

Cottam Solar Project

Outline Decommissioning Statement

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Issue Sheet

**Report Prepared for: Cottam Solar Project Ltd.
DCO Submission**

Decommissioning Statement

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1 Introduction

1.1 Introduction

1.1.1 This document is the Outline Decommissioning Statement for the Cottam Solar Project (the Scheme). It includes the proposed method for the removal of all the solar panels (PV), structures, enclosures, equipment, and all other apparatus associated with the Scheme.

1.1.2 The Scheme comprises the construction, operation, maintenance and decommissioning of a ground mounted solar photovoltaic generating station with a total capacity exceeding 50 MW. The Scheme also includes an Energy Storage Facility (for the purposes of the Application, this is assumed to employ battery technology and therefore referred to as a 'Battery Energy Storage System' or 'BESS' throughout this Application). The generating station Sites, associated substations and BESS are to be connected to the National Grid at a substation at Cottam Power Station. Further details on the Scheme are provided in Environmental Statement (ES) Chapter 4, Scheme Description **[EN010133/APP/C6.2.4]**.

1.1.3 Cottam Solar Project Limited (the Applicant) has prepared this Outline Decommissioning Statement as part of an Application for a Development Consent Order (DCO) for the construction, operation and maintenance, and decommissioning of the Scheme.

1.1.1 Once the Scheme ceases to operate, the development will be decommissioned. The operational life of the Scheme is anticipated to be 40 years. A 40-year period for the operational phase of the development has therefore been assessed in the Environmental Statement which accompanies the DCO application.

1.2 Decommissioning Environmental Management Plan

1.2.1 A Decommissioning Environmental Management Plan (DEMP) (or multiple DEMPs) and Decommissioning Traffic Management Plan (DTMP) will be produced and approved for the Scheme following the appointment of a contractor, prior to the commencement of the decommissioning phase of the Scheme. Approval and implementation of the DEMP and the DTMP will be secured through a Requirement of the DCO.

1.2.2 The nature of the decommissioning activities and potential for significant effects is anticipated to be similar to construction. The DEMPs and DTMP will therefore include similar measures to those included in the Outline Construction Environmental Management Plan (OCEMP) **[EN010133/APP/C7.1]** and the detailed CEMPs, as well as the Outline Construction Traffic Management Plan (CTMP) **[EN010133/APP/C6.3.14.2]** submitted with the Application, covering issues such as transportation methods, pollution prevention, and noise management.

1.2.3 The DEMP(s) will adhere with regulations and guidance applicable at the time, but is expected to include:

- An overview of the Scheme, decommissioning activities, and programme;

- Prior assessment of potential environmental impacts;
- Mitigation measures to prevent or reduce potential adverse impacts;
- Monitoring of effectiveness of mitigation measures; and
- Links to other complementary plans and procedures.

2 Principles of Decommissioning and Environmental Considerations

2.1 Decommissioning Activities

- 2.1.1 The land within the Site will be returned to the respective landowners and to its original use after decommissioning. All above ground infrastructure will be carefully removed in accordance with the procedures and controls to be set out in the DEMP and DTMP.
- 2.1.2 Foundations and all other below ground infrastructure, which are not practicable to remove without major disturbances, will be cut to 1m below the surface to enable future ploughing. All piles are to be removed.
- 2.1.3 The 400kV and 132kV cables may be left in situ, depending on which method is likely to have the least environmental impact at the time but are likely to be removed. It is considered generally desirable to remove the cables where possible, for both recycling purposes and to leave the land as close to its previous use state as possible. The cables would be removed by pulling the cables out from the ducts without the subsequent removal of the ducts themselves, thereby minimising surface disturbances.
- 2.1.4 All excavations are to be backfilled using soil sourced on the -Sites, or with imported soil where required, using appropriate soil management techniques. Some soil profiling may be required, and the land will be contoured.
- 2.1.5 To restore the land to its pre-construction condition at the end of operation, the soil resource within the Order Limits will need to be managed through construction, operation, and decommissioning. An Outline Soil Management Plan (OSMP) is included in the DCO Application **[EN010133/APP/C7.18]** and identifies measures to be implemented to:
- Ensure the protection and conservation of soil resources;
 - Maintain the physical properties of the soils through best practice;
 - Provide on-Site reference on the management of soil resources for Site operators undertaking the works.
- 2.1.6 The Agricultural Land Classification Reports within the Appendices to Chapter 19 of the ES Soils and Agriculture **[EN010133/APP/C6.2.19]** were undertaken as part of the Application and will form the basis of how the land will be left at the end of the operational phase. The soil is anticipated to have undergone at least 40 years of recovery given that while the Scheme is operational, the land will be used for lower intensity farming practices, such as for sheep grazing or being left fallow. It is therefore expected to be of the same or better quality once decommissioned, as it is at present.
- 2.1.7 Where localised soil compaction occurs from the presence of structures such as the substations or the BESS; or the weight of mobile machinery used through

construction, operation and decommissioning, management measures are identified to alleviate compaction (e.g., through ploughing and aeration), to maintain soil structure and enable reinstatement of the land to its original use.

- 2.1.8 Primary access tracks will be retained where requested by landowners. Permissive paths will be managed up to decommissioning, with the timing of their removal, if required, to be confirmed within the DEMP.

2.2 Decommissioning Programme

- 2.2.1 The decommissioning of the Scheme is expected to take between 12 and 24 months to be completed.
- 2.2.2 The Scheme is assessed in the ES as being decommissioned after at least 40 years of operation, with decommissioning assumed to not commence any earlier than 2066.
- 2.2.3 More details on the decommissioning phasing will be provided within the DEMP(s) in consultation with the local planning authorities, prior to decommissioning commencing.

3 Environmental Mitigation and Management

3.1.1 A summary of potential mitigation and management measures during decommissioning has been provided in **Table 3.1**. The nature of the decommissioning activities and potential for likely significant effects are anticipated to be similar to construction, and therefore the DEMP(s) and DTMP will include similar measures to those included in the OCEMP [EN010133/APP/C7.1] and Outline CTMP [EN010133/APP/C6.3.14.2].

Table 3.1: Decommissioning Mitigation and Management Measures

Mitigation and Management Measure	Effect
<p>Climate Change</p> <p>Suitable measures will be implemented during decommissioning to manage the heightened risks posed by flooding and extreme weather events, due to climate change. The safety of all members of staff will be paramount during the decommissioning phase.</p> <p>Measures proposed for the construction phase (see Outline CEMP) will also be adopted for the decommissioning phase in respect of Climate Change.</p>	<p>Minimise greenhouse gas emissions from activities and vehicles during decommissioning (e.g., the use of electric vehicles and equipment where possible).</p> <p>Increase resilience to heightening flood risks resulting from climate change, during decommissioning and ensure Site personnel are protected and aware of potential risks.</p>
<p>Ecology</p> <p>Standard management measures will be implemented to prevent pollution incidents, minimise effects on ecology from noise and vibration, prevent and minimise dust creation and air pollution. Precautionary working method statements would be produced, controlled, monitored, and implemented.</p> <p>No more than twelve months prior to decommissioning commencing, the site will be visited by an appropriately qualified ecologist to identify any ecological constraints likely to arise from decommissioning activities. Further surveys, mitigation and/or compensatory measures may then be required. As a minimum, an extended Phase 1 Habitat survey (or equivalent) will be required to identify the potential presence of protected species and important habitats. Examples of potential</p>	<p>To minimise the loss of established habitats and minimise impact on biodiversity within the Order Limits.</p>

Mitigation and Management Measure	Effect
<p>mitigation measures to be adopted during decommissioning include:</p> <p><i>Ecological Clerk of Works</i></p> <p>An Ecological Clerk of Works will likely be required to be present on site during decommissioning works undertaken in proximity to sensitive habitats and features in order to ensure legal compliance and avoidance of harm. The ECoW would also ensure that pre-arranged mitigation is undertaken and records are kept.</p> <p><i>Nesting and Breeding Birds</i></p> <p>Measures will be implemented to mitigate for impacts to nesting and breeding birds. Where reasonably practicable, vegetation clearance works would be undertaken outside the bird breeding season (March-August).</p> <p><i>Reptiles and Amphibians</i></p> <p>Reasonable avoidance measures would be used during habitat clearance suitable for reptiles, encouraging animals to move away from affected areas to adjacent suitable habitats.</p> <p><i>Badgers</i></p> <p>Implementation of an appropriate buffer of between 10 and 30m around a badger sett during decommissioning works.</p> <p><i>Bats</i></p> <p>Implementation of an appropriate buffer of between 8 and 25m around trees with bat roost potential or identified bat roosts during decommissioning works.</p> <p><i>Invasive Species</i></p> <p>Pre-decommissioning surveys will be undertaken to provide an update on the presence and location of any invasive species which will help to inform the production of a Biosecurity Management Plan, (if required). If any future infestations of invasive non-native species are identified prior to any decommissioning works, exclusion zones will be established around them, and the Ecological Clerk of Works (ECoW) contacted for advice as required.</p>	

Mitigation and Management Measure	Effect
<p>Noise and Vibration</p> <p>Standards of good practice for noise and vibration will be followed to minimise noise and vibration impacts from activities and vehicles.</p> <p>Unnecessary revving of engines will be avoided, and equipment will be switched off when not in use;</p> <p>Appropriate routing of decommissioning traffic on public roads and along access tracks;</p> <p>Drop heights of materials will be minimised;</p> <p>Plant and vehicles will be sequentially started up rather than all together;</p> <p>Plant will always be used in accordance with manufacturers’ instructions. Care will be taken to site equipment away from noise- sensitive areas. Where possible, loading and unloading will also be carried out away from such areas; and</p> <p>Regular and effective maintenance by trained personnel will be undertaken to keep plant and equipment working to manufacturer’s specifications.</p> <p>During noisy activities, localised screening of noise generating sources, such as temporary site hoarding should be implemented to minimise any potential impacts on nearby noise sensitive receptors.</p> <p>Working hours onsite are likely to be carried out Monday to Friday 07:00 – 18:00 and between 08:00 and 13:30 on Saturdays. However, some activities may be required outside of these times (such as abnormal loads).</p> <p>Requirements for monitoring during the decommissioning stages will be set out and agreed. The noise monitoring scheme is expected to be similar to that for the construction phase.</p> <p>Consideration will also be given to traffic routing, timing and access points to the DCO Site to minimise noise impacts at existing receptors.</p>	<p>Minimise noise and vibration from activities and vehicles during decommissioning and ensure levels of noise and vibration do not exceed relevant guidance.</p>
<p>Water</p> <p>Relevant Good Practice Guidance (GPGs) and Pollution Prevention Guidance (PPGs), as well as additional good practice guidance for the water environment including British Standards and key</p>	<p>Minimise the risk of flooding, runoff, and pollution to waterbodies.</p>

Mitigation and Management Measure	Effect
<p>CIRIA documents, will be followed for the water environment and flood risk during decommissioning.</p> <p>Best practices will be incorporated into the safe storage of materials, including containment measures, bunding, drip trays installed as part of plant and machinery used and water suppression will be used to suppress dust emissions.</p> <p>A water management plan will be developed as part of the DEMP (if required). The plan would detail management measures including any water quality monitoring measures.</p> <p>If runoff from the decommissioning of the Sites is treated on-Site, a Water Discharge Activity Permit will be acquired as necessary.</p>	
<p>Socio Economics, Tourism and Recreation</p> <p>Support for temporary and permanent workforce to be directed to primary healthcare facilities with greatest capacity.</p>	
<p>Soils and Agriculture</p> <p>A Soil Resource Management Plan (SRMP) will be prepared (if required) in accordance with the Outline SRMP setting out measures to manage the reinstatement of any soils and minimising soil disturbance and soil compaction when extracting the solar PV panel's supporting infrastructure.</p> <p>It will be particularly important to avoid causing soil compaction during the decommissioning phase. To reduce ground pressure, tracked plant and machinery should be equipped with low ground pressure tyres.</p> <p>In areas where soil may need to be reinstated (e.g., where buildings are demolished, or tracks taken up) with the guidance in Defra's Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (PB13298) or reference appropriate at the time may provide useful guidance.</p>	<p>Protect and conserve soil resources on-Site wherever feasibly possible and maintain the physical properties of the soils through best practice for reinstatement.</p>
<p>Transport</p> <p>A Decommissioning Traffic Management Plan will be prepared to manage traffic associated with decommissioning and will include measures to minimise the impact of construction traffic on surrounding roads, including disruption and risk of</p>	<p>Minimise the impact of construction traffic on surrounding roads, including disruption and risk of traffic accidents along local access roads</p>

Mitigation and Management Measure	Effect
<p>traffic accidents along local access roads and along Public Rights of Way (PRoW). Measures will include:</p> <ul style="list-style-type: none"> Restricting movement of Heavy Goods Vehicles (HGVs) to certain routes and time windows within the day. A monitoring system and Delivery Management System to record the route of HGVs to and from the Order Limits and regulate their arrival times to ensure compliance. Encouraging alternative travel arrangements for Site personnel, including car sharing and shuttle bus services in order to reduce the volume of vehicle trips required. 	<p>and along Public Rights of Way (PRoW).</p>
<p>Air Quality</p> <p>Standards of good practice for air quality, as set out in the Institute of Air Quality Management (IAQM) 'Guidance on the Assessment of Dust from Demolition and Construction', or relevant guidance will be followed during decommissioning to minimise dust from activities and vehicles.</p> <p>A dust management plan may be required as part of the DEMP and would detail any dust monitoring required prior to and during decommissioning, including any relevant baseline dust monitoring to be undertaken before activities commence.</p> <p>Records will be kept of all dust and air quality complaints, cause(s) will be identified and appropriate measures to reduce emissions will be taken in a timely manner. A further record will be kept of the measures taken.</p> <p>Measures proposed for the construction phase (see Outline CEMP) will also be adopted for the decommissioning phase in respect of Air Quality.</p>	<p>Minimise dust emissions from activities and vehicles.</p>
<p>Landscape and Visual</p> <p><i>Tree Protection Measures</i></p> <p>All works affecting trees should be undertaken in accordance with best practice tree protection measures.</p> <p><i>Lighting</i></p>	<p>Protect trees and conserve landscape and biodiversity features.</p>

Mitigation and Management Measure	Effect
<p>Standard good practice measures will be followed with regards to safe site lighting during decommissioning. For example, motion detection security lighting will be used to avoid the use of permanent lighting, therefore reducing unnecessary light pollution and spill.</p>	<p>Minimise visual impacts.</p>
<p>Waste</p> <p>Suitable measures for the sustainable use of resources and waste management will be implemented during decommissioning. The contractor will seek to use material resources efficiently, reduce waste at source, reduce waste that requires final disposal to landfill and apply the principles of the waste hierarchy.</p> <p>Infrastructure such as PV panels and battery storage units will be removed and recycled as far as practical and in accordance with legislation and guidance applicable at the time, or if more suitable at the time, sold for refurbishment and reuse.</p> <p>It is anticipated that waste products associated with the decommissioning process, would not need to be shipped as a result of decommissioning of the scheme.</p> <p>A Decommissioning Resource Management Plan (DRMP) setting out how measures to manage the disposal of waste from the Order Limits may be required in accordance with relevant legislative and policy requirements at the time of decommissioning.</p> <p>The separation of the main waste streams on-site, prior to transport to approved, licensed third party waste facilities, including Waste Electrical and Electronic Equipment (WEEE) reprocessors, for recycling or disposal will take place.</p> <p>The provision of pre-fabricated welfare units and construction site offices also allows for the reduction of construction and demolition waste generated by the Scheme.</p>	<p>Minimising unnecessary use of resources and waste production during decommissioning.</p>
<p>Ground Conditions</p> <p>Standards of good practice for ground conditions, will be followed during decommissioning to prevent, contain, and remediate contamination.</p>	<p>Minimise the risk of decommissioning contamination.</p>

Mitigation and Management Measure	Effect
<p>Personal Protective Equipment (PPE). Construction personnel will be required to wear PPE during decommissioning such as dust masks .</p> <p>Measures proposed for the construction phase (see Outline CEMP) will also be adopted for the decommissioning phase in respect of Ground conditions.</p>	
<p>Minerals</p> <p>Decommissioning and removal of plant and structures to restore the baseline condition for the identified mineral resources. Where infrastructure is left in the ground such as cable ducts after decommissioning these do not present any significant constraint to future mineral extraction.</p>	<p>To restore the baseline condition for the identified mineral resources.</p>
<p>Major Accidents and Disasters</p> <p>The risk of major accidents and disasters during decommissioning will be addressed through relevant risk assessments and management plans prior to undertaking the works.</p> <p>All works will be undertaken in accordance with relevant Health and Safety legislation and guidance with relevant emergency details publicised and communicated to all Site personnel.</p>	<p>Minimising the risk of major accidents and disasters and protecting Site personnel.</p>

3.2 Responding to Environmental Incidents and Emergencies

3.2.1 The Contractor(s) will designate an Environmental Manager who will be responsible for the implementation of the DEMP(s). This individual will be notified, as soon as it is safe to do so following an environmental incident and emergency. A reporting procedure will be agreed with the local authorities and any other statutory bodies such as the Environment Agency. Staff will be informed of this process and made aware that it is everyone’s responsibility to call the emergency services, should this be needed.

3.3 Good Practice

3.3.1 The Considerate Constructors Scheme (CCS), or equivalent scheme at the time, will be adopted to assist in reducing pollution and nuisance from the Scheme, by employing best practice measures which go beyond statutory compliance, where relevant to decommissioning.

4 Implementation and Operation

4.1.1 The DEMP(s) will set out all roles, responsibilities and actions required in respect of implementation of the mitigation measures, including:

- An organogram showing team roles, names, and responsibilities;
- Training requirements for relevant personnel on environmental topics;
- Information regarding on-Site briefings and toolbox talks that will be used to equip relevant staff with the necessary level of knowledge to follow environmental control procedures;
- Measures to advise employees of changing circumstances as work progresses;
- Communication methods;
- Document control;
- Monitoring, inspections and audits of Site operations; and
- Environmental emergency procedures.

5 Monitoring and Reporting

- 5.1.1 Environmental monitoring of the Scheme and its impacts will be undertaken throughout the decommissioning phase. Monitoring requirements will be detailed in the DEMP(s).
- 5.1.2 The Environmental Manager will observe Site activities and report any deviations from the DEMP(s) in a logbook, along with the action taken and general conditions at the time. The Applicant will be informed by the contractor(s) of any deviations from the DEMP(s) as soon as possible following identification of such issues. The Environmental Manager would also act as day-to-day contact with relevant local authorities and other regulatory agencies such as the Environment Agency.
- 5.1.3 During decommissioning, the Environmental Manager will conduct regular walkover inspections to ensure all requirements of the DEMP(s) are being met. Actions from these surveys will be documented on an Environmental Action Schedule for implementation.