East Pye Solar

Commitments Register

Revision 1

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Contents

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1 Commitments Register

1.1 Introduction

1.1.1 This Commitments Register sets out the environmental mitigation measures that would be adopted during the construction, operation and maintenance, and decommissioning phases of East Pye Solar (the Scheme).

1.1.2 The Commitments Register is not a secured document. It is a register, intended to allow stakeholders to track commitments from the Environmental Statement through to the relevant secured documents.

1.1.3 For each commitment, the securing mechanism is identified. The securing mechanism comprises the relevant DCO Requirement and/or Management Plan or Mitigation Strategy. The secured plans and strategies submitted with this application are:

- **Environmental Statement Volume 3, Appendix 8.10: Outline Protected Species Mitigation Strategy (PSMS) [EN0110014/ APP/6.3.8.9]**;
- **Environmental Statement Volume 3, Appendix 10.6: Archaeological Mitigation Strategy (AMS) [EN0110014/APP/6.3.10.6];**
- **Outline Construction Environmental Management Plan (Outline CEMP) [EN0110014/APP/7.1]**;
- **Outline Operational Environmental Management Plan (Outline OEMP) [EN0110014/APP/7.2]**;
- **Outline Decommissioning Environmental Management Plan (Outline DEMP) [EN0110014/APP/7.3]**;
- **Outline Landscape and Ecology Management Plan (Outline LEMP) [EN0110014/APP/7.4]**;
- **Outline Battery Safety Management Plan (Outline BSMP) [EN0110014/APP/7.5]**;
- **Outline Construction Traffic Management Plan (Outline CTMP) [EN0110014/APP/7.6]**;
- **Outline Operational Traffic Management Plan (Outline OTMP) [EN0110014/APP/7.7]**;
- **Outline Public Rights of Way and Permissive Paths Management Plan (Outline PRoWPPMP)[EN0110014/APP/7.8]**;

- **Outline Soil Resources Management Plan (Outline SRMP) [EN0110014/APP/7.9]**;
- **Outline Employment, Skills and Supply Chain Strategy (Outline ESSCS) [EN0110014/APP/7.10]**; and
- **Design Principles, Parameters and Commitments (DPPC) [EN0110014/APP/7.18]**.

1.1.4 Other control mechanisms include the **Works Plans [EN0110014/APP/2.3]** and the requirement for approval of detailed design which secures the **Design Principles, Parameters and Commitments [EN0110014/APP/7.18]**.

1.1.5 **Table 1.1** lists the environmental mitigation measures that would be adopted and identifies where that mitigation is secured.

Table 1.1: East Pye Solar Commitments Register

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
Chapter 6: Climate Change [EN0110014/APP/6.1.6]	The Scheme has been designed, as far as practicable, to avoid and reduce impacts and effects on Climate Change and to increase Climate Change resilience through the process embedding measures into the design. The **GHG Reduction Strategy** is included within the **Outline CEMP** and **Outline OEMP**.	Embedded	Construction Operation Decommissioning	DCO Requirements: CEMP (Requirement 13) OEMP (Requirement 14) DEMP (Requirement 21)
Chapter 6: Climate Change [EN0110014/APP/6.1.6]	**GHG Impact:** Specific embedded GHG mitigation measures are included in the **Outline CEMP.** **General Practices:** • Adopting the Considerate Constructors Scheme (CCS) to assist in reducing pollution, including GHGs, from the Scheme by employing good industry practice measures e.g. recycling and separating waste and choosing low carbon and recyclable materials where feasible; • Conducting regular planned maintenance of the construction plant and machinery to optimise efficiency; and • Retention of existing vegetation as far as practicable. Carbon associated with hedgerows and trees will be locked into the soil. **Reducing vehicle emissions:** • Encouraging the use of lower carbon modes of transport by identifying and communicating local bus connections and pedestrian and cycle access routes to/from the Scheme to all construction staff, and providing appropriate facilities for the safe storage of cycles;	Embedded	Construction Decommissioning	DCO Requirements: CEMP (Requirement 13) DEMP (Requirement 21) CTMP (Requirement 15)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	• Switching vehicles and plant off when not in use and ensuring construction vehicles conform to current applicable EU emissions standards adopted by the UK; and • Implementing a shuttlebus to transport employees to the sites, thus reducing the number of trips made by construction staff.			
Chapter 6: Climate Change [EN0110014/APP/6.1.6]	Climate change resilience measures are embedded within the Scheme, particularly in relation to flood risk. The flood risk mitigation measures as detailed in **ES: Chapter 9 Water Environment** and **ES: Appendix 9.1 Flood Risk Assessment & Outline Surface Water Drainage Strategy** and secured through the **Outline CEMP**. Mitigation for the possible mobilisation of contaminants from surface water runoff generated by the Scheme are set out in the **Outline CEMP.** As outlined in **Appendix 9.1 Flood Risk Assessment (FRA)**, a sequential approach has been applied to the Scheme, locating infrastructure within areas of Flood Zone 1 and the lowest flood risk from other sources as far as possible.	Embedded	Construction Operation Decommissioning	DCO Requirements: Outline CEMP (Requirement 13)
Chapter 6: Climate Change [EN0110014/APP/6.1.6]	Additional climate change resilience measurements will be embedded within the Scheme as secured in the **Outline CEMP:** • Contractor will monitor weather forecasts and plan works accordingly, protecting workers and resources from any extreme weather conditions; • Health and safety plans and risk assessments will be required to account for potential climate change impacts on workers, such as flooding and heatwaves. This will include for the provision of flood defence equipment (e.g. sandbags) and good practice health management measures for staff working in heat such as staying hydrated and sun protection; • Fire suppression system to rapidly action in case of fire; • Protecting workers and resources from extreme weather conditions through appropriate PPE and working practices; and	Embedded	Construction Operation Decommissioning	DCO Requirements: Outline CEMP (Requirement 13)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	• Using equipment's cooling systems where necessary/adapting working practices and equipment used based on weather conditions.			
Chapter 6: Climate Change [EN0110014/APP/6.1.6]	Replacement activities, as well as regular planned maintenance of the Scheme, will occur during the operational phase. Where applicable, the construction mitigation measures as outlined above will also be put in place during operation to optimise efficiency and have been outlined in the OEMP, to be prepared in accordance with the **Outline OEMP.** Embedded mitigation measures will be in place for operation, as secured through the **Outline OEMP** these include: • Using equipment's cooling systems where necessary/adapting working practices and equipment used based on current weather conditions; • Protecting workers and resources from extreme weather conditions through appropriate PPE and working practices as secured through the OEMP; • Monitoring weather forecasts and the news for Environment Agency flood warnings, relevant weather warnings, and water levels of the local waterways. Operational measures relating drainage and surface water management are set out within the **Outline OEMP**.	Embedded	Operation	DCO Requirements: OEMP (Requirement 14)
Chapter 6: Climate Change [EN0110014/APP/6.1.6]	The following mitigation measures have been incorporated into the decommissioning phase: • Contractor will monitor weather forecasts and plan works accordingly, protecting workers and resources from any extreme weather conditions; • Health and safety plans and risk assessments developed for decommissioning activities will be required to account for potential climate change impacts on workers, such as flooding and heatwaves. This will include for the provision of flood defence equipment (e.g. sandbags) on site and good practice health management;	Embedded	Operation	DCO Requirements: DEMP (Requirement 21)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	• Fire suppression system on site to rapidly action in case of fire; • Protecting workers and resources from extreme weather conditions through appropriate PPE and working practices; and • Using equipment's cooling systems where necessary/adapting working practices and equipment used based on current weather conditions. The measures above are secured in the **Outline DEMP** Detail about the measures is limited as the decommissioning environment beyond 2091 is likely to be considerably different to today.			
Chapter 6: Climate Change [EN0110014/APP/6.1.6]	Monitoring weather forecasts will be part of planning works accordingly and safeguarding against extreme weather conditions. As detailed in the **Outline OEMP**, **Outline CEMP** and the **Outline DEMP**, this proactive approach ensures the safety of workers and the protection of infrastructure. By responding appropriately and in a timely manner to varying weather conditions, the Scheme can effectively mitigate potential disruptions and ensure the continuity and safety of its operations.	Additional	Construction Operation Decommissioning	DCO Requirements: CEMP (Requirement 13) OEMP (Requirement 14) DEMP (Requirement 21)
Landscape and Visual [EN0110014/APP/6.1.7]	The **Design Principles, Parameters, and Commitments** secure the design parameters and commitments in respect of the Works packages in Schedule 1 of the **draft DCO.** Collectively these measures ensure the Scheme responds to the local context and that they are embedded into the design for managing landscape and visual effects through sensitive design. At detailed design, there would be further consideration of detailed elements of the Scheme. An example of this would be with regard to the specification and colour of built elements within the Scheme, such as fencing, gates, facades structures (etc.).	Embedded	Construction Operation Decommissioning	DCO Requirements: Detailed Design DPPC
Landscape and Visual [EN0110014/APP/6.1.7]	Retention of existing trees throughout the Order Limits, wherever practicable and as identified in **Appendix 7.10 Preliminary Arboricultural Impact Assessment (Preliminary AIA)**. A pre-construction tree survey would be required prior to starting construction works to re-establish the baseline. This survey would inform the tree protection zones to be applied during	Embedded	Construction	DCO Requirements: CEMP (Requirement 13) DEMP

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	construction. Site hoarding and construction exclusion zones would be introduced around retained vegetation in accordance with the requirements of BS 5837:2012 'Trees in relation to design, demolition and construction'. An approved Arboricultural Method Statement (AMS) would be adopted incorporating best practice guidance set out in British Standard 5837:2012 Trees in Relation to Design, Demolition and Construction which would ensure retained trees and other vegetation are not adversely affected during the construction process.			(Requirement 21)
Landscape and Visual [EN0110014/APP/6.1.7]	The use of visual screening, such as hoardings, would be implemented for more sensitive visual receptors in proximity to the Site.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Landscape and Visual [EN0110014/APP/6.1.7]	Ensuring a tidy and neat working environment and covering stockpiles in accordance with best practice measures.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Landscape and Visual [EN0110014/APP/6.1.7]	Temporary lighting during construction and decommissioning required to enable safe working in the hours of darkness would be designed as far as reasonably practical to avoid light spill.	Embedded	Construction Decommissioning	DCO Requirements: CEMP (Requirement 13) DEMP (Requirement 21)
Landscape and Visual [EN0110014/APP/6.1.7]	Construction works that create dust will incorporate damping to mitigate the impact of dust generation	Embedded	Construction	DCO Requirements: CEMP (Requirement 13) DEMP (Requirement 21)
Landscape and Visual [EN0110014/APP/6.1.7]	Vegetation disturbance should be minimised as much as practicable, and any bare ground resulting from construction should be re-seeded in accordance with the measures set out in the **Outline LEMP.**	Embedded	Construction	DCO Requirements: CEMP (Requirement 13) LEMP

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
Landscape and Visual [EN0110014/APP/6.1.7]	Hedgerow removal for the installation of the cable route and haul routes as set out in the **Outline LEMP** will be minimised and restored and replanted in the next available planting season following the work.	Embedded	Construction	DCO Requirements: LEMP (Requirement 7)
Landscape and Visual [EN0110014/APP/6.1.7]	The Project Level Design Principles relevant to the consideration of landscape and visual effects and subsequent inclusion of embedded mitigation measures are: • **2.1** Respond to the character of the Sites, informed by Natural England National Character Area Profiles and South Norfolk Local Landscape Character Assessment and Place Making Guide SPD, including the character of the River Valleys. • **2.2** Retain and enhance existing vegetation, where possible, and features of value to retain the fabric of the Sites and aid the integration of the Scheme within the environment and the characteristics of the surroundings, as far as practicable. • **2.3** Support the objectives of Norfolk's Green Infrastructure Strategy, creating green infrastructure for climate change resilience and enhancing biodiversity. • **2.4** Create new woodland belts and native tree planting (a mixture of natural regeneration and planting) to provide screening to the Scheme, improve biodiversity and green infrastructure connectivity. • **2.5** Restore key hedgerows to improve biodiversity and reinforce a sense of landscape character. • **2.6** Improve soil health during the lifetime of the Scheme. • **2.7** Consider the setting of heritage assets and mitigate any impact by design, where practicable.	Embedded	Operation	DCO Requirements: Design Approach Document Detailed Design

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	• **2.8** Careful siting of infrastructure and landscape buffers to minimise impact on recreational and residential amenity, where practicable. • **2.9** Consider the opportunities for peoples' connection to nature, experience and access using quiet lanes, PRoW and recreational routes namely the Boudicca Way and Via Beata. • **2.10** Prevent deterioration to the local water quality environment, such as the River Tas. • **2.11** Operational lighting and light spill to be kept to a minimum and 'directional', in response to Norfolk County Council's rural dark landscape. • **3.2** Integrate the Scheme into the natural environment and strengthen habitat corridors through the farmed landscape, allowing the movement of wildlife and enhancement of biodiversity. • **3.3** Incorporate initiatives set out in the Local Nature Recovery Strategy and Norfolk Clayland Initiative, where practicable. • **3.4** Support creation of field-edge/field-corner habitats such as grass margins, hedges and ditches and trees to support rare arable weeds and farmland bird species. • **3.5** Maintain isolated ponds and reinstate ghost ponds, which are a characteristic feature of the clay plateau for their landscape and biodiversity value, particularly their populations of great crested newt.			
Landscape and Visual [EN0110014/APP/6.1.7]	The **Design Principles, Parameters and Commitments** defines the minimum offsets and buffers from existing features, these measure to avoid and mitigate potential effects from visual receptors including residential properties, settlements and PRoW, as well as landscape features, including ancient woodland, trees, hedgerows and watercourses.	Embedded	Operation	DCO Requirements: DPPC
Landscape and Visual [EN0110014/APP/6.1.7]	The **Outline LEMP** includes the Hedgerow Removals Plan and Green Infrastructure Strategy.	Embedded	Operation	DCO Requirements:

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	The **Outline LEMP** sets out specific landscape and ecological prescriptions for implementation of the measures. Such opportunities and prescriptions would be put in place to create and enhance habitats, protect and enhance existing landscape/ ecological features, strengthen Green Infrastructure across the Order limits and provide visual screening whilst aligning with local conservation priorities. The management and maintenance of existing and new vegetation is an embedded mitigation measure which ensures vegetation would be actively managed in the long term. The **Outline LEMP** defines the measures to ensure successful implementation and establishment management measures. The **Outline LEMP** includes targets for establishment of existing and proposed hedgerow, with a target height 3m as an embedded mitigation measure which aims to screen views from nearby PRoW and visual receptors. The active management and maintenance of trees and woodland within the Order limits aims to ensure they establish successfully in as these landscape features are primary mechanisms for filtering and screening views towards the Scheme from nearby PRoW, roads and residential dwellings, as well as providing important habitat as part of the wider landscape measures to support ecological networks and connectivity across the landscape.			LEMP (Requirement 7)
Landscape and Visual [EN0110014/APP/6.1.7]	The **Outline PRoWPPMP** provides a framework for the management of PRoW and recreational routes throughout the Scheme. The key objective is to seek to ensure that Public Rights of Way (PRoW), promoted walking routes and permissive paths remain open and safe to use throughout the Scheme's construction, operational and decommissioning phases, where practicable.	Embedded	Construction Operation Decomissioning	DCO Requirements: PRoWPPMP (Requirement 17)
Landscape and Visual [EN0110014/APP/6.1.7]	The **Lighting Strategy** provides a strategy and commitments for control and minimising effects of lighting, as part of an embedded mitigation measure. The Lighting Strategy is secured by the **Outline OEMP.** Motion sensing security lighting would be provided within the Project Substations, the National Grid Substation, and within the BESS to maintain safe working conditions in winter months, for security purposes, and for maintenance activities.	Embedded	Operation	DCO Requirements: Lighting Strategy as secured in the OEMP (Requirement 14)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
Ecology and Biodiversity [EN0110014/APP/6.1.8]	Whilst not yet a mandatory requirement for NSIP applications to demonstrate a quantifiable Biodiversity Net Gain (BNG) of at least 10%, the DCO submission will provide evidence of the deliverability of measurable BNG. The BNG is secured through the **Outline LEMP**. Further to the mitigation hierarchy, any commitment to BNG delivery will also take into account the BNG hierarchy as per current guidance. The mitigation hierarchy applied during the design of the Scheme follows a stepwise approach that must be taken throughout the lifecycle of a project where there is potential for impacts on relevant Important Ecological Features (IEF): • Avoidance – actions taken to avoid causing impacts to the environment prior to beginning development (e.g. avoidance of installing solar POV arrays on or near IEFS to avoid direct and indirect impacts); • Minimisation – measures taken to reduce the duration, intensity, extent and/or likelihood of the unavoidable environmental impacts caused by development (e.g. adapting the development design to minimise impacts); • Restoration or rehabilitation – actions taken to repair environmental degradation or damage following unavoidable impacts caused by development; and • Offsets – measures taken to compensate for any adverse environmental impacts caused by development which cannot be avoided, minimised and/or restored (e.g. including habitat creation to offset losses).	Embedded	Construction Operation Decommissioning	DCO Requirements LEMP (Requirement 7) BNG (Requirement 9) PSMS (Requirement 8)
Ecology and Biodiversity [EN0110014/APP/6.1.8]	The Scheme's design evolution has sought to avoid IEF's, such as field boundary hedgerow and ditch networks, watercourses, and woodlands. Temporary CRC works have avoided key features such as main rivers and lowland fen through Avoidance Areas. Habitat enhancement/creation measures to be undertaken during construction have been proposed within the **Outline LEMP** in line with the Biodiversity Guidance for Solar Developments guidance published by the BRE. These measures will safeguard key habitats for the benefit of wildlife	Embedded	Construction	DCO Requirements: LEMP (Requirement 7) PSMS (Requirement 8) DPPC CEMP

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	and enhance the ecological value of land currently under agricultural use. Further information regarding species-specific safeguards is provided within the **Outline PSMS.**			(Requirement 13)
Ecology and Biodiversity [EN0110014/APP/6.1.8]	The **Outline CEMP** details measures and approaches to be adopted which will limit the likelihood of impacts upon IEF's through damage, pollution and disturbance. Habitat protection buffers will be maintained throughout the construction phase. They will be identified with appropriate exclusion fencing along with Site team briefings at 'toolbox talks'.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Ecology and Biodiversity [EN0110014/APP/6.1.8]	The **Outline LEMP** summarises the principles which will be followed within the design of mitigation and enhancement for landscape and ecology. It sets out the location, objectives and methods for habitat mitigation and creation across the Scheme, such as for hedgerows, trees and grassland. Through provision of the **Outline LEMP**, the Scheme will deliver construction phase habitat enhancements which will provide a clear benefit for a broad range of species.	Embedded	Construction	DCO Requirements: LEMP (Requirement 7)
Ecology and Biodiversity [EN0110014/APP/6.1.8]	The **Outline PSMS** summarises the embedded mitigation measures and approaches to be adopted which will avoid impacts occurring upon associated species (and associated habitats) through killing/injury, damage, pollution and disturbance during the construction phase in order to enact the mitigation requirements. The Outline PSMS includes the provision of a toolbox talk provided by the Ecological Clerk of Works (ECoW) to the Site Manager(s) and contractors (either in-person or online). The toolbox talk will include details of the PSMS and will highlight the location and sensitivity of the various IEF's present within each area. The talk will establish the role of the ECoW and site personnel during works, and what to do if protected species/ecological constraints are found during works.	Embedded	Construction	DCO Requirements: PSMS (Requirement 8)
Ecology and Biodiversity [EN0110014/APP/6.1.8]	Criteria under which an ECoW would be required in order to oversee certain construction activities which have the potential to impact on protected species, such as localised habitat clearance, ditch/watercourse engineering works. These criteria would trigger the need for ECoW attendance and,	Embedded	Construction	DCO Requirements: PSMS (Requirement 8)

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	potentially, pre-commencement surveys or preparation by an ecologist, as well as follow up monitoring or reporting.			
Ecology and Biodiversity [EN0110014/APP/6.1.8]	Criteria under which certain potentially impactful operations would need to be restricted to particular months or seasons in order to lessen likely adverse ecological impacts. For example, hibernation or nesting season for particular species.	Embedded	Construction	DCO Requirements: PSMS (Requirement 8)
Ecology and Biodiversity [EN0110014/APP/6.1.8]	Task-specific Method Statements for potentially ecologically impactful works has been identified. For example, ECoW monitoring during proposed trenchless crossing beneath the Hempnall Beck.	Embedded	Construction	DCO Requirements: PSMS (Requirement 8)
Ecology and Biodiversity [EN0110014/APP/6.1.8]	Pollution prevention measures such as on the use of fuels and other contaminants in proximity to boundary features and other sensitive habitats and measures to limit the dust generating activities, such as when working in dry conditions, and measures to limit the mobilisation of sediments and run-off into IEF's.	Embedded	Construction	DCO Requirements: PSMS (Requirement 8)
Ecology and Biodiversity [EN0110014/APP/6.1.8]	Access for construction (of both Sites and the CRC) has been specifically designed to utilise existing field entrances and gaps in internal/external hedgerows and other linear habitats wherever possible. Where access (haul route/CRC access/site access) is required through linear features such as field margins/hedgerows/ditches these construction impact areas will be significantly reduced to a maximum of 10m working width. All temporary habitat impacts (haul routes/CRC work etc) will be reinstated and will be designed with input and site-specific knowledge from the ECoW and monitored for success during the construction works period.	Embedded	Construction	DCO Requirements: PSMS (Requirement 8) LEMP (Requirement 7)
Ecology and Biodiversity [EN0110014/APP/6.1.8]	Solar PV arrays, construction compounds and haul routes have been set back from main watercourses and drainage features, maintaining undeveloped buffer zones to protect riparian habitats and reduce risk of sediment or pollutant mobilisation.	Embedded	Construction	DCO Requirements: PSMS (Requirement 8) CEMP (Requirement 13)
Ecology and Biodiversity [EN0110014/APP/6.1.8]	Surface water management measures will be implemented during construction to prevent sediment-laden run-off entering watercourses. This will include adherence to Environment Agency pollution prevention guidance.	Embedded	Construction	DCO Requirements: PSMS (Requirement 8)

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				CEMP (Requirement 13)
Ecology and Biodiversity [EN0110014/APP/6.1.8]	No refuelling, storage of fuels, oils or chemicals will occur within buffer zones adjacent to watercourses.	Embedded	Construction	DCO Requirements: PSMS (Requirement 8) CEMP (Requirement 13)
Ecology and Biodiversity [EN0110014/APP/6.1.8]	Trenchless installation beneath sensitive watercourses avoids direct in-channel works, thereby removing the principal pathway for disturbance to aquatic habitats. An Ecological Clerk of Works (ECoW) will oversee works in proximity to watercourses where required, including trenchless crossing operations, to ensure protection of aquatic habitats.	Embedded	Construction	DCO Requirements: PSMS (Requirement 8) CEMP (Requirement 13)
Ecology and Biodiversity [EN0110014/APP/6.1.8]	Trenchless crossing operations will involve the excavation of a launch pit at the drilling start point and a reception pit at the end point. Both the launch and reception pits will be situated a minimum of 10m from any watercourse and will be fully backfilled and reinstated upon completion of the cable installation. The exact locations and dimensions of these pits will be finalised during detailed design.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13) DPPC
Ecology and Biodiversity [EN0110014/APP/6.1.8]	Construction dust **ES Volume 3 Appendix 13.1 - Construction and Decommissioning Dust Risk Assessment** has included a process to identify the appropriate dust mitigation measures.	Embedded	Construction Decommissioning	DCO Requirements: CEMP (Requirement 13) DEMP (Requirement 21)
Ecology and Biodiversity [EN0110014/APP/6.1.8]	Lighting Strategy - Artificial lighting at night may potentially be utilised during construction, operation and decommissioning. Where required, lighting will be positioned to ensure that light is directed onto the area of works only with as minimal light spillage upon IEFs as possible. The use of LED lighting and cowls, hoods and other similar screens will also be adopted. Any requirement for lighting outside standard working hours will be set out within the detailed CEMP and OEMP.	Embedded	Construction Operation Decommissioning	DCO Requirements: CEMP (Requirement 13) OEMP (Requirement 14) DEMP (Requirement 21)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
Ecology and Biodiversity [EN0110014/APP/6.1.8]	The proposed works surrounding the immediately adjacent woodland/trees will adhere to BS5837:2012 *Trees in relation to design, demolition and construction* as well as current guidance provided by NE. As veteran trees are considered irreplaceable habitats, the retention of these trees has been designed into the Scheme, and these features will be protected throughout construction (and the lifetime of the Scheme).	Embedded	Construction Decommissioning	DCO Requirements: CEMP (Requirement 13) DEMP (Requirement 21)
Ecology and Biodiversity [EN0110014/APP/6.1.8]	Additional measures to be implemented to prevent the spread of non-native invasive species (including Himalayan balsam, and giant hogweed which have been recorded within the Order Limits) are detailed within the **Outline LEMP, Outline CEMP** and the **Outline PSMS**.	Embedded	Construction Decommissioning	DCO Requirements: LEMP (Requirement 7) CEMP (Requirement 13) PSMS (Requirement 8) DEMP (Requirement 21)
Ecology and Biodiversity [EN0110014/APP/6.1.8]	The **Outline LEMP** provides the outline strategy for long-term habitat and biodiversity enhancement, management, and monitoring across the Scheme, and provides guidance for reaching and managing the associated BNG commitments during the operational phase. Through provision of BNG and the Outline LEMP, the Schemes operational phase will deliver long-term habitat enhancements which will provide a clear benefit for a broad range of species.	Embedded	Operation	DCO Requirements: LEMP (Requirement 7) BNG (Requirement 9)
Ecology and Biodiversity [EN0110014/APP/6.1.8]	During panel and/or battery replacement and maintenance operations, exclusion fencing will be maintained and identified with appropriate fencing and signage along with Site team briefings at 'toolbox talks'.	Embedded	Operation	DCO Requirements:

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	A suitably qualified and experienced ECoW (or team of ECoW's) will be appointed prior to the commencement of panel and/or battery replacement activities and through whom appropriate ecological advice will be provided throughout. The ECoW will be responsible for undertaking and/or co-ordinating checks for protected species, providing watching briefs and providing confirmation that activities can commence in adherence with relevant legislation at that time.			
Ecology and Biodiversity [EN0110014/APP/6.1.8]	Undeveloped buffer zones adjacent to watercourses within the operational sites will be retained for the lifetime of the Scheme.	Embedded	Operation	DCO Requirements: OEMP (Requirement 14) DPPC
Ecology and Biodiversity [EN0110014/APP/6.1.8]	Land within and surrounding the solar arrays will be managed under the **Outline LEMP,** reducing agricultural inputs (e.g., fertiliser and pesticide application) compared to the baseline arable use. This is anticipated to reduce nutrient enrichment and diffuse pollution reaching nearby watercourses.	Embedded	Operation	DCO Requirements: LEMP (Requirement 7)
Ecology and Biodiversity [EN0110014/APP/6.1.8]	Grassland establishment beneath and between panels will improve soil structure and increase infiltration rates, reducing surface water run-off and sediment transport compared to intensively cultivated arable land.	Embedded	Operation	DCO Requirements: LEMP (Requirement 7)
Ecology and Biodiversity [EN0110014/APP/6.1.8]	Limited motion-sensing security lighting will be included within the Substations and BESS Sites. This will be used only for nocturnal maintenance operations and security purposes. The Lighting Strategy and the measures therein are provided in the **Outline OEMP**. This details how artificial lighting will avoid adverse impacts on ecological receptors sensitive to artificial lighting, such as bats.	Embedded	Operation	DCO Requirements: OEMP (Requirement 14)
Ecology and Biodiversity [EN0110014/APP/6.1.8]	**Outline OEMP** and associated BNG commitments ensure that appropriate habitat management practice methodologies are to be employed during the operational period. Through the ongoing Scheme-long BNG commitments informed by the LEMP (and ecological monitoring during this period), the Scheme will deliver habitat enhancements which will provide a clear benefit for a broad range of species.	Embedded	Operation	DCO Requirements: OEMP (Requirement 14) LEMP (Requirement 7)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
Ecology and Biodiversity [EN0110014/APP/6.1.8]	Where land has been excluded from development within the Order Limits (such as Site 6), these areas have been examined during the design phase of the Scheme for their potential to be managed for ecological mitigation and enhancement (such as skylark mitigation), in order to provide BNG and contribute to policy-led green infrastructure and Local Nature Recovery Network principles. Where there is significant potential for this land to deliver ecological mitigation and/or BNG, this land has been retained within the Scheme and will be managed throughout the operational phase as ecological mitigation or enhancement land, taking account of any other environmental constraints and enhancements which may also be relevant..	Embedded	Operation	DCO Requirements: LEMP (Requirement 7)
Ecology and Biodiversity [EN0110014/APP/6.1.8]	Pre-decommissioning surveys and assessments will be required to identify whether the embedded mitigation of the Scheme is fully appropriate for the future baseline of the Scheme at the time of the decommissioning phase, and to conform with all applicable biodiversity policies and legislation at the prevailing time. The ECoW will be responsible for undertaking actions identified following pre-decommissioning baseline surveys and undertaking and/or co-ordinating checks for protected species before providing confirmation that decommissioning activities can commence. The ECoW will also maintain a watching brief as necessary throughout the decommissioning phase to ensure compliance with relevant legislation, including adhering to any protected species mitigation measures legally required at that time.	Embedded	Decommissioning	DCO Requirements: DEMP (Requirement 21)
Ecology and Biodiversity [EN0110014/APP/6.1.8]	An updated **PSMS** will be produced to support the decommissioning phase, and informed (where considered necessary at that time) by pre-decommissioning surveys/checks by the appointed ECoW. The updated **PSMS** will summarise the embedded mitigation measures and approaches to be adopted which will avoid impacts occurring upon species (and associated habitats) through killing/injury, damage, pollution and disturbance during the decommissioning phase in order to enact the mitigation requirements set out in this Chapter.	Embedded	Decommissioning	DCO Requirements: PSMS (Requirement 7)
Water Environment [EN0110014/APP/6.1.9]	Limitation of heavy goods vehicles (HGV) movements to compound areas as far as practicable. Several internal haul routes for construction vehicles are proposed to connect Site 7 and Site 8.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13) CTMP

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
				(Requirement 15)
Water Environment [EN0110014/APP/6.1.9]	No temporary construction compounds and stockpiles would be located within Flood Zones 2 and 3.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Water Environment [EN0110014/APP/6.1.9]	The storage and handling of materials will be undertaken in temporary compounds/designated areas, away from main rivers and watercourses.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Water Environment [EN0110014/APP/6.1.9]	Management of runoff and pollution in temporary construction compounds through the use of bunding, silt traps, oil drip trays and filter drains.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Water Environment [EN0110014/APP/6.1.9]	All chemicals will be stored in a secure impermeable and bunded area and accordance with the Control of Substances Hazardous to Health (COSHH) guidelines. Spillage kits will be held, and personnel will be trained in their use.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Water Environment [EN0110014/APP/6.1.9]	Oil drip trays will be utilised and be inspected. Any polluting materials suctioned out and stored in a bunded tank will be removed for disposal.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Water Environment [EN0110014/APP/6.1.9]	All reasonably practicable measures will be taken to prevent the deposition of sediment or other material in, and the pollution by sediment of, any watercourse, arising from construction activities. These measures will include soil bunds/silt traps where ground differences.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Water Environment [EN0110014/APP/6.1.9]	There is a commitment to Avoidance Areas of certain environmental receptors, including watercourses (as specified in Table 2.1 of the Outline CEMP), whereby open cut trenches and launch and reception pits associated	Embedded	Construction	DCO Requirements: CEMP

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	with trenchless techniques, such as HDD will be located outside of the Avoidance Areas to minimise impacts. Avoidance Areas are locations where trenchless technologies rather than open cut trenches will be used to avoid certain environmental receptors within the CRC. The Avoidance Areas are set out and secured in the **Outline CEMP.**			(Requirement 13)
Water Environment [EN0110014/APP/6.1.9]	Use of temporary access ramps for internal haul route vehicular crossing points over watercourses following the hierarchy set out in the CEMP.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Water Environment [EN0110014/APP/6.1.9]	The management of the cable works in areas of flood risk areas will be managed through measures outlined in the **Outline CEMP** so as not to impact on floodplain storage or increase flood risk at the Order Limits or elsewhere.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Water Environment [EN0110014/APP/6.1.9]	The cables will be laid at a minimum of 5m below the bed of surveyed main rivers.	Embedded	Construction	DCO Requirements: DPPC
Water Environment [EN0110014/APP/6.1.9]	Foul water from welfare facilities during the construction and decommissioning phases will be contained within sealed systems and tankered from the Order Limits.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Water Environment [EN0110014/APP/6.1.9]	Water neutrality options have been given priority to reduce the supply requirements. These options include rainwater harvesting, on-site water storage, water tankering (to meet peak demand) Tankering is the preferred method of embedded mitigation.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Water Environment [EN0110014/APP/6.1.9]	Detail on the embedded mitigation measures for the Operational Phase is provided in the following documents: • **ES: Appendix 9.1 Flood Risk Assessment and Outline Surface Water Drainage Strategy**; and • **ES: Appendix 9.3 Water Resources Assessment**. The embedded mitigation will be secured through the following documents: • **Outline OEMP** (including drainage design); • **Outline LEMP**;	Embedded	Operation	DCO Requirements: OEMP (Requirement 14) LEMP (Requirement 7) BSMP (Requirement 6) DPPC

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	• **Outline BSMP**; • **DPPC** (for infrastructure parameters and drainage design).			
Water Environment [EN0110014/APP/6.1.9]	Application of flood risk sequential approach in locating infrastructure outside of areas of highest flood risk (as far as reasonably practicable to do so). Areas of infrastructure located in highest flood risk areas are limited to Solar PV Arrays, which are raised above the ground on thin pile-driven steel supports. The supports are very narrow and represent a negligible increase in impermeable area (typically less than 1% of the total Order Limits).	Embedded	Operation	DCO Requirements: DPPC
Water Environment [EN0110014/APP/6.1.9]	Concrete footings for Solar PV Arrays will be limited to areas of where there is a requirement to protect any underground assets/resources e.g. archaeological remains.	Embedded	Operation	DCO Requirements: DPPC
Water Environment [EN0110014/APP/6.1.9]	All electrical infrastructure associated with the panels (excluding cabling) will be elevated by the Mounting Structures so that it is no less than 300mm above the 1 in 100 (1%) Annual Exceedance Probability (AEP) flood level; or, where this is not possible, as high as practicable.	Embedded	Operation	DCO Requirements: DPPC
Water Environment [EN0110014/APP/6.1.9]	Integrated Conversion Units/33kV Sub-Distribution Switch Rooms will be located in Flood Zone 1 and away from areas of surface water flooding, as far as practicable.	Embedded	Operation	DCO Requirements: DPPC
Water Environment [EN0110014/APP/6.1.9]	Standalone Conversion Units will be located in Flood Zone 1 and away from areas of surface water flooding, as far as practicable.	Embedded	Operation	DCO Requirements: DPPC
Water Environment [EN0110014/APP/6.1.9]	Operational and maintenance buildings to be located outside of Flood Zones 2 and 3.	Embedded	Operation	DCO Requirements: DPPC
Water Environment [EN0110014/APP/6.1.9]	The lowest edge of the Solar PV Panels will be set at a minimum of 0.4m above ground level. Where Solar PV Panels are situated in areas of 'low' to 'high' surface water flood risk, the Solar PV Panels will be raised higher where practicable, or the use of Single Axis Tracker panels will be considered.	Embedded	Operation	DCO Requirements: DPPC
Water Environment [EN0110014/APP/6.1.9]	Where access tracks are located in areas of Flood Zones 2 or 3 and/or significant 'low' to 'high surface water flow routes/flood risk areas, access	Embedded	Operation	DCO Requirements: DPPC

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	tracks to be kept at existing ground level so as to not impeded floodplain storage or flood flow routes.			
Water Environment [EN0110014/APP/6.1.9]	The land underneath and between the rows of Solar PV Arrays will be sown as grassland/wildflower meadow which will be maintained to a suitable height using machinery such that the plants will slow the rate of contact between rainfall and the soil through this phase of the Scheme. The provision of ground cover across the Order Limits year-round will reduce soil erosion, contribute to greater interception/evapotranspiration of rainfall and increase ground roughness across the fields, thereby slowing the rate of runoff across the Order Limits and reducing flooding to villages located at the bottom of drainage catchments.	Embedded	Operation	DCO Requirements: OEMP (Requirement 14) LEMP (Requirement 7)
Water Environment [EN0110014/APP/6.1.9]	All Solar PV Panels will be PFAS free (including within the manufacturing process), meaning there is no risk of the mobilisation of PFAS coatings on the panels being leached or otherwise mobilised and entering ground or surface water	Embedded	Operation	DCO Requirements: DPPC
Water Environment [EN0110014/APP/6.1.9]	The cables will have standard cross-linked polyethylene (XLPE) insulation which is typically not a fluorinated polymer (unlike PTFE or FEP), so pure XLPE insulation generally does not inherently contain PFAS.	Embedded	Operation	DCO Requirements: OEMP (Requirement 14)
Water Environment [EN0110014/APP/6.1.9]	The access roads (infrequent vehicle movements during operation), infrastructure building roof areas and Solar PV Arrays are considered to have a low pollution risk, therefore, the incorporation of permeable surfaces with aggregate sub-base or gravel filter drains around standalone inverter, transformer and welfare cabins will provide adequate treatment.	Embedded	Operation	DCO Requirements: OEMP (Requirement 14)
Water Environment [EN0110014/APP/6.1.9]	Access tracks will be constructed of a permeable surface, with additional passive drainage features such as shallow ditches and filter drains that are located downstream of or run parallel with the tracks	Embedded	Operation	DCO Requirements: DPPC
Water Environment [EN0110014/APP/6.1.9]	The inverters will be typically set on blocks 100-150mm or concrete plinth above the surrounding ground level. Other ancillary buildings will likely consist of temporary style modular buildings over a concrete pad that provides a 150mm freeboard above the surrounding ground level.	Embedded	Operation	DCO Requirements: OEMP (Requirement 14)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
Water Environment [EN0110014/APP/6.1.9]	Surface water runoff of Standalone Conversion Units and Integrated Conversion Units/33kV Sub-Distribution Switch Rooms will be managed via a filter drain around the perimeter or permeable aggregate surface with underlying sub-base, with appropriate overflow outlet, if required, should infiltration testing confirm that rates are too low to facilitate infiltration drainage as a stand-alone solution.	Embedded	Operation	DCO Requirements: OEMP (Requirement 14)
Water Environment [EN0110014/APP/6.1.9]	The National Grid Substation situated within Sub-Site 1B is to remain beyond the operational lifetime of the Scheme and will include a formalised surface water drainage system.	Embedded	Operation	DCO Requirements: OEMP (Requirement 14) Surface water drainage scheme (Requirement 11)
Water Environment [EN0110014/APP/6.1.9]	The BESS will manage surface water runoff both under normal operation and unlikely fire incident scenarios through local bunding and attenuation within lined SuDS features (assumed to be permeable surfaces for the purposes of this assessment, with final configuration and form to be confirmed at detailed design). The proposed surface water drainage system will have an auto shut-off valve that activates in the event of the fire alarms sounding to isolate the system from on and off-site receptors. Fire water will be tanked from the Order Limits and the affected areas of the drainage system isolated, flushed and remediated where required. Further information is provided in **Outline BSMP.**	Embedded	Operation	DCO Requirements: OEMP (Requirement 14) BSMP (Requirement 6) Surface water drainage scheme (Requirement 11)
Water Environment [EN0110014/APP/6.1.9]	A similar approach will also be applied to the Project Substations with a lined drainage system and the incorporation of auto shut-off valves as appropriate.	Embedded	Operation	DCO Requirements: OEMP (Requirement 14)
Water Environment [EN0110014/APP/6.1.9]	Fuel and other potentially polluting chemicals will either be in self bunded leak proof containers or stored in a secure impermeable and bunded area (minimum capacity of 110% of the capacity of the containers), If pollution is detected it will be suctioned to a self-bunded (or similar) tank and removed from site for suitable disposal.	Embedded	Operation	DCO Requirements: CEMP (Requirement 13) OEMP (Requirement 14)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
				Surface water drainage scheme (Requirement 11)
Water Environment [EN0110014/APP/6.1.9]	All smaller fixed infrastructure (e.g. transformers) will be self-bunded to prevent any leaks from reaching the watercourse. If pollution is detected it will be suctioned to a self-bunded (or similar) tank and removed from site for suitable disposal.	Embedded	Operation	DCO Requirements: OEMP (Requirement 14)
Water Environment [EN0110014/APP/6.1.9]	Oil drip trays will be utilised and be inspected. Any polluting materials suctioned out and stored in a bunded tank will be removed for disposal.	Embedded	Operation	DCO Requirements: CEMP (Requirement 6) OEMP (Requirement 14)
Water Environment [EN0110014/APP/6.1.9]	Mitigation for the possible mobilisation of contaminants from surface water runoff generated by the Scheme are set out and secured in **Outline OEMP**.	Embedded	Operation	DCO Requirements: OEMP (Requirement 14)
Water Environment [EN0110014/APP/6.1.9]	The proposed surface water drainage systems will be regularly maintained through measures agreed with the LLFA and set out and secured within **Outline OEMP.**	Embedded	Operation	DCO Requirements: OEMP (Requirement 14)
Water Environment [EN0110014/APP/6.1.9]	10m watercourse edge buffers will be incorporated into the Scheme as detailed within the **DPPC.**	Embedded	Operation	DCO Requirements: DPPC
Water Environment [EN0110014/APP/6.1.9]	The same water neutrality options outlined for construction have been given priority to reduce the supply requirements. These options include rainwater harvesting, on-site water storage, water tankering (to meet peak demand).	Embedded	Operation	DCO Requirements: OEMP (Requirement 14)
Water Environment [EN0110014/APP/6.1.9]	Wastewater from welfare facilities will be contained within sealed systems and tankered from the Order Limits.	Embedded	Operation	DCO Requirements: CEMP (Requirement 13) OEMP

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
				(Requirement 14)
Water Environment [EN0110014/APP/6.1.9]	No temporary construction compounds and stockpiles would be located within Flood Zones 2 and 3.	Embedded	Decommissioning	DCO Requirements: DEMP (Requirement 21)
Water Environment [EN0110014/APP/6.1.9]	The storage and handling of materials will be undertaken in temporary compounds/designated areas, away from main rivers and watercourses.	Embedded	Decommissioning	DCO Requirements: DEMP (Requirement 21)
Water Environment [EN0110014/APP/6.1.9]	Management of runoff and pollution in temporary construction compounds through the use of bunding, silt traps, oil drip trays and filter drains.	Embedded	Decommissioning	DCO Requirements: DEMP (Requirement 21)
Water Environment [EN0110014/APP/6.1.9]	All chemicals will be stored in a secure impermeable and bunded area and accordance with the Control of Substances Hazardous to Health (COSHH) guidelines. Spillage kits will be held, and personnel will be trained in their use.	Embedded	Decommissioning	DCO Requirements: DEMP (Requirement 21)
Water Environment [EN0110014/APP/6.1.9]	All reasonably practicable measures will be taken to prevent the deposition of sediment or other material in, and the pollution by sediment of, any watercourse, arising from construction activities. These measures will include soil bunds/silt traps where ground differences.	Embedded	Decommissioning	DCO Requirements: DEMP (Requirement 21)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
Water Environment [EN0110014/APP/6.1.9]	Foul water from welfare facilities during the construction and decommissioning phases will be contained within sealed systems and tankered from the Order Limits.	Embedded	Decommissioning	DCO Requirements: DEMP (Requirement 21)
Cultural heritage [EN0110014/APP/6.1.10]	Wherever possible, transportation routes have been identified to avoid additional traffic movements past sensitive heritage assets. Where this has not been practicable due to limited options of suitable routes, the construction traffic associated with the scheme will be subject to measures and procedures to minimise impacts on heritage assets, which are secured within the **OCTMP**. Construction traffic and site access is discussed further in **ES Volume I, Chapter 11 – Transport and Access.**	Embedded	Construction	DCO Requirements: CTMP (Requirement 15)
Cultural heritage [EN0110014/APP/6.1.10]	The locations of the temporary construction compounds have been sited to avoid areas of known archaeological remains as far as practicable and to be unobtrusive to the settings of heritage assets. Details of locations are provided in **ES: Figure 4.2 Indicative Temporary Construction Compound Locations** and **Works Plans.**	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Cultural heritage [EN0110014/APP/6.1.10]	The management of historic hedgerows will be undertaken in accordance with the Hedgerow Removal Plan as set out in the **Outline LEMP.** Where removal is required, no more than 10m will be removed in accordance with the requirements of the **Outline LEMP.**	Embedded	Construction	DCO Requirements: LEMP (Requirement 7)
Cultural heritage [EN0110014/APP/6.1.10]	The following embedded mitigation measures have been incorporated into the Scheme's design for the operation and maintenance phase as set out in the **Outline OEMP:** **Sites 1, 2 and Infrastructure:** • A 4m high acoustic fence around BESS components to ensure no significant environmental impacts on surrounding buildings (including built heritage); and	Embedded	Operations	DCO Requirements: OEMP (Requirement 14)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	• Visual screening including linear native tree belts, enhanced hedgerows and tree planting in gaps in existing hedgerows. **Site 3:** • Part of the Site (formerly referred to as Sub-Site 3a) has been removed from the Scheme resulting in no intervisibility with Grange Farmhouse Grade II Listed Building; • Setback of c.350m from northern boundary of Site 3 away from Lundy Green to ensure reduced or removed visibility from listed buildings within the settlement; and • Visual screening comprising a linear native broadleaf tree belt at the field boundary to the north of an area of solar arrays to further eliminate visibility from the listed buildings within Lundy Green. **Site 4:** • Setback of c.475m from the southern boundary of Sub-Site 4B to ensure reduced or removed visibility from the Grade I Listed Church of St Michael and other listed buildings within the settlement of Stratton St Michael; • Visual screening in the form of a linear native broadleaf tree belt at the field boundary to the south of the solar arrays within Sub-Site 4B to further restrict visibility from the listed buildings in Stratton St Michael; and • Visual screening including native hedgerow with trees at the southern boundary of Sub-Site 4A to restrict oblique views from The Cedars (Grade II Listed Building). **Site 5:** • Setback of c.365m from the southern boundary of Sub-Site 5B to remove and/or reduce visibility from the Grade I listed Church of St Margaret, Fritton Conservation Area and two Grade II listed buildings; and			

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	• Visual screening including a linear native broadleaf tree belt and enhanced hedgerows to remove/reduce visibility of built elements of the Scheme (solar arrays) from the Grade I listed Church of St Margaret, Fritton Conservation Area and two Grade II listed buildings. **Site 6:** • Site 6 has been removed from the built parameters of the Scheme and will instead be retained as open land removing potential setting impacts on three Grade II Listed Buildings: The Firs, The Haven and Poacher's Cottage. **Sub-Sites 7A-7D:** • Setbacks of c.100m to c.240m from the southern boundary of Sub-Site 7C to reduce visibility from two Grade II listed buildings, Wood Farmhouse and Grove Farmhouse; • Setback of c.180m from the northern boundary of Sub-Site 7D to remove/reduce visibility from Saxlingham Green Conservation Area and encompassed listed buildings; • Visual screening comprising a combination of native broadleaf woodland and linear native tree belts situated between the solar arrays within Sub-Site 7C and the two Grade II listed buildings to the south; and • Visual screening in the form of native broadleaf woodland between the solar arrays within Sub-Site 7D and the south-western corner of Saxlingham Green Conservation Area to further remove/reduce visibility. **Sub-Sites 7E-7H:** • There are no designated heritage assets that have been identified as potentially sensitive to the Scheme within Sub-Sites 7E-7H and as such, no embedded mitigation is required. **Sub-Sites 7I-7L**			

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	• Visual screening in the form of infill planting of the existing hedgerows and introduction of new native broadleaf woodland at the eastern boundary of Sub-Site 7L to reduce visibility from the Grade II* listed Oaks Farmhouse. **Site 8** • Removal of the northern part of Sub-Site 8A from the built parameters of the Scheme to ensure no infringement on the setting of the Grade II listed Upgate Green Farmhouse; and • Enhancement of existing hedgerow lining the footpath that transects Sub-Site 8B to further reduce visibility of solar arrays from the listed buildings to the north. **Site 9:** • The removal of the majority of Site 9 from the built parameters of the Scheme, which will restrict impacts on Brooke Conservation Area; and • Increased visual screening in the form of tree planting within gaps in the existing hedgerow within Site 9. **Site 10:** • Visual screening in the form of native broadleaf woodland, linear native tree belts and enhanced hedgerows with trees along the boundaries where existing gaps allow for views from Grade II listed buildings to the west of Site 10.			
Cultural heritage [EN0110014/APP/6.1.10]	Banksmen must be aware of areas with archaeological assets and will be responsible for ensuring no vehicle/plant movement that could impact the archaeological horizon occurs in these areas. In line with **ES: Appendix 10.6 Outline Archaeological Mitigation Strategy** and the Outline DEMP, a **DEMP** will be agreed with the Archaeological Advisor to the relevant planning authority prior to decommissioning, which will be sufficient to safeguard any archaeological remains during the decommissioning phase. The methodology for removal of such measures will include locating the	Embedded	Decommissioning	DCO Requirements: AMS (Requirement 12) DEMP (Requirement 21)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	decommissioning compounds in areas of low sensitivity to both the archaeological resource and the settings of designated heritage assets, and ensuring that minimal below ground disturbance is undertaken in the removal of infrastructure.			
Cultural heritage [EN0110014/APP/6.1.10]	Historic England's Advice Note 15: Commercial Renewable Energy Development and the Historic Environment provides the following examples of best practice embedded mitigation measures to be considered during decommissioning: • The appropriate routing of vehicles (where possible avoiding areas known for their historic character); • Adherence to an agreed approach on activities that generate noise (which can impact on the appreciation of heritage assets nearby); and • The avoidance of any archaeological remains preserved below ground during construction.	Embedded	Decommissioning	DCO Requirements: DEMP (Requirement 21)
Cultural heritage [EN0110014/APP/6.1.10]	**Geophysical Survey:** Geophysical survey (magnetometry) will be completed in areas that were not previously available for survey, including the full 50m width of the Cable Route Corridor. Geophysical survey (magnetometry) will be undertaken in areas that were not previously available for survey, including where necessary within the Cable Route Corridor. It has been agreed with NCCHES that any outstanding geophysical survey will take place pre-consent to allow for micro siting the route of the cable trench and working area within the Cable Route Corridor if required, and to avoid any anomalies of very high archaeological potential.	Additional	Construction	DCO Requirements: AMS (Requirement 12)
Cultural heritage [EN0110014/APP/6.1.10]	**Informative Trenching:** The areas of known extensive impact (National Grid Substation and Project Substations, BESS and Temporary Construction Compounds) will be subject to informative trenching at 3.5% by area. Informative trenching will be undertaken in the remaining areas of the Site not subject to previous trenching. It has been agreed with NHES that the amount and location of any additional trenching will be targeted on areas of	Additional	Construction	DCO Requirements: AMS (Requirement 12)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	higher impact and proportionate to the overall impact. As such the amount and location of the trenches can only be confirmed following detailed design.			
Cultural heritage [EN0110014/APP/6.1.10]	**Geoarchaeological Assessment:** The need for and location of deep impacts (up to 12m for piles and/or directional drilling) are not yet known and so it is not possible to firmly identify the need for and location of any geoarchaeological assessment. Once details are available the need for and scope of any geoarchaeological assessment will be agreed with NHES.	Additional	Construction	DCO Requirements: AMS (Requirement 12)
Cultural heritage [EN0110014/APP/6.1.10]	**Archaeological Excavation:** Precise details of areas that will be subject to full archaeological excavation will be defined following completion of the geophysical survey and informative trenching and finalisation of the location and extent of development impacts. Some of the archaeological excavation areas may take the form of 'compensation' excavation rather than mitigation of individual impacts (i.e. certain areas may be examined in more detail in order to compensate for the loss of other areas).	Additional	Construction	DCO Requirements: AMS (Requirement 12)
Cultural heritage [EN0110014/APP/6.1.10]	**Archaeological Monitoring:** Archaeological monitoring (a 'watching brief') may be required in certain areas where the impacts is limited and/or where full excavation is not warranted.	Additional	Construction	DCO Requirements: AMS (Requirement 12)
Cultural heritage [EN0110014/APP/6.1.10]	**Preservation in Situ:** It has been agreed with NHES that the impact of piling for the panel support structures is of such a low level that it will not compromise the integrity of the archaeological or limit the ability to understand the remains should archaeological investigation be carried out at a future date, with the proviso that certain archaeological features would need to be avoided or fully excavated. Such features would include (but are not limited to) structures, waterlogged remains, features with high artefactual or environment potential, industrial features and human remains. Should such features be identified by the informative trenching this would require either the adjustment of the pile layout to avoid particular archaeological features and/or the targeted use of concrete feet rather than piles to support the panel support structure. It is not	Additional	Construction	DCO Requirements: AMS (Requirement 12)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	envisaged that extensive areas will require this treatment but any such works would be targeted and localised. The option for localised areas of above ground cabling to preserve significant archaeological remains in situ where it is not practicable or desirable to mitigate by archaeological excavation will be available and will be informed by the detailed design and informative trenching.			
Transport and access [EN0110014/APP/6.1.11]	**Construction Route Planning:** Early consideration of appropriate construction routes and access to the Scheme for construction traffic movements in the design evolution of the Scheme has been undertaken. This has included consideration of limiting movements through communities such as Hempnall, Brooke and Saxlingham Nethergate as far as practicable, together with considering the most suitable access routes and locations. A review was undertaken to assess the possible construction routes that are available to access each Sub-Site. Initially, priority was given to the most direct routes that connect the Sub-Sites to the SRN and strategic links within the MRN. The strategy has been reaffirmed through site visits. Each route was assessed to consider key constraints such as: • Height and weight restrictions; • The location of settlements along routes; • Use of existing access points, where possible; • Interactions with PRoW; • Identifying construction compound locations with access to the MRN where possible; and • Appropriate visibility splays, narrow carriageways and single lane tracks. Construction traffic routes will continue to be reviewed as the Scheme design is progressed and consultations with relevant authorities are undertaken. The proposed access routes designated for HGV traffic are defined in the **OCTMP**. A final **CTMP** (to be substantially in accordance with the **OCTMP**) will be secured via a Requirement within the **DCO.**	Embedded	Construction	DCO Requirements: CTMP (Requirement 15)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
Transport and access [EN0110014/APP/6.1.11]	**Internal Haul Routes:** Internal haul routes have been incorporated into the access strategy to minimise the use of public roads for material and equipment movements during construction. This approach reduces the number of vehicle trips on the LRN, limits potential congestion and highway safety risks, and optimises site logistics. Three internal haul routes will be utilised to connect Sub-Site groups 7A-F, 7G-L and 8A-B. Internal haul routes will continue to be reviewed as the Scheme design is progressed and consultations with relevant authorities are undertaken. A final **CTMP** (to be substantially in accordance with the **OCTMP**) will be secured via a Requirement within the **DCO**.	Embedded	Construction	DCO Requirements: CTMP (Requirement 15)
Transport and access [EN0110014/APP/6.1.11]	**Trenchless Crossing Techniques:** The use of trenchless crossing techniques, such as Horizontal Directional Drilling (HDD), has also been incorporated into the design as an embedded mitigation measure. These methods significantly reduce the need for open-cut excavation at sensitive locations including key links such as the A140. This helps minimise disruption to the MRN and LRN, reducing traffic management requirements, and limiting potential impacts on road safety and journey times. The use of trenchless crossing techniques is described in the **OCTMP.** The detailed approach to trenchless crossing techniques, including HDD, will be agreed with SNC as the Local Planning Authority, in consultation with NCC as Local Highway Authority, as part of the CTMP, which will be secured via a Requirement of the DCO. This will ensure that all trenchless crossing techniques related measures are implemented in accordance with the agreed framework.	Embedded	Construction	DCO Requirements: CTMP (Requirement 15)
Transport and access [EN0110014/APP/6.1.11]	**Outline Construction Traffic Management Plan:** The **OCTMP** provides a clear framework for managing construction vehicle movements to and from the Scheme. Its purpose is to minimise transport-related impacts during the Construction Phase by setting out the proposed access arrangements, designated vehicle routes, anticipated trip generation, and the management and mitigation measures to be implemented. The following mitigation measures have been identified and can be utilised to manage traffic movements, minimise times at which traffic is present across	Embedded	Construction	DCO Requirements: CTMP (Requirement 15)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	sites simultaneously, and have the potential to reduce traffic numbers. Measures detailed in the **OCTMP** include: • Defined construction vehicle routes; • Delivery scheduling; • Using construction compounds for materials consolidation and distribution; • Controls on construction working days and times; • Signage to assist enforcement of preferred routes; • Wheel cleaning and street cleaners to reduce debris, where appropriate; • Use of traffic marshals at accesses; • Community engagement and advance notice of key activities to local residents • Pre-commencement road condition surveys; and • Construction Worker Travel Plan. Each measure is targeted towards managing driver behaviours, the times at which vehicles arrive and leave each of the Sites, or to reduce traffic volumes and effects overall. Requirements for AILs to be delivered to the Scheme during construction (for elements such as transformers and cable drums) have been determined through the design process and in consultation with statutory consultees. The AILs are assessed in the ES and the **OCTMP**.			
Transport and access [EN0110014/APP/6.1.11]	**Framework Construction Worker Travel Plan:** A Framework Construction Worker Travel Plan is provided in Chapter 8 of the **OCTMP** and has set out the plan to reduce vehicle impacts associated with construction staff trips on the highway network. This plan encourages the use of sustainable modes of transport, where appropriate, and details measures such as staff shuttle services, provision of parking facilities, and	Embedded	Construction	DCO Requirements: CTMP (Requirement 15)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	any other proposed measures to reduce mode shift from private car use. A **CWTP** will be secured as part of the **CTMP** via a Requirement of the DCO.			
Transport and access [EN0110014/APP/6.1.11]	**Outline Operational Transport Management Plan:** The **OOTMP** has been prepared to support the DCO Application and sets out the overarching principles and controls that will guide the management of traffic associated with the Scheme during its operational life. It establishes the framework for how vehicle movements linked to maintenance, inspection and replacement activities will be planned, coordinated and monitored, ensuring that traffic-related effects are appropriately managed. The detailed **OTMP** will set out the specific measures to be implemented during the operational phase to manage and mitigate the effects of vehicle movements associated with panel and infrastructure replacement activities. It will define the daily cap on acceptable vehicular activity at the Scheme and include a programme for how and when replacement activities will be undertaken. The detailed **OTMP** will be prepared in accordance with the **OOTMP**. It will be secured via a requirement in the DCO and will be approved by NCC, in consultation with NH, prior to operation of the Scheme.	Embedded	Operation	DCO Requirements: OTMP (Requirement 16)
Transport and access [EN0110014/APP/6.1.11]	**Outline Operational Environmental Management Plan:** The **Outline OEMP** has been prepared in support of the DCO Application and places a focus on the maintenance aspects of the Scheme, including the ongoing maintenance and replacement of components during the lifespan of the Scheme. A detailed **OEMP** will set out the specific Operational Phase management procedures, monitoring requirements and responsibilities needed to ensure maintenance and replacement activities are carried out in a controlled and compliant manner. It will be prepared in accordance with the **Outline OEMP** and will be secured via a requirement in the DCO and approved by NCC, in consultation with NH, prior to operation of the Scheme.	Embedded	Operation	DCO Requirements: OEMP (Requirement 14)
Transport and access [EN0110014/APP/6.1.11]	**Outlined Public Rights of Way and Permissive Paths Management Plan:** The **Outline PRoWPPMP** has been prepared to support the DCO and sets out the overarching principles, management measures and commitments for protecting and managing Public Rights of Way during the operational, maintenance and replacement activities associated with the Scheme.	Embedded	Operation	DCO Requirements: PRoWPPMP (Requirement 17)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	The detailed **PRoWPPMP** will be prepared in accordance with the **OPROWMP** and will detail the measures to be implemented during the operational phase to mitigate the impacts to PRoW users during the operational, maintenance and replacement activities associated with the Scheme.			
Transport and access [EN0110014/APP/6.1.11]	The Decommissioning Phase will be programmed to spread the transport effects of the decommissioning both temporally and geographically. Planning for the Decommissioning Phase will consider the transport network available at that time and the form of transport, including the use of consolidation of wastes and exports, to minimise the quantum of vehicle movements. The **Outline DEMP** sets out the general principles to be followed in the decommissioning phase of the Scheme. The detailed **DEMP** will ensure that decommissioning is undertaken safely with regard to the environmental legislation at the time of decommissioning.	Embedded	Decommissioning	DCO Requirements: DEMP (Requirement 21)
Noise and Vibration [EN0110014/APP/6.1.12]	Working hours agreed with the relevant planning authority will be adhered to. Construction working arrangements relating to noise and vibration, such as access routing, working hours and construction vehicle types, are secured by the **Outline CEMP**, **OCTMP** and **Outline DEMP.**	Embedded	Construction Decommissioning	DCO Requirements: CEMP (Requirement 13) CTMP (Requirement 15) DEMP (Requirement 21)
Noise and Vibration [EN0110014/APP/6.1.12]	Contractors would be required to ensure that works are carried out in accordance with BPM. A full explanation of measures to control construction noise and vibration will be incorporated within the **CEMP** that will be substantially in accordance with the **Outline CEMP** and secured by DCO Requirement. Measures to mitigate noise and vibration will also be detailed in all construction method statements.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13) DEMP (Requirement 21)
Noise and Vibration [EN0110014/APP/6.1.12]	The proposals included in the **Outline CEMP** in regard to general noise mitigation would be in accordance with BPM as specified in BS 5228-1 and would comprise the following, where practicable:	Embedded	Construction Decommissioning	DCO Requirements: CEMP

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	• Using 'silenced' plant and equipment, as appropriate. • Switching off engines where vehicles are standing for a significant period of time. • Fitting acoustic enclosures to suppress noisy equipment, as appropriate. • Operating plant at low speeds and incorporating automatic low speed idling. • Selecting less noisy equipment where practicable, such as: electrically-driven rather than internal combustion powered plant hydraulic powered rather than pneumatic equipment; and wheeled rather than tracked vehicles. • Properly maintaining all plant (greased, blown silencers replaced, saws kept sharpened, teeth set and blades flat, worn bearings replaced etc). • Where necessary and appropriate, use temporary screening or enclosures for static noisy plant to reduce impacts. • Certifying plant to meet any relevant EC Directive standards.			(Requirement 13) DEMP (Requirement 21)
Noise and Vibration [EN0110014/APP/6.1.12]	The precise locations and requirements for trenchless drilling works will only be confirmed once a principal contractor is appointed. To manage the risk of significant noise effects, particularly during potential night-time activity, a staged approach to mitigation will be applied in accordance with the Outline CEMP. Mitigation measures to be implemented include: • The principal contractor will review alternative plant and equipment options and may adopt quieter machinery, where reasonably practicable. • To reduce noise propagation, temporary acoustic barriers will be installed around the trenchless drilling working areas where appropriate. Where the screening fully obstructs line of sight between the source and receptors, reductions of approximately 5 to 10 dB may be achievable.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
Noise and Vibration [EN0110014/APP/6.1.12]	If required, the Applicant will seek prior consent for noisy works under Section 61 of the CoPA. A Section 61 submission will describe the construction methods, predicted noise levels, proposed working hours, monitoring strategy, communication protocols with the relevant planning authority and the mitigation techniques to be employed. The purpose of the submission is to demonstrate that noise and vibration have been controlled as far as reasonably practicable.	Embedded	Construction Decommissioning	DCO Requirements: CEMP (Requirement 13) DEMP (Requirement 21)
Noise and Vibration [EN0110014/APP/6.1.12]	The following embedded mitigation measures have been incorporated into the **Outline OEMP**: • Solar inverters will only operate during daytime and early morning hours (between 04:00 hours and 07:00 hours) to reduce noise during night-time hours; • A 4m high acoustic fence will be included around the BESS Enclosures; • Reduced fan speed duty has been included in the assessment for BESS during night-time and early morning periods and will be controlled via an automated timer system; • Cooling fans associated with BESS Enclosures have been assumed as being orientated away from nearby receptors. The directivity of the Enclosures provides localised screening and maximises directionality such that noise propagates away from receptors; • Acoustic silencers, attenuators or acoustic enclosures have been included for the assessment of BESS Inverters to reduce sound levels at source; • Inverters can be designed to mitigate tonal elements during the detailed design stage.	Embedded	Operation	DCO Requirements: OEMP (Requirement 14)
Noise and Vibration [EN0110014/APP/6.1.12]	The assessment of operational noise from solar inverters indicates that, during early morning periods, predicted noise levels could result in the NOAEL and LOAEL being exceeded, which could result in significant effects. The assessment was based on worst-case and precautionary assumptions,	Additional	Operation Decommissioning	DCO Requirements: OEMP (Requirement 14)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	such as neglecting screening from different elements of the Scheme and operation at design duty at all periods of day and night. For the outcome of the assessment to not be significant, noise levels at the receptor should be designed to achieve less than the LOAEL. Also, to achieve the criteria of the local authority, additional mitigation will be applied to not exceed the NOAEL where practicably possible. Mitigation could include procuring low-noise inverter models, acoustic enclosures, relocation or reorientation of plant, or installation of noise barriers, subject to further detailed design.			
Noise and Vibration [EN0110014/APP/6.1.12]	Mitigation measures outlined are included within the **Outline OEMP**. In addition to this, the resultant noise levels at receptors will be required achieve the levels set out within the **Outline OEMP**.	Additional	Operation	DCO Requirements: OEMP (Requirement 14)
Air Quality [EN0110014/APP/6.1.13]	Air quality specific measures to mitigate against construction dust, NRMM and road traffic emission impacts have been incorporated into the **Outline CEMP**.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Air Quality [EN0110014/APP/6.1.13]	The **OCTMP** provides a framework for the management of construction vehicle movements to and from the Scheme. A number of measures within the **OCTMP** will minimise air quality impacts from construction road traffic including: • Use of construction compounds for materials consolidation and distribution; • Delivery scheduling; • Defined construction vehicle routes; and • Construction working days and times that are limited.	Embedded	Construction	DCO Requirements: CTMP (Requirement 15)
Air Quality [EN0110014/APP/6.1.13]	A **Framework Construction Worker Travel Plan** is provided in Section 8 of the **OCTMP** with the aim of promoting sustainable transport for workers during the Scheme's construction phase. The **Framework Construction Worker Travel Plan** includes measures such as staff minibus services, Travel Plan coordinator and provision of bicycle parking facilities. A final	Embedded	Construction	DCO Requirements: CTMP (Requirement 15)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	CTMP, including a final **CWTP**, will be secured via a requirement and approved by the LPA in consultation with relevant stakeholders.			
Air Quality [EN0110014/APP/6.1.13]	BESS units minimum of 200m from the nearest residential receptor location as secured in the DPPC.	Embedded	Operation	DCO Requirements: DPPC
Air Quality [EN0110014/APP/6.1.13]	Creation of new woodland belts and native tree planting and restoration of key hedgerows which can be beneficial in terms of trapping and absorbing air pollutants.	Embedded	Operation	DCO Requirements: LEMP (Requirement 7)
Air Quality [EN0110014/APP/6.1.13]	Measures included in the **Outline BSMP**. The **Outline BSMP** will be submitted with the DCO application, with the draft DCO including a requirement that a detailed **BSMP** be prepared substantially in accordance with the **Outline BSMP**. Mitigation measures include notification of potentially affected residents including advice on the health effects of smoke and ways to reduce exposure (e.g. close windows and stay indoors) in the event of a BESS fire.	Embedded	Operation	DCO Requirements: BSMP (Requirement 7)
Air Quality [EN0110014/APP/6.1.13]	An **Outline OEMP** and **OOTMP** will be submitted with this DCO Application, focusing on maintenance and replacement aspects. A final **OEMP** and **OTMP** will be secured via **DCO requirement** and approved by the LPA in consultation with relevant stakeholders. Air quality specific measures to mitigate against dust and NRMM emissions during panel replacement activities have been incorporated into the **Outline OEMP**. The **OOTMP** includes measures to reduce emissions from operational road traffic such as reducing worker car trips during replacement activities.	Embedded	Operation	DCO Requirements: OEMP (Requirement 14) OTMP (Requirement 16)
Air Quality [EN0110014/APP/6.1.13]	Air quality specific measures to mitigate against decommissioning dust, NRMM and road traffic emission impacts have been incorporated into the **Outline DEMP.**	Embedded	Decommissioning	DCO Requirements: DEMP (Requirement 21)
Air Quality [EN0110014/APP/6.1.13]	The **Draft DCO** includes a Requirement that a detailed DEMP would be prepared substantially in accordance with the **Outline DEMP** and approved by the relevant planning authorities at the time of decommissioning, in	Embedded	Decommissioning	DCO Requirements: DEMP

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	advance of the commencement of decommissioning works and would including timescales and transportation methods.			(Requirement 21)
Air Quality [EN0110014/APP/6.1.13]	**Consideration of particulate matter:** • Measures to reduce worker vehicle movements during the construction phase through the Framework Construction Worker Travel Plan provided in the **OCTMP**. • The Scheme does not include a centralised combustion-based energy centre. • Creation of new woodland belts and native tree planting and restoration of key hedgerows and green infrastructure provisions set out in the **LEMP.** • Construction traffic routing defined in the **OCTMP** to avoid, where possible, routing through the villages of Great Moulton, Long Stratton, Hempnall, Saxlingham Nethergate and Brooke.	Embedded	Construction Operation Decommissioning	DCO Requirements: CTMP (Requirement 15) LEMP (Requirement 7) CEMP (Requirement 13) OEMP (Requirement 14)
Socio- Economics [EN0110014/APP/6.1.14]	The Applicant will implement employment and skills measures designed to maximise local benefits from the Scheme. These will include the creation of apprenticeship and trainee opportunities, targeted engagement with local education providers and STEM organisations, and collaboration with council initiatives. The Applicant will seek to source services from local contractors and sub-contractors where feasible, advertise jobs through local channels, and deliver skills workshops for residents. These measures will be coordinated with South Norfolk District Council and other local partners as set out in the **OESSCS**.	Embedded	Construction	DCO Requirements: ESSCS (Requirement 19)
Socio- Economics [EN0110014/APP/6.1.14]	The Applicant will embed initiatives to sustain long-term skills development and other benefits to the community. This will include exploring opportunities to work with schools, colleges, and local authorities to deliver targeted outreach activities focused on renewable energy and STEM careers, which may include offering site visits for schools and colleges, and structured work placement opportunities.	Embedded	Operational	DCO Requirements: ESSCS (Requirement 19)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
Socio- Economics [EN0110014/APP/6.1.14]	The decommissioning of the Scheme is likely to generate impacts upon socio-economic receptors that are of a similar but no greater magnitude than those anticipated to be generated during construction. As such, embedded mitigation measures set out for construction are also applicable to decommissioning.	Embedded	Decommissioning	DCO Requirements: ESSCS (Requirement 19)
Soils and Agricultural Land [EN0110014/APP/6.1.15]	The areas identified for solar PV arrays has been reduced within the area surveyed for ALC. The design has in part been driven by the land quality, but that is only one of many considerations, especially as the installation of solar panels does not adversely affect land quality. The Assessment of Likely Effects reviews, for each of the key components of the Scheme (and, in particular, the location of temporary and fixed equipment involving disturbance to soils), the design considerations including how the use of BMV land considered and minimised where possible, is described and explained. Micro-siting to minimise the use of BMV particularly relates to fixed equipment and woodland planting.	Embedded	Construction Operation Decommissioning	DCO Requirements: Detailed Design
Soils and Agricultural Land [EN0110014/APP/6.1.15]	The **Outline SRMP** has been developed to help guide good practice and minimise potential effects on soils and agricultural land quality.	Embedded	Construction	DCO Requirements: SRMP (Requirement 18)
Soils and Agricultural Land [EN0110014/APP/6.1.15]	Construction of the Scheme will involve vehicle trafficking over agricultural land. There is the potential for the soil to be adversely affected by vehicular movement if not managed properly. However, the **Outline SRMP** includes measures to mitigate adverse effects to soils (e.g. compaction monitoring).	Embedded	Construction	DCO Requirements: SRMP (Requirement 18)
Soils and Agricultural Land [EN0110014/APP/6.1.15]	The following embedded mitigation measures have been incorporated into the Scheme's design for the construction phase and are set out in the **Outline SRMP**: • Minimising or avoiding vehicle movement over soils (trafficking) when soils are in a plastic, wet state; • Only moving soils, which is only necessary for limited areas such as to build tracks, the BESS and substation areas, when soils are dry;	Embedded	Construction	DCO Requirements: CEMP (Requirement 13) SRMP (Requirement 18)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	• For the mostly small volumes of soils that need to be stored for subsequent restoration, placing them into storage bunds when they are dry, and managing and maintaining the bunds; • Minimising trench widths, replacing soils in the reverse order and preventing any adverse long-term effects on land quality; and • Following the advice set out in the **Outline SRMP**.			
Soils and Agricultural Land [EN0110014/APP/6.1.15]	Embedded construction phase mitigation for the cable route corridor is provided in the **Outline SRMP**.	Embedded	Construction	DCO Requirements: SRMP (Requirement 18)
Soils and Agricultural Land [EN0110014/APP/6.1.15]	Minimising travel over the land in vehicles when ground conditions are wet; and implementation of the **Outline SRMP.**	Embedded	Construction Operations	DCO Requirements: SRMP (Requirement 18)
Ground Conditions [EN0110014/APP/6.1.16]	Intrusive ground investigations and assessment will be undertaken prior to construction. The results of the ground investigation will be used to inform the detailed design of the Scheme.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Ground Conditions [EN0110014/APP/6.1.16]	The inclusion of the UXO mitigation measures recommended by the UXO Desk Study and Constraints Assessment. These comprise a detailed UXO desk study (to be procured post-consent prior to construction) to confirm the UXO hazard level. Where a potential UXO hazard is identified by the detailed UXO desk study, the detailed study will include further recommended mitigation measures (e.g., non-intrusive surveys to further delineate potential UXO hazards, and investigation and removal of targets identified by the non-intrusive survey) for the intended types of development and anticipated working practices and could also include non-intrusive surveys.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Ground Conditions [EN0110014/APP/6.1.16]	A **Foundation Works Risk Assessment (FWRA)** will be undertaken post-consent for the BESS, National Grid Substation and any other structures requiring deep foundations and/or piling such as the 132kV and 400kV	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	Substations. The FWRA(s) will be undertaken post-consent and will be informed by the ground investigation.			
Ground Conditions [EN0110014/APP/6.1.16]	Where trenchless crossings interact with Principal or Secondary A aquifers or pass beneath surface watercourses or sensitive ecological receptors., a **Hydrogeological Risk Assessment** will be undertaken, if required, post-consent to assess the specific risks to groundwater and groundwater receptors (including the risk of breakout of drilling fluids, where appropriate) and identify any additional mitigation or remediation that may be required. The nature and scope of any mitigation or remediation will be agreed with the EA and other stakeholders, as appropriate.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Ground Conditions [EN0110014/APP/6.1.16]	The Construction (Design and Management) Regulations 2015 (CDM) regulate the health, safety and welfare of construction projects and will apply to the Scheme. A Principal Designer and a Principal Contractor (PC) will be appointed to plan, manage, monitor, and coordinate health and safety during the pre-construction and Construction Phases, respectively. The PC will have responsibility for ensuring legislative compliance and obtaining all permits/licenses as required. The CDM Regulations require a pre-construction information pack (PCIP) to be provided by the Applicant (the 'Client' under CDM) or by the Principal Designer if the Client delegates this duty. The PCIP contains all information that is held or is readily available and will be used by the PC to prepare construction and decommissioning phase risk assessments and method statements. The risk assessments will be informed by the findings of ground investigations undertaken within the Order Limits.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Ground Conditions [EN0110014/APP/6.1.16]	Occupational health and safety measures e.g. Personal Protective Equipment (PPE), and statutory health and safety compliance (e.g. compliance with the Confined Spaces Regulations, 1997, in relation to ground gas from working in confined spaces or trenches) will minimise the risks associated with potential contamination.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Ground Conditions [EN0110014/APP/6.1.16]	Appropriate training of construction and maintenance workers in the handling and use of potentially hazardous substances and the associated risks.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
Ground Conditions [EN0110014/APP/6.1.16]	The control of earthworks or materials movement (including any re-use of materials) will only be undertaken in accordance with appropriate Environmental Permits, exemptions, or the CL:AIRE The definition of Waste: The development industry Code of Practice.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Ground Conditions [EN0110014/APP/6.1.16]	Any temporary dewatering activities during construction will be undertaken in accordance with EA guidance and will include appropriate assessment undertaken as required by the guidance. If required, an Abstraction Licence and Environmental Permit will be obtained for the discharge. Such works will be limited to the depth and time required to facilitate construction activities.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Ground Conditions [EN0110014/APP/6.1.16]	An awareness briefing regarding ground conditions and appropriate methods of working to limit disturbance of potentially contaminated soil or water, where practicable.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Ground Conditions [EN0110014/APP/6.1.16]	Measures to minimise exposure to contaminated soils e.g. by controlling dust generation and the adoption of good hygiene standards will prevent prolonged skin contact, inhalation, and ingestion of soils during construction.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Ground Conditions [EN0110014/APP/6.1.16]	Measures to minimise and control runoff and/or leaching to controlled waters.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Ground Conditions [EN0110014/APP/6.1.16]	Measures to protect soils, such as the use of tracked or low ground pressure machines (i.e. with large tyres) to reduce pressures on the soil. Vehicle tracking routes should be devised which minimise repeat journeys over the land within the Order Limits to reduce rutting and damage to the vegetation and soil structure.	Embedded	Construction	DCO Requirement CTMP (Requirement 15) SRMP (Requirement 18)
Ground Conditions [EN0110014/APP/6.1.16]	Vegetation disturbance should be minimised as much as possible; measures of which are provided in the **Outline LEMP**.	Embedded	Construction	DCO Requirements: LEMP (Requirement 7)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
Ground Conditions [EN0110014/APP/6.1.16]	Prevention measures including maintenance of construction vehicles, bunded storage, designated wheel washing areas, settling basins, screening stockpiles of materials, and dampening exposed soils as appropriate.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Ground Conditions [EN0110014/APP/6.1.16]	A protocol for dealing within any unexpected contamination will be developed by the Contractor and will include: • Details of a watching brief and tool box talks to be implemented throughout the Construction Phase; • Details regarding how any affected area will be delineated, protected, investigated and assessed; • The qualifications and competencies of the person appointed to oversee the works; • The preparation of a method statement for how the contamination will be dealt with or remediated (as appropriate); • An escalation policy describing when and how any notifications and approvals will be agreed with the LPA; and • Details of verification procedures for any mitigation or remediation works.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Ground Conditions [EN0110014/APP/6.1.16]	Details of the methodology for reuse of incidentally excavated mineral within the Scheme. This will include: • How materials would be assessed for the suitability for reuse; and • Separation and stockpiling of excavated materials into different material types based on potential for re-use.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Ground Conditions [EN0110014/APP/6.1.16]	The area of peat soils (as mapped by the BGS) is located adjacent to the Hempnall Beck. The peat is considered likely to be in hydraulic continuity with the peat and the underlying Alluvium and Leet Hill Sand and Gravel Member. A trenchless crossing would be of limited diameter and would not form a cut-off to groundwater flow or remove water supply to the overlying	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	peat. Drying out of the peat is further considered to be highly unlikely, as the moisture content of the peat will be maintained by the Hempnall Beck.			
Electromagnetic Fields [EN0110014/APP/6.1.17]	For overhead lines, a setback distance of at least 15m from the existing 400kV overhead cables is to be maintained between the overhead cables, and receptors pertaining to human health; based on the distance at which the electrical field strength for a 400kV overhead cable is below the threshold value of 5kV m^{-1}.	Embedded	Construction Operation Decommissioning	DCO Requirements: CEMP (Requirement 13) OEMP (Requirement 14)
Electromagnetic Fields [EN0110014/APP/6.1.17]	For 132kV and 400kV underground cables, electric fields will be contained within the cable's protective insulation and sheath, and therefore there are no external electric fields. Therefore, a setback distance from the underground cables is not required.	Embedded	Construction Operation Decommissioning	DCO Requirements: CEMP (Requirement 13) OEMP (Requirement 14)
Electromagnetic Fields [EN0110014/APP/6.1.17]	All proposed cables will be 'UKCA' and/or 'CE' marked. Electrical fields from the underground power cables will be shielded by the surrounding cable duct and the conducting soil.	Embedded	Construction Operation Decommissioning	DCO Requirements: CEMP (Requirement 13) OEMP (Requirement 14)
Other Environmental Matters – Major Accidents and Disasters [EN0110014/APP/6.1.18]	An **Outline BSMP** has been produced which outlines the key fire safety provisions for the BESS proposed to be installed as part of the Scheme. The design of the BESS will be undertaken in accordance with relevant guidance and legislation, with appropriate temperature regulatory equipment installed and monitoring procedures in place. A BESS system and site-specific Emergency Response Plan (ERP) will be developed at the detailed design stage, based on national and international best practice measures. As	Embedded	Construction Operation Decommissioning	DCO Requirements: BSMP (Requirement 6) CEMP (Requirement 13) OEMP (Requirement 14) DEMP (Requirement 21)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	There will be communication with the local fire and rescue services (Norfolk Fire and Rescue Service NFRS) with engagement early in the project and continuing across design and construction phases. This will ensure robust emergency response planning, risk management planning and ensure all safety materials and equipment is available in an emergency for first responders As detailed in the **DPPC** the BESS Containers/Compounds will be a minimum of 200m from the closest residential property. As set out in the **Outline CEMP, Outline OEMP** and **Outline DEMP,** all works will be undertaken in accordance with relevant Health and Safety legislation and guidance. Details of fire, police, emergency services and hospitals will be publicised and included in the site induction.			DPPC
Other Environmental Matters – Major Accidents and Disasters [EN0110014/APP/6.1.18]	The Applicant has engaged with HSE to identify relevant HSE consultation zones for the Scheme. The applicant has also consulted with National Gas Transmission (NGT) to understand easement requirements, and NGT advice has consequently been considered into the design of the Scheme. The Applicant are engaging with NGT regarding protective provisions. The Applicant has provided / applied an easement for identified utilities, which are at risk of causing a major accident or disaster. The easement has been provided to reduce interaction between the Scheme and identified utilities, mitigating the risk of Major Accident and Disasters. A LSBUD (Linesearch Before U Dig) search will be completed to determine accurate locations and depth readings to support the design.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Other Environmental Matters – Major Accidents and Disasters [EN0110014/APP/6.1.18]	The **draft DCO** includes protective provisions for the protection of electricity, gas, water and sewerage undertakers, operators of electronic communications code networks, and drainage authorities.	Embedded	Construction	DCO Requirements: Draft DCO
Other Environmental Matters – Major Accidents and Disasters [EN0110014/APP/6.1.18]	As secured by the **Outline CEMP**, the detailed CEMPs will include the UXO mitigation measures recommended by **ES: Appendix 16.1, Annex 6 UXO Desk Study and Constraints Assessment.** These comprise a detailed UXO desk study to confirm the UXO hazard level. Where a potential UXO hazard is identified by the detailed UXO desk study, the detailed study will include further recommended mitigation measures for the identified types of	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	development and anticipated working practices and could also include non-intrusive surveys to further delineate potential UXO hazards. In addition to the above, construction of the Scheme also falls under the Construction (Design and Management) Regulations 2015 (CDM Regulations). These regulations place specific duties on clients, designers and contractors so that health and safety is considered throughout the life of a project, from its inception to its subsequent final demolition and removal. Under the CDM Regulations, designers are required to avoid foreseeable risks (including UXOs/UXBs) so far as reasonably practicable, by eliminating hazards from the construction, maintenance, and proposed use and demolition of a structure, reducing risks from any remaining hazard, and giving collective safety measures priority over individual measures.			
Other Environmental Matters – Major Accidents and Disasters [EN0110014/APP/6.1.18]	A preliminary ground stability risk assessment is presented in **ES: Appendix 16.1 Phase 1 Ground Conditions Assessment.** Intrusive ground investigations and assessment will be undertaken prior to construction. The results of the ground investigation will be used to inform the detailed design of the Scheme. The Scheme's layout will be optimised to locate structures away from areas of potential land instability hazards, as far as is practicable (detailed design informed by ground investigation).	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Other Environmental Matters – Major Accidents and Disasters [EN0110014/APP/6.1.18]	A **OCTMP** would be implemented to carefully manage access and routing to ensure any potential risks are managed appropriately. A final **CTMP** (to be substantially in accordance with the **OCTMP**) will be secured via a Requirement within the DCO.	Embedded	Construction	DCO Requirements: CTMP (Requirement 15)
Other Environmental Matters – Major Accidents and Disasters [EN0110014/APP/6.1.18]	As well as a design that considers climate change risks, the **Outline CEMP, Outline OEMP**, and **Outline DEMP** include measures to manage the impact of GHG emissions from traffic and equipment and stronger winds, heatwaves, heavy precipitation and increased risk of fires/wildfires. Detailed Management Plans are secured as a requirement of the DCO application.	Embedded	Construction Operation Decommissioning	DCO Requirements: CEMP (Requirement 13) OEMP (Requirement 14) DEMP (Requirement 21)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
Other Environmental Matters – Major Accidents and Disasters [EN0110014/APP/6.1.18]	Mitigation and enhancement measures may include new planting, which can be susceptible to disease and pests. Changing conditions due to climate change may exacerbate this. To avoid risk to any species from the introduction of non-native species or pathogens during management operations, biosecurity measures will be implemented when carrying out any works. This will include disinfecting all equipment, personal protective equipment (PPE), and machinery with a broad-spectrum disinfectant. This treatment will be repeated whenever machinery, equipment, or PPE is transferred to another site. These measures are secured within the **Outline LEMP.**	Embedded	Construction Operation Decommissioning	DCO Requirements: LEMP (Requirement 7)
Other Environmental Matters – Major Accidents and Disasters [EN0110014/APP/6.1.18]	The **Outline CEMP** and **Outline DEMP** contain information about the security measures involved during the construction of the Scheme. Site security during construction and decommissioning will be managed by the Contractor(s). The site security fencing will remain in place throughout the duration of the construction and decommissioning period. Any storage of materials will be kept secure to prevent theft or vandalism. The **Outline OEMP** contains information about the fixed security measures involved during the operation and maintenance of the scheme. This includes security fencing and the provision of CCTV.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13) OEMP (Requirement 14) DEMP (Requirement 21)
Other Environmental Matters – Telecommunications, Utilities and Television [EN0110014/APP/6.1.18]	In advance of construction, the Applicant would liaise with all utility providers with assets in the area in regard to construction timelines, activities, proximity to assets and construction management measures.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Other Environmental Matters – Telecommunications, Utilities and Television [EN0110014/APP/6.1.18]	Locating the Scheme outside of utilities protected zones as part of detailed design of the Scheme, where practicable. This includes partaking in discussions with relevant utility providers as part of the detailed design evolution of the Scheme to ensure legal, safety, and practical design considerations to ensure these have been actively integrated into the Scheme. In addition, protective provisions for the benefit of statutory undertakers and electronic communications network code operators have been included in the **draft DCO.**	Embedded	Construction	DCO Requirements: CEMP (Requirement 13) Draft DCO

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
Other Environmental Matters – Telecommunications, Utilities and Television [EN0110014/APP/6.1.18]	Above and below-ground infrastructure as part of the Scheme located with adequate offsets/buffers from existing telecommunications and utility infrastructure, where practicable.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Other Environmental Matters – Telecommunications, Utilities and Television [EN0110014/APP/6.1.18]	Use of geophysical data alongside mapping provided by telecommunication and utilities providers to ensure underground and overground utilities are adequately offset.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Other Environmental Matters – Telecommunications, Utilities and Television [EN0110014/APP/6.1.18]	Use of ground penetrating radar before excavation to identify any unknown utilities.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Other Environmental Matters – Telecommunications, Utilities and Television [EN0110014/APP/6.1.18]	Infrastructure that crosses the Scheme is mapped and will be avoided through the detailed design	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Other Environmental Matters – Telecommunications, Utilities and Television [EN0110014/APP/6.1.18]	Consultation and agreement of construction/demobilisation methods will be undertaken prior to the works commencing (this would be covered by the protective provisions included in the DCO).	Embedded	Construction Decommissioning	DCO Requirements: CEMP (Requirement 13) DEMP (Requirement 21)
Other Environmental Matters – Telecommunications, Utilities and Television [EN0110014/APP/6.1.18]	During the construction phase, there will be safe working beneath any overhead lines in line with National Grid's technical guidance note 287 including, for example, ensuring adequate clearances are in place when plant and equipment are being moved beneath overhead lines, and limiting any planting beneath overhead lines to low growing species.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
Other Environmental Matters – Glint and Glare [EN0110014/APP/6.1.18]	Screening in the form of proposed vegetation such as mature tree and shrub planting for separate 300m, 400m and 500m sections of the B1527 and 46 dwellings will be used to obstruct views of reflecting panels. Landscape mitigation is presented in the **Outline LEMP**.	Embedded	Operation	DCO Requirements: LEMP (Requirement 7)
Other Environmental Matters – Glint and Glare [EN0110014/APP/6.1.18]	Panels can be further mitigated by changing the backtracking angle to tilt solar reflections away from receptors. Further mitigation can be implemented by changing the configuration of panels, such as the azimuth, tilt (for fixed panels) and backtracking angle (for single-axis tracking panels).	Additional	Operation	DCO Requirements: OEMP (Requirement 14)
Other Environmental Matters – Waste and Materials [EN0110014/APP/6.1.18]	In accordance with the waste hierarchy the Scheme will prioritise waste prevention, followed by preparation for reuse, recycling, and recovery, with landfill disposal as the last resort. By virtue of the relationship between waste and material use, the application of the waste hierarchy will help to minimise material demand on resource requirements. Waste prevention is largely undertaken through minimising material use, while reuse and recycling aids in reducing the need to use new material resources.	Embedded	Construction Operation Decommissioning	DCO Requirements: CEMP (Requirement 13) OEMP (Requirement 14) DEMP (Requirement 21)
Other Environmental Matters – Waste and Materials [EN0110014/APP/6.1.18]	All waste management will comply with relevant industry regulations and legislation. All waste transported off-site will be delivered to appropriately licensed receivers. Operators receiving waste materials from the Scheme will follow their own permitting procedures.	Embedded	Construction Operation Decommissioning	DCO Requirements: CEMP (Requirement 13) OEMP (Requirement 14) DEMP (Requirement 21)
Other Environmental Matters – Waste and Materials [EN0110014/APP/6.1.18]	The Scheme design incorporates embedded mitigation through the predominant use of pre-fabrication. This approach reduces on-site construction waste and material use, with waste produced during unit manufacturing being managed by the companies producing the PV Panels,	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	Mounting Structures, Battery Energy Storage System (BESS), temporary construction site office units, cabling, and (where practicable) substation infrastructure. Consequently, most of the on-site construction waste is packaging. Although some waste is generated during the pre-fabrication process, it is significantly less compared to on-site fabrication, as accepted by the ISEP Guidance.			
Other Environmental Matters – Waste and Materials [EN0110014/APP/6.1.18]	In accordance with the waste hierarchy and the objective of minimising waste generation, uncontaminated excavated soil and stone is, where feasible, to be reused on-site. This approach aligns with UK government guidance, which recognises that such materials, when reused on-site, are not considered waste and should not be factored into landfill or recovery calculations. The Scheme commits to excavated ground material being stored on site or reused if suitable for bedding of cables, ground compaction, and cut/fill operations during site grading. Soils from the Scheme will be removed for treatment or disposal if they are found to be contaminated and cannot be treated on site. Any toxic and hazardous materials will also need to be handled by an authorised carrier and a suitably qualified contractor, ensuring no cross-contamination with 'clean' materials. These control measures are set out in the **Outline SRMP.**	Embedded	Construction	DCO Requirements: CEMP (Requirement 13) SRMP (Requirement 18)
Other Environmental Matters – Waste and Materials [EN0110014/APP/6.1.18]	The Scheme will minimise and eliminate waste streams or over-use of materials where practicable, pursuing opportunities for reusing material resources. When reuse and prevention are not feasible, waste will be managed according to the waste hierarchy and detailed in the CEMP. The **Outline CEMP** includes industry-standard practices and control measures to address environmental impacts during construction, such as on-site material and waste management. These measures identified in the **Outline CEMP** include the separation of main waste streams on-site before transport to approved, licensed third-party waste facilities for recycling or disposal.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Other Environmental Matters – Waste and Materials [EN0110014/APP/6.1.18]	As set out in the **Outline CEMP,** a **Site Waste Management Plan (SWMP)** is to be prepared before construction begins. The **SWMP** will detail the efficient management, storage, and legal disposal of materials during the Construction Phase. It will also outline the aims, objectives, and ongoing management responsibilities, including practices for management and storage, and set targets for waste reduction, landfill diversion, and reuse. Once appointed, details of the waste carriers and contractors for the	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	Scheme, along with copies of their appropriate licenses, will be included in the **SWMP**.			
Other Environmental Matters – Waste and Materials [EN0110014/APP/6.1.18]	Furthermore, the **Outline CEMP** sets out the requirement for the appointed contractor, to outline the strategic approach to planning, coordinating, and managing the labour, materials and equipment.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Other Environmental Matters – Waste and Materials [EN0110014/APP/6.1.18]	The location and consolidation of the Temporary Construction Compounds and welfare facilities within the Order Limits will help minimise the amount of excavation and construction waste required for hardstanding for access, material storage, and welfare unit placement. Consolidating welfare units within the Temporary Construction Compounds helps reduce construction waste, wastewater, and electricity use.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Other Environmental Matters – Waste and Materials [EN0110014/APP/6.1.18]	During the Operational Phase, the Scheme will adhere to the waste hierarchy by prioritising waste prevention, followed by the reuse, recycling, and recovery of equipment during the replacement of components. Landfill disposal will be considered only as a last resort. A Site Waste Management Plan will be developed and agreed with the authority prior to commencement of the operation (including maintenance) as part of the detailed **OEMP**, to be prepared in accordance with the **Outline OEMP**, submitted in support of the DCO Application.	Embedded	Operation	DCO Requirements: OEMP (Requirement 14)
Other Environmental Matters – Waste and Materials [EN0110014/APP/6.1.18]	The Scheme is expected to generate WEEE during both the operation and maintenance phase, and during the decommissioning phase. This includes PV Panels and smaller quantities from Ancillary Infrastructure. These items will be recovered and recycled by an authorised reprocessor in compliance with the WEEE Regulations 2013. To ensure this is done according to '*Best Available Treatment Recovery and Recycling Techniques*', a list of up-to-date authorised reprocessors should be established prior to the Operational Phase of the Scheme and kept up-to-date throughout the operational and maintenance phase and decommissioning phase. This will be secured through measures set out within the **Outline OEMP**.	Embedded	Operation Decommissioning	DCO Requirements: OEMP (Requirement 14) DEMP (Requirement 21)
Other Environmental Matters – Waste and	Batteries must be separated from WEEE streams so they can be recovered, recycled, or disposed of in accordance with the Waste Batteries and Accumulators Regulations 2009. This is most likely to be undertaken by the	Embedded	Operation Decommissioning	DCO Requirements: OEMP (Requirement 14)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
Materials [EN0110014/APP/6.1.18]	battery manufacturer or supplier. This requirement will be secured ahead of the Scheme's operation and maintenance phase, based on the detail provided in the **Outline OEMP** to ensure it is undertaken as legally required throughout the Operational and Decommissioning Phases of the Scheme.			DEMP (Requirement 21)
Other Environmental Matters – Waste and Materials [EN0110014/APP/6.1.18]	During decommissioning, all infrastructure, including Solar PV Panels, Mounting Structures, above ground cabling, Conversion Units / 33 kV sub-distribution Switch Rooms, 132 kV Substations, 400 kV substations, BESS will be removed, recycled, recovered, or disposed of in accordance with good practice and market conditions at that time. National Grid Substation and Grid Connection Infrastructure are not proposed to be decommissioned. The Scheme is anticipated to generate WEEE; however, the recycling and recovery of these items is detailed in the **Outline DEMP**.	Embedded	Decommissioning	DCO Requirements: DEMP (Requirement 21)
Other Environmental Matters – Waste and Materials [EN0110014/APP/6.1.18]	A **SWMP** for construction and decommissioning will be developed by the appointed contractor and will set out how to manage the disposal of waste in accordance with relevant legislative and policy requirements at the time of decommissioning.	Embedded	Construction Decommissioning	DCO Requirements: SWMP (Requirement 20)
Other Environmental Matters – Waste and Materials [EN0110014/APP/6.1.18]	The **Outline OEMP** and the **Outline DEMP** state that the Applicant is committed to maximising the recycling and reuse of Scheme components at the end of their life. There are already organisations around the UK and Europe specialising in solar recycling, such as PV Cycle and the European Recycling Platform. These organisations work with solar developers to minimise electrical waste and recycle old panels in line with the WEEE Regulations. The Applicant will adhere to the industry good practice outlined in Solar Power Europe's Lifecycle Quality Best Practice Guidance.	Embedded	Operations Decommissioning	DCO Requirements: OEMP (Requirement 14) DEMP (Requirement 21)
Other Environmental Matters – Human Health [EN0110014/APP/6.1.18]	**Climate Change:** Embedded mitigation measures are in place to minimise greenhouse gas emissions and manage climate-related risks, including extreme weather and flooding, during construction. Key measures include:	Embedded	Construction	DCO Requirements: CEMP (Requirement 13) BSMP (Requirement 19)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	• Adoption of the Considerate Constructors Scheme to minimise emissions and community disturbance. • Efficient plant use, regular maintenance and promotion of low-carbon travel for construction workers. • Flood risk mitigation measures as detailed in **ES: Chapter 9 Water Environment** and **ES: Appendix 9.1 Flood Risk Assessment & Outline Surface Water Drainage Strategy**. • Worker protection through adaptive working practices and monitoring of weather and flood warnings. • Controls secured through the **Outline CEMP** and **Outline BSMP**.			DPPC
Other Environmental Matters – Human Health [EN0110014/APP/6.1.18]	**Water Environment:** Construction activities are managed to prevent adverse effects on water quality and availability that could indirectly affect human health. Key measures include: • Management of runoff and pollution through bunding, silt traps, filter drains and spill response measures. • Use of trenchless techniques beneath watercourses where required. • Control of construction water demand through water neutrality measures and off-site wastewater disposal. • Controls secured through the **Outline CEMP**.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13)
Other Environmental Matters – Human Health [EN0110014/APP/6.1.18]	**Landscape and Visual:** Construction activities will be controlled through the **Outline CEMP** submitted with the DCO application with a detailed **CEMP** to be approved prior to works commencing and secured as a requirement of the draft **DCO.** Key measures include:	Embedded	Construction Decommissioning	DCO Requirements: CEMP (Requirement 13) LEMP (Requirement 7) DEMP

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	• Protection of existing trees and vegetation through surveys, exclusion zones and arboricultural methods. • Temporary visual screening for sensitive receptors, good site housekeeping and dust suppression near residential receptors and PRoWs. • Control of construction lighting to minimise light spill and restoration of disturbed ground and hedgerows in accordance with **ES: Appendix 7.11 Lighting Strategy** and the **Outline LEMP**.			(Requirement 21)
Other Environmental Matters – Human Health [EN0110014/APP/6.1.18]	**Transport and Access:** Traffic-related effects that could influence safety, access to services and wellbeing are managed through embedded design and controls. Key measures include: • Defined construction access routes, use of internal haul roads and minimisation of vehicle movements through local communities. • Delivery scheduling, abnormal load management and workforce travel controls under the **OCTMP.** • Wider environmental controls delivered through the **Outline CEMP.**	Embedded	Construction	DCO Requirements: CEMP (Requirement 13) CTMP (Requirement 15)
Other Environmental Matters – Human Health [EN0110014/APP/6.1.18]	**Air Quality:** Measures are implemented to reduce dust and emissions that could affect respiratory health and outdoor activity. Key measures include: • Dust and emission controls for construction activities and non-road mobile machinery, secured via the **Outline CEMP**. • Promotion of sustainable worker travel through the Framework Construction Worker Travel Plan within the **OCTMP**.	Embedded	Construction	DCO Requirements: CEMP (Requirement 13) CTMP (Requirement 15)
Other Environmental Matters – Human Health [EN0110014/APP/6.1.18]	**Socio-Economics:**	Embedded	Construction	DCO Requirements: ESSCS (Requirement 19)

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	Construction-phase mitigation also seeks to enhance positive health determinants through employment and skills development. Key measures include: • Local employment opportunities, apprenticeships, training and supply chain engagement. Secured through the **Outline Employment, Skills and Supply Chain Strategy**.			
Other Environmental Matters – Human Health [EN0110014/APP/6.1.18]	**Soils and Agricultural Land:** Controls are applied to maintain soil quality and agricultural productivity, supporting food systems and rural livelihoods. Key measures include: • Timing, trafficking and reinstatement measures to reduce soil compaction and disturbance. Secured through the **Outline SRMP**.	Embedded	Construction	DCO Requirements: SRMP (Requirement 18)
Other Environmental Matters – Human Health [EN0110014/APP/6.1.18]	**Operation and Maintenance:** During operation and maintenance, mitigation focuses on maintaining stable environmental conditions and minimising ongoing disturbance to nearby communities. Key measures include: • Continued implementation of climate resilience and environmental controls through the **Outline OEMP**. • Long-term air quality and wellbeing benefits delivered through woodland, hedgerow and habitat management secured by the **LEMP**. • Management of limited operational traffic through the **OOTMP**. • The **Outline PRoWPPMP** provides a framework for the management of routes throughout the Scheme. The key objective is to seek to ensure that Public Rights of Way (PRoW), promoted walking routes and permissive paths remain open and safe to use throughout the Scheme's construction, operational and decommissioning phases, where practicable. • Ongoing community engagement, education and skills initiatives delivered through the **ESSCS.**	Embedded	Operation	DCO Requirements: OEMP (Requirement 14) LEMP (Requirement 7) OTMP (Requirement 16) PRoWPPMP (Requirement 17) ESSCS (Requirement 19) Design Approach Document

ES Document	Mitigation Measures (including any Monitoring required)	Embedded or Additional Mitigation	Phase (Construction, Operation and Decommissioning)	Securing Mechanism / Outline Management Plan
	• Potential EMF effects are avoided through design compliance rather than operational mitigation measures. The Scheme will be designed so that the maximum levels of electromagnetic radiation during construction, operation and maintenance and decommissioning phases will be below ICNIRP reference levels, see **ES Chapter 17 Electromagnetic Fields.** o For overhead lines, a setback distance of at least 15m from the existing 400kV overhead cables is to be maintained to protect human health receptors. o For 132kV and 400kV underground cables, electric fields are fully contained within the cable insulation and sheath, so no setback distance is required. o All proposed cables will be 'UKCA' and/or 'CE' marked with electrical fields further shielded by the cable duct and surrounding soil.			
Other Environmental Matters – Human Health [EN0110014/APP/6.1.18]	Decommissioning mitigation will follow construction phase principles, adapted to reflect future conditions and best practice at the time. Key measures include: • Management of transport movements, dust, noise, soil disturbance and water quality through the **Outline DEMP.** • Application of resilience based and lower carbon approaches, set out in the **Outline DEMP.** • Retention of flexibility to reflect future technological, regulatory and environmental change while maintaining protection of human health.	Embedded	Decommissioning	DCO Requirements: DEMP (Requirement 21)