
EAST YORKSHIRE SOLAR FARM

**East Yorkshire Solar Farm
EN010143**

Grid Connection Statement

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Table of Contents

Executive Summary	1
1 Introduction	2
1.1 Background	2
1.2 Purpose and Structure of this Statement.....	2
1.3 Works Numbers	3
2. Grid Connection Agreement.....	4
3. Elements of the Grid Connection	5
3.1 Introduction.....	5
3.2 Grid Connection Substations (Work No. 2).....	5
3.3 Grid Connection Corridor (Work No. 3)	5
3.4 Works at the National Grid Drax Substation	6
4. Responsibilities for Designing and Building the Grid Connection.....	7
4.1 Responsibilities of the Applicant	7
4.2 Responsibilities of National Grid Electricity Transmission	7
5. Acquisition of land rights required for the grid connection	8
6. Consent for the Grid Connection	9
7. Conclusion	10
8. References	11

Executive Summary

- ES1 This Grid Connection Statement (the Statement) has been prepared in respect of an application for a Development Consent Order (DCO) for the construction, operation (including maintenance), and decommissioning of the East Yorkshire Solar Farm (The Scheme). The Scheme comprises of ground mounted solar photovoltaic (PV) panel arrays and associated infrastructure to export electricity to the national electricity transmission network (NETS) at the National Grid Drax Substation in North Yorkshire. **Figure 1-3, ES Volume 3 [EN010143/APP/6.3]** shows the location and the elements of the Scheme.
- ES2 The Scheme is defined under the Planning Act 2008 as a Nationally Significant Infrastructure Project (NSIP) as it comprises a generating station in England with a capacity exceeding 50 megawatts (MW). It therefore requires a DCO from the Secretary of State for Energy Security and Net Zero (the Secretary of State). The Statement has been prepared on behalf of East Yorkshire Solar Farm Limited (the Applicant) to support the DCO application and should be read in conjunction with the other documents submitted with the Application.
- ES3 The Statement is submitted pursuant to Regulation 6(1)(a)(i) of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009, which requires the Applicant for a generating station to state who will be responsible for designing and building the connection to the electricity grid.
- ES4 This Statement provides confirmation to the Secretary of State for Energy Security and Net Zero (the Secretary of State) of responsibilities for designing and building the connection from the ground mounted solar PV panel arrays and associated infrastructure to the National Grid Drax Substation.
- ES5 The Applicant has, or will have, the ability to procure the necessary land and rights in order to connect to the National Grid Drax Substation; and has sought compulsory acquisition powers to facilitate this if required, as set out in the **draft Development Consent Order [EN010143/APP/3.1]** and the **Statement of Reasons [EN010143/APP/4.1]**. The Scheme for which development consent is being sought includes the necessary infrastructure to connect to the National Grid Drax Substation.

1 Introduction

1.1 Background

- 1.1.1 This Grid Connection Statement (the Statement) has been prepared by East Yorkshire Solar Farm Limited (the Applicant) as part of an application for a Development Consent Order (DCO) for the construction, operation (including maintenance) and decommissioning of the East Yorkshire Solar Farm (the Scheme).
- 1.1.2 The Scheme consists of ground mounted solar photovoltaic (PV) panel arrays and associated infrastructure to export electricity to the national electricity transmission network (NETS) at National Grid Drax Substation located in North Yorkshire.
- 1.1.3 The Scheme is defined under the Planning Act 2008 as a Nationally Significant Infrastructure Project (NSIP) as it comprises a generating station in England with a capacity exceeding 50 megawatts (MW). It therefore requires a DCO.
- 1.1.4 The application for the DCO (the Application) is submitted to the Planning Inspectorate, with the decision whether to grant a DCO being made by the Secretary of State for Energy Security and Net Zero (the Secretary of State) pursuant to the Planning Act 2008 (PA 2008) (Ref. 1).
- 1.1.5 This Statement has been prepared on behalf of the Applicant to support the DCO application and should be read in conjunction with the other documents submitted with the Application. A detailed description of the Scheme is included in **Chapter 2: The Scheme, ES Volume 1 [EN010143/APP/6.1]**.

1.2 Purpose and Structure of this Statement

- 1.2.1 This Statement is part of a suite of documents which must accompany the Application pursuant to Section 55 of the Planning Act 2008 (Ref. 1) and Regulations 5 and 6 of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (APFP Regulations) (Ref. 2).
- 1.2.2 It has been prepared in accordance with Regulation 6(1)(a)(i) of the APFP Regulations (Ref. 2), which requires an applicant for a DCO in respect of a generating station to provide a statement of who will be responsible for designing and building the connection to the electricity grid.
- 1.2.3 This Statement is therefore structured as follows:
- a. Section 1: Introduction;
 - b. Section 2: Grid Connection Agreement;
 - c. Section 3: Elements of Grid Connection;
 - d. Section 4: Responsibilities for Designing and Building the Grid Connection;
 - e. Section 5: Acquisition of Land Rights for the Grid Connection;
 - f. Section 6: Consent for the Grid Connection; and
 - g. Section 7: Conclusion.

1.3 Works Numbers

- 1.3.1 Works numbers (Work No.'s) are referred to throughout this Statement. These refer to the works describing the authorised development set out in Schedule 1 of the **draft DCO [EN010143/APP/3.1]**. The **draft DCO [EN010143/APP/3.1]** should be referred to for the specific terminology and full details of each work number.
- 1.3.2 The location of each of the work numbers is shown on the **Works Plan [EN010143/APP/2.3]**.
- 1.3.3 The work numbers which are relevant are as follows:
- a. Work No. 2 – the onsite substations and associated works hereafter referred to in this Statement as the “Grid Connection Substations”;
 - b. Work No. 3 – works to lay electrical cables and compounds for the electrical cables, and engineering works within or around the National Grid Drax Substation to facilitate the connection, hereafter referred to as the “Grid Connection Corridor”.
- 1.3.4 The above works will form the infrastructure that is used to export the electricity generated by Work No. 1 (the ground mounted solar photovoltaic generating station) to the connection point at the National Grid Drax Substation.

2. Grid Connection Agreement

- 2.1.1 The Applicant contracted with Eclipse Power Networks Limited (Eclipse) for the purposes of applying for the grid connection. Eclipse is licensed by Ofgem as an Independent Distribution Network Operator (IDNO). An IDNO designs, owns, operates and maintains electricity networks in the UK. IDNOs connect to the local distribution network, or to the transmission network, to serve new developments and are ultimately responsible for maintaining the local network. The Applicant and Eclipse submitted a joint application for the grid connection. They received a grid connection offer from National Grid Electricity System Operator Limited (NGESO) to connect the Scheme to the NETS at the National Grid Drax Substation in North Yorkshire. NGESO are the system operator for the NETS, and as such are the body of National Grid able to make connection offers. National Grid Electricity Transmission (NGET) operate as transmission owners, and as such NGET are the body of National Grid responsible for owning and operating the National Grid Drax Substation that the Scheme will connect to, should the DCO receive consent.
- 2.1.2 The grid connection offer (a Bilateral Embedded Generation Agreement (BEGA)) to the Applicant and Eclipse was originally received on 17 December 2021 and this was accepted by the Applicant and Eclipse on 12 April 2022. The BEGA is for the export of up to 400 MW.
- 2.1.3 Engagement with NGESO has continued since 2021 and discussions are ongoing at the time of the submission of this Application.
- 2.1.4 NGET has confirmed that an existing spare bay within National Grid Drax Substation is currently available. All works to the National Grid Drax Substation to accommodate the Scheme connection would be undertaken by National Grid and are anticipated to include the installation of a transformer and associated infrastructure which will convert the 132 kV electricity supplied by the Scheme to 400 kV to facilitate the efficient transmission of power onto the electricity transmission network. All infrastructure within the National Grid Drax Substation would remain under National Grid's control.
- 2.1.5 The Applicant therefore confirms that the electricity generated by Work No. 1, will be exported to the NETS via the National Grid Drax Substation, owned and operated by NGET.

3. Elements of the Grid Connection

3.1 Introduction

- 3.1.1 Electricity generated by the Scheme will be exported to the NETS via cabling located within the Grid Connection Corridor (**Work No. 3**). This cabling will connect the two Grid Connection Substations (**Work No.2**) to the National Grid Drax Substation.
- 3.1.2 The locations of the Works areas are shown on the **Works Plans [EN010143/APP/2.3]** and the location of the National Grid Drax Substation is shown on sheets 21 and 22 of the **Works Plans [EN010143/APP/2.3]**.
- 3.1.3 The following sections summarise the elements required for the grid connection for the Scheme. A description of how these elements will be constructed is provided in **Chapter 2: The Scheme, ES Volume 1 [EN010143/APP/6.1]**.

3.2 Grid Connection Substations (Work No. 2)

- 3.2.1 There will be two Grid Connection Substations (**Work No. 2**) which will convert energy created by **Work No.1** to 132kV for onward transmission to the National Grid Drax Substation via cabling along the Grid Connection Corridor (**Work No.3**). The electricity generated by the Scheme will be approximately split between the two Grid Connection Substations.
- 3.2.2 The Grid Connection Substations will be collocated within a compound which will include:
- substations, switch room buildings and ancillary equipment;
 - monitoring and control systems with welfare facilities;
 - hardstanding and parking areas (Work No.4); and
 - underground electrical cables (Work No.3 and Work No.4).

3.3 Grid Connection Corridor (Work No. 3)

- 3.3.1 The Grid Connection Corridor (**Work No.3**) will contain two new 132kV cable circuits which will each comprise three 132kV cables plus auxiliary cables (e.g. bare copper earth cable and optical fibre and communication cables) per circuit running underground in ducting to connect the Grid Connection Substations (**Work No.2**) with the National Grid Drax Substation.
- 3.3.2 A cable trench to lay these cable circuits in the ground will be excavated. The depth of cable installation is dependent upon many factors such as ground conditions and what is encountered along the route. This includes the need to undertake utility surveys to inform positioning to avoid assets. Trenchless crossings are also proposed where above ground constraints are present such as watercourses. The requirements of the trench design for cable laying are set out in the **Outline Design Principles Statement [EN010143/APP/7.4]**.
- 3.3.3 A typical working corridor width of 30 m, which includes the cable trench, soil and spoil laydown, working area and haul road (with passing places) is expected to be required. As is typical for cable installation projects, the haul road will be up to a maximum of 5 m wide and will run directly on the subsoil

surface with temporary track matting used where required; it will not be stoned.

3.4 Works at the National Grid Drax Substation

- 3.4.1 The Scheme will be connected to the National Grid at Drax Substation. NGET has confirmed that an existing spare bay within National Grid Drax Substation is currently available. All works to the National Grid Drax Substation to accommodate the Scheme connection would be undertaken by National Grid and are anticipated to include the installation of a transformer and associated infrastructure which will convert the 132 kV electricity supplied by the Scheme to 400 kV to facilitate the efficient transmission of power onto the electricity transmission network. All infrastructure within the National Grid Drax Substation would remain under National Grid's control.

4. Responsibilities for Designing and Building the Grid Connection

4.1 Responsibilities of the Applicant

- 4.1.1 The Applicant and its appointed contractors will be responsible for designing and constructing the elements described in section 3.2 and 3.3. Works at the National Grid Drax Substation (section 3.4) to accommodate the Scheme connection would be undertaken by National Grid. The Scheme will deliver the Grid Connection Cable into an existing spare bay of the National Grid Drax Substation.
- 4.1.2 Eclipse will be responsible for the ongoing ownership, management and maintenance of the two Grid Connection Substations and the new 132kV underground cable within the Grid Connection Corridor, as this infrastructure will be adopted by Eclipse before energisation.

4.2 Responsibilities of National Grid Electricity Transmission

- 4.2.1 NGET will be responsible for designing and building all non-contestable works (works that will be undertaken by National Grid). NGET is proposing to install infrastructure at an existing bay at the National Grid Drax Substation for the Scheme as described in this statement.
- 4.2.2 Any requirements or modifications to facilitate this connection at the National Grid Drax Substation will be implemented by NGET and are not included for as part of the authorised development set out in the draft DCO **[EN010143/APP/3.1]**.

5. Acquisition of land rights required for the grid connection

- 5.1.1 Negotiations for the purchase of land, rights and interests are ongoing in respect of any new rights required for the Scheme, where voluntary agreement has not yet been reached. It is necessary for the Applicant to seek compulsory acquisition powers to secure such land, rights and interests and to ensure that any third-party interests or encumbrances affecting such land, rights and interests may be acquired, overridden or extinguished pursuant to the draft DCO, thereby ensuring that the Scheme can be constructed, operated and maintained.
- 5.1.2 The Applicant nevertheless remains committed to obtaining necessary land and rights by negotiation where possible and discussions with landowners remains ongoing.
- 5.1.3 An option on the land required for the Grid Connection Substations is being progressed and is nearing completion, and the Applicant continues to negotiate an option for easement with affected landowners for the Grid Connection Corridor. The status of negotiations at the time of the DCO application submission is reported in the **Schedule of Negotiations and Powers Sought [EN010143/APP/4.4]**.

6. Consent for the Grid Connection

- 6.1.1 The Grid Connection, comprising the Grid Connection Substations (**Work No. 2**), and the Grid Connection Corridor (**Works No. 3**) forms part of the Scheme for which development consent is being sought via the DCO Application.
- 6.1.2 The Applicant has accepted a grid connection offer from NGET which stipulates the works required to connect to National Grid Drax Substation. These works are explained in section 3 of this Statement.
- 6.1.3 As such, if the same terms as those set out in the **draft DCO [EN010143/APP/3.1]** are granted, development consent to deliver the grid connection will have been secured.

7. Conclusion

- 7.1.1 The Applicant is required to submit a statement pursuant to Regulation 6(1)(a)(i) of the APFP Regulations, stating who will be responsible for designing and building the connection to the electricity grid.
- 7.1.2 It is considered that this Statement provides confirmation to the Secretary of State of the requirement above, namely:
- a. The Applicant and Eclipse have received a grid connection offer from NGESO to connect the Scheme to the NETS and this offer has been accepted;
 - b. A connection to the National Grid Drax Substation will be provided via two 132kV underground cable circuits from the Grid Connection Substations shown as **Work No.2** on sheet 4 of the Works Plans **[EN010143/APP/2.3]**;
 - c. The Applicant will be responsible for designing and building the Grid Connection Substations (**Work No.2**) and laying the cable within the Grid Connection Corridor (**Work No. 3**). NGET will be responsible for any works required within the existing bay at National Grid Drax Substation to receive the electricity;
 - d. The Applicant has, or will have, the ability to procure the necessary land and rights in order to accommodate the Grid Connection Corridor; and
 - e. As set out in the **draft DCO [EN010143/APP/3.1]**, the Grid Connection forms part of the Scheme for which development consent is being sought.

8. References

- Ref. 1 HM Government (2008). Planning Act 2008. Available at:
<https://www.legislation.gov.uk/ukpga/2008/29/contents> [Accessed 09 August 2023]
- Ref. 2 HM Government (2009). The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009. Available at:
<https://www.legislation.gov.uk/uksi/2009/2264/contents/made> [Accessed 09 August 2023]