Botley West Solar Farm

Outline Decommissioning Plan

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1 Introduction

1.1 Overview

1.1.1 This document is the Outline Decommissioning Plan for Botley West Solar Farm (the Project) and is part of the Application for a Development Consent Order (DCO) for the construction, operation and maintenance, and decommissioning of the Project. This Outline Decommissioning Plan includes the proposed method for the removal of all the solar panels, structures, enclosures, equipment, and other apparatus associated with the Project.

1.1.2 This Outline Decommissioning Plan has been prepared by RPS on behalf of Photovolt Development Partners GmbH. for SolarFive Ltd. (Applicant).

1.1.3 The Project comprises the construction, operation, maintenance and decommissioning of a photovoltaic (PV) solar farm and associated infrastructure located in parts of West Oxfordshire, Cherwell and Vale of White Horse Districts. The Project will export electricity for connection to the National Grid at Botley West. October 2027 is the current grid connection offer date, although this is likely to be amended to Q4 2028. October 2028 is therefore now the assumed date of connection for the purposes of EIA assessment. The Project aims to deliver approximately 840 Megawatt electrical (Mwe) of power to the National Electricity System.

1.1.4 The solar arrays associated with the Project (comprising all the mounting structures, frames and foundations) will be connected by underground electrical cables. The solar arrays will also be connected via underground electric cables to the substation at the grid connection point. The interconnecting cable route will largely follow the public highway and is proposed to be approximately 24.6km in length. Further details about the Project are provided in Environmental Statement (ES) Chapter 6: Project Description.

1.1.0 The operational life of the Project is anticipated to be 37.5 years. A 37.5-year period for the operational phase of the development has therefore been assessed in the Environmental Statement which accompanies the DCO application.

1.1.1 Once the Project ceases to operate, the development will be decommissioned. The decommissioning phase of the Project is expected to be 24 months in duration.

1.2 Decommissioning Plan

1.2.1 A Decommissioning Plan (DP) and Decommissioning Traffic Management Plan (DTMP) will be produced and approved for the Project following the appointment of a contractor, prior to the commencement of the decommissioning phase of the Project. Approval and implementation of the DP 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 at worst, similar to construction or otherwise less

significant. Therefore, the DP and DTMP will include similar measures to those included in the Outline Code of Construction Practice (oCoCP) **[EN010147/APP/7.6.1]**, and Outline Construction Traffic Management Plan (CTMP) (appended to oCOCP) submitted with the DCO Application, covering issues such as transportation methods, pollution prevention, soil management, and waste management.

1.2.3 The DP will adhere with regulations and guidance applicable at the time, but is expected to include:

- An overview of the Project, 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

2.1 Decommissioning Activities

2.1.1 The land within the Project Site Boundary 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 DP and DTMP.

2.1.2 Other than all 33kV and 275 kV cables (where they have been laid in the public highway and where cables have been laid using horizontal directional drilling – either under rivers, road, rail crossings, or existing landscape features), and any NGET substation, all other solar PV array infrastructure including solar PV modules, mounting structures, cabling, inverters and transformers will be removed from the Site and managed in accordance with the waste hierarchy. All excavations are to be backfilled using soil sourced on the land within the Project Site Boundary, or with imported soil where required, using appropriate soil management techniques. Some soil profiling may be required, and the land will be contoured.

2.1.3 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.

2.1.4 All excavations are to be backfilled using soil sourced on the land within the Project Site Boundary, 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 within the Project Site Boundary to its pre-construction condition, as far as practicable, at the end of operation, the soil resource within the Order Limits will need to be managed through decommissioning. An Outline Soil Management Plan (OSMP) is included in the DCO Application, appended to the Outline Code of Construction Practice **[EN010147/APP/7.6.1]** 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 soil is anticipated to have undergone a period of approximately 37.5 years of lower intensity farming practices including conservation sheep grazing, whilst the Project is operational, providing potential benefits to soil health.

2.1.7 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 DP.

2.2 Decommissioning Programme

2.2.1 In total, the decommissioning of the Project is expected to take 24 months to complete.

2.2.2 The Project is assessed in the ES as being decommissioned after 37.5 years 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 DP(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.

Table 3.1: Decommissioning Mitigation and Management Measures

Mitigation and Management Measure	Effect
Climate change	
Outline decommissioning plan has been produced and submitted alongside Application Measures proposed for the construction phase (see Outline CoCP) will also be adopted for the decommissioning phase in respect of Climate Change. Ensure that best practice in relation to reuse, recovery, or repurposing of materials is considered, where practicable during the decommissioning stage. This would include measures such as recycling of PV modules, metalwork, and other pieces of infrastructure associate with the Project.	Minimisation of greenhouse gas emissions from activities and vehicles during decommissioning (e.g., the use of electric vehicles and equipment where possible; recycling, reuse, and recovery of materials). This will be further defined within the detailed Decommissioning Plan.
Ecology and Nature Conservation	
Standard management measures will be implemented to minimise effects on ecology during the decommissioning phase. Mitigation measures will include those to prevent pollution incidents, reduction of noise and vibration and the	To minimise the loss of established habitats and minimise impact on biodiversity within the Order Limits.

prevention and minimisation of dust and air pollution. Precautionary working method statements would be produced, controlled, monitored, and implemented.

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 mitigation measures to be adopted during decommissioning include:

All hedgerows, trees, ponds and woodland to have minimum of 5 m buffer from any works. This distance is considered the minimum distance sufficient to ensure impacts to such features (e.g. from materials and machinery) are avoided. Appropriate fencing will be provided, where necessary, to protect such features. The location of such fencing will be agreed with the relevant authority prior to decommissioning commencing.

All watercourses to have a minimum 8 m buffer, as per Environment Agency guidelines for protection of such features. A buffer of up to 10 m will be maintained from the banks of ordinary watercourses, in line with local bye-laws, where applicable.

Ecological Clerk of Works

An Ecological Clerk of Works (ECoW) 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.

Nesting and Breeding Birds

Measures will be implemented to mitigate for impacts to nesting (both ground nesting birds and species nesting in hedgerows) and breeding birds. Were reasonably practicable, vegetation clearance works would be undertaken outside the bird breeding season (March-August). Checks would be made by the Project ECoW if clearance works take place during the breeding bird season.

Reptiles and Amphibians

Reasonable avoidance measures would be used during habitat clearance suitable for reptiles, encouraging animals to move away from affected areas to adjacent suitable habitats. Species-specific mitigation will be carried out to protect Great Crested Newts during the decommissioning phase.

Dormouse

Species specific mitigation will be undertaken, to be confirmed in the final Decommissioning Plan.

Badgers

Mitigation and Management Measure	Effect
An appropriate buffer around identified badger setts will be implemented during decommissioning works. **Bats** A sensitive lighting scheme will be implemented during the decommissioning phase to ensure lighting impacts to bats are mitigated as much as feasible. An appropriate buffer around trees with bat roost potential or identified bat roosts will be implemented during decommissioning works. Important bat flightlines (comprising habitats such as scrub and tussocky grass margins). **Invasive Species** 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 ECoW will be contacted for advice as required.	
Noise and Vibration	
Standards of good practice for noise and vibration will be followed to minimise noise and vibration impacts from activities and vehicles. Unnecessary revving of engines will be avoided, and equipment will be switched off when not in use. Appropriate routing of decommissioning traffic on public roads and along access tracks. Drop heights of materials will be minimised. Plant and vehicles will be sequentially started up rather than all together. 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. Regular and effective maintenance by trained personnel will be undertaken to keep plant and equipment working to manufacturer's specifications. 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. In line with what was set out for construction in the oCOCP **[EN010147/APP/7.6.1]**, similarly working hours onsite for decommissioning are likely to be Monday to Saturday 07:00 – 19:00. However, some activities may be required outside of these times (such as abnormal loads). Requirements for monitoring during the decommissioning stages will be set out and agreed. The noise monitoring Project is expected to be similar to that for the construction	Minimise noise and vibration from activities and vehicles during decommissioning and ensure levels of noise and vibration do not exceed relevant guidance.

Mitigation and Management Measure	Effect
phase. Consideration will also be given to traffic routing, timing and access points to the DCO Site to minimise noise impacts at existing receptors.	
Historic Environment	
Where foundations of structures need to be removed, the footprint of the excavation for their removal should be no greater than the footprint required for construction. Where helical piles were used for the installation of solar PV panel tables, these will be unscrewed rather than pulled during decommissioning. Where topsoil is to be sourced from within the Project site for the backfilling of excavations, the removal of the topsoil should be subject to archaeological considerations within the Decommissioning Plan. No topsoil should be removed from the areas of significant archaeological remains that have been identified on the Masterplan **[EN010147/APP/6.4]**. A Decommissioning Plan will be developed prior to decommissioning. The Decommissioning Plan(s) will include provisions for the removal of all above ground infrastructure and the decommissioning of below ground infrastructure (if and where relevant and practicable), and details relevant to avoidance of ground disturbance. The Decommissioning Plan(s) will be in line with the latest relevant available guidance. The Decommissioning Plan will include provision for the protection (during decommissioning) of areas within the Project Site which contain significant archaeological remains.	Minimise the potential for impacts on buried archaeological remains.
Traffic and Transport	
A Decommissioning Traffic Management Plan will be submitted and agreed with the relevant highway authorities prior to any decommissioning works commencing which will identify and set out appropriate mitigation measures for decommissioning generated vehicle movements that are identified and required at that time. The Decommissioning Traffic Management Plan will include measures to minimise the impact of decommissioning traffic on surrounding roads, including disruption and risk of traffic accidents along local access roads and along Public Rights of Way (PRoW). Measures will include: • Restricting movement of Heavy Goods Vehicles (HGVs) to certain routes and time windows within the day. • A monitoring system and HGV 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.	Minimise the impact of decommissioning traffic on surrounding roads, including disruption and risk of traffic accidents along local access roads and along Public Rights of Way (PRoW).
Air Quality	

Mitigation and Management Measure	Effect
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. An outline dust management plan is being submitted with the Application, appended to the oCOCP **[EN010147/APP/7.6.1]** which details any dust monitoring required prior to and during construction, it is anticipated that decommissioning would take a similar approach, including any relevant baseline dust monitoring to be undertaken before activities commence. 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. Measures proposed for the construction phase (see Outline CoCP) will also be adopted for the decommissioning phase in respect of Air Quality.	Minimise dust emissions from activities and vehicles.
Agricultural Land Use and Public Rights of Way	
An outline soil management plan is being submitted with the Application, appended to the oCOCP **[EN010147/APP/7.6.1]** which details any soil management during construction. It is anticipated that decommissioning would take a similar approach, including any relevant baseline monitoring to be undertaken before activities commence. An outline PRoW management strategy is being submitted with the Application, appended to the oCOCP **[EN010147/APP/7.6.1]** which details any management of PRoW prior to and during construction, it is anticipated that decommissioning would take a similar approach.	Minimise impacts on Agricultural Land Quality and Soil Resources during decommissioning. Minimise the impacts on users of PRoW during decommissioning.
Landscape and Visual Resources	
Tree Protection Measures All works affecting trees should be undertaken in accordance with best practice tree protection measures. **Lighting** 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.	Protect trees and conserve landscape and biodiversity features. Minimise visual impacts.
Waste and Resources	
A Decommissioning Waste Management Plan (DWMP) will be prepared for the decommissioning of the Project. The Plan will set out the types and quantities of waste that will be generated during decommissioning and how the wastes will be managed. The wastes will be managed according to the waste hierarchy and will include targets to divert waste from landfill. The DWMP will be approved by the relevant	Minimising unnecessary use of resources and waste production during decommissioning.

Mitigation and Management Measure	Effect
planning authority. Waste Electrical and Electronic Equipment (WEEE) including photovoltaic panels and from supporting electrical infrastructure (e.g. power converter stations) generated during the decommissioning phase will be recovered and recycled by an authorised reprocessor as required by the WEEE Regulations 2013. This will be done in accordance with 'Best Available Treatment, Recovery and Recycling Techniques and will be undertaken by an authorised reprocessor Where practicable, the Project will apply the proximity principle to the selection of waste management processors to avoid materials being transported over long distances. The separation of the main waste streams on-site, prior to transport to approved, licensed third party waste facilities, for recycling or disposal will take place. The provision of prefabricated welfare units and construction site offices will also allow for the reduction of demolition waste generated by the Project.	
Ground Conditions	
Standards of good practice for ground conditions, will be followed during decommissioning to prevent, contain, and remediate contamination. Personal Protective Equipment (PPE). Construction personnel will be required to wear appropriate PPE during decommissioning such as dust masks. Measures proposed for the construction phase (see Outline CoCP) will also be adopted for the decommissioning phase in respect of Ground conditions due to similarity of potential impacts.	Minimise the risk of creation and mobilisation of decommissioning contamination.
Hydrology and Flood Risk	
Good practice will be followed, to minimise the pollution risk to waterbodies from contamination runoff and to minimise flood risk from increased surface water runoff during decommissioning. **Flood Risk** During the decommissioning phase, the Principal Contractor will monitor weather forecasts on a monthly, weekly and daily basis, and plan works accordingly. For example, works in the channel of any watercourse will be avoided or halted were there to be a significant risk of high flows or flooding. Detailed DP will include a Flood Management Plan to provide details of actions for site users during flood warnings and alerts. The Flood Management Plan will include details of roles and responsibility for maintaining, updating and implementing the plan; (2) Overview of the local flood risk; (3) Details of the local environment Agency flood warning service (or relevant equivalent at the time of decommissioning); (4) Specific action that will be undertaken in response to the issuing of a flood alert or flood warning; and (5) Details of access and egress routes onto the Site for the period in advance of and during a flood	Increase resilience to heightening flood risks resulting from climate change during decommissioning and ensure Site personnel are protected and aware of potential risks. Detailed DP(s) developed for pertinent locations; NGET Substation, Applicant Substation, Primary and Secondary Substations. Monitoring requirements to be set out in Detailed DP. PPP to be prepared prior to the development of the Project.

event. The EFRP will include procedures for securing or relocating materials stored in bulk from the floodplain and safe access and escape routes for personnel on-site.

If water is encountered during below ground decommissioning, suitable dewatering methods will be used. Any groundwater dewatering required in excess of the exemption thresholds will be undertaken in line with the requirements of the Environment Agency (under the Water Resources Act 1991 as amended) (Ref 38) and the Environmental Permitting Regulations (2016) (Ref 39) or the equivalent legislation at the time.

Runoff Implementation of appropriate temporary drainage measures will be required to minimise the potential risk of silt-laden runoff arising from activities and erosion of exposed soils reaching the existing drains and watercourses within and in the vicinity of the Site, and to mitigate flood risk and sediment loading.

Temporary management (attenuation) of surface water is likely to be required in any areas where earthworks are required. This will include the NGET Substation, Applicant Substation, Primary and Secondary Substations. For each of these areas a decommissioning surface water drainage scheme will be developed and provided as part of the surface water management measures and provided in the detailed DP(s).

Where appropriate, temporary cutoff drains will be installed to prevent surface water and shallow throughflow entering excavations. Treated / clean water would be discharged downstream of the excavation and encouraged to infiltrate into the ground mimicking natural flow patterns.

Water Quality

A Pollution Prevention Plan (PPP) will be developed to manage pollution during the decommissioning phase of the Project. This will include details of managing environmental hazards at the Project.

Monitoring

Requirements for monitoring during the decommissioning stages will be set out and agreed in the detailed DP.

Water quality surveys will be undertaken prior to the commencement of decommissioning to establish a baseline position, regular monitoring will be undertaken of Ordinary Watercourses and the River Thames on and downstream of the Site undertaken during the decommissioning period. Details of the sampling regime, including the monitoring suite and sampling frequencies, will form part of the detailed DP(s) with records of the laboratory analysis documented to demonstrate compliance.

In the event that adverse changes in water quality are identified, the cause would be investigated in coordination with other development projects and remedial measures implemented, where appropriate.

General Measures

Additional drainage or reworking of the soil will be implemented where compaction of soils is considered a

Mitigation and Management Measure	Effect
significant risk or if significant compaction is noted along any of the traffic routes. A detailed Decommissioning Plan will be produced and approved for the Project following the appointment of a contractor, prior to the commencement of the decommissioning phase of the Project.	
Socio Economics	
Ensure employment and skills opportunities align with the commitments contained within the Skills & Employment Plan.	Ensure jobs available to local people and minimise demand for temporary workers accommodation. Limit impact upon local accommodation providers.

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 DP. This individual will be notified as soon as it is safe to do so following an environmental incident or 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 Project at the time, will be adopted to assist in reducing pollution and nuisance from the Project during the decommissioning phase, by employing best practice measures which go beyond statutory compliance.

4 Implementation and Operation

4.1.1 The DP 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 Project and its impacts will be undertaken throughout the decommissioning phase. Monitoring requirements will be detailed in the DP.

5.1.2 The Environmental Manager will observe Site activities and report any deviations from the DP 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 DP 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 DP are being met. Actions from these surveys will be documented on an Environmental Action Schedule for implementation.