

**National Grid Electricity Transmission Plc response to Examining Authority's Requests for Information in relation to Rosefield Solar Farm Consent Order**

**1. Statutory Undertaker Registration Number** [REDACTED]

1.1 National Grid Electricity Transmission ("NGET") have prepared the following response to the requests for information from the Examining Authority ("ExA") in respect of the application by Rosefield Energyfarm Limited ("the **Applicant**") for the Rosefield Solar Farm Development Consent Order ("the **Order**") to authorise the Rosefield Solar Farm Project ("the **Project**").

1.2 NGET have identified a site immediately adjacent to the west of the operational East Claydon Substation (the "**Existing Substation**") for a new 400kV substation ("the **New Substation**"). As provided in NGET's Relevant Representation, the New Substation involves the long-term replacement of the Existing Substation, which lacks sufficient electrical capacity to connect multiple new customers, as well as the reconfiguration of the existing overhead lines. The Applicant recognises in sections 3 and 4 of the Grid Connection Statement, NGET's proposals for the East Claydon Project and the key role that the East Claydon Project and NGET will play in facilitating the connection of the Proposed Development to the National Grid. The parties continue to work together to put in place appropriate arrangements for the interface of the East Claydon Project and the Proposed Development, in order to bring forward and permit the co-existence of the respective infrastructure. The parties recognise that such arrangements are complicated given the evolution of design, and continue to discuss a pragmatic way forward. However, given such complexities, both parties fully expect that discussions will continue during the course of the Examination.

**2. Executive Summary**

2.1 This response will set out an overview of the minimum clearances that NGET requires in respect of third party infrastructure, with the specific clearances in place on the East Claydon site. It is expected that further clearances and new easements will be required for the East Claydon Project. The Order as currently drafted includes land which forms a necessary part of NGET's proposed East Claydon Project. The New Substation is currently at design stage and due to the constraints on the site coupled with the design input that is required from connecting customers, NGET requires additional time to complete its FEED design.

**ExA Question 1 - Whether the use of appropriate clearances and easements, along with protective provisions as required, could the proposed development be designed to ensure that it did not prejudice the delivery of the replacement East Claydon Substation?**

**3. Use of appropriate clearances in design of proposed development**

**3.1 NGET's Minimum Clearances**

3.1.1 The Technical Guidance Note 287 - *Third-party guidance for working near National Grid Electricity Transmission equipment* ("TG 287 Note") provides an overview of the statutory requirements for working near high-voltage electricity, including electrical safety clearances, minimum access clearances, and risks and hazards when developing close to electrical infrastructure.

**3.2 Access Clearances**

3.2.1 The TG 287 Note prescribes that, '*NGET needs to have safe access for vehicles around its assets and work that restricts this will not be allowed*'. It explains that works within 30m of a tower base might affect the foundations of the towers and that the 30m clearance is to be maintained at all times to allow a route wide enough for an HGV and to access our sites, towers, conductors and underground cables at short notice

### 3.3 Statutory Electricity Clearance from Overhead Lines ("OHL")

- 3.3.1 Electrical safety clearances must be maintained at all times and are set out in full in the Energy Networks Association (ENA) Technical Specification for 'overhead line clearances' 43-8 ("TS 43-8").
- 3.3.2 The TG 287 Note provides that the minimum clearance between the conductors of an overhead line and the ground is 7.3m at maximum sag, sag being the vertical distance between the wire's highest and lowest point and that *'power flow, wind speed and air temperature can cause conductors to move and allowances should be made for this'*.

### 3.4 East Claydon Project - Existing Overhead Lines ("OHL") Clearances

- 3.4.1 There are three southern OHL, East Claydon to Cowley (1), East Claydon to Amersham-Iver (2) and East Claydon to Leighton Buzzard-Sundon (3) which all connect into the Existing Substation.
- 3.4.2 All three existing OHL benefit from established rights in land, which provide NGET with an easement width of 30m either side of each tower base and OHL (30m radius and 60m diameter).
- 3.4.3 This 30m is required in order for NGET to properly maintain and operate its assets for the transmission of electricity in accordance with its Electricity Transmission Licence. The area proposed by the Applicant for the generating station in the Order is immediately coterminous with all three existing OHL. The relevant plot numbers are 7/9 and 7/12.
- 3.4.4 The existing OHLs are proposed to be diverted as part of the proposed East Claydon Project, and it is vital that such clearances are maintained. NGET is confident that the Applicant accepts this requirement. At this stage of design the extent of such easements cannot be defined. As design development continues, the Parties will obtain clarity on such land requirements.

## 4. Use of appropriate easements

- 4.1 The above position regarding 30m distances in the TG 287 Note is reiterated in NGET's standard Deed of Grant for OHLs. The standard deed provides that a 30m easement (from the tower base) and protective covenants are required, in order to prevent obstruction and to maintain access for operation and maintenance purposes.

### 4.2 New East Claydon Substation

- 4.2.1 NGET are currently developing its planning application together with detailed engineering drawings to authorise the construction, operation and maintenance of a New Substation at East Claydon and associated OHL. NGET have made good progress in pre-application discussions with the local planning authority. NGET's lands team have on-going discussions with land owners about acquiring land and rights by voluntary agreement, and where this is not possible, NGET will promote a compulsory purchase order.
- 4.2.2 In all events, for safety and operational purposes, NGET will require easement strips in place to reflect the requirements of TG 287.

### 4.3 Reconfiguration of Existing OHL

- 4.3.1 Engineering assessments and line plans are being prepared in relation to the reconfiguration of all three southern OHL, as well as the gantry to the Existing Substation. The current OHL alignment into the Existing Substation is already very congested. It is anticipated that turn-ins from the existing OHL are required, which may require any of the following:

- 4.3.1.1 repositioning of existing towers;
- 4.3.1.2 additional towers varying in height; temporary towers; temporary use of land for construction;
- 4.3.1.3 oversailing;
- 4.3.1.4 new OHL; and
- 4.3.1.5 restringing the existing OHL.

## 5. **Rosefield DCO - role of Protective Provisions**

- 5.1 The Order includes proposals for the placing of a generating station within an area adjacent to land on which the existing OHL and Existing Substation is located. The Applicant's DCO limits overlap with the land which is critical for the delivery of NGET's New Substation and OHL.
- 5.2 NGET appreciate the Applicant's position, as stated in the Environmental Statement (notably paragraph 4.7.26) that those limits extend to a larger area than may be required in practice for the delivery of the proposed development, in order to allow for flexibility, taking into account design development. NGET is nonetheless compelled to protect its existing assets and its ability to deliver the East Claydon Project, and in so doing has submitted protective provisions to the Applicant which include: (i) the Applicant will not exercise its compulsory powers over NGET operational land without the consent of NGET; and (ii) the Applicant will not exercise its compulsory powers over land identified for the delivery of the East Claydon Project without the consent of NGET<sup>1</sup>. NGET is compelled to put in place protections to prevent the proposed location of the Rosefield substation from impeding the reconfiguration of the NGET OHL which are required order to construct and operate the New Substation. That such land may be required in order to facilitate temporary or permanent towers, and/ or OHL has been communicated to EDF and the Parties are in active discussion regarding the Protective Provisions that NGET submitted to the ExA together with its Relevant Representations.
- 5.3 Protective Provisions are an appropriate and precedented mechanism to put in place acceptable frameworks for the interface of development and operational land. NGET is committed to working with the Applicant to as regards the Protective Provisions submitted to the Examination.

## 6. **Summary of NGET Position – clearances, easements and role of protective provisions**

- 6.1 NGET are currently developing the proposed reconfiguration of the Existing OHL and towers at East Claydon. NGET require further time to progress and finalise its engineering design, and are exploring ways to expedite this. It is likely that NGET will require future easements and rights in this location.
- 6.2 At this stage, and after further engagement with the Applicant, it is considered that appropriate clearances and prescribed easements together with an agreed form of protective provisions can deliver a solution - provided these are in a form acceptable to NGET. NGET have submitted to the ExA a set of Protective Provisions to comprehensively protect NGET's existing assets and the East Claydon Project. Discussions between NGET and the Applicant are ongoing on the nature of the Protective Provisions.
- 6.3 The Order Limits as currently delineated include land required for the delivery of the New Substation. However, the Applicant has made clear in the Application documents that it will not require the full extent of those limits in the delivery of the proposed development.

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<sup>1</sup> See draft Protective Provision submitted with NGET Relevant Representation paragraphs 7(1) and 7(2). These provisions are drafted in line with those included in The Awel y Mor Offshore Wind Farm Order 2023 to manage pragmatic interface with the Bodelwyddan Project.

Therefore, more extensive rights have been included in the Order and NGET will work with the Applicant to protect the East Claydon Substation Project.

- 6.4 NGET's Relevant Representation was concerned to protect the operation of its existing assets and the delivery of the New East Claydon Substation in the context of the proposed Order. NGET reiterate that they do not have an in principle objection to the proposed Development and remains willing to work with EDF to explore the issues raised, and is in on-going discussions with the Applicant with this joint objective in mind.

**ExA Question 2 - If not, explain how the proposed development would prevent the delivery of the replacement East Claydon Substation.**

**7. Interface of the Proposed Development and the East Claydon Substation**

- 7.1 As explained in the response to Question 1, based on the currently available detail, the extent of the proposed DCO Limits would appear to prejudice the delivery of the New Substation due to the key plots within the Order Limits set out below. However, NGET is cognisant of the Applicant's explanation that the DCO Limits allow for flexibility to take into account the required co-existence of the respective Schemes.
- 7.2 As expressed by NGET in its Relevant Representation, NGET does not hold an in principle objection to the proposed development. It has concerns regarding the extent of the Order Limits around Plots 7/9 and 7/12 which are subject to permanent freehold acquisition in the Order. Should these plots not be available to NGET for the design of the East Claydon Project, there are constraints on where NGET can relocate its 400 kV overhead line route 4ZL, 4YH and 4YJ, which would need to be reconfigured to the south within plots 7/9 and 7/12 to enable to connect to NGETs New Substation.
- 7.3 Plots 7/1, 7/2, 7/4 and 7/5, are subject to the compulsory acquisition of permanent rights, however the site of these plots are also within the footprint of the substation replacement works proposed under the East Claydon Project.
- 7.4 NGET notes however productive collaboration discussions with the Applicant to date, and will continue to work with the Applicant to resolve issues of design in those plots. Critical to this will be an agreed form of protective provisions, that will put in place appropriate protections such that the delivery of the replacement East Claydon Substation is not prevented.
- 7.5 The specific interfaces set out in this Response would, in the absence of Protective Provisions acceptable to NGET, prevent and/ or impede delivery of the New Substation. NGET have taken great care in both its optioneering and land acquisition strategy to be proportionate in identifying land plots for the delivery of the East Claydon Project.