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ENERGY
PROJECT

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Outline Operational Environmental Management Plan (tracked)

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Helios Renewable Energy Project

Outline Operational Environmental Management Plan

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Prepared on behalf of Enso Green Holdings D Limited

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PREFACE

This Outline Operational Environmental Management Plan ('oOEMP') has been prepared by Stantec for submission with the application made to the Secretary of State for the Department for Energy Security and Net Zero under Section 37 of the Planning Act 2008, seeking a Development Consent Order for the Helios Renewable Energy Project (the 'Proposed Development'). A detailed OEMP will be produced for the Proposed Development prior to the date of operation commencing.

The Proposed Development is located within the administrative area of North Yorkshire Council ('NYC'). The detailed OEMP will be produced and agreed with NYC prior to implementation of the Proposed Development.

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1. Introduction

1.1. Introduction

- 1.1.1. This outline Operational Environmental Management Plan (oOEMP) has been prepared by Stantec on behalf of Enso Green Holdings D Limited (the 'Applicant') in relation to an application to the Secretary of State ('SoS') for the Department for Energy Security and Net Zero ('DESNZ') under Section 37 of the Planning Act 2008 ('the PA2008'). The application seeks a Development Consent Order ('DCO') for the Helios Renewable Energy Project ('the Proposed Development') at land near Camblesforth (the 'Site').

1.2. Operational Environmental Management Plan

- 1.2.1. The purpose of this oOEMP is to provide a clear and consistent approach to the control of operational and maintenance activities of the Proposed Development within the Order Limits. The oOEMP is designed to be read in conjunction with the **Outline Construction Environmental Management Plan (oCEMP) [EN010140/APP/6.3.5.1]**, the **Outline Construction Traffic Management Plan (oCTMP) [EN010140/APP/6.3.5.2]** and the **Outline Decommissioning Environmental Management Plan (oDEMP) [EN010140/APP/6.3.5.4]** where information on the construction and decommissioning phases of the Proposed Development respectively is presented.
- 1.2.2. An Environmental Impact Assessment (EIA) has been undertaken for the Proposed Development and an Environmental Statement (ES) has been prepared in accordance with the Infrastructure Planning (EIA) Regulations 2017 (EIA Regulations). In accordance with the requirements of the EIA Regulations, the ES contains the assessment of the likely significant effects on the environment that may be caused during the operational phase of the Proposed Development and describes a range of 'industry standard' or best practice mitigation and operational management measures. This oOEMP is designed with the objective of ensuring compliance with the relevant environmental legislation and mitigation measures set out within the ES.
- 1.2.3. The operator(s) of the Proposed Development will be responsible for working in accordance with the environmental controls documented in the oOEMP and for the preparation and implementation of the detailed OEMP. Any additional licenses,

permits, or approvals that are required will be listed in the detailed OEMP, including any environmental information submitted in respect of them.

- 1.2.4. The oOEMP is designed to be read in conjunction with the **Outline Landscape Ecological Management Plan (oLEMP) [EN010140/APP/6.3.7.9]**, **Outline Soil Resource Management Plan [EN010140/APP/6.3.14.3]**, and the Drainage Strategy included within the **Flood Risk Assessment [EN010140/APP/7.6]** which set out environmental control plans and procedures for the operational phase of the Proposed Development.

1.3. The Site

- 1.3.1. The Order Limits for the Site are defined on the **Figure 1.1 Order Limits Location Plan [EN010140/APP/6.2.1.1]** and includes all land falling within the DCO application boundary (the 'Order Limits'). The Site covers an area of 475 hectares entirely located within the administrative area of NYC. It is located to the south-west of the village of Camblesforth and to the north of the village of Hirst Courtney.
- 1.3.2. The Site contains 47 fields and the Solar Farm Zone (where construction activities will be focused) is bound to the north-east by the A1041, to the west by agricultural fields between the Site and the Selby Branch of the East Coast Mainline railway further west, and to the south by agricultural fields, and agricultural and horticultural development surrounding Moss Green Lane. A full Site Description is set out in **ES Chapter 3: Site and Development Description [EN010140/APP/6.1.3]**.

1.4. The Proposed Development

- 1.4.1. The Proposed Development comprises the installation of ground mounted solar arrays, battery energy storage system and associated development comprising grid connection infrastructure and other infrastructure integral to the construction, operation (including maintenance) and decommissioning of the development for the delivery of over 50 megawatts (MW) of electricity.
- 1.4.2. As shown on **Figure 3.2 Parameter Plan [EN010140/APP/6.2.3.2]**, the Site comprises the Solar Farm Zone, Underground Cable Corridor, and Substation and Battery Energy Storage System (BESS) compound.
- 1.4.3. The principal components of the Solar Farm Zone comprise the following :
- Solar PV modules (silicon glass with anti-reflective coating between 0.9m and

3m above existing ground levels, at least 2m between the panels, and a maximum angle of 60°);

- Mounting structures (anodised aluminium alloy or galvanized steel with rough matte finish, installed by piling (up to 2.5m) or concrete feet foundation);
- Field Stations (dark green in colour, installed on concrete feet on a gravel sub-base and up to 12.2m in length x 2.4m in width x 3.5 in height, including supports 600mm in height, above a 300mm deep gravel sub-base);
- Distribution cables (trench dimensions up to 0.9m in depth and 1.5m in width (typically 20m working width for trenchless drilling method));
- Grid connection cables (trench dimensions Up to 0.9m in depth and 1.5m in width (typically 1.2m working width and up to 10m in depth for trenchless drilling method));
- Ancillary infrastructure such as fencing, security systems, and CCTV (with a maximum height of up to 3m);
- Access tracks (up to 6m in width made of permeable aggregate);
- Access gates (galvanised steel gat up to 6m in width, up top 2m high);
- Green Infrastructure; and
- Archaeological mitigation (comprising ground footed mounting up to 0.15m deep and topsoil strip for access roads of up to 0.3m).

1.4.4. The Substation and BESS Compound comprises (please note not all the items listed below

- 132kV substation (up to 6.48m in height) and BESS (Up to 12.2m in length x 2.4m in width x 3.5m in height, including supports 600mm in height);
- Access tracks (up to 6m in width made of permeable aggregate);
- Access gates (welded steel wire mesh (SR2) up to 6m in width and 2.4m high);
- Fencing (welded steel wire mesh (SR2) up to 2.4m high);
- Earth flood defence bund (At least 600mm above the combined fluvial and tidal design flood level and up to 1m in width at the top of the bund);
- Attenuation ponds;
- Cabling;

- CCTV (with a maximum height of up to 3m); and
- Water tanks.

1.4.5. A full description of the Proposed Development is provided in **ES Chapter 3: Site and Development Description [EN010140/APP/6.1.3]**.

2. Operational Environmental Management

2.1. Introduction

2.1.1. This section sets out the general site arrangements for the operational phase of the Proposed Development.

2.2. Operation Activities

2.2.1. During the operational phase, activity within the Proposed Development is likely to comprise, without limitation:

- Vegetation management (in line with a detailed LEMP, which will accord with the **oLEMP [EN010140/APP/6.3.7.9]**);
- Equipment maintenance and servicing which will include the inspection, removal, reconstruction, refurbishment or replacement of faulty or broken equipment to ensure the continued effective operation of the Proposed Development; and
- Replacement and renewal of any components that fail, and monitoring and inspection.

2.2.2. There are anticipated to be around five visits to the Site per month for maintenance purposes, these would typically be made by light van or 4x4 type vehicles.

2.3. Operation Programme

2.3.1. The operational life of the Proposed Development is 40 years following final commissioning, with decommissioning anticipated for the purposes of the EIA to be 2069.

2.4. Working Hours

2.4.1. During the operational phase the solar farm will be monitored remotely 24/7. Any routine maintenance activities will be programmed between 08.00-18.00 Monday to Friday. Emergency maintenance would be carried out as and when needed.

2.5. Control of Noise

2.5.1. The Proposed Development has been designed such that all noise generating plant is optimally located and distributed throughout the Site away from nearby sensitive

receptors including archaeological mitigation areas, hedgerows, trees, woodlands, water bodies (ditches, drains and ponds), and residential dwellings. To ensure acoustic effects at sensitive receptors appropriate candidate plant specifications.

2.6. Control of Light

- 2.6.1. During operation, no part of the Proposed Development will be continuously lit. Motion detection lighting and sensors will be used to illuminate areas only when necessary. The lighting of the Site would be in accordance with Health and Safety requirements.
- 2.6.2. The utilisation of night vision technology in CCTV cameras will allow for monitoring and security surveillance without the need for continuous lighting at night. Lighting will be designed in a way to reduce impact on sensitive receptors by directing lighting inward and away from boundaries, woodland, hedgerows, trees, ditches, ponds and residential dwellings.

2.7. Traffic Management and Parking Provision

- 2.7.1. During operation the Proposed Development will:
- It is anticipated that access to the existing PRowS will be maintained through all phases of the Proposed Development;
 - Provide suitable points of access for operational vehicles; and
 - The planting of landscaping and screening to conceal any reflections from the panels, which could affect drivers on the local highway network.
- 2.7.2. During the operational phase the Proposed Development will ensure that sufficient space will remain within the Site on the access tracks (between 3.5m and 6m in width) to enable a maintenance vehicle to turn around to ensure that reversing will not occur onto the highway.

2.8. Security

- 2.8.1. Regular security risk management threat assessments will be conducted during the operational phase of the Proposed Development. These assessments will be carried out by suitable qualified and experienced persons (SQEP) to identify and evaluate security risks.
- 2.8.2. A perimeter security fence will enclose the operational areas of the Site. Access

gates will be of similar construction and height as the perimeter fencing with a maximum width of 6m. The fence is anticipated to comprise a high-tensile, galvanised steel, plain wire deer fence up to 2m in height.

- 2.8.3. The Site boundary will be secured both by fencing and by the provision of Closed-Circuit-Television (CCTV) equipment which will face towards the Site and away from any land outside of the Site. These will also be deployed around the perimeter, and in key locations, around the Site. These cameras will be mounted on poles with a maximum height of 3.0m above ground level located within the perimeter fence, and the CCTV cameras would use night vision technology.
- 2.8.4. There will be welded steel wire mesh fencing around sensitive areas such as the BESS and on-site substation compound which will have a maximum height of 2.4m.
- 2.8.5. Other potential security measures include:
- Detection systems and alarms;
 - Locked gates at main entrances;
 - Buried cables as much as possible;
 - Remote monitoring; and
 - Alarm response contract with keyholder/security company.

3. Mitigation and Monitoring

3.1. Purpose

- 3.1.1. This section of the oOEMP sets out the mitigation and management measures to be included as a minimum in the detailed OEMP(s). The measures identified in this section will be reviewed and updated following the consent of the DCO application as part of the preparation of the detailed OEMP(s).
- 3.1.2. The responsibility for ensuring that the measures set out in this section are implemented will lie with the operator of the Proposed Development (i.e. the undertaker under the DCO granting development consent for the Proposed Development). The operator of the Proposed Development will also be responsible for appointing and managing personnel responsible for fulfilling particular roles identified in this document such as the Environmental Manager.

3.2. Landscape and Visual/Residential Amenity

- 3.2.1. An Outline Landscape and Ecological Management Plan ('oLEMP') [EN010140/APP/6.3.7.9] has been submitted alongside the planning application which provides an outline of the management and responsibilities of the proposed planting on Site. A detailed LEMP would be secured through a DCO Requirement.

3.3. Ecology

- 3.3.1. During the operational phase, created and existing semi-natural habitats within the Site will be subject to long-term management by suitably qualified/ experienced professionals. The management of these semi-natural habitats will be addressed within a detailed LEMP, to be secured through DCO requirement, which will be informed by the oLEMP [EN010140/APP/6.3.7.9]. The detailed LEMP will set out the following information:
- Commitment to delivering quantifiable BNG and its long-term monitoring requirements;
 - Management of on-site habitats;
 - Post-construction species specific monitoring; and
 - Monitoring of the success of invasive non-native species eradication measures.

3.4. Flood Risk and Drainage

3.4.1. The Site lies within the 'Flood Alert Area' of the 'Tidal River Aire catchment'. The operating staff will register to receive flood alerts from the Environment Agency (EA). When a flood alert is issued, the Proposed Development will be evacuated along the local highway network as a precautionary measure. The evacuation procedure for the relevant phase of the Proposed Development will be contained in the detailed OEMP and will be covered by a suitably worded DCO requirement requiring the submission of details to be submitted to and approved by NYC.

3.4.2. Solar farm developments are not 'occupied' and only occasional maintenance visits are required for landscape maintenance and equipment servicing and repairs. Maintenance visits will be scheduled to avoid periods of elevated flood risk. No maintenance operatives will be on-site during periods of elevated flood risk and access to the Site will be restricted. If required, clearance of debris, maintenance and repair of equipment on Site as a result of flooding would be undertaken when safe to do so.

3.5. Transport and Access

3.5.1. During operation, access for maintenance and monitoring light van or 4x4 type vehicles will be maintained and it is anticipated that access to the existing PRoWs will be maintained through all phases of the Proposed Development.

3.6. Pollution Prevention

3.6.1. Due to the nature of the Proposed Development, there are limited potential pollution risks which are related to spillages from maintenance vehicles or on-site plant such as transformers. However, in accordance with best practice, a pollution response plan will be prepared by the Operator. It will follow appropriate guidance (at the time of writing) and will include groundwater contamination, and the following measures to be adopted in the event of a spill or pollution incident:

- Stop release of fuel by removing the source or by using plastic sheeting and bunding;
- Excavate oil contaminated soil and place in an air tight container to enable it to be disposed of by a specialist waste handler as special waste;
- If spillage is onto a hard surface, all drains and gullies must be immediately sealed;

- Absorbent materials such as sand, sawdust, straw or oil absorbent granules/mats are to be placed over the contaminated area to soak up the spill. These should then be removed and stored and disposed of as special waste. Impermeable gloves and boots and disposable overalls are to be worn; and
- Spill kits will be available on site and will be made up of materials/products that are in line with environmental practice.

3.6.2. A site maintenance plan will be implemented so that any operational plant is routinely checked and maintained to reduce the likelihood of leakages during the operation of the Proposed Development. A site maintenance plan will be secured by a suitably worded DCO requirement, requiring details to be submitted to and approved by NYC.

3.6.3. The Substation and BESS Compound contains embedded design mitigation to reduce the risk of a pollution event affecting the adjacent watercourses or underlying aquifer. The measures include:

- Any relevant materials including oil filled plant in the Substation and BESS Compound would be stored in accordance with the appropriate pollution prevention principles to reduce the likelihood of spillage and with an impermeable base and suitable bunding to prevent discharge in the event of spillage and leakage, and the design and location would be consistent with the Environment Agency guidance;
- The entire Substation and BESS Compound area would be lined with an impermeable liner (geomembrane, or similar) to minimise the risk of a pathway forming between the surface and underlying aquifer;
- The presence of the flood defence bund and appropriately designed penstocks on the outfalls from the surface water drainage system to the ditch/watercourse network would contain runoff in event of a contamination event; and
- Runoff from the Substation and BESS Compound would be collected by a series of filter drains in three sub-catchments. Flows would be conveyed to the filter collector drains by overland flows and via sub surface flows within the porous subbase of the Substation and BESS Compound. Filter drains would then convey runoff to three attenuation basins designed with sediment forebays to enhance water quality and promote sediment deposition. Runoff would be discharged at a controlled rate into the onsite drainage ditches/watercourses.

3.6.2-3.6.4. Regular inspections of the SuDS features and the BESS Compound will be undertaken to inspect for pollution events. Furthermore, a water quality device will be fitted on the outfall from the SuDS features to provide on going monitoring of the outfall and further safeguard water quality from runoff such as oils, debris or sediments.

3.7. Waste Management

- 3.7.1. It is not anticipated that the operation of the Proposed Development would result in any waste, however materials requiring removal from the Order limits during operation would be transported using licensed carriers and records kept, detailing the types and quantities of waste moved and the destinations of this waste, in accordance with the relevant regulations.

4. Implementation and Operation

4.1.1. The detailed OEMP will set out all roles, responsibilities and actions required in respect of implementation of the measures described in this oOEMP, 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;
- Communication methods;
- Document control;
- Monitoring, inspections and audits of site operations; and
- Environmental emergency procedures.

5. Monitoring and Reporting

5.1. Monitoring

5.1.1. To meet the requirement of the detailed OEMP, environmental monitoring of the Proposed Development and its impacts will be undertaken throughout the operational phase. Monitoring requirements will be described in the detailed OEMP which will be designed to be read in conjunction with the detailed LEMP(s) which will set out the ecological management and monitoring during operation. Monitoring and reporting will demonstrate the effectiveness of the measures set out in the detailed OEMP and related mitigation measures and allow for corrective action to be taken where necessary.

5.1.2. As part of the monitoring process a designated Environmental Manager will observe site activities and report any deviations from the OEMP in a logbook, along with the actions taken and general conditions at the time. In addition, the Environmental Manager will conduct regular walkover surveys which will be documented and arrange regular formal inspections to ensure the requirements of the OEMP are being met.

5.1.3. The Environmental Manager would also act as primary contact with relevant local authorities and other regulatory agencies such as the Environment Agency.

5.2. Records

5.2.1. The Environmental Manager will retain records of environmental monitoring and implementation of the detailed OEMP. This will allow provision of evidence that the detailed OEMP are being implemented effectively. These records will include:

- Results of routine inspections by the Environmental Manager;
- Environmental surveys and investigations;
- Environmental Action Schedule;
- Licences and Approvals;
- Environmental equipment test records; and
- Corrective actions taken in response to incidents, breaches of the approved OEMPs or complaints received from a third part.

5.2.2. The detailed OEMP will be updated as necessary, with a full review as required. Existing control measures and mitigation will not be amended without prior agreement with the relevant planning authorities.

Ecology and Nature Conservation

- Conservation of Habitats and Species (Amendment) (EU Exit) regulations 2019;
- Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the Habitats Directive);
- Countryside and Rights of Way (CRoW) Act 2000;
- Directive 2009/147/EC on the Conservation of Wild Birds (the Birds Directive);
- Natural Environment and Rural Communities (NERC) Act 2006;
- Protection of Badgers Act 1992;
- UK Biodiversity Action Plan (UKBAP) 1994; and
- Wildlife and Countryside Act (1981).

Landscape and Visual

- Countryside and Rights of Way Act, 2000.

Historic Environment

- Ancient Monuments and Archaeological Areas Act (1979);
- National Heritage Act (2002);
- The Planning (Listed Buildings and Conservation Areas) Act (1990).

Hydrology and Flood Risk

- Environment Act 2021;
- Environmental Protection Act (EPA) 1990;
- Flood and Water Management Act 2010;
- The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017;
- Water Act 2014;
- Water Resources Act 1991; and
- Water Supply (Water Quality) Regulations 2016 .

Hydrogeology, Geology and Ground Conditions

- Environment Act 2021;
- Environmental Protection Act (EPA) 1990;
- The Contaminated Land (England) Regulations 2006;
- The Landfill (England and Wales) (Amendment) Regulations 2005 ;
- The Special Waste (Amendment) (England and Wales) Regulations 2001; and
- The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017.

Traffic and Transport

- Transport Act 2000.

Noise

- Environmental Protection Act 1990 (EPA); and
- Part III of the Control of Pollution Act 1974 (CoPA).

Air Quality

- Air Quality Standards Regulations 2010; and
- Ambient Air Quality Directive (2008/50/EC).