

Cottam Solar Project

Technical Note on Horizontal Directional Drilling and Cabling under the River Trent

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Contents

<u>1</u>	<u>INTRODUCTION</u>	<u>3</u>
<u>2</u>	<u>REVIEW OF DESCRIPTION AND ASSESSMENT OF ACTIVITIES</u>	<u>4</u>
2.1	MARINE MANAGEMENT ORGANISATION SUBMISSION	4
2.2	PARTICULARISATION OF ACTIVITIES	6
2.3	ASSESSMENTS OF POTENTIAL ACTIVITIES	7
2.4	CONTROL AND MONITORING MEASURES	8
<u>3</u>	<u>CONCLUSION</u>	<u>9</u>

Issue Sheet

Report Prepared for: Cottam Solar Project Ltd.
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Technical Note on Horizontal Directional Drilling and Cabling under the River Trent

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1 Introduction

- 1.1.1 This Technical Note has been prepared by Cottam Solar Project (the Applicant) in response to Sections 5 and 6 of the submission of the Marine Management Organisation (the MMO) to the Cottam Solar Project Examination dated 30th January 2024 [REP4-081].
- 1.1.2 The Applicant has also provided a response to the MMOs submission [REP4-081] at Appendix A of The Applicant's Responses to Deadline 3A and Deadline 4 Submission [EN010133/EX5/C8.1.32].
- 1.1.3 This Technical Note provides a collation of where the construction activities associated with Horizontal Directional Drilling (HDD) and cabling under the River Trent have been assessed within the Environmental Statement (ES) [APP-036 to APP-058] and the proposed mitigation measures as they relate to the potentially licensable activities.
- 1.1.4 The objective of this Technical Note is to demonstrate that the Applicant has provided a suitably comprehensive and proportionate assessment of the licensable activities associated with the Scheme.

2 Review of description and assessment of activities

2.1 Marine Management Organisation Submission

2.1.1 As noted in Section 1, the MMO submitted a representation at Deadline 4 dated 30th January 2024 [REP4-081]. The text of Sections 5 and 6 is reproduced below.

5. *Licensable Activities and Procedure*

5.1 *It is essential that all activities are properly detailed and full particularised in the DCO for the purposes of a deemed marine licence.*

5.2 *As described in section 2, above, it is the MMO's understanding that the Applicant is primarily proposing to carry out an activity which falls within an exemption. However, the Applicant is seeking the DML as a mechanism to cover the hypothetical situation whereby the Applicant is unable to carry out the works as anticipated and it would become necessary to undertake different works to achieve the same end, but that those works may not fall within an exemption under the 2011 Order. Deemed marine licences cannot be obtained on this basis.*

5.3 *It is the MMO's position that the Applicant has two options:*

- 1) *Progress the DCO without a deemed marine licence. Then, should such works become necessary which would require a marine licence, and application can be made directly to the MMO at that time; or;*
- 2) *Provide the necessary information and detail within the DML so that the activities can be fully assessed, allowing the MMO to determine in accordance with section 69 of the 2009 Act in a manner robust to challenge.*

5.4 *As set out above in Section 2, the NSIPs process only alters the mechanism by which a marine licence is granted, not the substantive process. Were the Applicant to make an application for a marine licence, the MMO would require the information as set out below in order to determine the application.*

- *Full details of any licensable activity in line with s.66 of the 2009 Act and at what stage construction, operation (maintenance) and decommissioning would take place;*
- *Worst case scenario area and volume size of impacts for each activity; and*
- *Full assessment of the worst-case scenario as part of the Environmental Impact Assessment so a holistic assessment can be made on the whole project.*

5.5 *In relation to this DCO and the DML, details which the Applicant would need to provide, include but are not limited to:*

- *a clearly defined programme of works including all licensable marine activities not covered by an exemption. This should relate to the named activity, detail all methodologies, and include the maximum dimensions and equipment to be used.*
 - *An Environmental Impact Assessment,*
 - *A Habitats Regulations Assessment,*
 - *A Marine Plan Policy Assessment and,*
 - *A Water Framework Directive compliance assessment.*
- 6. Deemed Marine Licence (conditions)**
- 6.1 *For the reasons set out above, the MMO request the full DML is removed from the DCO.*
- 6.2 *Given the inadequacies in the existing DML and the lack of detail on the proposed activity, it has not been possible to adequately assess the attached conditions within the DML.*
- 6.3 *Conditions in a marine licence regulate the activities that are to be undertaken and set out the methods by which those activities are carried out, exerting the necessary controls in order to protect the environment, human health and to prevent interference with legitimate uses of the sea, along with any other matters as the MMO thinks relevant.*
- 6.4 *In the absence of sufficient detail, or the appropriate assessments from the Applicant, the MMO is unable to determine whether the conditions proposed by the Applicant in the DML are appropriate in the circumstances.*
- 6.5 *However, should the Secretary of State be minded to include the DML despite the MMO's strong advice against, without prejudice comments on the draft DML have been provided in Table 1 below. It is important to note that these comments are likely to require revision in the event that the necessary further information is provided.*
- 6.6 *Furthermore, the MMO notes the lack of clarity between the conditions, the activities proposed and documents in the wider DCO such as the environmental statement.*
- 6.7 *In drafting the proposed conditioned attached at Table 1, the MMO complies with paragraph 55 of the National Planning Policy Framework which makes clear that planning conditions should be kept to a minimum, and only used where they satisfy the following tests:*
- *necessary;*
 - *relevant to planning;*

- *relevant to the development to be permitted;*
- *enforceable; and*
- *precise.*

6.8 *The DML should be removed or as set out above further information provided on the activities with the required updates to the DML set out below.*

2.1.2 The Applicant has highlighted in bold in Section 2.1 the points which will be addressed in this document.

2.2 Particularisation of activities

2.2.1 The **Draft Development Consent Order Revision G [EN010133/EX5/C3.1_G]** (dDCO) and documents referred to within it describe the activities relating to the installation of the electrical cabling.

2.2.2 Schedule 14 of the dDCO lists the documents and plans to be certified. These include the **Works Plan Revision C [REP4-005]**, **Concept Design Parameters and Principles Revision C [REP4-043]** and the **Outline Construction Environmental Management Plan Revision D [EN010133/EX5/C7.1_D]**.

2.2.3 Part 1 of Schedule 9 of the dDCO describes the licenced activities that would fall within the scope of the proposed Deemed Marine Licence.

2.2.4 The **Works Plan Revision C [REP4-005]** shows the geographic extent of Work. No. 6B, which are works in connection with electrical cabling.

2.2.5 The **Concept Design Parameters and Principles Revision C [REP4-043]** sets out the design parameters and principles for the relevant activities.

2.2.6 For Scheme Component 'High voltage electrical cables connecting Work No.4A to Work No.5'. the scale includes the following relevant parameters:

Where set in horizontal directional drilling sections, the 3no. cables making up a single electrical cable circuit will be drilled through individual bores separated by approximately 3.0m set within the 50m cable corridor.

Where set in horizontal directional drilling sections, the maximum bore of a single drilled cable tunnel is 1.0m.

Where multiple circuits are directional drilled along parallel paths, the minimum separation distances between drilled cable circuits is 5.0m.

Where set in horizontal directional drilling sections, the maximum depth of the drilled cable tunnel is 25m below ground level.

2.2.7 For Scheme Component 'Tunnelling, boring and drilling works (Work No. 6A(vii) and Work No. 6B(iv))', the scale is described as follows:

Maximum dimensions of 25m by 25m in plan, with onsite equipment and structures being of a maximum of 6m in height.

The HDD depth will be a maximum of 25m below the bottom of the river bed and a minimum of 5m below the lowest surveyed point of the River Trent riverbed in order to prevent risk of any scour exposing cable.

2.2.8 It is to be noted that the minimum and maximum depth of boring under the River Trent was included to address comments from the Canal and River Trust.

2.3 Assessments of potential activities

2.3.1 The Applicant has set out their approach to the environmental assessment in the Environmental Statement **Chapter 4: Scheme Description [APP-039]**. National Policy Statement EN-1 (November 2023) recognises that it may not be possible at the time of application for development consent for all aspects of the proposal to have been settled in precise detail (paragraph 4.3.11). To accommodate flexibility, a 'Rochdale Envelope' approach is used, as described in the Planning Inspectorate Advice Note 9. This involves assessing the maximum (and where relevant, the minimum) parameters for the Scheme where flexibility needs to be retained, while ensuring all potentially significant effects (positive or adverse) are considered. The principles and justification for this approach are set out in ES **Chapter 2: EIA Process and Methodology [APP-037]**.

2.3.2 The maximum design scenarios are identified from the range of potential options for each design parameter for the Scheme. The maximum design scenario assessed is therefore the scenario which would give rise to the greatest potential impact. The maximum design scenarios are set out in the **Concept Design Parameters and Principles [REP4-043]** which is secured by Requirement 5 of Schedule 2 the **draft DCO Revision G [EN010133/EX5/C3.1_G]**. All of the ES chapters have based their assessments on these maximum design parameters **[APP-042 to APP-056]**.

2.3.3 **Chapter 10 Hydrology, Flood Risk and Drainage [APP-045]** considers the potential for issues arising during construction or operation. Paragraph 10.4.2 sets out that the hydrological assessment considers surface water quality risk assessment and pollution control review. The chapter also considers the Water Framework Directive, along with the **Water Framework Directive Revision A [REP-043]**.

2.3.4 The **Water Framework Directive Revision A [REP-043]** considers the main potential significant effects to the WFD waterbodies at the Scheme and managing surface water risk at the Scheme and the potential for silt laden runoff, spillages, leaks and pollutants during the construction/decommissioning stage and diffuse pollution contained in urban runoff during the operation phase from a water quality/resource perspective.

2.3.5 **Chapter 11 Ground Conditions and Contamination [APP-046]** evaluates the potential impact of the Scheme on sensitive receptors during its construction, operational, and decommissioning phases in relation to sensitive receptors (human health and controlled waters). Section 11.7 sets out the likely significant effects with paragraphs 11.7.5 and 11.7.6 specifically assessing the cable route corridor which concludes there will be no significant effects with the embedded mitigation.

2.4 Control and Monitoring Measures

2.4.1 Chapter 10 Hydrology, Flood Risk and Drainage [APP-045], Chapter 11 Ground Conditions and Contamination [APP-046] and Water Framework Directive Revision A [REP-043] set out the embedded mitigation which is secured and controlled through the submission and approval of a detailed construction environmental management plan that is substantially in accordance with the **Outline Construction Environmental Management Plan Revision D [EN010133/EX5/C7.1_D]**. This is secured by Requirement 13 of Schedule 2 of the **Draft Development Consent Order Revision G [EN010133/EX5/C3.1_G]**. This requirement applies both to exempt activities and licenced marine activities within the scope of the Deemed Marine Licence.

2.4.2 Table 3.11 of the **Outline Construction Environmental Management Plan Revision D [EN010133/EX5/C7.1_D]** includes a requirement that:

An emergency spillage action plan will be produced, which staff would have read and understood, and provisions made to contain any leak/spill. The Plan will include measures to deal with a frack out (spill) as a result of horizontal Directional Drilling (HDD). Any frack out would be assessed individually to determine the correct course of action. In general the procedure is:

- o Stop drilling sand bag and bund;*
- o Dig out and suck out via a gully sucker tanker lorry;*
- o Inject additive through drill rods;*
- o Closely monitor.*

2.4.3 Table 3.4 of the **Outline Construction Environmental Management Plan Revision D [EN010133/EX5/C7.1_D]** includes a requirement that:

Construction works undertaken adjacent to watercourses would comply with relevant guidance during construction, including on Horizontal Directional Drilling (HDD). Where HDD techniques are required for watercourse crossings, works will be in accordance with Concept Design Parameters and Principles document [REP4-043].

2.4.4 For licenced marine activities within the scope of the Deemed Marine Licence, Part 2 of Schedule 9 of the **Draft Development Consent Order Revision G [EN010133/EX5/C3.1_G]** describes the conditions of the Deemed Marine Licence, including the obligations of the Applicant. This includes requirements for notifying the MMO, for consulting the MMO and for obtaining written approval of the MMO.

2.4.5

3 Conclusion

- 3.1.1 This document has been produced to assist the Examining Authority by providing a collation of where the construction activities associated with Horizontal Directional Drilling (HDD) and cabling under the River Trent have been assessed within the Environmental Statement (ES) [APP-036 to APP-058] and the proposed mitigation measures as they relate to the except and potentially licensable activities.
- 3.1.2 Mitigation measures are set out in the **Outline Construction Environmental Management Plan Revision D [EN010133/EX5/C7.1_D]** which is secured Requirement 13 of Schedule 2 of the **Draft Development Consent Order Revision G [EN010133/EX5/C3.1_G]**.
- 3.1.3 There are clear benefits in including the DML in terms of certainty and programme for the Scheme and it would not be in the public interest to postpone the decision on the grant of a DML to a later stage of the Scheme. This Technical Note has demonstrated the Applicant has provided a suitably comprehensive and proportionate assessment of the licensable activities associated with the Scheme.