

**BILATERAL CONNECTION AGREEMENT**

**NATIONAL GRID ELECTRICITY DISTRIBUTION (WEST MIDLANDS) PLC(1)**

**And**

**IDNO Name (2)**

**BILATERAL CONNECTION AGREEMENT  
FOR  
A DIRECTLY CONNECTED DISTRIBUTION SYSTEM  
OF ANOTHER LICENSED DISTRIBUTOR  
AT**

**Site Address**

**NGED Reference:**

**IDNO Reference:**

National Grid Electricity Distribution (West Midlands) plc  
Registered in England and Wales No.3600574

Registered Office: Avonbank, Feeder Road, Bristol BS2 0TB

**THIS BILATERAL CONNECTION AGREEMENT** is made on the                      day of                      2024

**BETWEEN**

- (1) **NATIONAL GRID ELECTRICITY DISTRIBUTION (WEST MIDLANDS) PLC** a company registered in England and Wales with number 3600574 whose registered office is at Avonbank, Feeder Road, Bristol BS2 0TB (the "**Company**", which expression shall include its successors and/or permitted assigns); and
- (2) **IDNO Name** a company registered in England and Wales with number whose registered office is at IDNO Address (the "**User**", which expression shall include its successors and/or permitted assigns).

**WHEREAS**

- (A) The Company and the User have entered into a framework agreement date (the "**Framework Agreement**").
- (B) The User has applied for Connection to and use of the Company's Distribution System and pursuant to the Company's Distribution Licence the Company is required to offer terms in this respect.
- (C) The Company and the User are parties to the Distribution Connection and Use of System Agreement (the "**DCUSA**") as referred to in Condition 9B of their distribution licences granted, or treated as granted, under the Electricity Act 1989.
- (D) This Bilateral Connection Agreement including its schedules (this "**BCA**") is entered into pursuant to the DCUSA and shall be read as being governed by it.

**NOW IT IS HEREBY AGREED** as follows:

**1 APPLICABLE TERMS**

- 1.1 Unless otherwise defined in this BCA, terms used in this BCA shall have the meaning given to them in the Framework Agreement.
- 1.2 The terms of the Framework Agreement are incorporated into and form part of this BCA, as varied and amended by the other provisions of this BCA.

**2 ADDITIONAL TERMS**

Any additional site specific terms agreed

**3 COUNTERPARTS**

This BCA may be executed in any number of counterparts and by the parties on separate counterparts, but shall not be effective until each party has executed at least one counterpart. Each counterpart, when executed, shall be an original of this BCA and all counterparts shall together constitute one instrument.

Signed for and on behalf of the User by )  
) )  
Print name: ..... ) Signature: .....  
) )  
Job title: ..... )

Signed for and on behalf of the Company by )  
) )  
Print name: ..... ) Signature: .....  
) )  
Job title: Connections Strategy Engineer )

## BCA SCHEDULE 1 - CONNECTION CHARACTERISTICS

1. **Type of Connection:** the type of Connection that this BCA applies to (as further described in Schedule 1 to the Framework Agreement) is: [Firm][Automatic Firm][Alternative Switched][Single Circuit].

### 2. Characteristics of Connection

2.1 The Characteristics of Connection provided below are given in respect of the following Connection Point(s):

Site Address  
Pseudo MPAN:

Name(s) Of Substation	
Substation Ref. No(S)	
Connection Point	The first bolted connection on the outgoing bushings of the Company's 11kV Circuit Breaker
Type & Rating of Protective Device at Point of Connection	
Voltage(s) of Connection	11,000v
Voltage(s) of Metering	
System of Supply	3phase 50Hz, Alternating Current
Type Of Connection	
Maximum Import Capacity	kVA
Maximum Export Capacity	kVA

2.2 The Maximum Import Capacity and Maximum Export Capacity stated above have been requested by the User and agreed with the Company. The Maximum Import Capacity and Maximum Export Capacity will be fixed for a period of 12 months from the date of this BCA unless increased by agreement between the User and the Company, in which case the Maximum Import Capacity and Maximum Export Capacity will be fixed for a further 12 months from the date of increase.

## **BCA SCHEDULE 2 - USE OF SYSTEM, METERING, DATA PROVISION AND GENERAL OPERATING CONDITIONS**

### **1. Use of System**

- 1.1 The Company shall invoice the User for use of the Company's Distribution System in accordance with the portfolio billing process set out under the DCUSA, or such alternative solution as may be agreed between the Company and the User.
- 1.2 The charges for Use of System and any variations will be calculated in accordance with the Company's Statement of Charges for Use of the Electricity Distribution System published in accordance with licence condition 14. The current edition of this Statement can be viewed by accessing the Company's website: [www.nationalgrid.co.uk](http://www.nationalgrid.co.uk)

### **2. Metering**

- 2.1 The Company shall not require metering and communication equipment at the boundary unless specifically identified in this BCA.
- 2.2 Where the Company has identified a need for metering and communication equipment at the boundary it will notify the User. The Company (or its appointed agent) will, at the Company's cost, procure, install, own, maintain, operate and replace, as necessary, both the metering and communication equipment and any accommodation required to house the metering and communication equipment at the boundary, for operational, design and Distribution System planning purposes.
- 2.3 The metering equipment shall be compliant with Metering Code of Practice 5

### **3. Data Provision**

- 3.1 The User (or its appointed agent) will, at its own cost, be responsible for the collection of metering data on a monthly basis to allow calculation of charges for Use of System (unless otherwise agreed in writing).
- 3.2 Where the Company has installed its own metering and communication equipment at the boundary for operational, design and Distribution System planning purposes it will, at its own cost, be responsible for the collection of metering data.

### **4. General Operating Conditions**

#### **Curtailment and De-Energisation**

- 4.1 Notwithstanding any other provision of this BCA, the Company may instruct the User to (at the User's own expense) immediately De-energise or implement an immediate reduction to the Maximum Import Capacity and/or the Maximum Export Capacity (including to zero), or the Connection Point may otherwise be de-energised (whether De-energised as defined or otherwise), or a User's Maximum Import Capacity and/or the Maximum Export Capacity reduced (including to zero) (any such reduced capacity under this paragraph being the "**Revised Maximum Export Capacity**" or the "**Revised Maximum Import Capacity**"), in the following scenarios:
  - (a) for the reasons set out in Section 2B of DCUSA including, but not limited to:
    - (i) where required as part of a System Outage on its Distribution System carried out in accordance with its statutory rights and obligations and Good Industry Practice, including for planned maintenance of the Distribution System;
    - (ii) where, in the Company's reasonable opinion, the condition or manner of operation of the Company's Distribution System or the User's System, poses

- an immediate threat of injury or material damage to the Company's Distribution System or the User's System;
- (iii) where the User is in breach of this BCA and such breach results, or will likely result, in the Company being in breach of the Regulations, the Distribution Code or any other relevant statutory requirement; or
  - (iv) if the User is in breach of the Regulations, or is likely to be in material breach of the Regulations, or is likely to compromise the security of the Company's Distribution System or of any Distribution System or Offshore Transmission System connected to the Company's Distribution System or the supply of electricity to any Connectee of the Company;
- (b) without prejudice to any other provision in this clause, in the event of abnormal network running conditions, including as a result of any unplanned Distribution System, or planned or unplanned transmission system, network outages or communications system failures, including in respect of any resulting repair required;
- (c) notwithstanding any consent that may be granted for any equipment (including any as set in this BCA), and without prejudice to any other provision of this BCA, where the User's System and/or any other electrical equipment connected to the User's System adversely affects any other customer connected to the Company's Distribution System and/or causes disturbance outside of acceptable limits to the Company's Distribution System;
- (e) (in respect of any Generator Installation(s) connected to the User's System) where an instruction has been received by the Company from National Grid Electricity System Operator (NGESO) to De-energise or curtail embedded generation in accordance with the requirements of BC2.9.1.4 of the Grid Code and using the principles set out in OC6.7.1 of the Grid Code under emergency conditions on the National Electricity Transmission System, which will typically occur when a number of generators' output is high and, at the same time, distribution demand is low, leading to either voltage, thermal or protection issues on the Distribution System or National Electricity Transmission System;
- (f) (in respect of any Generator Installation(s) connected to the User's System):
- (i) in connection with any 'visibility and commercial control' instruction issued by National Grid Electricity System Operator (NGESO), including through the Company, to De-energise or curtail embedded generation, as further detailed in paragraph 5 of Schedule 3; or
  - (ii) where provided for pursuant to any commercial arrangement between the Company and the User permitting the same.
- 4.2 The Company shall use its reasonable endeavours to provide as long a period of notice as is practicable of any requirement to De-energise or reduce the User's Maximum Import Capacity and/or Maximum Export Capacity (including to zero), including such notice period as is set out in Section 2B of DCUSA, however the Company reserves the right to De-energise or reduce the User's Maximum Import Capacity and/or Maximum Export Capacity without notice where it reasonably considers it necessary based on the system conditions prevailing on the Distribution System and/or the National Electricity Transmission System, or where the User has failed to comply with any instruction to De-energise or reduce its Maximum Import Capacity and/or Maximum Export Capacity.
- 4.3 Subject to Clause 53.2 of DCUSA, and save where otherwise expressly set out in this BCA or in any commercial agreement entered into between the Company and the User) the Company shall under no circumstances be liable to the User in connection with any De-energisation or reduction of its Maximum Export Capacity as set out above.
- 4.4 The User shall indemnify the Company and keep it indemnified fully on demand against all liabilities, losses, damages, costs (including all reasonable legal costs), expenses and fines attributable to the Customer's failure to comply, or any delay in complying, with any instruction given by the Company under this paragraph.
- 4.5 The Revised Maximum Export Capacity and/or Revised Maximum Import Capacity shall apply until the Company notifies the User otherwise.

**Disturbing Loads**

- 4.6 The User shall not connect, and shall not permit any Customer of the User to connect,] any electrical equipment that may adversely affect the supply of electricity to others and/or cause disturbances outside of acceptable limits to the Distribution System without the Company's previous written consent, which will not unreasonably be delayed or withheld. Such equipment includes motors, welders, furnaces, high power appliances, converters (e.g. rectifiers, switch mode power supplies, uninterruptible power supplies, battery chargers, high-frequency induction furnaces and variable speed drives), regulators (e.g. AC heating and lighting controls) and other equipment with non-linear voltage / current characteristics (e.g. arc welders and arc furnaces)). Any consent that is or may be granted is or will be based on estimated disturbance levels (which cannot be precisely determined in advance) and taking a risk-based approach to the likelihood of complaint, and is without prejudice to any other provision of this BCA.
- 4.7 Notwithstanding any other provision of this BCA, the User shall be liable for the costs of any remedial action required (including to the User's System, any Customer Installation and/or the Distribution System) as a result of any adverse interference caused by the User's System and/or any other electrical equipment which the User [and/or any Customer of the User] connects to any other customer connected to the Distribution System.

**BCA SCHEDULE 3 - SITE SPECIFIC CONDITIONS**

**1. Responsibility Schedule - Operational Arrangements**

**I OBJECTIVES** To lay down requirements with a view to ensuring safety of persons working on the **Distribution System** at or across the **Ownership Boundary**. It details the division of responsibilities for **Operation**, **Maintenance**, **Control** and **Safety** at the **Operational Boundary**.

**DEFINITIONS** All words that are in bold print in this document are defined in the **Distribution Code** "Glossary and Definitions".

DOC 7, DOC 10 and DOC 11 are clauses within the **Distribution Code**.

The User shall ensure that a legible copy of Section 1 (Responsibility Schedule – Operational Arrangements) of this Schedule 3 is displayed in a prominent position at all times in the substation building.

**II RESPONSIBILITY FOR CONNECTION ASSETS**

<b>OWNERSHIP AND RESPONSIBILITY OF BUILDINGS</b>			
	<b>OWNED BY</b>	<b>MAINTAINED BY</b>	<b>AT COST OF</b>
<b>SUBSTATION BUILDING</b>	Company/User	Company/User	Company/User
The User shall provide the substation enclosure which will be fit for purpose and comply with all appropriate Energy Networks Association Technical Specifications, International and National Standards for the Company's Connection Equipment, together with accommodation for the metering equipment where separately located. The User shall, without cost to the Company, keep in good order repair and condition all parts of the substation building including the interior surfaces and any			

boundary fences and/or cladding which enclose the substation building.

### III PLANT & EQUIPMENT SCHEDULE

EQUIPMENT NO. AND/OR NOMENCLATURE	EQUIPMENT TYPE	OWNER	CONTROL	OPERATION	MAINTENANCE

### IV SYSTEM RESPONSIBILITIES

- 1 The person responsible for the co-ordination of operational safety on behalf of the Company is the appropriate Company **Control Person** which can be either:-
  - (i) A Central Company **Control Person**
  - or
  - (ii) The Company **Control Person** who has been delegated control of part of the Company's **Distribution System** by the Company Central **Control Person**.
- 2 The Company **Control Person** at any particular time can be contacted by calling 01332 827093/02920 332887 or other revised telephone number as advised by the Company in writing.
- 3 The person responsible for the co-ordination of operational safety on behalf of the User is the appropriate User **Control Person** which can be either:-
  - (i) A Central User **Control Person**
  - or
  - (ii) The User **Control Person** who has been delegated control of part of the User's **Distribution System** by the User Central **Control Person**.
- 4 The User **Control Person** at any particular time can be contacted by calling the telephone number given in Schedule 5 or other revised telephone number as advised by the User in writing.

### V OWNERSHIP, OPERATION AND MAINTENANCE

- 5 Ownership responsibilities are in accordance with the Equipment Schedule and **Operation Diagram** included in this document.
- 6 At the time that any work or **operations** are to be carried out on the relevant **equipment**, the Ownership and subsequent Responsibility shall be confirmed from the Equipment Schedule and **Operation Diagram**.



- 7 Changes in the boundary arrangements and responsibilities proposed by either party shall be agreed in advance and shall be recorded on the Equipment Schedule and **Operation Diagram**.
- 8 Every item of **Apparatus** at the site of the **Ownership Boundary** shall have numbering and/or nomenclature that has been mutually agreed and notified between the Company and the User. It shall be in accordance with the **Distribution Code** DOC11 "Numbering and/or Nomenclature".

## **VI OPERATION AND EVENT REPORTING**

- 9 The reporting of relevant **Operations** or **Events** on the **System**, between the Company and the User shall be in accordance with the **Distribution Code** DOC7 "Operational Liaison" and DOC10 "Operational **Event** Reporting and Information Supply".
- 10 Operational Liaison shall be between the Company Safety Co-ordinator and the User Safety Co-ordinator as defined in paragraphs 1 and 4.

## **VII ENVIRONMENTAL SAFETY AND SECURITY**

- 11 The User and the Company will each be responsible for general site safety when carrying out their respective activities, including as a minimum keeping areas clear, unobstructed and free of tripping or slipping hazards.
- 12 The Company is responsible for warning the User contact referred to in paragraph 4 above, of hazards which arise as a result of the activities of the Company.
- 13 The User is responsible for warning all personnel entering the site, of hazards which arise as a result of the activities of the User.
- 14 Access to the site for Company and User staff is available as follows:-  
  
via dual locking padlocking arrangement. Each party will use their own key for access.
- 15 The User shall be responsible for compliance under the Electricity Supply, Quality and Continuity Regulations 2002 as amended or its replacement thereof and, as a consequence, shall provide and maintain the Danger of Death signs and single emergency contact number.
- 16 The Company shall provide and maintain a sign with the name of the substation.

## **VIII SAFETY MANAGEMENT SYSTEM AT THE OPERATIONAL BOUNDARY**

- 17 The Company shall notify the User contact referred to in Schedule 5 of any planned work that will require operation of the User's System. The Company will use all reasonable endeavours to make said notification not less than 10 working days prior to the required operation of the User's System and in any case not less than 5 working days prior to the required operation of the User's system.
- 18 The User shall notify the Company contact referred to in paragraph 2 above of any planned work that will require **operation** of the Company **System**. The User will use all reasonable endeavours to make said notification not less than 10 working days prior to the required operation of the Company System and in any case not less than 5 working days prior to the required operation of the Company system.
- 19 For unplanned fault conditions on either **System** that require **Operation** of the other's **System**, the person referred to in paragraphs 1 and 4 above, shall notify their counterpart at the earliest opportunity.

- 20 The Company **Control Person** and the User **Control Person** shall agree the switching operations to be undertaken in accordance with the switching schedule.
- 21 The Company **Control Person** and the User **Control Person** shall agree who is to carry out the **Operations** and the **Safety Management** system to be used (which shall, as a minimum default, be the Company Safety Rules) (see also Annex A).
- 22 All **Operations** shall be carried out under the respective **System Control**.
- 23 On occasions, users of **HV Apparatus** become aware of defects or failures which necessitate taking precautionary action to safeguard personnel. The Company will notify the User contact referred to in paragraph 4 of any operational restrictions imposed on Company **HV Apparatus** listed in the Responsibility Schedule.
- 24 The Company reserve the right to refuse to operate or work on User's **Plant** or **Apparatus** unless it has been maintained to a satisfactory standard and can be safely operated or worked upon in accordance with an acceptable safe system of work.
- 25 The User reserve the right to refuse to operate or work on the Company's **Plant** or **Apparatus** unless it has been maintained to a satisfactory standard and can be safely operated or worked upon in accordance with an acceptable safe system of work.

**ANNEX A**

**HIGH VOLTAGE OPERATION, ISOLATION  
AND EARTHING CERTIFICATE**

**(THIS IS NOT A Permit-to-Work or Sanction-for-Test)**

Certificate Number..... Cross Reference .....  
\* delete as appropriate

1. ISOLATION To .....  
(A) REQUEST Please OPEN\*, ISOLATE\* and apply S/L & C/N to\* the following apparatus :  
.....  
.....

Signed ..... Print Name ..... Time ..... Date .....

(B) ISSUE I hereby certify that the following apparatus has been OPENED\*, ISOLATED\* and S/L & C/N applied :  
.....  
Points of ISOLATION are : .....  
.....

Signed ..... Print Name ..... Time ..... Date .....

2. EARTHING To .....  
(A) REQUEST Please earth the following apparatus .....  
.....

Signed ..... Print Name ..... Time ..... Date .....

(B) ISSUE I hereby certify that the following apparatus has been EARTHED  
.....  
Points of EARTHING are .....  
.....

Signed ..... Print Name ..... Time ..... Date .....

3. RECEIPT I hereby acknowledge receipt of this certificate.  
  
Signed ..... Print Name ..... Time ..... Date .....

4. RETURN I hereby declare that all relevant Permits-to-Work and Sanctions-for-Test issued are now cancelled and all additional earths and persons under my control have been withdrawn. Points of EARTHING are as detailed in section 2(B) with the following exceptions :

.....  
.....

Signed ..... Print Name ..... Time ..... Date .....

5. REMOVAL OF EARTHS To .....

(A) REQUEST Please remove EARTHS from the following apparatus .....

.....

Points of EARTHING are .....

.....

Signed ..... Print Name ..... Time ..... Date .....

(B) ISSUE Issued to .....

I hereby declare that the EARTHS have been removed from the following apparatus :

.....

.....

at the following points .....

.....

Signed ..... Print Name ..... Time ..... Date .....

6. RE-ENERGISING To ..... Please remove SAFETY LOCKS and operate the following apparatus

(A) REQUEST .....

Signed ..... Print Name ..... Time ..... Date .....

(B) ISSUE I hereby certify that SAFETY LOCKS have been removed and the following apparatus has been energised :

.....

Signed ..... Print Name ..... Time ..... Date .....

7. CANCELLATION I hereby declare that this CERTIFICATE is now cancelled.

Signed ..... Print Name ..... Time ..... Date .....

## 2. Operational Diagram

See attached drawing number CA/Example

The User shall ensure that a legible copy of the Operational Diagram from this Schedule 3 is displayed in a prominent position at all times in the substation building

## 3. Land Rights

For the purposes of this BCA, the User agrees to grant to or obtain for NGED the following land rights and interests:

The User shall indemnify the Company on demand against any proceedings, claims, demand, costs, charges and expenses that the Company incurs as a result of the User's failure to grant or obtain for the Company the appropriate easement or property rights to carry out the connection works, install and maintain its plant and apparatus within the site boundary.

## 4. Site Plan

See attached drawing number CA/Example

## BCA SCHEDULE 4 - GENERATION

4.1 In respect of generation to be connected in parallel with the User's Distribution System that does not fall under the definition of a Small-Scale Generating Equipment, and notwithstanding any other provision of this BCA, the Company consents to the connection (without prior notice) of Generator Installations and the export of energy onto the Company's Distribution System at the Connection Point [of an amount] not exceeding the lower of:

- (a) (on any one phase) 20% of the Maximum Import Capacity; and
- (b) 99kW.

If the User wishes to export energy onto the Company's Distribution System at a level in excess of the above, or the relevant Generator Installations do not otherwise comply with the provisions of this Schedule 4, the User shall be required to submit a variation request in accordance with Clause 8.0 of the Framework Agreement.

4.2 In order to allow the Company to contain voltage within acceptable limits at the NGET transmission system and the Company's Distribution System interface, the User must ensure that the exporting Generator Installation(s) have the capability to operate between 0.95 leading and 0.95 lagging power factor and shall operate at the power factor prescribed by the Company as set out below. In the event that, in the Company's reasonable opinion, the Company needs to contain voltage within acceptable limits it shall instruct the User in writing to instruct the Generator to operate thereafter at a different power factor, which shall be within the 0.95 leading and 0.95 lagging power factor range. The User shall, at the User's own expense, comply with the instruction within 28 days of the date of the notification.

4.3 When exporting energy onto the Company's Distribution System the User shall at all times and at its own expense take all reasonable precautions to ensure that the Generator Installation(s) export operates as near as practicable to 0.98 leading power factor. Notwithstanding this requirement the export or import of reactive power to the Distribution System shall be permitted under transient conditions provided that the power factor of the Generator Installation(s) export is no less than 0.9 leading and unity.

4.4 The 33kV connection is made as a single circuit connection between the Company's 33kV Distribution System and the User's System through one Connection Point. No alternative circuit connection at 33kV will be provided. As a result of a single circuit connection, the User acknowledges and accepts the increased risk of disconnection or constraint of generation and/or demand. The Company will not be liable for any Distributed Generation network unavailability payments as a result of any disconnection of generation in respect of a single circuit connection.

- 4.5 The maximum fault level infeed shall be no higher than the figure shown under Schedule 1 (2.1) and is an assumed value based on the export of the unit.
- 4.6 Generator Installations [exporting onto the Company's Distribution System] shall comply with the requirements of the Energy Networks Association Engineering Recommendation G99 'Recommendations for the connection of generating plant to the distribution systems of licensed distribution network operators' or its replacement, or other reasonable provisions as may, from time to time, be required by the Company.

## **BCA SCHEDULE 5 - NOTICES**

### **5.1 Planned System Outages**

Where The Company plans to carry out a System Outage that will De-energise the User's Connection Point (either directly or indirectly) the Company will notify the User in accordance with clause 41 of Section 2B of the DCUSA, The Company will use all reasonable endeavours to make said notification not less than 10 working days prior to the System Outage and in any case not less than 5 working days prior to the System Outage, by contacting the User at the address given below.

IDNO Name & Address

Marked for the attention of:

Telephone No:

Email:

### **5.2 Liaison under System Outages**

Where the Company needs to liaise directly with the User, in the event of a planned System Outage, Distribution System fault, for rota load shedding, or any other emergency, the Company shall notify the User by contacting the User's Contact Centre at the address given below.

IDNO Name & Address

Telephone number:

Email:

### **5.3 Other Notices**

All other notice shall be made in accordance with the provisions of the DCUSA.