



Little Crow

Solar Park

Little Crow Solar Park, Scunthorpe

DRAFT STATEMENT OF COMMON GROUND WITH NORTHERN POWERGRID

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LITTLE CROW SOLAR PARK LAND TO THE EAST OF STEEL WORKS, SCUNTHORPE

DRAFT STATEMENT OF COMMON GROUND (SOCG)

1ST DRAFT FOR ISSUE TO NORTHER POWERGRID

BETWEEN:

- I. LITTLE CROW SOLAR PARK; AND**
- II. NORTHER POWERGRID**

ON BEHALF OF INRG SOLAR (LITTLE CROW) LTD

Pegasus Group

First Floor | South Wing | Equinox North | Great Park Road | Almondsbury | Bristol | BS32 4QL

T 01454 625945 | **F** 01454 618074 | **W** www.pegasusgroup.co.uk

Birmingham | Bracknell | Bristol | Cambridge | Cirencester | East Midlands | Leeds | Liverpool | London | Manchester

PLANNING | **DESIGN** | **ENVIRONMENT** | **ECONOMICS**

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1. INTRODUCTION

- 1.1 This draft Statement of Common Ground has been prepared as part of the application process for a Development Consent Order for the Little Crow Solar Park [“the Development”]. This draft document has been prepared jointly between the applicant and Norther Powergrid (‘NPG’).

Norther Powergrid

- 1.2 The UK electricity network is split into regions and each region has a district network operator. Norther Powergrid is the District Network Operator across the north east, Yorkshire and Northern Lincolnshire. They distribute power to 3.9 million homes and businesses through their network of more than 64,000 substations, over 96,000km of overhead lines and underground cables, spanning almost 25,000 square km. They have around 2,700 employees and operate 24 hours a day, 365 days a year to maintain a safe, reliable and efficient electricity supply. They play an active role in supporting the development of the regional growth agenda through their support of Business North, sponsorship of the Northern Energy Taskforce, and through the Infrastructure North utility partnership with Northern Gas Networks, Yorkshire Water and Northumbrian Water. As a Distribution Network Operator (DNO) it is their responsibility to make sure that our network is able to safely and securely support these changes whilst maintaining high standards of reliability for our customers.

Purpose of Document

- 1.3 This draft Statement of Common Ground is a working document prepared jointly by the applicant and NPG. The document has been structured to reflect the matters and topics relevant between the applicant and NPG.
- 1.4 The remainder of this document is split into individual topic-specific statements.
- 1.5 As this is a working document, the general approach for each topic-specific section is to provide common ground text set out in a tabulated format for NPG to comment upon and then either agree, disagree or identify the need for further negotiations. A second table is then provided which discusses the comments made during the consultation phases.

1.6 As the SoCG evolves, the aim will be to provide each topic-specific section with three distinct tables covering (i) matters that are agreed, (ii) matters which are subject to further negotiations, and (iii) matters not agreed.

1.7 The remainder of this document is split into the following sections:

Section 2: Development Description

Section 3: District Network Considerations

Section 5: Declarations

2. DEVELOPMENT DESCRIPTION

- 2.1 The main element of the Development is the construction, operation, maintenance and decommissioning of a ground mounted solar park with a maximum design capacity of up to 150MWp (megawatts peak) and battery storage capacity of up to 90MW. Battery storage will allow the development to fully utilise the network connection capacity when the solar park is not exporting at peak capacity. The battery element of the proposal would be available to store energy from and release electrical energy to the electricity network.
- 2.2 The solar and battery elements could either be delivered and connected to the electricity network independently of each other or at the same time. They could therefore be constructed and become operational either independently or together. An operational lifespan of 35 years is sought for each element and, subject to when they are constructed, the operational lifespans could run concurrently or interdependently.
- 2.3 A single main substation compound will serve the whole Development, and this will be required for the duration of the Development and retained thereafter. The substation compound would be located near the northern perimeter of the site and to the east of the existing double row of 132kV overhead electricity pylons which traverse the site and duly provides the point of connection to the local electricity network.
- 2.4 The Development area can be effectively split into seven land use zones, these are:-
- Zone 1: Ground mounted solar photovoltaic arrays
 - Zone 2: Battery Compound Yard
 - Zone 3: Ecological corridors
 - Zone 4: Central substation compound and connection to the national grid
 - Zone 5: Main access track
 - Zone 6: Perimeter development buffer
 - Zone 7: Temporary construction compound

- 2.5 The proposed land use zoning plan is provided at Appendix 1. The proposed layout drawings are provided at Appendix 2.

**APPENDIX 1 – LAND USE ZONING PLAN
APPENDIX 2 – PLANNING APPLICATION DRAWINGS**

Solar Arrays

- 2.6 All solar photovoltaic (PV) modules will be located within the fields enclosures / Zone 1 as defined on the zoning plan. The total solar output will not exceed 150MW with land coverage of the PV modules would be 800,000 sq m.
- 2.7 The PV modules would be static, mounted on aluminium metal racks. The racks will be laid out in multiple parallel rows running east to west across the various field enclosures. The distance between the arrays would respond to topography but would typically be between 3.5 metres to 6 metres. The maximum height of the solar panels fixed onto the framework would be under 2.5m. All PV modules will be south facing.
- 2.8 The mounting system will be primarily formed of piled posts set approximately 3.75m apart, except within areas of archaeological interest where the posts will be fixed into concrete pads resting on top of the ground. The PV modules would be dark blue, grey or black in colour with the frame constructed of anodized aluminium alloy.
- 2.9 For archaeological interests, a development exclusion zone has been provided around the area containing the former Gokewell Priory. No arrays or cable runs will go through this area. The area will be used to provide biodiversity measures and will be delineated with a stock-proof fence. The existing public right of way (Footpath 214) running through this area will be retained.
- 2.10 Inverters, transformers and associated switch gear which are required to convert the DC electricity produced by the arrays into AC electricity, will be spread equally across the site. Insulated DC cables from the solar modules will be routed in channels fixed on the underside of the framework. The electrical cabling from each array will be concealed through shallow trenches linking the modules to the inverters and transformers and then to the main substation. AC cables will also be laid in trenches and would run directly to the main substation compound.

- 2.11 The arrays would be set within stock-proof fencing up to 2m in height with wooden supporting posts placed at intervals of c. 3.5m. The stock proof fencing would be either green or galvanised aluminium in finish. The minimum distance between the edge of the arrays and the stock-proof fence would be 3m. Land between and beneath the panels would be used for biodiversity enhancements and seasonal sheep grazing.
- 2.12 A CCTV system mounted on poles would be positioned at intervals along the inside face edge of the stock-proof fencing (between the fence and the arrays).

Battery Storage Compound

- 2.13 The battery storage compound consists of industrial batteries that can store energy and are able to release or absorb energy from the power network. Being able to absorb and release energy, the battery storage at Little Crow can be used to contribute towards the frequency balancing services, where the power is being generated or absorbed statically or dynamically depending on the system frequency.
- 2.14 When there is not enough power, batteries are discharged to balance under frequency, preventing black and brown outs. To balance over frequency, batteries are charged to prevent dangerous spikes across electricity infrastructure¹.
- 2.15 All batteries will be located within the Zone 2 as defined on the zoning plan. The total land coverage of the battery compound would not exceed 3,500 m sq. The total storage capacity would not exceed 90MW.
- 2.16 The compound would be made secure by a 3m gated palisade fence. Battery containers would have a maximum length of 17m, maximum width of 3m and a maximum height of 4m. The maximum storage capacity of a single battery container would be c6MW. The battery containers would be dark green in colour. The maximum development footprint of the battery storage compound will be 55m by 100m and will be surfaced with stone chippings.

¹ The National Electricity Transmission System is an islanded network with no AC connections to other networks. In order to manage the system frequency within the normal operating range 49.5Hz to 50.5Hz, National Grid relies on frequency balancing service providers to modulate their active power output or consumption in order to minimise the imbalance between generation and demand on the system. The extent of the required modulation is determined by the deviation of the system frequency from 50Hz. A change in grid frequency is caused by an imbalance of supply and demand.

Substation

- 2.17 A single substation compound will be required for the Development and this will be constructed at the start of the development of the whole site. Following construction and commissioning the substation compound will be adopted and become the property of NPG who will maintain the compound throughout the lifetime of the Development. The decommissioning of the substation is not considered as part of the Application as this will be the property of NPG and as such would be outside the gift of the developer to decommission.
- 2.18 The maximum development footprint of the substation compound will be 80m by 80m and will be surfaced with stone chippings. Under normal conditions the site would be unmanned.

Landscape and ecological management plan

- 2.19 The Development proposal presents considerable opportunity for landscape and biodiversity mitigation and enhancement. The Landscape and Biodiversity proposal are discussed in detail in the supporting Landscape and Ecological Management Plan.
- 2.20 Ecological and biodiversity measures are promoted across the entire site and these enhanced areas are shown as land zone 3, as shown on the zoning plan. Land between and beneath the panels would be used for biodiversity enhancements and seasonal sheep grazing. Tree planting would be introduced along the north east section of the development boundary.
- 2.21 The existing woodland plantations that surround the various field enclosures would continue to be managed by the landowner as part of its woodland forestry licence. The hedgerows surrounding the field edges will also be managed via the Landscape and Ecological Management Plan.

Access

- 2.22 It is proposed that construction traffic will arrive from the M180 junction 4, the A15, the A18, the B1208 and B1207 to the site access. From the M180 junction 4 vehicles will use the A15 northbound to the Briggate Lodge Roundabout and then travel east along the A18 towards Brigg. From the A18, vehicles will turn left onto the B1208. The B1208 measures between approximately 5.5 and six metres wide.

Vehicles will travel along the B1208 to the junction with the B1207 and then continue straight ahead into the site access.

- 2.23 No construction vehicles associated with the development proposal would travel through Broughton.

Construction phase & Temporary Construction Compound

- 2.24 As stated elsewhere in this section, the solar and battery elements could either be constructed and connected to the electricity network independently of each other or at the same time. If all elements were constructed as at the same time, then the construction period would take approximately 11 months (up to 47 weeks).

- 2.25 Construction activities will be carried out Monday to Friday 07:00-18:00 and between 08:00 and 13:30 on Saturdays. Where possible, construction deliveries will be coordinated to avoid HGV movements during the traditional AM peak hour (08:00-09:00) and PM peak hour (17:00-18:00).

- 2.26 During the construction phase (or phases) one main construction compound will serve the development proposal and this will be located off the main site entrance, thus reducing the distance delivery vehicles will need to travel after reaching the site's entrance.

- 2.27 The temporary construction compound would comprise: -

- Temporary portacabins providing office and welfare facilities for construction operatives
- Parking area for construction and workers vehicles
- Secure compound for storage
- Temporary hardstanding
- Wheel washing facilities
- Temporary gated compound
- Storage bins for recyclables and other waste

All construction vehicles will exit through the wheel wash area in order to reduce the spread of mud and dirt onto the local highway network. Temporary roadways may be utilised to access parts of the development site and this would be guided by weather conditions at time of construction.

Temporary Diversion of Public Rights of Way

- 2.28 A temporary diversion of a section of the right of way (footpath 214) traversing the site will be required during the construction and subsequent decommissioning phases. The temporary diversion will only be required to allow the build out and removal of the of the solar park and main substation compound and this will be for a maximum of 11 months. The proposed temporary diversion is presented at Appendix 3.

APPENDIX 3 - PROPOSED TEMPORARY DIVERSION OF PUBLIC FOOTPATH 214

Decommissioning

- 2.29 An outline decommissioning strategy is included within the Environmental Statement and sets out details of the decommissioning programme to be carried out after a 35 year generation period. It includes the methods for the removal of all the solar panels, cabins, structures, batteries, enclosures, equipment and all other apparatus above and below ground level from the site and details of their destination in terms of waste/recycling, and details of how the site is to be restored.

3. DISTRICT NETWORK CONSIDERATIONS

3.1 There are a number of Northern Power Grid ('NPG') network sections running through the development site and these are listed below:

(i) Keadby – Broughton – Teed – Scawby Brook overhead 132kV line

(ii) 33kV line overhead

(iv) 33kV line underground

(iii) 11kV line

3.2 INRG accepted a grid connection offer from NPG in 2017 and secured the 99.9MW of export capacity. The grid offer accepted by INRG can only be used for the Little Crow Solar Farm and cannot under be transferred to any other site, as this would be deemed by NPG as a significant alteration to the original application. The only viable connection voltage for a project of this size is 132kV and it requires the construction of a new 132kV sub-station on-site.

4. Matters Agreed

4.1 NPG have several assets in the form of overhead and underground electricity lines traversing the site and these have been outlined above in Para 3.1. a plan showing the location of the assets is in Appendix 3.

4.2 The applicant completed a topographical survey of the location the Development including the location of the overhead electricity lines and the various supporting structures.

4.3 The applicant has incorporated the locations of the various NPG assets into the latest site layout and has also ensured that the infrastructure clearances to NPG assets as detailed in has been adhered to so that there is no requirement to divert the route of any of the assets.

4.4 Protective provisions specifically for the benefit of NPG will be included in the Draft Development Consent Order (DCO). Please see proposed text for inclusion in the wording of the DCO in Appendix XX.

5. Matters subject to further negotiations

5.1 []

6. Matters not agreed

6.1 []

7. Declarations

7.1 []

