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23 April 2015

For the attention of James Hebden

Dear Sir

**Re: Request for Statement of Works received on 24 March 2015
Bulk Submission of Embedded Generation at Grendon 132kV Substation
User Agreement Reference No. A/EME/90/5-10EX(1)**

I refer to your **Request for a Statement of Works** in relation to the possible connection of the above **Embedded Generators** to your **Distribution System** (the "Project"). **The Company** started processing this request on 26 March 2015.

We have now undertaken an initial assessment of the significance of the Project and believe the **Embedded Generators** does have a significant impact on the **National Electricity Transmission System** (for the avoidance of doubt, such significant impact involves either party in an expenditure of more than £10,000) and would advise you of the following implications:-

- i. Requirement for works on the **National Electricity Transmission System** where such works are not at a **Connection Site**

NO

- ii. Requirement for works to the **National Electricity Transmission System** at a **Connection Site (Grid Supply Point)**

YES

Our case study has shown that there are 2 circuit breakers (120 and 150) are overstressed on fault levels, also an additional SGT may be required to accommodate this embedded generation request. As a result of our findings a Modification Application will be required to further study the impact on the transmission network.

- iii. Necessity for **Site Specific Requirements** (at the site of connection) of the **Power Station**

YES

Based on the data submissions made with the application, the load reduction for the Grendon GSP was taken to be a total of 99MW and 5MVar, this poses a voltage increase on our 400kV system.

Any reduction in demand will increase the degree of non-compliance, we therefore need a new strategy to combat the problems of embedded generation and demand reduction. The methodology adopted was to calculate the equivalent reactive compensation required at Grendon 400kV substation to bring the post-connection voltages down to their pre-connection levels. This has been calculated as approximately 35MVar. The compensation could take a number of forms, such as shunt reactors on the distribution or transmission system or an appropriate choice of generator power factor.

Any Site Specific Requirements necessary will be confirmed in the **Modification Offer**.

This **Statement of Works** will remain valid for a period of 90 **Business Days** from the date hereof, i.e. until 31st August 2015 ("**Expiry Date**"). After the **Expiry Date** this **Statement of Works** will lapse.

Should your customer wish to progress the Project, you will need to advise us of this fact by signing and returning to **The Company** the **Confirmation of Progression** form attached hereto by the **Expiry Date**.

Any signed **Confirmation of Progression** (together with the appropriate fee) received by **The Company** by the **Expiry Date**, together with the information included in the **Request for a Statement of Works**, shall be deemed to be **Modification Application** for the purposes of the **Charging Statements** and for Paragraphs 1.3.2, 6.9.2, 6.9.3 and 6.10 of the **CUSC** which shall apply thereto.

Modification Applications (including deemed **Modification Applications**) will only be valid under this process if received by **The Company** on or before the **Expiry Date**. In such event the **Expiry Date** shall not be extended, and this **Statement of Works** will lapse after the **Expiry Date** except where **The Company** agrees in writing that a revised **Statement of Works** is not reasonably required.

This **Statement of Works** has been assessed as at the date of issue. In the event that the system background changes on or before the **Expiry Date** of this **Statement of Works**, or before the **User** has completed, signed and returned the **Confirmation of Project Progression** with the appropriate fee, **The Company** reserves the right to revise any and all aspects of this **Statement of Works** and will notify the **User** of any changes to this **Statement of Works**.

This **Statement of Works** is made on the basis of and is only valid in respect of the information provided by the **User** in the **Request for a Statement of Works**. If the **User** wishes to make any changes to any information submitted with the **Request for a Statement of Works** a new **Request for Statement of Works** must be submitted to **The Company** before **Energisation** of the connection can take place. Please note, you may not energise the connection of the Project without having received a written notification from **The Company** that the process set out in Paragraph 6.5 of **CUSC** has been complied with in full.

Please note this **Statement of Works** should be forwarded to the **Power Station** as soon as reasonably practicable in accordance with Paragraph 6.5.5.3 of the CUSC.

All communication in relation to this **Statement of Works** should, in the first instance, be directed for the attention of Steph Wootton, who can be contacted by telephone on 01926 656126 or by email at steph.l.wootton@nationalgrid.com

Yours faithfully



NICOLA PATON
HEAD OF CUSTOMER SERVICE

FOR AND ON BEHALF OF
NATIONAL GRID ELECTRICITY TRANSMISSION PLC