies so that:

- (a) in a **Black Start** situation, and by block and/or ramp loading in each case in accordance with Sub-Clauses 4.8.5 to 4.8.7 inclusive, **Active Power** from the **BS Genset(s)** of at least the **Station Contracted MW** is capable of being provided and sustained in accordance with Sub-Clauses 4.8.5 to 4.8.7 inclusive for at least [] consecutive [hours][days] (or in the case of multiple **Start-Ups** undertaken before essential supplies can be replenished an aggregate of [] [hours][days]); and
- (b) during a **Black Start** situation, the **BS Auxiliary Unit(s)** is capable of providing sufficient **Active Power** to achieve a controlled **Shutdown** of the **BS Genset(s)** and perform a **Start-Up** of a [BS Genset] [CCGT Unit] within the relevant **CCGT Module**] at least [] times.

*[The **Generator** shall hold and maintain distillate fuel stocks in satisfactory and usable condition throughout the terms of this Clause 4. **The Company** acknowledges and agrees that the **Generator** shall not be in breach of its obligations under this Sub-Clause 4.8.2 during those periods when distillate stocks are being replenished subsequent to a **Black Start** situation during which supplies of distillate were used.]*

4.8.3 It is acknowledged and agreed by the **Generator** that the **Power Station** shall be registered as a **Black Start Station** under the relevant **Bilateral Agreement** for the purposes of the **Grid Code OC9.4.5.1** and that accordingly the **Generator's** obligations contained in this Clause 4 shall be additional and without prejudice to those (if any) set out in the **Grid Code**.

4.8.4 If, during a period the subject of a prior notification from the **Generator** to **The Company** pursuant to Sub-Clause 4.9.1 in which the **Black Start Plant** does not have the **Black Start Capability**, **The Company** issues a declaration in accordance with **Grid Code OC 9.4.6** that a **Partial Shutdown** or a **Total Shutdown** exists, the **Generator** shall if required by **The Company** indicate whether and to what extent it is able to respond to **Black Start Instructions** and, if so, the basis upon which it will accept such instructions. Subject to the **Parties** reaching agreement thereto (including as to the reimbursement of any costs so incurred by the **Generator**) the **Generator** shall

use its reasonable endeavours to meet any such request by **The Company** to perform a **Black Start**.

Black Start Capability

4.8.5 Without prejudice to the **Grid Code**, the **Black Start Capability** shall comprise the maintaining of suitable mains independent turbine barring and jacking facilities for [all **BS Genset(s)**][each of the **CCGT Units** with the relevant **CCGT Module**] (independent of the **BS Auxiliary Unit(s)**) which will last for a minimum of 20 minutes after the loss of external alternating current supplies, and the capability in a **Black Start** situation of the **BS Genset(s)** where required, (subject to Sub-Clause 4.9) to perform and re-perform the following actions upon receipt of a relevant instruction from **The Company**:-

- (a) immediately commence the procedure to enable **Start-Up** from **Shutdown** with or without an external electrical supply; and
- (b) within the **Time to Connection Event**, energise part of the **GB Transmission System** (which would then energise the local **Distribution System**) and/or local **Distribution System** from the **Connection Point** or be **Synchronised** to the **GB Transmission System** or the local **Distribution System** or a part thereof (“the **Connection Event**”) in accordance with the **Local Joint Restoration Plan**; and
- (c) be capable of accepting individual loads which will be connected in the form of demand blocks in each case of up to the relevant figure specified in Schedule E, Section 1; and
- (d) when a block load is connected to the **BS Genset(s)** in accordance with paragraph (c) above respond so that the **Frequency** of the **Power Island** should not fall below the minimum **Frequency** specified in Schedule E, Section 1 and that the **Frequency** of the **Power Island** is restored to within statutory limits (above 49.5 Hz) within 10 seconds maintaining stable operation thereafter pending connection of the next block load; and
- (e) be capable of operating within the loading restrictions set out in Schedule E, Section 1 and of accepting loading instructions issued by the **Grid Operator** and/or the **Public Distribution System Operator** in accordance with the loading procedures specified in the **Local Joint Restoration Plan**; and
- (f) achieve a power output equal to the **Station Contracted MW** (or such lesser power output as may be instructed by **The Company**) within the loading period specified in Schedule E, Section 1 assuming loading is achieved by the connection of demand blocks in accordance with paragraphs (c), (d) and (e) above; and
- (g) in order to achieve the power output within the loading period as specified in paragraph (f) above, achieve the interim power output levels specified

- in Schedule E, Section 1 (or such other interim power output levels as agreed between the **Generator** and the **Grid Operator** from time to time) in the timescales therein specified, and further be capable of sustaining a power output equal to the **Station Contracted MW** (or such lower level of MW output as may be instructed by **The Company**) in accordance with Sub-Clause 4.8.2 until otherwise instructed by **The Company**; and
- (h) without prejudice to the **Generator**'s obligation to provide **Reactive Power** in accordance with **Grid Code CC6.3.2**, provide **Reactive Power** at no-load at the generator stator terminals (at rated terminal voltage) over at least the range specified in Schedule E, Section 1 (or such other range agreed between the **Generator** and the **Grid Operator** from time to time); and
 - (i) operate in a **Frequency Sensitive Mode** in accordance with instructions issued by **The Company** pursuant to the **Grid Code** or as specified in the **Local Joint Restoration Plan**; and
 - (j) operate in a voltage control mode in accordance with instructions issued by **The Company** pursuant to the **Grid Code** or as specified in the **Local Joint Restoration Plan**; and
 - (k) recommence all or part of the **Local Joint Restoration Plan** to the extent the **BS Genset(s)** is disconnected from the **GB Transmission System** or **Demand** is disconnected from that **BS Genset(s)** during a **Black Start** situation; and
 - (l) to co-operate with **The Company** to facilitate the provision of local 400kV, 275kV and 132kV sub-station indications to enable proper co-ordination of actions defined in the **Local Joint Restoration Plan** and to enable **Remote Synchronisation** to be co-ordinated from the **Power Station** control room; and
 - (m) maintain provision of the **Black Start Service** in accordance with the provisions of this Sub-Clause 4.8.5 and Sub-Clause 4.8.2 (without reliance on **Auxiliaries** that could be adversely affected by deviations in the **Frequency** of the **System** or by other conditions affecting the **GB Transmission System**) until notification from **The Company** to the **Generator** in accordance with **Grid Code OC 9.4.7.9** that the **Black Start** situation no longer exists.

The precise operational and procedural requirements of and responses from the **Black Start Plant** will be more comprehensively set out in the **Local Joint Restoration Plan** provided always that the **Local Joint Restoration Plan** shall place no greater obligations upon the **Generator** than those contained within this Clause 4. In relation thereto, in the event of any inconsistency between the provisions of the **Local Joint Restoration Plan** and this Clause 4 the provisions of the **Local Joint Restoration Plan**

shall prevail in so far as the inconsistency relates to procedural matters, otherwise the provisions of this Clause 4 shall prevail.

4.8.6 Subject to Sub-Clause 4.11 the **Generator** acknowledges that in a **Black Start** situation **The Company** may issue an instruction for operation of the **BS Genset(s)** outside of the technical limitations comprising the **Black Start Capability** to the extent the instruction is to operate in accordance with **Dynamic Parameters** and other **BM Unit Data** submitted pursuant to **Grid Code BC1** (as amended from time to time).

4.8.7 The **Generator** warrants to **The Company** that it believes that operation of the **BS Genset(s)** in accordance with the **Black Start Capability** set out in Sub-Clause 4.8.5 will be within its safe operating parameters (whether relating to personnel or **Plant** or **Apparatus**) and will not require the **Generator** to change generation on such **BS Genset(s)** for safety reasons pursuant to **Grid Code OC 9.4.7.4**.

*Revisions to **Technical Parameters** and/or the **Black Start Capability** requirements*

4.8.8 Subject always to Sub-Clause 4.8.9, the **Generator** may issue a request to **The Company** that one or more of the **Technical Parameters** and/or the **Black Start Capability** requirements (more particularly specified in Sub-Clause 4.8.5) be revised temporarily (such request to be confirmed by facsimile in the appropriate form set out in Schedule E, Section 4), and upon receipt of the **Generator's** facsimile confirmation of such request, **The Company** may at its sole discretion either accede to or decline such request provided always that any acceptance of such request may at **The Company's** sole discretion be immediately withdrawn at any time thereafter.

4.8.9 The **Generator** shall specify in any request made in accordance with Sub-Clause 4.8.8 the start time and expected end time between which any revision(s) to the **Technical Parameters** and/or the **Black Start Capability** requirements shall apply.,

4.8.10 If **The Company** accepts any request made by the **Generator** pursuant to Sub-Clause 4.8.8, any such revision(s) shall apply from the start time specified by the **Generator**, until the end time specified by the **Generator** or any earlier time at which **The Company** withdraws its acceptance of the **Generator's** request pursuant to Sub-Clause 4.8.8.

4.8.11 If **The Company** declines (or withdraws any previous acceptance of) any request made by the **Generator** pursuant to Sub-Clause 4.8.8, then the original **Technical Parameters** and/or **Black Start Capability** requirements shall continue to apply (or be reinstated as the case may be), and for the avoidance of doubt if as a result the **Generator** is unable to maintain the **Black Start Capability** from the **Black Start Plant** then it shall notify **The Company** accordingly in accordance with Sub-Clause 4.9.1.

4.8.12 For the avoidance of doubt, the revisions which may be requested by the **Generator** pursuant to Sub-Clause 4.8.8 may include without limitation reductions to quantities of consumables and/or other related supplies required to be provided and/or maintained by

the **Generator** at the **Power Station** as more particularly provided in Sub-Clauses 4.8.2 and 4.8.5(g).

4.9 **Absence of Black Start Capability**

Notification by Generator

4.9.1 The **Generator** shall notify **The Company** by facsimile in the appropriate form set out in Schedule E, Section 4 as soon as reasonably practicable if (but in any event within 20 minutes of it becoming aware that):-

- (a) the **Black Start Plant** does not or will not have any part of the **Black Start Capability**, and such notification shall include a brief explanation thereof, the time of commencement and the expected duration thereof;
- (b) (without prejudice to Sub-Clause 4.9.4(a)) following the issue of a notification by the **Generator** in accordance with Sub-Clause 4.9.1(a), the **Black Start Capability** has been restored and such notification shall include the time of such restoration.

For the purposes of this Sub-Clause 4.9.1 the **Generator** shall be deemed to have the knowledge of its station operators at the **Power Station**. The **Generator** undertakes to **The Company** that each notification given by its station operators pursuant to this Sub-Clause 4.9.1 shall reflect the true operating characteristics of the **Black Start Plant**.

Determination by The Company

4.9.2 Notwithstanding Sub-Clause 4.9.1, the **Black Start Plant** may be determined by **The Company** not to have the **Black Start Capability** either:

- (a) (subject to review by the **Independent Expert**) by reference to inspections, **Assurance Visits** and testing carried out pursuant to Sub-Clauses 4.19 and 4.20; or
- (b) in accordance with the terms of Sub-Clause 4.12.3.

4.9.3 For the avoidance of doubt, it is agreed that the **Black Start Plant** shall not have the **Black Start Capability** where the **Generator** fails to provide and/or maintain at the **Power Station** (and where necessary replenish) all necessary fuel stocks as more particularly provided in Sub-Clause 4.8.2 so as to enable **Active Power** from the **BS Genset(s)** of at least the **Station Contracted MW** to be provided and sustained for the consecutive period specified therein as referred to in Sub-Clause 4.8.5(g).

4.9.4 With effect from:-

- (a) the time at which the **Black Start Plant** is notified by the **Generator** or determined by **The Company** or, in the event of disagreement, by the **Independent Expert** upon the reference of either **Party**, no longer to have the **Black Start Capability**; or
- (b) the commencement of the **Settlement Period** in which the respective **Event of Default** referred to in Sub-Clause 4.13 shall have occurred,

the **Black Start Plant** shall be deemed not to have the **Black Start Capability** and no payments in respect of all subsequent **Settlement Periods** shall be payable by either **Party** to the other unless and until the **Black Start Capability** shall be deemed to be restored in accordance with the following provisions:-

- (i) The **Generator** shall as soon as reasonably practicable notify **The Company** by facsimile in the appropriate form set out in Schedule E, Section 4 of the time and date when it considers that the **Black Start Capability** is restored and shall, where unavailability of the **Black Start Service** was due to an **Event of Default**, give **The Company** a brief explanation as to the reason for such **Event of Default**.
- (ii) Upon receipt of such notification and explanation, **The Company** shall have [five] **Business Days** to inform the **Generator** that it wishes to conduct a test ("a **Reproving Assessment**") in order to verify such restoration of **Black Start Capability**, and in respect thereof the relevant provisions of Sub-Clause 4.20 shall apply. The scope of a **Reproving Assessment** shall in each case have regard to the nature and extent of the circumstances which gave rise to the **Black Start Plant** no longer having the **Black Start Capability** and shall be discussed and agreed with the **Generator** (such agreement not to be unreasonably withheld or delayed). Without limiting the foregoing, a **Reproving Assessment** may include the monitoring of the normal operation of the **BS Genset(s)** and/or the **BS Auxiliary Unit(s)** (as appropriate).
- (iii) If **The Company** fails to notify the **Generator** in accordance with paragraph (ii) above that it wishes to carry out a **Reproving Assessment** then the **Black Start Capability** shall be deemed to have been restored with effect from the time set out in the notification by the **Generator** pursuant to paragraph (i) above and the **Monthly Availability Payments** shall become payable with effect from such time and date.
- (iv) Upon receipt of notification from **The Company** to the **Generator** informing the **Generator** that it wishes to conduct a **Reproving Assessment**, the **Generator** shall notify **The Company** of the time and date when the **Reproving Assessment** may be carried out which (unless **The Company** and the **Generator** otherwise agree in writing) shall be not earlier than [] hours and not later than [] [hours/**Business Days**] following such notification. Where the **Generator** unreasonably delays in sending such notification, **The Company** may specify a time for the conduct of the **Reproving Assessment** on no less than [168 hours] notice. **The Company** shall not unreasonably refuse to carry out a **Reproving Assessment** at the times and dates notified by the **Generator**. Without limitation, it shall be reasonable for **The Company** (by notice in writing to

the **Generator**) to refuse to carry out the **Reproving Assessment** at the time and date notified by the **Generator** in order to minimise cost implications or where the safety or security of the **System** may be compromised. Upon any refusal by **The Company** as aforesaid, the **Generator** shall notify **The Company** of an alternative time and date when the **Reproving Assessment** may be carried out and where the **Generator** unreasonably delays in sending such notification, **The Company** may specify a time for the conduct of the **Reproving Assessment** on no less than [168 hours] notice.

- (v) In the event that **The Company** fails to conduct a **Reproving Assessment** at the time and date notified by the **Generator** pursuant to paragraph (iv) above, save in the circumstances therein set out, then (unless it is prevented from carrying out such **Reproving Assessment** by means of an act or default of the **Generator** or by reason of an event or circumstance of **Force Majeure**) the **Black Start Capability** shall be deemed to have been restored with effect from the time set out in the notification by the **Generator** pursuant to paragraph (i) above and the **Monthly Availability Payments** shall become payable with effect from such time and date.
- (vi) If the **Generator** passes a **Reproving Assessment**, then (subject to paragraph (vii) below) the **Black Start Capability** shall be deemed to be restored with effect from the time and date notified by the **Generator** pursuant to paragraph (i) above and the **Monthly Availability Payments** shall become payable with effect from such time and date.
- (vii) If the **Generator** fails a **Reproving Assessment**, then paragraphs (i) to (vi) (inclusive) shall continue to apply and the **Generator** shall be required to re-notify **The Company** of the time and date when it considers that the **Black Start Capability** shall be restored, and the **Black Start Capability** shall only be deemed to be restored as from the earlier of:-
 - (aa) the passing of a subsequent **Reproving Assessment**;
 - (bb) the date of the first notification where, in accordance with Sub-Clause 4.20.4, the first **Reproving Assessment** is determined to have been passed; or
 - (cc) if **The Company** fails to carry out a subsequent **Reproving Assessment**, with effect from the time of the last notification from the **Generator** to **The Company** that the **Black Start Capability** is restored.
- (viii) In relation to all **Reproving Assessments** the provisions of Sub-Clauses 4.20.3 to 4.20.25 (inclusive) shall apply.

- (ix) During any period of dispute as to a determination of **The Company** that the **Black Start Plant** no longer has the **Black Start Capability**, the provisions of Sub-Clause 4.9.5 shall apply.

4.9.5 For the avoidance of doubt, no payments shall be payable by either **Party** in respect of any **Settlement Periods** following a determination by **The Company** that the **Black Start Plant** no longer has the **Black Start Capability**, notwithstanding that the **Generator** shall have requested a further test and/or made a reference to the **Independent Expert** pursuant to Sub-Clause 4.20.4, unless and until the earlier of (as the case may be):-

- (a) the **Generator** passes such further test or the **Independent Expert** determines that such further test was passed, in which cases the **Monthly Availability Payments** in respect of the **Settlement Periods** since the first test shall become payable by **The Company** to the **Generator** by reference to the first practicable **Final Monthly Statement** issued following such further successful test together with interest thereon at the **Base Rate** from the date on which such payments would otherwise have been due and payable by **The Company**; or
- (b) the **Black Start Capability** shall be deemed to be restored in accordance with Sub-Clause 4.9.4.

4.10 **Black Start Instruction**

4.10.1 During any **Black Start** situation an instruction by **The Company** to the **Generator** as referred to in **Grid Code OC9.4** for implementation of the **Local Joint Restoration Plan** from the **Black Start Plant** ("a **Black Start Instruction**") may comprise (subject to Sub-Clauses 4.8.5, 4.8.6 and 4.11), without limitation, any one or more of the following:-

- (a) an instruction to **Start-Up** the **BS Genset(s)**, without an external electrical supply and in accordance with the **Local Joint Restoration Plan**; and/or
- (b) an instruction for such **BS Genset(s)** to be connected to or **Synchronised** to the **GB Transmission System** and the local **User System** (in accordance with the **Local Joint Restoration Plan**) or a part thereof; and/or
- (c) an instruction for such **BS Genset(s)** to maintain a specified voltage at the **Commercial Boundary**; and/or
- (d) an instruction for such **BS Genset(s)** to accept block loads; and/or
- (e) an instruction for such **BS Genset(s)** to operate in **Frequency Sensitive Mode**; and/or
- (f) an instruction to switch in or out the **Power System Stabiliser**.

The modes of instruction specified in this Sub-Clause 4.10.1 are indicative only but all **Black Start Instructions** shall fall within the remit of this Clause 4, the **Local Joint Restoration Plan** and/or the **Grid Code**. The actual method of instruction and the

detailed instruction formats for use in a **Black Start** situation will be more comprehensively set out in the **Local Joint Restoration Plan**.

- 4.10.2 Subject and without prejudice to Sub-Clause 4.1 the **Generator** agrees that **The Company** may issue a **Black Start Instruction** for operation of the **BS Genset(s)** outside of operating capability as declared or redeclared to **The Company** pursuant to relevant provisions of the **Grid Code** but only to the extent the instruction is for operation in accordance with the relevant **Black Start Capability** or a capability otherwise agreed by the **Generator**.
- 4.10.3 During any **Black Start** situation, **The Company** shall provide the **Generator** with such information relating to the **GB Transmission System** as **The Company**, in its reasonable opinion, shall consider to be necessary in order to enable the **Generator** to implement the **Local Joint Restoration Plan** or respond to instructions under the **Grid Code**.
- 4.10.4 For the avoidance of doubt, the **Generator** shall comply with a **Black Start Instruction** notwithstanding that the **BS Genset(s)** and/or the **BS Auxiliary Unit(s)**, may thereby be requested to run on distillate fuel.

4.11 Safety

Notwithstanding Sub-Clauses 4.8.7 and 4.10, **The Company** accepts that the decision to keep the **BS Genset(s)** operating outside of its safe operating parameters is one for the **Generator** alone, and accepts that the **Generator** may change generation on that **BS Genset(s)** or the **BS Auxiliary Unit(s)** if it believes it is necessary for safety reasons (whether relating to personnel or **Plant** or **Apparatus**). The responsibility for injury to personnel and damage to **Plant** and **Apparatus** owned and/or operated by the **Generator** caused by operation of the **BS Genset(s)** in a **Black Start** situation (including without limitation any damage to a **BS Genset(s)** caused by loss of barring) therefore rests with the **Generator** and **The Company** shall have no liability whatsoever in connection therewith. Save to the extent that it has operated the **BS Genset(s)** in accordance with **Good Industry Practice**, the **Generator** shall indemnify and keep indemnified **The Company** in respect of liability for death or personal injury and/or damage to **Plant** and **Apparatus** owned and/or operated by **The Company** and arising out of or in connection with such operation of the **BS Genset(s)** outside of its safe operating parameters save to the extent:-

- 4.11.1 the **Generator** has notified **The Company** that the **BS Genset(s)** cannot be operated within its safe operating parameters because of **Demand** being experienced and **The Company** subsequently fails to comply with **Grid Code OC 9.4.7.4**; and
- 4.11.2 such death or personal injury and/or damage to **Plant** and **Apparatus** is caused by **The Company's** negligent act or omission.

4.12 Local Joint Restoration Plan and Training

- 4.12.1 The **Generator** shall co-operate with **The Company** in the development, review and updating from time to time of a **Local Joint Restoration Plan** for the **Power Station** which shall be in a form to be agreed between the **Parties** (such agreement not to be

unreasonably withheld or delayed) and one or more local **Public Distribution System Operators** and/or **User** and/or third party responsible for essential supplies as referred to in Sub-Clause 4.8.2 (as the case may be) (together “the **Relevant Third Parties**”), and shall include details of the following:-

- (a) the part of the **GB Transmission System** and/or local **Distribution System** to be energised (in the case of the local **Distribution System** indirectly) by the **Generator** utilising the **Black Start Plant** and the methods by which this will be achieved;
- (b) how the block loading of the **Black Start Plant** is to be achieved by direct communication between the **Generator**, the local **Public Distribution System Operator** and **The Company**;
- (c) manner of operation during islanded conditions;
- (d) telephone numbers of all **Parties** concerned and all other pertinent information of a similar nature; and
- (e) the time periods required for the restoration of essential supplies referred to in Sub-Clause 4.8.2.

4.12.2 In connection with Sub-Clause 4.12.1, the **Generator** shall ensure that all appropriate personnel at the **Power Station** are made aware of the **Local Joint Restoration Plan** and receive appropriate training in respect thereof. Appropriate training shall be at the sole discretion of the **Generator** but may include the carrying out of one exercise a year (of no more than a reasonable duration) with various station staff (which may include the operation of any part of the **Local Joint Restoration Plan**). Upon reasonable request from the **Generator**, **The Company** shall use reasonable endeavours (insofar as permitted by the **Grid Code** and subject as provided below) to co-operate with the **Generator** in the carrying out of any such exercise by the issue of suitable instructions (at times and for periods agreed with **The Company**) and, subject to the **Generator**'s rights referred to in Sub-Clauses 4.20.6 to 4.20.25 inclusive, each **Party** shall bear its own additional staffing costs in connection with any such exercise. In respect of any exercises involving changes to the production profile of any **BM Unit** at the **Generator**'s **Power Station**, the provisions of Sub-Clauses 4.20.6 to 4.20.25 inclusive shall apply.

4.12.3 The **Parties** shall use reasonable endeavours to ensure that a **Local Joint Restoration Plan** has been developed by the **Service Commencement Date** and, in connection therewith, the **Generator** shall be responsible for procuring that all **Relevant Third Parties** co-operate in the development of such **Local Joint Restoration Plan**. In the event that a **Local Joint Restoration Plan** has not been agreed by the **Parties** and the **Relevant Third Parties** by the date being [three] months after the **Service Commencement Date** or such later date as may be agreed in writing by both **Parties**, **The Company** shall be entitled to notify the **Generator** in writing at any time thereafter that the **Black Start Plant** shall be deemed not to have any part of the **Black Start**

Capability with effect from the date of such notification until such time as a **Local Joint Restoration Plan** has been developed and agreed by the **Parties** and the **Relevant Third Parties**.

4.13 **Events of Default**

In relation to the **Black Start Service**, each of the events specified in Annexure B to this Clause 4 (and no others) shall constitute an "**Event of Default**" and shall result in the respective consequences also set out therein as if the same were set out in full in this Clause 4. For the avoidance of doubt, where one incident results in more than one **Event of Default**, **The Company** shall only be entitled to apply the respective consequence once.

4.14 **Consequences of Events of Default**

4.14.1 The provisions of Annexure B to this Clause 4 shall apply in the case of an **Event of Default** and, subject to the provisions thereof, the amounts payable by the **Generator** to **The Company** in respect thereof shall be calculated in accordance with Schedule E, Section 2, Part I (in respect of a **Repayment Amount**) and Schedule E, Section 2, Part IV (in respect of a **Works Contribution Refund Payment**).

4.14.2 The **Generator** acknowledges and agrees that the provisions of Annexure B to this Clause 4 have been the subject of discussion and negotiation and are fair and reasonable having regard to the circumstances as at the date hereof and that in particular (but without limiting the foregoing) any monies which cease to be payable by **The Company** to the **Generator** hereunder, the aggregate number of hours expressed to be taken into account in calculating the **Monthly Availability Payments** payable to the **Generator** pursuant to this Clause 4, the **Repayment Amounts** and the **Works Contribution Refund Payments** have been calculated so as to reflect as fairly as possible the costs which are reasonably contemplated by the **Parties** at the date hereof as being likely to be incurred by **The Company** as a direct result of the **Events of Default** as referred to in Sub-Clause 4.13 or (as the case may be) the termination of provision of the **Black Start Service**.

4.15 **Annual Assessment**

4.15.1 Following the expiry of each consecutive 12 month period of operation of this Clause 4 commencing from the **Service Commencement Date** **The Company** shall undertake assessments of the extent of provision of the **Black Start Plant** by the **Generator** over that immediately preceding 12 month period ("the **Assessment Period**") and shall notify the **Generator** accordingly.

4.15.2 The first assessment shall be carried out by determining in relation to each **Assessment Period** and by reference to Sub-Clauses 4.15.3 and 4.15.4 the number of **Settlement Periods** during such **Assessment Period** in which the **Black Start Plant** has had the **Black Start Capability**. If the percentage of **Settlement Periods** during such **Assessment Period** in which the **Black Start Plant** has had the **Black Start Capability**

shall be less than 90% then the respective consequences set out in Annexure C to this Clause 4 shall apply.

4.15.3 If in respect of any period the **Black Start Plant** does not have the **Black Start Capability** due solely to either:-

- (a) **Force Majeure**; or
- (b) the carrying out of **Refurbishment Works** in accordance with the **Refurbishment Works Timetable** (including (where relevant) the period of time between the issue of the **Works Completion Certificate** and the conduct of a **Black Start Test**),

then to the extent that in respect of such period the **Generator** is able to demonstrate to **The Company's** reasonable satisfaction that it has been taking all reasonably practicable steps to restore the **Black Start Capability** from the **Black Start Plant**, the **Black Start Plant** shall be deemed to have had the **Black Start Capability** for the purposes of Annexure C to this Clause 4. For the avoidance of doubt, this Sub-Clause 4.15.3 shall not apply in respect of any periods after the failure of a **Black Start Test** conducted in accordance with paragraph 7 of Part I of Annexure A to this Clause 4.

4.15.4 If the **Generator** gives **The Company** at least 3 months' prior written notice of any period during which the **Generator** proposes to withdraw the **Black Start Capability** from the **Black Start Plant** (including the duration of such period), **The Company** shall assess the likely consequences of such withdrawal and may either:-

- (a) confirm in writing that such withdrawal of the **Black Start Capability** will not result in **The Company** incurring exceptional costs and/or compromise the safety or security of the **GB Transmission System**; or
- (b) request the **Generator** to revise the notified period of withdrawal to ensure that withdrawal of the **Black Start Capability** will not result in **The Company** incurring exceptional costs and/or compromise the safety or security of the **GB Transmission System**.

Where either paragraph (a) applies or the **Generator** agrees in writing to any revisions requested by **The Company** in accordance with paragraph (b) to the notified period of withdrawal, then to the extent that in respect of such period the **Generator** is able to demonstrate to **The Company's** reasonable satisfaction that it has been taking all reasonably practicable steps to restore the **Black Start Capability** from the **Black Start Plant** on, or before, expiry of the agreed period of withdrawal, the **Black Start Plant** shall be deemed to have had the **Black Start Capability** for the purposes of Annexure C to this Clause 4. Where the **Generator** does not agree in writing to any revisions requested by **The Company** in accordance with paragraph (b) to the notified period of withdrawal, then the **Black Start Plant** shall be deemed not to have had the **Black Start Capability** for the duration of such notified period.

4.15.5 In respect of each **Assessment Period**, a second assessment shall also be carried out of the number of **Settlement Periods** during such **Assessment Period** in which the **Black**

Start Plant did not have the **Black Start Capability** due to **Force Majeure**. If the percentage of such **Settlement Periods** during such **Assessment Period** exceeds 75% then either **Party** shall be entitled to terminate this Clause 4 forthwith by notice in writing to the other to be served at any time until the end of one month following expiry of the relevant **Assessment Period** (or one month following completion of the assessment, if later). In respect of such termination, the **Generator** shall pay to **The Company** in accordance with Clause [8][4 of the MASA] a **Works Contribution Refund Payment** calculated in accordance with the formula in paragraph (b) of Schedule E, Section 2, Part IV.

4.15.6 The first such **Assessment Period** shall commence on the **Service Commencement Date**. In the event of termination of the provisions of this Clause 4 during an **Assessment Period**, the availability of the **Black Start Plant** in respect of the period since the end of the last **Assessment Period** shall be assessed by **The Company** in accordance with this Sub-Clause 4.15 but in respect of such shorter period, and "**Assessment Period**" shall be construed accordingly.

4.15.7 Subject to Sub-Clauses 4.15.3 and 4.15.4, for the purposes of this Sub-Clause 4.15 and Schedule E, Section 2, Part II and Schedule E, Section 2, Part IV, periods when the **Black Start Plant** shall not have had the **Black Start Capability** shall be determined in accordance with Sub-Clause 4.9 and/or Sub-Clause 4.12.3.

4.16 **Black Start Exercise Payment**

No exercise payments shall be made by **The Company** to the **Generator** under this **Agreement** in respect of running of the **BS Genset(s)** or the **BS Auxiliary Unit(s)** during a **Black Start** situation or during **Reproving Assessments**, **Capability Assessments**, **Remote Synchronisation Tests** or **Grid Code** tests carried out pursuant to Sub-Clauses 4.9.4 and 4.20.1 or during exercises carried out pursuant to Sub-Clause 4.12.

4.17 **Termination**

4.17.1 Without prejudice to **The Company's** right to terminate the provisions of this Clause 4 in the circumstances described in Sub-Clause 4.15.5, **The Company** shall be entitled to terminate the provisions of this Clause 4 after the **Service Commencement Date** only in the following circumstances:-

- (a) as specified in Annexure B to this Clause 4 as a consequence of **Events of Default**; and
- (b) as specified in Annexure C to this Clause 4 upon failure by the **Parties** to reach agreement on appropriate amendments to Clause 4 within the time specified therein.

4.17.2 Upon termination of Clause 4 as referred to in Sub-Clause 4.17.1 or upon termination of this **Agreement** pursuant to Sub-Clause [10.1][7.1 of the MASA], the **Generator** shall pay to **The Company** in accordance with Clause [8][4 of the MASA] a **Works**

Contribution Refund Payment calculated in accordance with the formula in Schedule E, Section 2, Part IV.

4.17.3 Termination of this Clause 4 shall be without prejudice to any rights of the **Parties** which shall have accrued at the time of such termination.

4.18 **Instructions and Notifications**

All notifications, declarations, confirmations and other communications of whatever nature to be given by **The Company** to the **Generator** or vice versa pursuant to this Clause 4 which concern the availability and utilisation of the **Black Start Service** shall (unless otherwise specified to the contrary in this Clause 4) be given either:-

4.18.1 in accordance with the **Grid Code** (where applicable); or

4.18.2 by telephone,

and subsequently confirmed by facsimile in the appropriate form set out in Schedule E, Section 4 or by such other means as may be agreed in writing by the **Parties**.

4.19 **Inspections and Assurance Visits**

Inspections

4.19.1 To enable **The Company** to verify the capability of the **Black Start Plant** to provide the **Black Start Service**, the **Generator** shall permit **The Company** to inspect such of the following as **The Company** may reasonably require (in each case upon giving to the **Generator** not less than 24 hours prior notice):-

(a) the **BS Genset(s)**;

(b) the **Auxiliaries** (including without limitation the **BS Auxiliary Unit(s)**);

(c) the **Generator's** other **Plant** and **Apparatus**, consumables (which shall include supplies of raw water, demineralised water and supplies of gas), communication channels and other related supplies at the **Power Station**;

(d) the **Local Joint Restoration Plan** and such evidence as **The Company** shall reasonably require to demonstrate compliance by the **Generator** with its obligations contained in this **Agreement**; and

(e) any **Black Start** procedure which has been or may in future be developed independently by the **Generator** in respect of the **Power Station** giving specific guidance to that **Power Station** in the event of a **Black Start** situation and which is or may at a future date be in current use at the **Power Station**.

Such inspection shall be carried out without undue interference with the normal operation of the **Black Start Plant**.

Assurance Visits

4.19.2 Without prejudice to, and in addition to, **The Company's** right to carry out inspections in accordance with Sub-Clause 4.19.1, the **Generator** shall, subject to Sub-Clause 4.19.3, not more than once in any calendar year, permit **The Company** to visit the **Power Station** (upon **The Company** giving to the **Generator** not less than 168 hours'

prior notice) so that **The Company** may ascertain to its reasonable satisfaction that the **Generator** has, in accordance with **Good Industry Practice**, implemented at the **Power Station** appropriate technical, training and documentation procedures (“an **Assurance Visit**”). **Assurance Visits** shall be carried out without undue interference with the normal operation of the **Black Start Plant**.

4.19.3 Following receipt of any notice issued by **The Company** pursuant to Sub-Clause 4.19.2, the **Generator** may propose to **The Company** an alternative time and date for the **Assurance Visit**, provided that any such alternative time and date shall not be later than 28 **Settlement Days** following the time and date specified by **The Company** in its notice, and (at its option) **The Company** may agree to such alternative time and date. In the event that the **Generator** unreasonably delays the **Assurance Visit** beyond the time and date being 28 **Settlement Days** after the time and date for the **Assurance Visit** specified by **The Company** in its notice, then no **Monthly Availability Payments** shall accrue due to the **Generator** in respect of the period commencing at the time and date for the **Assurance Visit** specified in **The Company**'s notice and ending upon completion by **The Company** of an **Assurance Visit**.

4.20 **Black Start Tests**

Remote Synchronisation Tests, Capability Assessments and Repeating Assessments

4.20.1 Without prejudice to **The Company**'s right to conduct tests in accordance with **Grid Code OC 5.7.1** and **Repeating Assessments** pursuant to Sub-Clause 4.9.4, and subject always to the provisions of this Clause 4, **The Company** shall have the right:-

- (a) not more than once in any two calendar years to require the **Generator**, by notice in writing, to carry out a **Remote Synchronisation Test** at a time no sooner than 168 hours following the time of issue of the notice, to determine whether the **BS Genset(s)** and/or the **Auxiliaries** and their associated **Plant** and **Apparatus** are able to perform the processes described in paragraphs 3 to 5 of Annexure D to this Clause 4 and are otherwise capable of providing the **Black Start Service** in accordance with this Clause 4; and
- (b) to require the **Generator**, by notice in writing, to carry out a test (“a **Capability Assessment**”) at any time no sooner than 24 hours following the issue of the notice where **The Company** has reasonable grounds for believing that the **Black Start Plant** does not have the **Black Start Capability**. The scope of a **Capability Assessment** shall in each case have regard to the nature and extent of the circumstances upon which **The Company** bases its opinion that the **Black Start Plant** does not have the **Black Start Capability** and shall be discussed and agreed with the **Generator** (such agreement not to be unreasonably withheld or delayed). Without limiting the foregoing the **Capability Assessment** may include the

monitoring of the normal operation of the **BS Genset(s)** and/or the **BS Auxiliary Unit(s)** (as appropriate).

Following receipt of any such notices, the **Generator** may make representations to **The Company** regarding the specified time and duration of the **Remote Synchronisation Test** or (as the case may be) the **Capability Assessment**, provided that, in the case of a **Capability Assessment**, any revised time and duration proposed by the **Generator** shall not be later than 168 hours after the time and date for the **Capability Assessment** specified by **The Company** in its notice and shall be accompanied by a justification setting out the reasons for delaying the **Capability Assessment** which is reasonably satisfactory to **The Company**. **The Company** may (at its option) agree a different time (either before or after that specified in its notice) for the **Remote Synchronisation Test** or **Capability Assessment** (as the case may be) to take into account the **Generator's** representations. In the event that the **Generator** notifies **The Company** that the **Black Start Plant** does not have the **Black Start Capability** at the scheduled time and date for the **Capability Assessment** then **The Company** reserves the right to treat such circumstances as a failed **Black Start Test** and the **Black Start Plant** shall, with effect from the scheduled time and date for the **Capability Assessment**, be determined not have the **Black Start Capability** for the purposes of Sub-Clause 4.9.2(a).

4.20.2 Each notice referred to in Sub-Clause 4.20.1(a) shall indicate the scope of the **Remote Synchronisation Test** and all actions required of the **Generator** in respect thereof. A summary of the **Remote Synchronisation Test** procedure is set out in Annexure D to this Clause 4. A detailed procedure for the **Power Station** developed in accordance with this summary will be agreed between the **Parties** (such agreement not to be unreasonably withheld or delayed) no later than 12.00 hours on the **Business Day** before the day on which the **Remote Synchronisation Test** is due to be conducted and the rights and obligations of the **Parties** under the **Remote Synchronisation Test** procedure shall be governed by the terms of this **Agreement**.

4.20.3 A **Reproving Assessment** or a **Capability Assessment** shall be commenced either by **The Company** giving the **Generator** one or more of the instructions referred to in Sub-Clause 4.10, which may be in the manner of a test carried out pursuant to **Grid Code OC5** or (at **The Company's** option) by monitoring and/or inspecting the **BS Genset(s)** and/or the **BS Auxiliary Unit(s)** during any period in which they are providing generation otherwise than in accordance with this Clause 4. The performance of such **Plant** and **Apparatus** shall be assessed by **The Company** by reference to metering and/or any monitoring equipment and at the option of the **Generator** shall be carried out in the presence of a reasonable number of non-participating representatives of the **Generator**. If such metering and/or monitoring equipment indicates that the **Generator** is unable to comply with such instruction then **The Company** shall notify the **Generator** that the **Generator** has failed the **Reproving Assessment** or **Capability Assessment**.

4.20.4

If a bona fide dispute arises relating to the performance of the **BS Genset(s)** and/or the **BS Auxiliary Unit(s)** during or as to the results of a **Remote Synchronisation Test, Reproving Assessment** or **Capability Assessment**, **The Company** and the **Generator** shall attempt to resolve the dispute by discussions, and if they fail to reach agreement the **Generator** may require **The Company** to carry out a further **Remote Synchronisation Test, Reproving Assessment** or **Capability Assessment** (as applicable) to be carried out on not less than respectively 168, 24 or 24 hours notice which shall be carried out in accordance with the provisions of this Sub-Clause 4.20 as if **The Company** had issued an instruction at the time of notice from the **Generator**. If the **Generator** passes such further **Remote Synchronisation Test, Reproving Assessment** or **Capability Assessment**, it shall be deemed to have passed the first **Remote Synchronisation Test, Reproving Assessment** or **Capability Assessment**. If the **Generator** fails such further **Remote Synchronisation Test, Reproving Assessment** or **Capability Assessment** and a dispute arises on that further **Remote Synchronisation Test, Reproving Assessment** or **Capability Assessment** or if any dispute arises in relation to an inspection or **Assurance Visit** carried out pursuant to Sub-Clause 4.19, then the **Parties** shall attempt to resolve the dispute by discussions but if they fail to reach agreement within 3 **Business Days** of the commencement of such discussions either **Party** may refer the matter to the **Independent Expert** for determination. The **Generator** shall not be treated as failing any **Remote Synchronisation Test, Reproving Assessment** or **Capability Assessment** if it has given notice of non-capability pursuant to Sub-Clause 4.9 either:-

- (a) before the notice of the relevant test given by **The Company**; or
- (b) after the notice of the relevant test given by **The Company** in respect of matters which the **Generator** can reasonably demonstrate arose after the giving of such notice by **The Company**.

4.20.5

Each **Party** shall bear its own costs incurred as a direct result of a **Capability Assessment** and a **Remote Synchronisation Test** save where the **Generator** fails such **Capability Assessment** or **Remote Synchronisation Test** (as the case may be), in which event the **Generator** shall reimburse to **The Company** all of **The Company's** reasonable costs reasonably incurred as a direct result thereof. Additionally, the **Generator** shall reimburse to **The Company** all of **The Company's** reasonable costs reasonably incurred as a direct result of a **Reproving Assessment** conducted either following an **Event of Default** referred to in Sub-Clause 4.13 or following failure by the **Generator** of a previous **Reproving Assessment**.

Black Start Test Procedure - Black Start Test Parameters

4.20.6

In respect of each **Black Start Test**, **The Company** and the **Generator** shall use all reasonable endeavours to agree, no later than four clear **Settlement Days** before the day on which the **Black Start Test** is due to be conducted, the **Black Start Test Parameters** for the conduct of the **Black Start Test**, such agreement to be in writing

substantially in the appropriate form set out in Schedule E, Section 4. If no such agreement is reached by such date, then without prejudice to any other provision of this **Agreement** no **Monthly Availability Payments** shall accrue due to the **Generator** from such date until the date when such agreement is finally reached.

4.20.7 The **Black Start Test Parameters** shall comprise those matters necessary to be agreed for the purposes of Sub-Clauses 4.9.4 (**Reproving Assessments**), 4.12.2 (exercises), 4.20.1(a) (**Remote Synchronisation Tests**), 4.20.1(b) (**Capability Assessments**) and **Grid Code OC 5.7.1(d)**, as applicable, and shall be consistent therewith, and shall include (without limitation):

- (a) the **BM Unit ID** for the **BS Genset(s)** and **BM Unit ID** for the **BS Auxiliary Unit(s)**;
- (b) the proposed start time and end time for the **Black Start Test Period**, each determined in accordance with Sub-Clause 4.20.8;
- (c) a proposed running profile together with underlying **Physical Notification** level and **Maximum Export Limit**, for the **BS Genset(s)** during the **Black Start Test** which meet the requirements of Sub-Clause 4.20.9; and
- (d) in respect of the **BS Genset(s)**, **Bid Offer Prices** which meet the requirements of Sub-Clause 4.20.10.

4.20.8 The start time and end time of a **Black Start Test Period** referred to in Sub-Clause 4.20.7(b) shall, unless otherwise agreed by the **Parties** in writing, be determined as follows:

- (a) in the case where the running profile comprised within the **Black Start Test Parameters** indicates the **BS Genset(s)** being **Synchronised** in any **Settlement Period(s)** the twelve hour period immediately prior to commencement of the **Black Start Test Period**:-
 - (i) the start time shall be one hour prior to the time indicated in the running profile for the **BS Genset** to commence **De-Loading** in preparation for **Desynchronisation**; and
 - (ii) the end time shall be one hour after the time indicated in the running profile by which the **BS Genset(s)** shall have achieved an **Output** equal to its **Physical Notification** level;
- (b) in the case where the running profile comprised within the **Black Start Test Parameters** indicates the **BS Genset(s)** not being **Synchronised** in any **Settlement Period(s)** the twelve hour period immediately prior to commencement of the **Black Start Test Period**:-
 - (i) the start time shall be one hour prior to the time indicated in the running profile for the opening of the final circuit breaker connecting the **Power Station** to the **GB Transmission System** in preparation for the **Synchronisation** of the **BS Genset(s)**; and

- (ii) the end time shall be one hour after the time indicated by the running profile for the **BS Genset(s)** to achieve an **Output** equal to its **Physical Notification** level.
- 4.20.9 The underlying **Physical Notification** level for the **BS Genset(s)** during the **Black Start Test** referred to in Sub-Clause 4.20.7(c) shall, unless otherwise agreed by the **Parties** in writing, be determined as follows:
- (a) in the case where the running profile comprised within the **Black Start Test Parameters** indicates some or all of the **BS Genset(s)** being **Synchronised** in any **Settlement Period(s)** in the twelve hour period immediately prior to commencement of the **Black Start Test Period**, the underlying **Physical Notification** level for all **BS Gensets** at the **Black Start Station** other than those **BS Genset(s)** that have been **Synchronised** in the twelve hour period shall be zero MW; and
- (b) in the case where the running profile comprised within the **Black Start Test Parameters** indicates the **BS Genset(s)** not being **Synchronised** in any **Settlement Period(s)** in the twelve hour period immediately prior to commencement of the **Black Start Test Period**, the underlying **Physical Notification** level for all **BS Gensets** at the **Black Start Station** shall be zero MW.
- 4.20.10 **Bid Offer Prices** referred to in Sub-Clause 4.20.7(d) shall:-
- (a) comprise **Bid-Offer Pairs** with a **Bid Price** and **Offer Price** which are equal;
- (b) reflect the differential in costs between those which would be incurred by the **Generator** in operating the **BS Genset(s)** in accordance with the **Bid-Offer Pair** in the event of its acceptance and those which would be incurred in operating the **BS Genset(s)** in accordance with its **Final Physical Notification Data**; and
- (c) comprise a **Bid Price** not less than £0.00.
- 4.20.11 The **Dynamic Parameters** for the **BS Genset(s)** during the **Black Start Test** shall, unless otherwise agreed by the **Parties** in the **Black Start Test Parameters**, be those **Dynamic Parameters** which applied at the time of notification by **The Company** of the requirement for a **Black Start Test**.
- 4.20.12 Once agreed by the **Parties**, the **Black Start Test Parameters** may subsequently be revised by agreement in writing of the **Parties** (not to be unreasonably withheld or delayed) but not so as to fall outside of the **Black Start Test Period**.
- Black Start Test Procedure - Black Start Test Conduct*
- 4.20.13 In conducting a **Remote Synchronisation Test, Repeating Assessment** or **Capability Assessment**, **The Company** may assess the suitability of, and the performance of the **Generator's** personnel against, the terms of the **Local Joint Restoration Plan** and/or any **Black Start** procedure which has been developed independently by the **Generator**

(as more particularly referred to in Sub-Clause 4.19.1(e)), and such assessment shall (inter alia) be taken into account when determining whether the **Generator** has passed or failed such **Remote Synchronisation Test, Repeating Assessment** or **Capability Assessment**.

4.20.14 For the purposes of any **Black Start Test** which is not limited solely to monitoring the normal operation of the **BS Genset(s)**, and to facilitate the issue by **The Company** of **Bid-Offer Acceptances** in respect of the **BS Genset(s)**, the **Generator** shall submit, in accordance with the **Balancing and Settlement Code** and in respect of all **Black Start Test Settlement Periods**:-

- (a) a **Maximum Export Limit** and **Physical Notification** level matching those comprised within the **Black Start Test Parameters** for the **BS Genset(s)**;
- (b) **Bid-Offer Data** comprising **Bid-Offer Pairs** for levels of MW (positive and/or, as the case may be, negative) consistent with the running profile for the **BS Genset(s)** comprised within the **Black Start Test Parameters** (and by reference to the **Physical Notification** level specified in paragraph (a) above);
- (c) **Dynamic Parameters** which comply with Sub-Clause 4.20.11; and
- (d) in respect of the **Bid-Offer Pairs** submitted in accordance with paragraph (b) above, **Bid-Offer Prices** consistent with the **Bid-Offer Prices** for the **BS Genset(s)** comprised within the **Black Start Test Parameters**.

4.20.15 For the purposes of any **Black Start Test** which is not limited solely to monitoring the normal operation of the **BS Auxiliary Unit(s)** the **Generator** shall, in relation to the **BM Unit(s)** comprising the **BS Auxiliary Unit(s)**, submit in accordance with the **Balancing and Settlement Code** and the **Grid Code**, and in respect of all **Black Start Test Settlement Periods, Physical Notifications** comprising a profile of zero intended production.

4.20.16 Subject to Sub-Clause 4.20.17, the **Bid-Offer Acceptance(s)** that **The Company** shall issue in order to facilitate the conduct of the **Black Start Test** shall be determined as follows:

- (a) in the case where the running profile comprised within the **Black Start Test Parameters** indicates the **BS Genset(s)** being **Synchronised** in any **Settlement Period(s)** in the twelve hour period immediately prior to commencement of the **Black Start Test Period**, **The Company** shall, in respect of each **Black Start Test Settlement Period**, issue **Bid-Offer Acceptance(s)** in respect of any **BS Genset(s)** which is **Synchronised** in accordance with its **Physical Notification**, to permit such **BS Genset(s)** to follow the running profile comprised within the **Black Start Test Parameters**.
- (b) in the case where the running profile comprised within the **Black Start Test Parameters** indicates the **BS Genset(s)** not being **Synchronised** in

any **Settlement Period(s)** in the twelve hour period immediately prior to commencement of the **Black Start Test Period**, **The Company** shall issue **Bid-Offer Acceptance(s)** in respect of the **Black Start Test Main Unit** to increase the generation of the **Black Start Test Main Unit** to its **Stable Export Limit** for a period equal to the prevailing **Minimum Non Zero Time** submitted in respect of the **Black Start Test Main Unit**, and such running of the **Black Start Test Main Unit** shall be completed prior to the disconnection of the **Power Station's** external alternating current supplies in accordance with the running profile comprised in the **Black Start Test Parameters**.

Cancellation

- 4.20.17 Where **The Company** reasonably considers that any **Black Start Test**, other than a **Reproving Assessment** (in respect of which Sub-Clause 4.9.4(b)(iv) shall apply), would result in **The Company** incurring exceptional costs or the safety or security of the **System** being compromised, **The Company** may notify the **Generator** of the cancellation of such **Black Start Test**, in which event the **Parties** shall agree a new time for the conduct of such **Black Start Test** and Sub-Clauses 4.20.6 to 4.20.16 and this Sub-Clause 4.20.17 shall apply. Where the **Generator** unreasonably withholds or delays such agreement, **The Company** may specify a time for the conduct of such **Black Start Test** on no less than 168 hours notice.

Notices

- 4.20.18 The **Generator** shall use such telephone and facsimile numbers as may be notified to it by **The Company** from time to time for the purposes of notices to be given or confirmed by facsimile or telephone pursuant to this Sub-Clause 4.20. Service of such notice shall be without prejudice to the **Generator's** obligations to notify **BM Unit Data** by means of the **EDL Equipment** pursuant to the **Grid Code** and/or the **Balancing and Settlement Code**.

Payments during a Black Start Test

- 4.20.19 The **Parties** acknowledge that the **Balancing and Settlement Code** shall govern the payments falling due to the **Parties** in respect of any running of **BM Unit(s)** during the **Black Start Test Period**, save that in respect of the running of the **BM Unit(s)** comprising the **BS Auxiliary Unit(s)** during the **Black Start Test Period**, **The Company** shall pay to the **Generator**, in accordance with Clause [8][4 of the **MASA**], , in respect of each **BS Auxiliary Unit** which runs an amount being the lesser of:-
- (a) the **Exercise Price** multiplied by the metered MWh **Output** of the **BS Auxiliary Unit(s)** during the **Black Start Test Period**; and
 - (b) the **Exercise Price x Auxiliary Contracted MW** of the **BS Auxiliary Unit x 5 Settlement Periods**.

- 4.20.20 Where **The Company** issues a **BM Start-Up Instruction** in order to permit **The Company** to issue **Bid-Offer Acceptance(s)** in accordance with Sub-Clause 4.20.16(b),

then, for the purposes of calculating any **BM Start-Up Payment**, the **BM Start-Up Price** shall be the relevant **BM Start-Up Price** which applied at the time of notification by **The Company** of the requirement for a **Black Start Test**.

4.20.21 In the event that the **BS Genset(s) Desynchronises** in accordance with the running profile comprised within the **Black Start Test Parameters** and subsequently is unable to **Synchronise** in accordance with that running profile due to plant failure, then provided firstly that **The Company** is so notified by the **Generator** in sufficient time and secondly that the **Generator** is taking all reasonable steps to rectify the plant failure, **The Company** agrees to continue to issue **Bid-Offer Acceptances** to reflect the actual **Output** of the **BS Genset(s)** until but not beyond the expiry of the **Black Start Test Period**.

4.20.22 The **Exercise Price** shall be subject to indexation during the term of this Clause 4 in accordance with the provisions of Schedule E, Section 3, Part III.

Forced Cooling

4.20.23 If during any **Grid Code** test, **Remote Synchronisation Test**, **Reproving Assessment** or **Capability Assessment** the **BS Genset(s)** at the **Power Station** is required to be **Shutdown**, any forced cooling of the **BS Genset(s)** undertaken by the **Generator** shall be at its own cost.

Restrictions on Black Start Tests

4.20.24 **The Company** shall not require a **Black Start Test** during periods when the **Black Start Plant** does not have or is deemed not to have the **Black Start Capability** by reason of:-

- (a) a planned maintenance and/or inspection period agreed pursuant to the **Grid Code**;
- (b) an event or circumstance of **Force Majeure**;
- (c) notification in accordance with Sub-Clause 4.9.1; or
- (d) the terms of this Clause 4 (including Sub-Clauses 4.9.2, 4.9.3, 4.9.4 and 4.12.3) or Annexure B to this Clause 4.

Damage to Plant and Apparatus

4.20.25 For the avoidance of doubt, each **Party** shall bear the risk of, and the other **Party** shall have no liability to that **Party** in respect of, loss and damage to that **Party's Plant** or **Apparatus** caused during or as a result of any **Grid Code** test, **Remote Synchronisation Test**, **Reproving Assessment**, **Capability Assessment** or exercise pursuant to Sub-Clause 4.12.2 (whether due wholly or partly to the other **Party's** default or to the malfunction of its **Plant** or **Apparatus** or otherwise).

4.21 **Monitoring and Metering**

4.21.1 Without prejudice to any existing right of **The Company** to monitor and meter the provision of any **Ancillary Service**, **The Company** by agreement with the **Generator** (not to be unreasonably withheld or delayed) may monitor and/or meter the provision by

the **Generator** of the **Black Start Service** by the **Monitoring and Despatch Equipment** as more particularly described in Schedule B.

- 4.21.2 The provisions of Schedule B shall apply in relation to any installation, maintenance and repair of the **Monitoring and Despatch Equipment** during the term of this Clause 4.

4.22 **Changes to Other Documents**

- 4.22.1 The **Parties** agree to negotiate in good faith and use all reasonable endeavours to agree amendments to this Clause 4 in light of:-

(a) any changes to a **Legal Requirement** or industry documentation (including without limitation the **Act**, any **Licence**, the **Balancing and Settlement Code**, the **Grid Code**, the **Connection and Use of System Code**, the **Mandatory Services Agreement** and/or the relevant **Bilateral Agreement**);
or

(b) the implementation of any new **Legal Requirement**,
resulting in a material change to the manner of provision of the **Black Start Service** by the **Generator** and/or the basis of payments made to or by **The Company** under this Clause 4, such amendments to have the effect so far as reasonably practicable of making the provision of the **Black Start Service** by the **Generator** and/or (as the case may be) the basis of payments to or by **The Company** under this Clause 4 no more or less favourable to the respective **Party** as was the case before such variations took effect (for the avoidance of doubt ignoring all payments made to the **Generator** otherwise than pursuant to this **Agreement** which, as a result of the changes to industry documentation as referred to above, shall cease to be payable to the **Generator** or are otherwise varied).

- 4.22.2 Failing agreement in respect of the matters contained in Sub-Clause 4.22.1, within 30 days of a **Party** notifying the other **Party** that it intends to refer a matter to arbitration, that **Party** shall have the right to invoke the provisions of Clause [19][15 of the **MASA**].

- 4.22.3 It is agreed that neither **Party** shall be entitled to modify, alter or otherwise change the site specific technical conditions under Appendix F1 (relating to the **Black Start Service**) of the **Bilateral Agreement** for the **Power Station** the subject of this **Agreement** so as to remove the reference therein to **Black Start** during such time as terms dealing with the provision of and payment for such **Ancillary Service** are contained in this Clause 4 (as amended, varied or otherwise altered from time to time) and have not either terminated or expired in accordance with the provisions of this Clause 4.

4.23 **Independent Expert**

Where any provision of this Clause 4 or Schedule E provides for a dispute or difference between the **Parties** to be referred to the **Independent Expert**, the **Parties** agree that he shall act as an expert

and not as an arbitrator and shall decide those matters referred to him by reference to **Good Industry Practice** using his skill, experience and knowledge and with regard to all such other matters as he in his sole discretion considers appropriate. All references to the **Independent Expert** shall be made in writing by either **Party** with notice to the other being given contemporaneously. The **Parties** shall promptly supply the **Independent Expert** with such documents and information as he may reasonably request when considering any referral. The **Independent Expert** shall be requested to use his best endeavours to give his decision upon the question before him as soon as possible following its referral to him. The **Parties** shall share equally his fees and expenses. The **Parties** expressly acknowledge that submission of disputes for resolution by the **Independent Expert** does not preclude subsequent submission of disputes for resolution in accordance with Clause [19][15 of the **MASA**]. Pending any such submission the **Parties** shall treat the **Independent Expert's** decision as final and binding.

4.24 **Force Majeure**

If any **Party** (the "**Non-Performing Party**") shall be unable to carry out any of its obligations under this **Agreement** due to **Force Majeure**, then without prejudice to the other provisions of this Clause 4 this **Agreement** shall remain in effect but:-

- (a) the **Non-Performing Party's** relevant obligations; and
- (b) the obligations of the other **Party** owed to the **Non-Performing Party** under this **Agreement**, shall be suspended for a period equal to the duration of **Force Majeure** provided that:-
 - (i) the suspension of performance is of no greater scope and of no longer duration than is required by the **Force Majeure**;
 - (ii) no obligations of any **Party** that arose before the **Force Majeure** causing suspension of performance are excused as a result of the **Force Majeure**;
 - (iii) the **Non-Performing Party** gives the other **Party** prompt notice describing the circumstance of **Force Majeure**, including the nature of the occurrence and its expected duration, and continues to furnish regular reports with respect thereto during the period of **Force Majeure**;
 - (iv) the **Non-Performing Party** uses all reasonable efforts to remedy its inability to perform; and
 - (v) as soon as reasonably practicable after the event which constitutes **Force Majeure** the **Parties** shall discuss how best to continue their operations so far as possible in accordance with this Clause 4.

4.25 **BM Unit Registration**

If during the term of this Clause 4 the registration of any or all of the **Black Start Plant** as (or as part of) a **BM Unit** changes, then the **Parties** shall use all reasonable endeavours to agree such variations to this Clause 4 and Schedule E as shall be necessary in consequence thereof. Failing agreement within 30 days, either **Party** shall have the right to refer the matter to the **Independent Expert** for determination whose decision shall be final and binding on the **Parties**.

ANNEXURE A (TO CLAUSE 4)

Refurbishment Works

Part I

Timescale

1. Part II of this Annexure A details the schedule for the **Refurbishment Works** (“the **Refurbishment Works Timetable**”) and such **Refurbishment Works Timetable** includes details of:-

- (a) the key stages in the **Refurbishment Works** (the “**Refurbishment Works Stages**”) (including for the avoidance of doubt the **Works Commencement Date**); and
- (b) the timetable for completing the **Refurbishment Works** by the **Works Target Completion Date** (including details of those periods during which the **Generator** anticipates that the **Black Start Capability** shall be unavailable at the **Power Station** as a result of conducting the **Refurbishment Works**).

The **Generator** shall (unless otherwise agreed with **The Company**) complete the **Refurbishment Works** within 24 calendar months of the **Service Commencement Date** and accordingly shall use its reasonable endeavours to procure that the **Refurbishment Works** are completed in a timely fashion in accordance with the **Refurbishment Works Timetable**, and that the **Works Completion Certificate** is obtained on or before the **Works Target Completion Date** and in respect thereof time shall be of the essence.

2. During progress of the **Refurbishment Works**, the **Generator** shall:-

- (a) subject always to paragraph (b) below, notify **The Company** of any slippages to the **Refurbishment Works Timetable**;
- (b) obtain **The Company**'s consent in writing (not to be unreasonably withheld or delayed) to any revisions to the **Refurbishment Works Timetable** and shall (where such revisions may result in a delay to the completion of the **Refurbishment Works**) inform **The Company** of the reason(s) for such revisions and at the same time either submit to **the Company** its proposals for remedying or avoiding such delay or anticipated delay or alternatively shall inform **The Company** of such later date by which it reasonably expects the **Refurbishment Works** to be completed; and
- (c) if so requested by **The Company**, give to **The Company** such evidence as it shall reasonably require and, if necessary, allow **The Company**'s representatives all reasonable access to the **Power Station** and to the **Auxiliaries** and/or **BS Genset(s)** and **Plant** and **Apparatus** owned or operated by the **Generator** to enable **The Company** to ascertain how the **Refurbishment Works** are progressing.

3. If, following receipt of a report pursuant to paragraph 2(c) above or in exercise of its rights pursuant to paragraph 2(c) above or otherwise, **The Company** has reasonable grounds for believing that the **Refurbishment Works** will not be completed on or before the **Works Target Completion Date**, then it shall so notify the **Generator**. The **Generator** shall within 12 **Business Days** inform **The Company** of the reasons for the delay or anticipated delay and shall at the same time either submit to **The Company** its proposals for remedying or avoiding such delay or anticipated delay or

alternatively shall notify **The Company** of such later date by which it reasonably expects the **Refurbishment Works** to be completed.

4. The **Generator** shall upon completion or (where paragraph 5 below applies) substantial completion of the **Refurbishment Works** supply to **The Company** a **Works Completion Certificate**.

5. Where the **Refurbishment Works** are substantially completed, **The Company** may (in its sole discretion), upon written application of the **Generator**, consent to the **Generator** issuing the **Works Completion Certificate** where:-

(a) there is a delay in relation to one or more items of work comprised in the **Refurbishment Works** (“the **Outstanding Works**”) which shall prevent the **Generator** from completing the **Refurbishment Works** by the **Works Target Completion Date**; and

(b) the **Generator** demonstrates to **The Company**’s reasonable satisfaction that the availability of the **Black Start Capability** in respect of [the/both/all] **BS Auxiliary Unit[s]** has been restored at the **Power Station** prior to completion of the **Outstanding Works** and shall continue to be available until such time as the **Outstanding Works** have been completed, provided always that:-

(i) the **Generator** shall agree with **The Company** a revised **Refurbishment Works Timetable** prior to the issue of the **Works Completion Certificate**; and

(ii) the **Outstanding Works** shall be specified in the **Works Completion Certificate**.

Where this paragraph 5 applies, the **Generator** shall procure that the **Outstanding Works** are completed as soon as reasonably practicable in accordance with the revised **Refurbishment Works Timetable(s)**.

6. Within 5 **Business Days** of receipt of the **Works Completion Certificate** pursuant to paragraph 4, and without prejudice to **The Company**’s right to request a **Black Start Test** in accordance with Sub-Clause 4.9.4(b)(ii), 4.12 or 4.20 and/or the **Grid Code**, **The Company** may notify the **Generator** that it requires the **Generator** to carry out an additional **Black Start Test**, to determine whether, following completion or (where paragraph 5 above applies) substantial completion of the **Refurbishment Works**, the **Black Start Plant** has the **Black Start Capability** and is otherwise capable of providing the **Black Start Service** in accordance with Clause 4. For the avoidance of doubt, and save where paragraph 8 below applies in respect of failure of a **Black Start Test**, **The Company**’s right to request a **Black Start Test** in accordance with this paragraph 6 may be exercised only once following receipt by **The Company** of the **Works Completion Certificate**. If no request is issued by **The Company** then the **Black Start Plant** shall be deemed to have the **Black Start Capability** with effect from the date of receipt by **The Company** of the **Works Completion Certificate** in accordance with paragraph 4.

7. Following a request from **The Company** as aforesaid, both **Parties** shall use their reasonable endeavours to ensure that the **Black Start Test** is conducted as soon as possible and the **Parties** shall agree the date and time of the **Black Start Test**, and in all other respects the terms of Sub-Clauses 4.20.6. to 4.20.25 (inclusive) shall apply to the conduct of such **Black Start Test**.

8. As soon as possible after the date on which the **Black Start Test** has been completed, **The Company** shall notify the **Generator** whether it has passed or failed the **Black Start Test**. In the event that

The Company notifies the **Generator** that in **The Company's** opinion (and giving reasons for that opinion) the **Generator** has failed any **Black Start Test**, the **Generator** shall as soon as possible respond to **The Company**. If the **Generator** does not dispute that there has been a failure, it shall address the reason for the failure as soon as practicable and shall subsequently notify **The Company** when the failure has been addressed, whereupon **The Company** shall have the right to require the **Generator** to carry out a further **Black Start Test** and the provisions of paragraphs 6 and 7 shall apply. If the **Generator** disputes that there has been a failure, the **Parties** shall attempt to resolve the dispute by discussions, and if they fail to reach agreement within 3 **Business Days** of the commencement of such discussions either **Party** may refer the matter to the **Independent Expert** for determination in accordance with Sub-Clause 4.23 and the provisions of paragraph 14 shall apply to such reference.

9. The **Generator** shall bear its own costs in relation to any **Black Start Test** conducted in accordance with this Annexure A, Part I and shall reimburse to **The Company** all **The Company's** reasonable costs reasonably incurred as a direct result of the each such **Black Start Test**. For the purposes of this paragraph 9, "reasonable costs" shall not include the cost of payments made pursuant to the issue of **Bid-Offer Acceptances** in the **Balancing Mechanism** as a result of conducting a **Black Start Test**.
10. Subject always to paragraph 14(b) below, if the **Generator** shall fail a third successive **Black Start Test**, **The Company** may serve written notice on the **Generator** terminating the provisions of Clause 4, and such notice shall take effect immediately.
11. Subject always to paragraphs 13 and 14(b) below, save to the extent due to an event or circumstance of **Force Majeure** or an act or omission of **The Company**, if the earlier of the date of a successful **Black Start Test** or the date on which the **Black Start Capability** is deemed to have been restored is:-
 - (a) after the date being 2 calendar months after either:-
 - (i) the date agreed by the **Parties** in accordance with paragraph 7 for conduct of such **Black Start Test**; or
 - (ii) where **The Company** fails to request a **Black Start Test** in accordance with paragraph 6, the **Works Target Completion Date**,
then the **Generator** shall pay to **The Company** without deduction or set off liquidated damages at the daily rate of £[2,000] for each such day (reduced by the number of days between the date originally agreed for a **Black Start Test** and any date subsequently agreed following cancellation by **The Company** pursuant to Sub-Clause 4.20.17) that such date is later than the date being 2 calendar months after the date referred to in paragraph 11(a)(i) or paragraph 11(a)(ii) above (as the case may be), provided always that such liquidated damages shall not in any event exceed £[210,000]; and
 - (b) more than 6 months after the date referred to in paragraph 11(a)(i) or paragraph 11(a)(ii) above (as the case may be), then **The Company** shall have the right to terminate Clause 4 by written notice to the **Generator** in accordance with Clause [16][12 of the **MASA**].

12. For the purposes of paragraph 11(a), liquidated damages shall be payable by the **Generator** to **The Company** on a monthly basis in accordance with Clause [8][4 of the **MASA**], and the due date shall be ascertained accordingly. If any payment of liquidated damages (not being a payment subject to a bona fide dispute) remains unpaid after the due date of payment and such non-payment continues unremedied at the expiry of 14 **Business Days** immediately following receipt by the **Generator** of written notice from **The Company** of such non-payment then **The Company** shall have the right to terminate Clause 4 by written notice to the **Generator** in accordance with Clause [16][12 of the **MASA**].
13. If **Force Majeure** prevents successful completion of a **Black Start Test** or deemed restoration of the **Black Start Capability** within 12 months after the **Works Target Completion Date**, **The Company** shall have the right to terminate Clause 4 by written notice to the **Generator** given in accordance with Clause [16][12 of the **MASA**].
14. Upon any referral to the **Independent Expert** in the circumstances provided in paragraph 8:-
- (a) the **Generator's** obligation to pay liquidated damages to **The Company** under paragraph 11(a) above shall continue notwithstanding the referral provided always that if the **Independent Expert** determines that the relevant **Black Start Test** has been passed, then **The Company** shall repay to the **Generator** in accordance with Clause [8][4 of the **MASA**] any liquidated damages paid by the **Generator** pursuant to paragraph 11(a) above in respect of the period after such **Black Start Test** together with interest thereon at the **Base Rate** from the date of payment by the **Generator**; and
 - (b) **The Company's** right to terminate the provisions of Clause 4 under paragraphs 10 and 11(b) above shall be suspended and shall have no effect during the period commencing with such referral and ending on the date of determination by the **Independent Expert**.
15. If at any time prior to the **Expiry Date**:-
- (a) the **Generator's Equipment** located at the **Power Station** is **Deenergised** or **Disconnected** pursuant to the relevant **Bilateral Agreement** or the **Connection and Use of System Code** (other than where such **Deenergisation** is an Emergency Deenergisation (as more particularly referred to in Paragraph 5.2 of the **Connection and Use of System Code**) which does not relate to the condition or operation of the **Generator's User System**) and, as a result thereof, the **Black Start Plant** does not have the **Black Start Capability**; or
 - (b) the **Generator** decreases the **Transmission Entry Capacity** of the **Connection Site** used by the **BS Genset(s)** and **BS Auxiliary Unit(s)** to zero MW in accordance with Paragraph 6.30 of the **Connection and Use of System Code**; or
 - (c) the provisions of Clause 4 are terminated in accordance with any of paragraphs 10, 11(b) or 13 of this Part I of Annexure A,
- (each such event hereinafter referred to as “a **Works Contribution Refund Trigger Event**”), then the **Generator** shall pay to **The Company** in accordance with Clause 4 of the **MASA**, an amount equal to a **Works Contribution Refund Payment** calculated in accordance with the formula in Part IV of Schedule E, Section 2 by way of repayment of all or part (as the case may be) of the

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Works Contribution Payment paid by **The Company** to the **Generator** (together with interest thereon at the **Base Rate**).

Part II

Schedule of Refurbishment Works

BS Auxiliary Unit	Refurbishment Works Stage	Calendar Year(s) and Month(s) when Refurbishment Works Stage expected to take place	Contribution Instalment Limit
Works Contribution Payment			

Part III
Form of Works Completion Certificate

Part A - Certificate

This Certificate is issued pursuant to paragraph 5 of Part I (Refurbishment Works) of Annexure A to Clause 4 of the agreement entitled “Commercial Services Agreement for [] Power Station” (“the CSA”) entered into between National Grid Electricity Transmission plc (“The Company”) and [] (“the Generator”).

The Generator hereby certifies that:-

1. Save for the Outstanding Works (if any) detailed in Part C of this Certificate, the Refurbishment Works in respect of [] Power Station have been completed; and
2. the Black Start Capability of [the][both][all] BS Auxiliary Unit(s) at [] Power Station has been restored and the Black Start Plant (including [the][both][all] BS Auxiliary Unit(s)) shall be capable, with effect from the date of this Certificate, of providing the Black Start service in accordance with Clause 4 of the CSA.

Part B - Black Start Test

In accordance with paragraph 6 of Part I (Refurbishment Works) of Annexure A to Clause 4 of the CSA, if The Company wishes to exercise its right to request a Black Start Test to verify satisfactory completion of the Refurbishment Works and restoration of the Black Start Capability, it must do so within 5 Business Days by giving notice in writing to the Generator and the Generator will co-operate with The Company in arranging for such a test to be conducted as soon as possible.

If The Company fails to notify the Generator that it wishes to carry out a Black Start Test then the Black Start Capability of the Black Start Plant at [] Power Station shall be deemed to have been restored with effect from the date of receipt by The Company of this Certificate.

Part C - Outstanding Works

[There are no Outstanding Works in respect of completion of the Refurbishment Works]* [The following Outstanding Works remain to be completed in relation to the Refurbishment Works (for which the Generator is, in accordance with paragraph 5 of Part I (Refurbishment Works) of Annexure A to Clause 4 of the CSA, in receipt of The Company’s written agreement:-

[insert relevant details if any]]*

(*delete as appropriate)

Signature

Name.....

Station Manager, [] Power Station

Signature

Name.....

Director, []

Part IV

Valid Invoice Failure Payment

The **Valid Invoice Failure Payment** (VIF_t) payable by the **Generator** to **The Company** pursuant to Sub-Clause 4.6.2.4 shall be calculated in accordance with the following formulae:-

$$VIF_t = [WCP_1 - VIW_1 - UCW_1] \times \frac{c}{6}$$

Where:

- VIF_t = the total **Valid Invoice Failure Payment** payable by the **Generator** to **The Company**
- WCP_1 = the **Works Contribution Payment** (including VAT thereon) paid by **The Company**
- VIW_1 = the total cost (£) of those completed **Refurbishment Works** (including VAT thereon) evidenced by **Valid Invoice(s)** received by **The Company** by the **Valid Invoice Deadline**
- UCW_1 = the cost (£) of any **Outstanding Works** (including VAT thereon) specified in Part C of the **Works Completion Certificate**, otherwise 0
- c = a factor equal to the number of calendar months (subject to a maximum of six calendar months) which elapse after the **Valid Invoice Deadline** until provision by the **Generator** of all **Valid Invoice(s)** evidencing the total cost of the completed **Refurbishment Works**

ANNEXURE B (TO CLAUSE 4)

Events Of Default and Consequences

Event of Default (Capability) - Notification of non-capability	Consequences
<p>Save in respect of a planned maintenance or inspection period agreed pursuant to the Grid Code (evidenced by written notification(s) from the Generator under Grid Code OC 2.4.1.2.3 and 2.4.1.2.4), failure by the Generator to notify The Company that the Black Start Plant does not or will not have the Black Start Capability in the manner referred to in Sub-Clause 4.9.1(a) (whether evidenced by a Remote Synchronisation Test, Capability Assessment, Grid Code test or otherwise)</p>	<ol style="list-style-type: none"> 1. The Black Start Service shall be deemed to be unavailable and Sub-Clause 4.9.4 shall apply; and 2. Upon the first and each successive Event of Default a Repayment Amount shall become payable by the Generator to The Company, being an amount calculated in accordance with Schedule E, Section 2, Part I; and 3. Upon the third and each successive Event of Default within each Assessment Period (reduced pro rata for any Assessment Period shorter than 12 months), in addition to 2 above, The Company shall have the right to terminate Clause 4 by notice in writing to the Generator to be served not later than 28 days following such third or successive Event of Default.
<p>Event of Default - Planned Maintenance and Inspection Periods</p>	<p>Consequences</p>
<p>In respect of a planned maintenance or inspection period agreed pursuant to the Grid Code (as evidenced by written notification(s) from the Generator under Grid Code OC 2.4.1.2.3 and 2.4.1.2.4), failure by the Generator to notify The Company that the Black Start Plant does not or will not have the Black Start Capability in the manner referred to in Sub-Clause 4.9.1(a).</p>	<p>The Black Start Service shall be deemed to be unavailable during, and there shall be taken into account in the calculation of Black Start Capability Payments those Settlement Periods comprised in, the period commencing at 00.00 on the first day of the planned maintenance or inspection period agreed pursuant to the Grid Code (as notified by the Generator to The Company under Grid Code OC 2.4.1.2.3 and 2.4.1.2.4) and ending at 24.00 hours on the last day of such planned maintenance or inspection period.</p>
<p>Events of Default (Black Start situation) - Black Start Instruction</p>	<p>Consequences</p>
<p>Save during a period the subject of a prior notification from the Generator to The Company as referred to in Sub-Clause 4.9.1 in which the Black Start Plant does not have the Black Start Capability, the failure by the Generator to comply with The Company's instruction for the initiation and implementation of the Local Joint Restoration Plan in accordance with Sub-Clause 4.10 save to the extent:-</p> <p>(a) the instruction requires the Generator to sustain the relevant Station Contracted MW (or such lesser power output agreed by the Generator and the Grid Operator) in any Black Start situation for more than the number of hours and on the basis referred to in Sub-Clause 4.8.2; or</p> <p>(b) compliance with the instruction would mean the relevant BS Genset could not keep within its safe operating parameters and a subsequent change in generation on that BS Genset was demonstrated to The Company's reasonable satisfaction to be necessary for safety reasons (whether relating to personnel or Plant and Apparatus); or</p> <p>(c) the failure was wholly and directly caused by an event or circumstance of Force Majeure.</p>	<ol style="list-style-type: none"> 1. The Black Start Service shall be deemed to be unavailable and Sub-Clause 4.9.4 shall apply; and 2. A Repayment Amount shall become payable by the Generator to The Company, being an amount calculated in accordance with Schedule E, Section 2, Part I); and 3. In addition to 2 above, The Company shall have the right to terminate Clause 4 forthwith by notice in writing to the Generator.
<p>Events of Default - Failure of Black Start Tests</p>	<p>Consequences</p>
<p>The failure by the Generator to pass either:-</p> <p>(a) a Reproving Assessment; or</p> <p>(b) a Black Start Test conducted in accordance with Part I of Annexure A to Clause 4,</p> <p>carried out following failure of any Black Start Test (excluding an</p>	<ol style="list-style-type: none"> 1. The Black Start Service shall be deemed to be unavailable and Sub-Clause 4.9.4 shall apply; and 2. A Repayment Amount shall become payable by the Generator to The Company, being an amount calculated in accordance with Schedule E, Section 2, Part 1.

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<p>exercise pursuant to Sub-Clause 4.12.</p> <p>The failure by the Generator to pass either:-</p> <p>(a) a Reproving Assessment; or</p> <p>(b) a Black Start Test conducted in accordance with Part I of Annexure A to Clause 4,</p> <p>carried out following failure of both a Black Start Test (excluding an exercise pursuant to Sub-Clause 4.12 and either a subsequent Reproving Assessment or a subsequent Black Start Test conducted in accordance with Part I of Annexure A to Clause 4..</p>	<ol style="list-style-type: none">1. The Black Start Service shall be deemed to be unavailable and Sub-Clause 4.9.4 shall apply; and2. A Repayment Amount shall become payable by the Generator to The Company, being an amount calculated in accordance with Schedule E, Section 2, Part 1.3. Upon the first and each successive Event of Default, The Company shall have the right to terminate Clause 4 by notice in writing to the Generator.4. Without prejudice to 3 above, The Company may (at its option) meet with the Generator to discuss the reasons for failure of the Black Start Test and the subsequent Reproving Assessments and, subject to the Generator identifying the cause(s) for such failure and demonstrating to The Company's reasonable satisfaction that it is able to remove or address such cause(s) before the Expiry Date, The Company may (in its sole discretion) agree with the Generator a period during which the Generator shall (at its own cost) undertake additional works to ensure that the Black Start Capability is restored ("Additional Works Period"). Where The Company agrees to an Additional Works Period, The Company shall only be permitted to terminate Clause 4 in accordance with 3 above, where either:-<ol style="list-style-type: none">(i) the Generator advises that the additional works will not be completed within the Additional Works Period;(ii) following completion of the additional works, the Generator fails a subsequent Reproving Test.
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ANNEXURE C (TO CLAUSE 4)
Annual Assessment of Black Start Capability

% Black Start Capability over each Assessment Period	Consequences
≥90%	None
<90% ≥[85]%	The Generator shall pay to The Company in accordance with Clause [8][4 of the MASA] the Annual Availability Shortfall Payment calculated in accordance with the formulae set out in Schedule E, Section 2 Part II.
<[85]%	Either (at The Company's absolute discretion): <ol style="list-style-type: none"> 1. The Generator shall pay to The Company in accordance with Clause [8][4 of the MASA] the Annual Availability Shortfall Payment calculated in accordance with the formulae set out in Schedule E, Section 2, Part II; or 2. The Company shall implement a reduction in the Availability Price specified in Schedule E, Section 2, Part I equivalent to the percentage unavailability of the Black Start Capability over the Assessment Period and shall revise the calculation of Monthly Availability Payments due to the Generator in respect of the Assessment Period accordingly and recover any overpayment of Monthly Availability Payments from the Generator by reference to the first practicable Final Monthly Statement after expiry of the Assessment Period. Further, the Parties shall discuss and endeavour to agree appropriate amendments to Clause 4 to reflect the reduced value to The Company of the Black Start Service. Provided always that, if no such agreement shall by then have been reached, The Company shall be entitled to terminate Clause 4 forthwith by notice in writing to the Generator to be served at any time until the end of one month following expiry of the relevant Assessment Period (or one month following completion of the assessment, if later).

ANNEXURE D (TO CLAUSE 4)

Remote Synchronisation Testing

Summary Procedure

- 1 Each **Black Start Station** will be required to undertake a **Remote Synchronisation Test** (“**RST**”) once every two calendar years. The **RST** will be managed by **The Company**.
- 2 The precise technical requirements for a **RST** will be comprehensively set out in the ‘**RST** procedure’ as amended from time to time and to be agreed by the **Generator** prior to the test (such agreement not be unreasonably withheld or delayed).
- 3 A **RST** will require the relevant **Genset** at a **Black Start Station** to energise from dead a local busbar, a circuit(s), a transformer(s) and a remote busbar and then synchronise onto a live busbar that is already synchronised to the **GB Transmission System**.
- 4 At the start of the energisation process the test generating unit will be run up from barring speed and at **Synchronous Speed** the **Generator** circuit breaker will be closed to energise the test part of the system. The energisation process may require excitation level on the **Genset** to be anywhere between zero and nominal LV voltage when the circuit breaker is closed and may require the excitation to be gradually increased to meet a target HV voltage level.
- 5 The **Generator** may be required to operate for up to one hour at no load at **Synchronous Speed** while the **Genset**’s ability to control voltage and **Frequency** on the test system is verified. If forced cooling of the **Genset** is required to enable such operation to be permissible then the cost of such cooling should be the sole responsibility of the **Generator**.
- 6 All reasonable care will be undertaken in preparing the **RST** procedure such that neither the energisation process nor the remote **Synchronisation** process will cause damage to **Plant** or equipment owned by the **Generator** or **The Company**, however all risks of damage to a **Party’s Plant** or equipment shall be borne by that **Party**.
- 7 The **Black Start** Station will be required to provide substation indications to enable the test to be co-ordinated from the **Power Station** Control Room..

SCHEDULE E
BLACK START CAPABILITY

SECTION 1 DATA

Part I

[Main Generating Unit(s)] [CCGT Module(s)] : []

Station Contracted MW:[] MW

Part II

[BS Auxiliary Unit(s):[]]

[Auxiliary Contracted MW:[]]

Part III

(Ref: Sub-Clause 4.8.5)

Time to Connection Event (minutes) (Ref: Sub-Clause 4.8.5(b))	120 minutes (or such other period agreed by the Parties in writing)
Individual Loads (Ref: Sub-Clause 4.8.5(c))	
Minimum Frequency (Ref: Sub-Clause 4.8.5(d))	[] Hz
Loading Restrictions Minimum amount of Active Power for indefinite running (subject to fuel stocks) Maximum period of running for MW output below that stated above (Ref: Sub-Clause 4.8.5(e))	[] MW [] Minutes
Loading period (Ref: Sub-Clause 4.8.5(f))	[] minutes from the time of the Connection Event
Interim power output levels (MW) 1 2 3 (Ref: Sub-Clause 4.8.5(g))	[] MW within ½ hour of Connection Event [] MW within 1 hour of Connection Event [] MW within 1½ of Connection Event
Reactive Power range (Mvar) (Ref: Sub-Clause 4.8.5(h))	[] Mvar leading to [] Mvar lagging at Minimum Output

SECTION 2 - FORMULAE

Part I

Availability Payments

1. **Total Monthly Payment**

$$TMP_m = BSAP_m - RA_m$$

Where:

TMP_m = total monthly payment by **The Company** to the **Generator** pursuant to Clause 4

$BSAP_m$ = defined in 2 below

RA_m = $RAC_m + RABS_m$ as each is defined in 3 below

And if TMP_m is negative, then the **Generator** shall pay to **The Company** such amount in accordance with Clause [8][4 of the MASA].

2. **Monthly Availability Payment**

$$BSAP_m = \sum_{j=1}^{month} BSAP_j * BSAM_j$$

$BSAP_m$ = the aggregate **Monthly Availability Payments** payable in respect of calendar month m

$\sum_{j=1}^{month}$ = the summation over all **Settlement Periods j** in calendar month m

$BSAP_j$ = the **Black Start Availability Price** for all **Settlement Periods j** subject to indexation in accordance with Schedule E, Section 3, Part III

$BSAM_j$ = 0 in respect of each **Settlement Period j** in which the **Black Start Plant** does not, or is deemed not to, have the **Black Start Capability** in accordance with Sub-Clause 4.9, Sub-Clause 4.12.3 or Sub-Clause 4.19.3, otherwise 1

3. **Repayment Amounts**

(a)

$$RAC_m = \sum^{EventofDefault} \min((BSAP_j * 480), \sum_{j=1}^{j=x} BSAP_j * BSAM_j)$$

Where:

RAC_m = the **Repayment Amount** referred to in the Capability (Notification of non-capability) section of the table in Annexure B to Clause 4

$\sum^{EventofDefault}$ = the summation over each **Event of Default** referred to in the Capability section of the table in Annexure B to Clause 4

$\sum_{j=1}^{j=x}$ = the summation over each **Settlement Period j** prior to the **Event of Default** beginning with the **Settlement Period** in which the **Black Start Plant** was last demonstrated to **The Company's** reasonable satisfaction to have the **Black Start Capability**

(b)

$$RABS_m = \sum^{EventofDefault} \min((BSAP_j * 1440), \sum_{j=1}^{j=y} BSAP_j * BSAM_j)$$

Where:

$RABS_m$ = the **Repayment Amount** referred to in the **Black Start** situation section of the table in Annexure B to Clause 4

$\sum^{EventofDefault}$ = the summation over each **Event of Default** referred to in the **Black Start** situation section of the table in Annexure B to Clause 4

$\sum_{j=1}^{j=y}$ = the summation over each **Settlement Period j** prior to the **Event of Default** beginning with the commencement of Clause 4 or, if later, the last successful initiation and implementation of the **Local Joint Restoration Plan** in a **Black Start** situation or during a **Grid Code** test or **Remote Synchronisation Test**

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Part II

Annual Availability Shortfall Payment

1. **Calculation of Annual Availability Shortfall Payment**

$$AASP_y = (MR_y * RFA_y)$$

$AASP_y$ = The total **Annual Availability Shortfall Payment** due to **The Company** from the **Generator** in respect of **Assessment Period y** (as defined in Sub-Clause 4.15.1)

MR_y = As defined in 2 below

RFA_y = Calculated in accordance with 3 below

2. **Calculation of maximum amount repayable (MR_y) in respect of any single Assessment Period**

$$MR_y = (A * WCP + Id)$$

MR_y = The maximum aggregate amount payable by the **Generator** to **The Company** by way of **Annual Availability Shortfall Payments** in respect of **Assessment Period y**

A = A fraction, being the **Assessment Period y** divided by the **Term yy** (as defined in Sub-Clause 4.5)

WCP = The amount of total **Works Contribution Payment(s)**

Id = Interest at the **Base Rate** calculated on WCP accruing on a daily basis over the number of days in **Assessment Period y**

3. **Calculation of RFA_y in respect of any single Assessment Period**

RFA_y = 0 if $AA_y \geq 0.9$
otherwise

$$RFA_y = (0.9 - AA_y) / 0.9$$

Where:

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AA_y = Actual availability and is the percentage of **Settlement Periods** over **Assessment Period y** in which the **Black Start Plant** has had **Black Start Capability** (expressed as a fraction) as calculated below

Where:

$$AA_y = \frac{\sum_{j=0}^{12months} (BSAMA_j)}{SP}$$

$\sum_{j=0}^{12months}$ = the summation over all **Settlement Periods j** in **Assessment Period y**

$BSAMA_j$ = 0 in respect of each **Settlement Period j** in which the **Black Start Plant** does not have **Black Start Capability** as provided in Sub-Clause 4.9 (excluding (i) where due to events or circumstances of **Force Majeure**; (ii) where due to the carrying out of **Refurbishment Works** in accordance with the **Refurbishment Works Timetable** (including (where relevant) the period of time between the issue of the **Works Completion Certificate** and the conduct of a **Black Start Test**); or (iii) where **The Company** has approved a period of withdrawal of **Black Start Capability** pursuant to Sub-Clause 4.15.4), otherwise 1

SP = the number of **Settlement Periods j** in **Assessment Period y**

Part III
Force Majeure

1. **Force Majeure Works Contribution Refund Payment**

$$FMWCRP_m = \sum_0^{monthm} [FMSP_n \times X] + F$$

Where:

$FMWCRP_m$ = **Force Majeure Works Contribution Refund Payment** payable to **The Company** in calendar month m

$FMSP_n$ = 1 in every **Settlement Period** in which **Force Majeure** applies, otherwise 0

X = The **Works Contribution Payment** divided by the total number of **Settlement Periods** of the original term of Clause 4

F = Interest at the **Base Rate** calculated on X accruing on a daily basis from the day in which the relevant **Settlement Period** falls until the date of repayment by the **Generator**

Part IV

Works Contribution Refund Payment

The **Works Contribution Refund Payment** ($WCRP_t$) payable by the **Generation** to **The Company** pursuant to paragraph 15 of Part I of Annexure A and Sub-Clause 4.17.2 shall be calculated in accordance with the following formulae:-

$$WCRP_t = [(WCP_1 + I_1) \times f_1] - \left[\sum_o^{Total} AASP_y \right] - \left[\sum_o^{Total} FMWCRP_y \right]$$

Where:-

$WCRP_t$ = the **Works Contribution Refund Payment** payable by the **Generator** to **The Company**

WCP_1 = the sum of all **Works Contribution Payments** (including VAT thereon) paid by **The Company** to the **Generator**

I_1 = **Interest** at the **Base Rate** calculated on WCP_1 accruing on a daily basis from the date of payment of WCP_1 by **The Company** until the date of repayment by the **Generator**

f_1 = a factor equal to either:

- (i) prior to the date of successful completion of the **Refurbishment Works**, 1; or
- (ii) from and including the date of successful completion of the **Refurbishment Works**

$$\frac{M_R}{M_T}$$

M_R = the number of whole calendar months remaining until the **Expiry Date** as at the date of termination or (as the case may be) the date that the **Works Contribution Refund Trigger Event** occurs

M_T = in respect of $WCRP_t$ the total number of whole calendar months in the period from the date of successful completion of the **Refurbishment Works** until the **Expiry Date**

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$\sum_o^{Total} AASP_y$ = all **Annual Availability Shortfall Payments** paid or payable by the **Generator** to **The Company** over the term of Clause 4

$\sum_o^{Total} FMWCRP_y$ = all **Force Majeure Works Contribution Refund Payments** paid or payable by the **Generator** to **The Company** over the term of Clause 4

SECTION 3 - PRICES

Part I

Black Start Availability Price

£[]/Settlement Period

Part II

Exercise Prices (Black Start Tests)

	[Distillate Supplement Price] (£/MWh)	Standard Exercise Price (£/MWh)	[Distillate Exercise Price] (£/MWh)
BS Genset*			
<i>BS Auxiliary Unit</i>			

* only applicable if **CCGT Module**

Part III

Indexation Formulae

The prices specified in Schedule E, Section 3 Part I and II are specified at April 200[x] values and will be adjusted annually (commencing on 1st April 200[x+1]) to take account of general price inflation. The index used will be the Retail Prices Index (RPI) with 1987 = 100 base.

The source of the RPI index is to be the monthly Office for National Statistics "Focus on Consumer Price Indices".

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The relevant price will therefore be increased (or reduced as appropriate) for the period April 200[x+1] to March 200[x+2] by the following factor:-

$$\frac{RPI_2}{RPI_1}$$

Where

RPI₂ is the RPI for March 200[x+1]

RPI₁ is the RPI for March 200[x]

The relevant price will then be increased (or reduced as appropriate) for the period April 200[x+2] to March 200[x+3] by the following factor:-

$$\frac{RPI_3}{RPI_1}$$

Where

RPI₃ is the RPI for March 200[x+2]

RPI₁ is the RPI for March 200[x]

In subsequent years indexation will continue in accordance with the above, with always the numerator of the factor representing the RPI of the year under consideration and the denominator of the factor being RPI for March 200[x].

In the event that RPI ceases to be published or is not published in respect of any relevant month or it is not practicable to use RPI because of a change in the method of compilation or some other reason, indexation for the purpose of this Part III shall be calculated by **The Company** using an index agreed by the **Parties** with a view to determining the relevant price after indexation that would be closest to the relevant price after indexation if RPI had continued to be available.

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SECTION 4 - NOTIFICATION FORMATS

Black Start Capability Generic Terms (Renewal - Upfront Capital Payment)

Draft: 3

Date: 20/03/09

Ref: NG116015/ARW

NOTIFICATION OF NON-CAPABILITY AND RESTORATION OF CAPABILITY FOR BLACK START

[NAME OF GENERATOR]

Optional Logo

StationTelephone:

Standby Tel:

Fax:

Standby Fax:

NOTIFICATION TIME

HRS:MINS	DD/MM/YY	CONFIRMATION OF A TELEPHONE CONVERSATION ? ✓	
		BETWEEN	OF NATIONAL GRID
		AND	OF [NAME OF GENERATOR]

PERIOD OF NON-CAPABILITY

	TIME (hrs:mins)	DATE (dd/mm/yy)
COMMENCEMENT OF NON-CAPABILITY		
*ESTIMATED TIME/DATE OF RESTORATION		

* Indicate estimated time/date of restoration and re-notify actual time/date of restoration when known using table below.

REASON FOR NON-CAPABILITY

--

RESTORATION OF-CAPABILITY

	TIME (hrs:mins)	DATE (dd/mm/yy)
TIME/DATE OF RESTORATION		

Fax Sent By (Print name):

Signature:

Date:

Time:

Acknowledged by **National Grid Electricity Transmission plc**:

Signature:

Date:

Time:

NATIONAL GRID USE ONLY	SENT TO O & T SETTLEMENTS? ✓	
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National Grid Control Centre

Fax: 0870 602 4809

Standby Fax: 0870 602 4802

REQUEST TO REVISE CONTRACT DATA FOR BLACK START

[NAME OF GENERATOR]

Optional Logo

StationTelephone:

Standby Tel:

Fax:

Standby Fax:

NOTIFICATION TIME

HRS:MINS	DD/MM/YY	CONFIRMATION OF A TELEPHONE CONVERSATION ? <input checked="" type="checkbox"/>	
		BETWEEN	OF NATIONAL GRID
		AND	OF [NAME OF GENERATOR]

REDECLARATION OF CONTRACT DATA

STATION CONTRACTED (MW)		*National Grid ACCEPT ✓	National Grid REJECT *
EXISTING	PROPOSED		
PROPOSED INTERIM POWER OUTPUT LEVELS			
1 [] MW WITHIN [] MINS			
2 [] MW WITHIN [] MINS			
3 [] MW WITHIN [] MINS			

PROPOSED REACTIVE POWER RANGE (Mvars) AT MIN OUTPUT/GEN STATOR TERMINALS	*National Grid ACCEPT ✓	National Grid REJECT *
[] LEADING TO [] LAGGING		

TIME TO CONNECTION EVENT (MINS)		*National Grid ACCEPT ✓	National Grid REJECT *
EXISTING	PROPOSED		

DETAILS OF ANY OTHER REVISION(S) TO THE BLACK START CAPABILITY	*National Grid ACCEPT ✓	National Grid REJECT *

*This agreement can be withdrawn at anytime by the **Company** and the contract parameters reinstated.

Fax Sent By (Print name):

Signature: Date: Time:

Acknowledged by **National Grid Electricity Transmission plc**:

Signature: Date: Time:

NATIONAL GRID USE ONLY	SENT TO O & T SETTLEMENTS? <input checked="" type="checkbox"/>	
	SENT TO O & T CONTRACTS? <input checked="" type="checkbox"/>	

National Grid Control Centre Fax: 0870 602 4809
 Standby Fax: 0870 602 4802

AGREEMENT OF BLACK START TEST PARAMETERS

[GENERATOR'S NAME]
 [] POWER STATION

AGREEMENT REFERENCE NUMBER	IDENTITY OF BS GENSET [BM UNIT ID]	BLACK START TEST DATE	BLACK START TEST PERIOD START TIME	BLACK START TEST PERIOD END TIME

BS GENSET:

PARAMETERS	[BM UNIT ID]
Physical Notification Level (MW)	
Maximum Export Limit (MW)	
Bid Price (£/MWh)	
Offer Price (£/MWh)	Equal to Bid Price
MZT (Hours)	
Min Desync Interval (Hours)	
Min Sync Interval(Hours)	

BS AUXILIARY UNIT:

PARAMETERS	[BM UNIT ID]
Physical Notification Level	Zero
Maximum Export Limit (MW)	

PROPOSED RUNNING PROFILE(S) FOR THE BS GENSET
Appended hereto.

The aforementioned Black Start Test Parameters and Running Profiles are agreed pursuant to 4.20.8 by:

Signature: Date: Time:
 Authorised Signatory
 On behalf of []

Signature: Date: Time:
 Electricity Balancing and Energy Trading Manager
 On behalf of **National Grid Electricity Transmission plc**

NATIONAL GRID USE ONLY	COPY TO CONTRACTS, OPS POLICY & SETTLEMENTS? ✓	
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GENERAL DEFINITIONS FOUND IN SCHEDULE A OF CSA OR SCHEDULE B OF MASA

“the Act”	the Electricity Act 1989;
“Active Power”	the product of voltage and the in-phase component of alternating current measured in units of Watts and standard multiples thereof ie 1000 Watts = 1kW 1000 kW = 1MW 1000 MW = 1GW 1000 GW = 1TW
“Agreement”	this agreement (including the Schedules) as amended, extended, supplemented, novated or modified from time to time;
“Apparatus”	all equipment in which electrical conductors are used, supported or of which they may form a part;
“Balancing and Settlement Code (BSC)”	the meaning attributed to it in the Transmission Licence ;
“Balancing Mechanism”	the meaning attributed to it in the Transmission Licence ;
“Base Rate”	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”	the meaning attributed to it in the Grid Code ;
“Bid-Offer Data”	the meaning attributed to it in the BSC ;
“Bid-Offer Pair”	the meaning attributed to it in the BSC ;
“Bid Price”	the meaning attributed to it in the BSC ;
“Bilateral Agreement”	the meaning attributed to it in the CUSC ;
“BM Unit”	the meaning attributed to it in the BSC , except for the purposes of this Agreement the reference to “a Party” in the BSC shall be a reference to the Generator ;

“ BM Unit Data ”	the meaning attributed to it in the Grid Code ;
“ Business Day ”	a week-day other than a Saturday on which banks are open for domestic business in the City of London;
“ Combined Cycle Gas Turbine Module ” or “ CCGT Module ”	a collection of Generating Units (registered as a CCGT Module under the Grid Code PC) comprising one or more Gas Turbine Units (or other gas based engine units) and one or more Steam Units where, in normal operation, the waste heat from the Gas Turbine Units is passed to the water/steam of the associated Steam Unit or Steam Units and where the component units within the CCGT Module are directly connected by steam or hot gas lines which enable those units to contribute to the efficiency of the combined cycle operation of the CCGT Module ;
“ Combined Cycle Gas Turbine Module ” or “ CCGT Unit ”	a Generating Unit within a CCGT Module ;
“ Commercial Boundary ”	the meaning attributed to it in the CUSC ;
“ Connection and Use of System Code (CUSC) ”	the Connection and Use of System Code designed by the Secretary of State as from time to time modified;
“ Connection Point ”	the connection of the Power Station to the GB Transmission System , as more particularly described in the Bilateral Agreement for the Power Station ;
“ Connection Site ”	each location more particularly described in the relevant Bilateral Agreement at which the Generator’s Equipment and Transmission Connection Assets required to connect the Generator to the GB Transmission System are situated or at which the Generator’s Equipment is connected to a User System ;
“ CUSC Framework Agreement ”	the meaning attributed to it in the Transmission Licence ;
“ Customer ”	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

“Deenergise”	meet Station Demand of that person; the movement of any isolator breaker or switch or the removal of any fuse whereby no Electricity can flow to or from the relevant System at a Connection Site through the Generator’s Equipment and “ Deenergised ” shall be construed accordingly;
“Demand”	the demand of MW and Mvar of Electricity ;
“Desynchronisation”	the act of taking a BM Unit off a System to which it has been Synchronised , by opening any connecting circuit breaker and “ Desynchronised ” shall be construed accordingly;
“Disconnect”	permanent physical disconnection of the Generator’s Equipment at any given Connection Site and “ Disconnection ” shall be construed accordingly;
“Distribution Licence”	a licence issued under section 6(1)(c) of the Act ;
“Dynamic Parameters”	the meaning attributed to it in the Grid Code ;
“EDL Equipment”	the electronic despatch mechanism by which the Parties communicate with respect to the BM Unit(s) at the Generator’s Power Station for the purposes of operation of the Balancing Mechanism and the utilisation of Balancing Services ;
“Electricity”	Active Energy and Reactive Energy ;
“Energy” or “Active Energy”	the electrical energy produced, flowing or supplied by an electric circuit during a time interval, being the integral with respect to time of the instantaneous power, measured in units of Watt-hours or standard multiples thereof ie.

1000 Wh	=	1kWh
1000 kWh	=	1MWh
1000 MWh	=	1GWh
1000 GWh	=	1TWh

“External Interconnection”	the meaning attributed to it in the Grid Code ;
“Externally Interconnected System Operator”	the meaning attributed to it in the Grid Code ;
“Force Majeure”	in relation to either Party to this Agreement 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 or through the unsuitability of the Black Start Plant to perform the Black Start Service as specified in this Agreement (whether by virtue of a design specification fault or otherwise) or a failure to maintain such Plant in accordance with Good Industry Practice or lack of funds of that Party) 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 Electricity Act 1989);
“Frequency”	the number of alternating current cycles per second (expressed in Hertz) at which a System is running;
“Frequency Sensitive Mode”	the meaning attributed to it in the Grid Code ;
“Gas Turbine Unit”	a Generating Unit driven by a gas turbine, (for instance by an aero-engine);
“GB Transmission System”	the meaning attributed to it in the CUSC ;
“Generating Unit”	unless otherwise provided in this Agreement , any Apparatus which produces electricity including for the avoidance of doubt a CCGT Unit ;

“Generator’s Equipment”

the **Plant** and **Apparatus** owned by the **Generator** (ascertained in the absence of agreement to the contrary by reference to the principles of ownership set out in **CUSC**) which

(a) is connected to **Transmission Connection Assets** forming part of any particular **Connection Site** to which the **Generator** wishes so to connect or

(b) is connected to a **User System** to which the **Generator** wishes so to connect;

“Genset”

a **Generating Unit** or **CCGT Module** at a **Large Power Station**;

“Good Industry Practice”

the exercise of that degree of skill, diligence, prudence and foresight which would reasonably and ordinarily be expected from a skilled and experienced operator engaged in the same type of undertaking under the same or similar circumstances;

“Great Britain” or “GB”

the meaning attributed to it in Schedule 1 of the **Transmission Licence**;

“Grid Code”

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 **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 BC”

the Balancing Codes of the **Grid Code**;

“Grid Code CC”

the Connection Conditions of **Grid Code**;

“Grid Code OC”

the Operating Codes of the **Grid Code**;

“Grid Code PC”

the Planning Code of the **Grid Code**;

“Grid Operator”

the person who for the time being and from time to time is required by the terms of a **Licence** (inter alia)

	to implement the Grid Code ;
“ Grid Supply Point ”	a point of supply from the GB Transmission System to Network Operators or Non-Embedded Customers ;
“ Independent Expert ”	such expert agreed between the Parties from time to time Provided that (a) where the Parties fail to agree on a suitable expert within 30 days of either Party serving on the other notice of its intention to apply to the President of the Institute of Mechanical Engineers as mentioned below; or (b) where any Independent Expert appointed from time to time shall fail, refuse or cease to act in this capacity set out herein and no substitute expert of suitable standing and qualification can be agreed by the parties within 30 days such expert as the President of the Institute of Mechanical Engineers shall, on the application of either Party , nominate shall be the Independent Expert ;
“ Large Power Station ”	as defined in the Grid Code ;
“ Licence ”	any one or more as appropriate of the Licences granted pursuant to section 6 of the Act ;
“ Load ”	the Active Power or Reactive Power as the context requires generated, transmitted or distributed;
“ Mandatory Services Agreement ”	the meaning attributed to it in the CUSC ;
“ Maximum Export Limit ”	the meaning attributed to the term in Appendix 1 of Grid Code BC1 ;
“ Minimum Output ”	the meaning attributed to it in Grid Code BC2.A.3.1 ;
“ Network Operator ”	a person with a User System directly connected to the GB Transmission System to which Customers and/or Power Stations (not forming part of a User System) are connected, acting in its capacity as

	operator of the User System , but shall not include a person acting in the capacity of Externally Interconnected System Operator ;
“Non-Embedded Customer”	a Customer except for a Network Operator acting in its capacity as such receiving electricity direct from the GB Transmission System irrespective of from whom it is supplied;
“Offer Price”	the meaning attributed to it in the BSC ;
“Output”	the actual Active Power or Reactive Power output achieved by a BM Unit ;
“Part 2 System Ancillary Services”	the meaning attributed to it in Grid Code CC8.1 ;
“Party”	each person for the time being and from time to time a party of this Agreement and any successor(s) in title to, or permitted assign(s) of, such person and “ Parties ” shall be construed accordingly;
“Plant”	fixed and movable items used in the generation and/or supply and/or transmission of electricity other than Apparatus ;
“Physical Notification”	the meaning attributed to it in the Grid Code ;
“Power Station”	an installation comprising one or more Generating Units (even where separately sited) owned or controlled by the same Generator which may reasonably be considered as being managed as one Power Station , for the purposes of this Agreement being the Generator’s Power Station at [];
“Power System Stabiliser”	the meaning attributed to it in the Grid Code ;
“Public Distribution System Operator”	a holder of a Distribution Licence who was the holder of, or is a successor to a company which was the holder or, a Public Electricity Supply Licence , relating to distribution activities in Great Britain ;
“Public Electricity Supply Licence”	a licence issued under section 6(1)(c) of the Act prior to the coming into force of section 30 of the Utilities

Act 2000;

“ Reactive Energy ”	the integral with respect to time of Reactive Power ;
“ Reactive Power ”	the product of voltage and current and the sine of the phase angle between them measured in units of voltamperes reactive and standard multiples thereof ie, 1000 Var = 1kvar 1000 kVar = 1Mvarr
“ Remote Transmission Assets ”	any Plant and Apparatus or meters owned by The Company which (a) are embedded in a User System and which are not directly connected by Plant and/or Apparatus owned by The Company to a sub-station owned by The Company and (b) are by agreement between The Company and such User under the direction and control of such User ;
“ Secretary of State ”	the meaning attributed to it in the Act ;
“ Settlement Period ”	a period of 30 minutes ending no the hour or half hour in each hour during a day;
“ Stable Export Limit ”	the meaning attributed to the term in Appendix 1 of Grid Code BC1 ;
“ Start-Up ”	the meaning attributed to it in the Grid Code ;
“ Station Demand ”	the meaning attributed to it in the CUSC ;
“ Steam Unit ”	a Generating Unit whose primes mover converts the heat-energy in steam to mechanical energy;
“ Synchronised ”	the condition where an incoming BM Unit or CCGT Unit or System is connected to the busbars of another System so that the Frequencies and phase relationships of the BM Unit or CCGT Unit or the System , as the case may be, and the System to which it is connected are identical: “ Synchronise ” and “ Synchronisation ” shall be construed accordingly;

“Synchronous Speed”	that speed required by a BM Unit or CCGT Unit to enable it to be Synchronised to a System ;
“System”	any User System or the GB Transmission System as the case may be;
“Total System”	the GB Transmission System and all User Systems in Great Britain ;
“Transmission Connection Assets”	the meaning attributed to it in the CUSC ;
“Transmission Licence”	the licence granted to The Company under section 6(1)(b) of the Act ;
“User”	a person who is party to the CUSC Framework Agreement other than The Company ;
“User System”	any System owned or operated by a User comprising:- (a) Generating Units ; and/or (b) systems consisting (wholly or mainly) of electric lines used for the distribution of electricity from Grid Supply Points or Generating Units or other entry points to the point of delivery to Customers , or other Units ; and Plant and/or Apparatus connecting: (a) the System as described above; or (b) Non-Embedded Customers equipment; to the GB Transmission System or to the relevant other User System , as the case may be. The User System includes 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 ;