Heckington Fen Solar Park

ENO10123

Outline Decommissioning and Restoration Plan

Applicant: Ecotricity (Heck Fen Solar) Limited

Document Reference: 7.9
Pursuant to: APFP Regulation 5(2)(q)

February 2023

Planning Act 2008

OUTLINE DECOMMISSIONING AND RESTORATION PLAN

Document Properties		
Regulation Reference	Regulation 5(2)(q)	
Planning Inspectorate Scheme Reference	EN010123	
Application Document Reference	7.9	
Title	Outline Decommissioning and Restoration Plan	
Prepared By	Heckington Fen Energy Park Project Team (Pegasus)	
Version History		
Version	**Date**	**Version Status**
Rev 1	February 2023	Application Version

Table of Contents:

List of Tables:

1 OUTLINE DECOMMISSIONING AND RESTORATION PLAN

1.1 INTRODUCTION

1.1.1 This **Outline Decommissioning and Restoration Plan (oDRP)** (document reference 7.9) has been prepared on behalf of Ecotricity (Heck Fen Solar) Ltd (hereafter referred to as the "Applicant") as part of an application for a Development Consent Order (DCO) for the construction, operation and maintenance, and decommissioning of a ground mounted solar photovoltaic (PV) electricity generation and energy storage facility (hereafter referred to as "the Energy Park"), cable route to, and above and below ground works at, the National Grid Bicker Fen Substation (hereafter referred to as "the Proposed Development" (inclusive of the Energy Park)) on land at Six Hundreds Farm, Six Hundreds Drove, East Heckington, Sleaford, Lincolnshire. Heckington Fen Solar Park, as the project title for the draft DCO is hereafter referred to as "the Proposed Development".

1.1.2 The oDRP provides a provisional framework for the decommissioning of the Proposed Development. A final Decommissioning and Restoration Plan(s) (DRP) will be produced in accordance with the DCO Requirements prior to commencing decommissioning, which will be required to be substantially in accordance with this oDRP submitted as part of the DCO Application. A DRP will be produced for the Proposed Development once the DCO is granted and submitted to the appropriate local planning authorities for approval and following the appointment of a decommissioning contractor and prior to the start of decommissioning.

1.1.3 The Proposed Development is likely to be decommissioned in phases or parts, and it is envisaged that the DRP(s) may be prepared, approved and implemented for individual parts or phases of the Proposed Development. As a result, there could be multiple DRP(s) prepared in accordance with this oDRP. Each DRP will be produced in line with this oDRP.

1.1.4 This document does not address measures and procedures during the construction phase, which are subject to a separate **outline Construction Environmental Management Plan (oCEMP)** (document reference 7.7).

1.1.5 As part of the DCO application, an Environmental Impact Assessment (EIA) has been undertaken identifying likely significant effects from the Proposed Development and are reported on in the Environmental Statement (ES) (document reference 6.1). In accordance with the requirements of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017[1] (hereafter known as the "EIA Regulations"), effects on the environment are assessed during the decommissioning process of the Proposed Development with a range of best practice mitigation measures described within assessments. The oDRP demonstrates how the mitigation measures included within the ES will be implemented. It also sets out the monitoring activities designed to demonstrate that such mitigation measures are carried out, and that they are effective.

1.1.6 This oDRP has been prepared with the objective of compliance with the relevant legislation and mitigation measures identified through the EIA process. Any additional licences, permits or approvals that are required for the decommissioning phase of the Proposed Development and that are not disapplied by the DCO, will be set out in the DRP(s), including any environmental information submitted in respect of them.

1.1.7 The appointed decommissioning contractor will be responsible for working in accordance with the environmental controls documented in the DRP(s). The overall responsibility for implementation of the DRP (s) will lie with the appointed

[1] HMSO (2017) The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

decommissioning contractor as a contractual responsibility to the Applicant, as the Applicant is ultimately responsible for compliance with the DCO.

1.1.8 The decommissioning works will be undertaken according to legislation, regulations, and best practice that are current at the time of decommissioning. At that time, it may be necessary to review and update the DRP.

1.1.9 The following additional environmental management plans are secured by this oDRP and will be prepared as part of the DRP(s) prior to decommissioning of the Proposed Development:

- Dust Management Plan (DMP);
- Decommissioning Traffic Management Plan (DTMP);
- Site Waste Management Plan (SWMP);
- Water Management Plan (WMP);
- Emergency Response Plan (ERP);
- Emergency Spillage Action Plan (ESAP) and
- Health and Safety Plan

1.2 THE APPLICANT

1.2.1 The Applicant has submitted the DCO Application for Heckington Fen Solar Park for the construction, operation, and decommissioning of the Proposed Development. The DCO Application is submitted to the Planning Inspectorate, with the decision of whether to grant a DCO being made by the Secretary of State pursuant to the Planning Act 2008[2].

1.3 THE ORDER LIMITS

1.3.1 The Order limits comprise the Energy Park; associated electrical infrastructure for connection to the national transmission system, comprising, Cable Route Corridor (inclusive of Off-site Cable Route Corridor); and National Grid Bicker Fen Substation Extension Works. The Order limits are described in **Chapter 3: Site Description, Site Selection and Iterative Design Process** (document reference 6.1.3) of the ES.

1.4 THE PROPOSED DEVELOPMENT

1.4.1 The Proposed Development is described in **Chapter 4: Proposed Development** (document reference 6.1.4) of the ES.

1.5 DECOMMISSIONING AND RESTORATION PLAN

1.5.1 The DRP will include similar measures to those included in the **Outline Construction Environmental Management Plan (oCEMP)** (document reference 7.7) and the detailed CEMPs, as well as the **Outline Construction Traffic Management Plan (oCTMP)** (document reference 7.10) submitted with the Application, covering issues such as transportation methods, pollution prevention, and noise management.

1.5.2 The DRP will adhere with regulations and guidance at the time, but is expected to include:

[2] HMSO (2008) The Planning Act 2008.

i. An overview of the Proposed Development, decommissioning activities and programme;

ii. Prior assessment of potential environmental impacts;

iii. Mitigation measures to prevent or reduce potential adverse impacts;

iv. Monitoring of effectiveness of mitigation measures; and

v. Links to other complementary plans and procedures.

1.6 PRINCIPLES OF DECOMISSIONING AND RESTORATION PLAN

1.7 DECOMMISSIONING ACTIVITIES

1.7.1 All principal equipment located within the Proposed Development will be removed and recycled or disposed of in accordance with good practice and market conditions at the time, with where possible following the Waste Hierarchy (defined and discussed below). This includes removing all solar PV array infrastructure including modules, mounting structures, cabling, inverters, transformers, switchgear, the onsite substation, energy storage system (ESS), fencing and ancillary infrastructure. All waste will be disposed of in accordance with the legislation at the time of decommissioning. Any damage to agricultural drains that has occurred during the operation of the Proposed Development will be repaired.

1.7.2 Any requirement to leave the internal access tracks would be discussed and agreed with the landowners at the time of decommissioning.

1.7.3 The 400kV buried cable along the cable route and the extended concrete pad at Bicker Fen National Grid Substation extension will remain in situ following decommissioning unless legislation at the time requires otherwise and in consultation with National Grid. If the cables are removed this would be achieved by pulling the cables out of the ducts and the subsequent removal of the ducts themselves, limiting the locations where the surface would need to be disturbed. This same principle will apply to the other high voltage and low voltage cabling throughout the Order limits to be removed. Any cabling removed will be taken to an appropriate facility for recycling.

1.7.4 The additional electricity transformer unit that will be installed at the National Grid Bicker Fen Substation as part of the extension work will be part removed as part of the decommissioning process. The extended concrete pad to remain at Bicker Fen National Grid Substation will be in the ownership of National Grid. Therefore, the larger footprint of Bicker Fen National Grid Substation will remain after the Energy Park is decommissioned. The final list of elements to be decommissioned from the Bicker Fen Substation would be agreed with National Grid as part of the decommissioning process.

1.7.5 Foundations and other below ground infrastructure, which are not practicable to remove, will be cut to 1m below the surface to enable future ploughing. Any piles would be removed.

1.7.6 Cabling above 1m below ground (on and off site within the Order Limits) will be removed and taken to an appropriate facility for recycling.

1.7.1 The Energy Park upon decommissioning is likely to revert to its current use and be used by the landowner for agricultural operations of their choice and determined by the global markets at that time. The type of agricultural use will be dependent of climate conditions, global food prices and national farming policy/support mechanisms and priorities of the landowner. This will include the areas that will have been used for

biological diversification over the lifetime of the Energy Park, although it is assumed that established habitats such as hedgerows and woodland would be retained when handed back to landowners, who would then have the ability to do as they wish (within the restrictions of the planning system) with their land.

1.7.2 Access to the permissive path will be removed during decommissioning, with the precise timing to be determined by the contractor(s) and communicated to the relevant local planning authority.

1.7.3 Excavations will be backfilled, using appropriate imported soil if required, otherwise with soil sourced on site, using appropriate soil management techniques. Some soil profiling may be required, and the land will be contoured.

1.7.4 To restore the land to its pre-construction condition at the end of operation, the soil resource within the Order limits will need to be managed throughout construction, operation and decommissioning. An **Outline Soil Management Plan (oSMP)** is included in the DCO application appended to the **oCEMP** (document reference 7.7).

1.7.5 The effects of decommissioning are similar to, or often of a lesser magnitude than construction effects. These are considered in the relevant sections of the ES. However, there needs to be a degree of flexibility regarding decommissioning as engineering approaches and technologies are likely to change over the operational life of the Proposed Development.

1.8 DECOMMISSIONING PROGRAMME

1.8.1 Decommissioning is expected to take between 6 to 18 months and will be undertaken in phases. The Proposed Development will be decommissioned after 40 years of operation, with decommissioning assumed to be not earlier than 2067. A worst case of a 6-month period for decommissioning has been assumed for the purposes of the ES. More details on the decommissioning phasing will be provided within the DRP prior to decommissioning commencing.

1.8.2 A pre-decommissioning walkover will be undertaken in advance of mobilisation/any potential advance works to re-confirm the ecological baseline conditions at that time and to identify any new ecological risks. This will provide guidance on working methods, timing of works, mitigations measures, licensing requirements and training/advisory programme requirements for the decommissioning contractors.

1.8.3 During the decommissioning phase, key roles and responsibilities will be assigned to various personnel to ensure environmental impacts are managed adequately/. The following list included the likely roles, but is not limited to the below:

i. Site Decommissioning Manager: Overall responsibility for activity onsite and will be based onsite full time. They will ensure all elements in the DCO, DRP (s) and any other requirements are implemented, and appropriately resourced, managed, reviewed and reported;

ii. Environment Manager: They will ensure environmental legislation and best practices are complied with, and environmental mitigation and monitoring measures are implemented;

iii. Ecological Clerk of Works (ECoW): Management of the risks to all ecological matters on decommissioning, provide appropriate training for decommissioning contractors, and advice compliance with ecological legislation current at the time of decommissioning;

iv. Health and Safety Manager: Responsible for health and safety compliance, related rules and regulations onsite.

v. Flood Warden: At least one designated person with the responsibility to monitor, manage and prepare for flood incidents that would affect decommissioning work onsite.

1.9 DECOMMISSIONING WORKING HOURS (CONTROL OF NOISE AND LIGHT)

1.9.1 Core decommissioning works shall only be undertaken between 08:00 and 18:00 Monday to Saturday. No decommissioning work shall take place on Sundays or Bank/ Public Holiday (unless otherwise agreed with the relevant planning authorities). Heavy Goods Vehicle (HGV) deliveries to the Order limits and works likely to generate substantial levels of noise, would be limited to daytime hours of 08:00 to 18:00 during weekdays or Saturday mornings (until 13:00 hours), unless otherwise agreed with the relevant local planning authority.

1.9.2 Working days are expected to be one 10-hour shift, with employees travelling to and from the Order limits an hour either side of these times (i.e. between 07:00 and 08:00, and 18:00 and 19:00). Where onsite works are to be conducted outside the core working hours, this will be agreed with the relevant local planning authority.

1.9.3 The noise generation of the decommissioning of the Proposed Development will be temporary and can be controlled by limiting the hours of noise generating activities to limit disruption. A display board will be installed onsite. This will include contact details for the decommissioning contractor or alternative public interface with whom complaints can be lodged.

1.9.4 Where onsite works are to be conducted outside the core working hours, they will comply with construction noise code of practice BS 5228 and the restrictions stated in the relevant DRP, and any other restrictions agreed with the relevant planning authorities pursuant where relevant to the Section 61 (or any other replacement) process.

1.9.5 The Control of Pollution Act 1974 (COPA) gives the relevant local planning authority powers to control noise and vibration from construction sites and other works. The Section 61 process allows contractors to apply for Prior Consent and agree working hours, site noise levels and other measures prior to work starting.

1.9.6 Applications for Section 61 consents, variations and dispensations under the Control of Pollution Act 1974 (COPA), or equivalent process at the time if this process has been superseded, will be submitted to the relevant local planning authority for decommissioning activities.

1.9.7 Temporary site lighting during decommissioning may be required in areas where natural lighting is unable to reach (sheltered/confined areas) and during core working hours within winter months. Artificial lighting will be provided to maintain sufficient security and health and safety within the Order limits, whilst adopting mitigation principles to avoid excessive glare, and minimise spill of light to nearby receptors (including ecology and residents) as far as reasonably practicable. Glint and Glare effects from the solar panel infrastructure has been assessed in Chapter 17: Glint and Glare of the Environmental Statement (document reference 6.1.17), with no significant effects anticipated on local receptors.

1.9.8 All temporary lighting will be deployed in accordance with the following commitments to prevent or reduce the impact on human and ecological receptors:

i. The use of lighting will be minimised to that required for safe site operations;

ii. Lighting will utilise directional fittings to minimise outward light spill and glare (e.g. via the use of light hoods/cowls which direct light below the horizontal plane, preferably at an angle greater than 20° from horizontal); and

iii. Lighting will be directed towards the middle of the Site within the Order limits rather than towards the boundaries.

iv. Lighting will be directed away from any identified bat roost, occupied bat roots boxes or preferred foraging areas such as over wetlands.

1.10 DECOMMISSIONING TRAFFIC MANAGEMENT

1.10.1 A separate Decommissioning Traffic Management Plan (DTMP) will be produced and agreed with the relevant local planning authority, in consultation with the relevant highway authority prior to the commencement of the decommissioning works within the Order limits and will be submitted as part of the DRP(s). The DTMP will consider the methods by which materials, equipment and decommissioning workers will arrive at and depart from the Order limits, applying the same principles as have informed the **oCTMP** (document reference 7.10), unless the highway context has significantly altered during the operational phase of the Proposed Development.

1.10.2 During decommissioning, the decommissioning contractor will ensure that the impacts from decommissioning traffic on the local community (including local residents and businesses and users of the surrounding transport network) are minimised, where reasonably practicable, by implementing the measures set out in **Chapter 14: Transport and Access** of this Environmental Statement (document reference 6.1.14).

1.10.3 It is proposed that access to the Energy Park during decommissioning is via a new priority junction with the A17 to the south of the Energy Park, approximately 900 metres northwest of the junction with Six Hundred Drove. The access to the Proposed Development and the roads leading to it are suitable for accommodating the movement of HGVs and other decommissioning vehicles. The construction compound areas will be used again for the decommissioning compounds.

1.10.4 A temporary construction compound will be provided within the Energy Park within the Order limits which will include car parking for contractors (including spaces for minibuses), ensuring that all parking associated with the decommissioning is contained on site.

1.10.5 All vehicles exiting the Energy Park site during decommissioning will require wheel washing before exiting the Energy Park onto the public highway. Depending on the time of year, and conditions onsite, wheel washing facility requirements will vary.

- During summer or dry conditions, wheel washing facilities should include a pressure washer with suitable drainage as a minimum; and
- During winter or wet conditions, wheel washing facilities should include ride on/off wheel washers if required.

1.10.6 The appointed decommissioning contractor's manager will monitor the public highway conditions and will assess if further measures are required to maintain road cleanliness, such as road sweeping.

1.10.7 For loads unable to use the fixed wheel wash facility, localised wheel washing will be set up to ensure no detrimental effect to the highway.

1.11 SAFETY AND SECURITY

1.11.1 The appointed decommissioning contractor will be in charge of site security and health and safety onsite during decommissioning. The appointed decommissioning contractor will designate an Environmental Manager who will be responsible for the implementation of the DRP. This individual will be notified, as soon as it is safe to do so following an environmental incident and emergency. A reporting procedure will be agreed with the local planning authorities and any other statutory bodies such as Environment Agency. Staff will be informed of this process and made aware that it is everyone's responsibility to call the emergency services, should this be needed.

1.11.2 A Health and Safety board identifying potential hazards is likely to be updated daily with all visitors required to sign in and adhere to onsite Health and Safety practices. All personnel working on site will be required to wear a high visibility vest or jacket, steel cap boots, and a hard hat as well as any other activity-specific safety wear.

1.11.3 The Proposed Development will not require any specific oils/liquids during operation. During the decommissioning phase any oils/liquids that could potentially be harmful to the environment will be stored in a bunded container within the temporary decommissioning compound or removed off-site.

1.11.4 It is intended that the security fence surrounding the Energy Park will remain in place throughout the duration of the decommissioning period and will be the last feature to be removed ensuring the Energy Park is secure during the decommissioning phase. Any storage of materials would be kept secure to prevent theft of vandalism. A safe system for accessing the materials storage areas would be implemented by the contractor.

1.12 STORAGE

1.12.1 No long-term onsite storage of materials is required during the decommissioning phases

1.12.2 During decommissioning HGVs will arrive at the Energy Park to remove infrastructure from the compound areas at regular intervals.

1.12.3 Any storage of materials would be kept secure to prevent theft of vandalism. A safe system for accessing the materials storage areas would be implemented by the contractor.

1.13 WASTE MANAGEMENT PRINCIPALS

1.13.1 The Waste (England and Wales) Regulations 2011[3] place a duty on all persons who produce, keep or manage waste to apply the 'Waste Hierarchy' in order to minimise waste production at every stage of the development.

1.13.2 The Waste Hierarchy is a European concept which requires anyone managing waste to consider first waste prevention, preparing for reuse and recycling, followed by waste recovery methods e.g., energy recovery and, lastly, waste disposal.

1.13.3 The Waste Hierarchy will be adopted throughout the construction, operation and decommissioning phases of the Proposed Development, and the producers and holder of waste will be required pursuant to the Waste (England and Wales) Regulations 2011 (as amended 2014), and formally under Section 34 of the Environmental Protection Act (1990)[4] to:

- Prevent illegal disposal, treatment or storage of waste;

[3] HMSO (2011) The Waste (England and Wales) Regulations 2011. (as amended by The Waste (England and Wales) (Amendment) Regulations 2014.

[4] HMSO (1990) Environmental Protection Act 1990.

- Handle their waste safely;
- Know whether the waste is hazardous or non-hazardous;
- Store waste securely in a manner that prevents release of the waste;
- Provide an accurate written description of the waste in order to facilitate the compliance of others with the Duty and avoidance of the offences under Section 33 of the Environmental Protection Act 1990: via a compulsory system of Controlled Waste Transfer Notes (WTNs) which controls the transfer of waste between parties; and
- Ensure anyone dealing with their waste has the necessary authorisation.

1.13.4 In order to control the waste generated onsite and removal of materials, the decommissioning contractor will manage the separation of all waste materials into their relevant waste types in separate skips and containers, as a minimum there will be material, wood, cable and building materials. All waste will be disposed of as per their waste stream transported to an approved, licensed third party waste facility for recycling or disposal.

1.13.5 All practicable actions will be taken by the principal decommissioning contractor to minimise the volume of waste produced as a result of the decommissioning of the Proposed Development. This can be through reducing consumption, reuse, using resources efficiently, and designing for longevity. Waste segregation will be undertaken where possible to maximise the opportunities for reuse and recycling.

1.13.6 Disposal sites for the disposal of waste will have a relevant authorisation from Environment Agency (or such other body that is applicable at time of decommissioning) and waste transfer records will be kept.

1.13.7 Upon completion and removal of all equipment and material from the Energy Park, and backfilling with soil if any areas requiring it, the Energy Park will be either ploughed or harrowed and seeded as per landowner requirements (i.e. areas that have been backfilled with soil) dependant on conditions. The swales will either be in-filled by new topsoil that will be brought within the Order limits, ploughed out or retained in place if the landowner considers it will provide an on-going benefit to the land.

1.13.8 Prior to the decommissioning works commencing, a Site Waste Management Plan (SWMP) will be prepared by the contractor, which will specify the waste streams to be estimated and monitored and goals set with regards to the waste produced and set out the roles and responsibilities of construction workers for safe management of the decommissioning phase.

1.13.9 The waste disposal methods will be reviewed and updated in the DRP(s) to ensure compliance with any future changes in legislation.

1.14 GOOD PRACTICE MEASURES

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

1.15 RESPONDING TO ENVIRONMENTAL INCIDENTS AND EMERGENCIES

1.15.1 The decommissioning contractor will designate a Manager who will be responsible for the implementation of the DRP(s). This individual will be notified, as soon as it is safe to do so following an environmental incident and emergency. A reporting procedure will be agreed with the local authorities and any other statutory bodies such as Environment

Agency. Staff will be informed of this process and made aware that it is everyone's responsibility to call the emergency services, should this be needed.

1.15.2 An Ecological Clerk of Works (ECoW) will be employed/contracted to provide professional advice on all ecological matters, provide appropriate training for decommissioning contractors advice compliance with ecological legislation current at the time of decommissioning.

1.15.3 An Emergency Response Plan will be developed in consultation with the relevant local authority's emergency planning officers, emergency services, and the Environment Agency in relation to responding to flood warnings and events.

1.15.4 The plan will detail the procedures for responding to incidents and emergencies onsite, and any reporting.

1.16 MANAGEMENT AND MITIGATION PLAN

1.16.1 This section sets out the potential mitigation and management measures to be included as a minimum in the DRP(s). It also sets out monitoring requirements and the responsible party identified for each mitigation measures or monitoring requirement. This section will be updated and further developed as part of the preparation of the DRP(s).

1.16.2 The responsibility for ensuring that the measures set out in this section are implemented will lie with the decommissioning contractor appointed. The decommissioning contractor will also be responsible for appointing and managing personnel responsible for fulfilling particular roles identified in this document. Specificresponsibilities will be set out in the DRP(s).

Table 1: Landscape and Visual Amenity

Potential Impact	Mitigation/ Enhancement Measure	Monitoring Requirements
Potential loss of vegetation to make way for decommissioning activities associated with the Energy Park	The **oLEMP** (document reference 7.8) sets out the measures proposed to mitigate the potential impacts and effects on landscape (and biodiversity) features, and to enhance the landscape and biodiversity value of the Order limits (i.e., the green infrastructure). A LEMP will be prepared in accordance with the OLEMP following detailed design. The DRP(s) shall be prepared to take into account measures contained within the detailed LEMP. A pre-commencement survey of vegetation prior to decommissioning will need to be undertaken to establish the extent to which any vegetation removal will be required, if any. **Site Design** The established hedgerow vegetation was proposed at a sufficient buffer from the existing and proposed access tracks, fencing, and drains present throughout the in order to avoid any need for excessive pruning or removal in order to accommodate any decommissioning works. **Trees** The tree survey shall inform the tree protection zones to be applied during the decommissioning phase. The findings of the tree survey shall be included within an Arboricultural Impact Assessment (AIA). The AIA shall be accompanied by an Arboriculture Method	The overall responsibility will be with the contractor. Specific responsibilities will be confirmed in the DRP(s). A pre-decommissioning tree survey and Arboricultural Impact Assessment, in line with BS5837:2012 or guidance applicable at the time of the decommissioning works, to be commissioned and carried out at the very end of the operational stage of the Energy Park, prior to decommissioning, to identify where trees are likely to be affected by the decommissioning works. The pre-decommissioning Arboricultural Impact Assessment is to be compared with the **Arboricultural Impact Assessment. Tree Survey and Tree Protection Plan** (document reference 6.3.6.3) and **Figure 6.2-Landscape Strategy** plan (document reference 6.2.6) prepared for the DCO application in order to establish the current baseline: quantum and condition of the matured vegetation, and to identify the potentially affected structural vegetation (hedgerows, trees, groups of trees, and woodlands).

	Statement which will set out the mitigation and protection measures to be undertaken during the decommissioning phase. Where works in close proximity to retained trees cannot be practically avoided, these works shall be undertaken in accordance with the current best practice, defined in British Standard (BS) 5837: 2012 Trees in relation to design, demolition and construction – Recommendations and National Joint Utilities Group (NJUG) Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees, or guidance applicable at the time.	
Visibility of Decommissioning Activities on Landscape Character and Visual Effects	**Site Design** The access arrangement into the Energy Park has been carefully considered in order to utilise the existing tracks within the Energy Park, in the most efficient way, with the vehicular access formed along the least constrained section of the A17, characterised by lack of boundary vegetation and open field boundaries. The existing structural vegetation shall be retained and protected during the decommissioning phase by implementing exclusion zones and tree protective fencing and retained post decommissioning. The existing vegetation shall be managed, in accordance with best practice, where practicable to ensure its continued presence and to aid the screening of low-level views into the Energy Park. Decommissioning compounds to be located within the established construction and operational compounds. As the decommissioning work progresses, other locations within the Energy Park to be considered, if they benefit from a stronger sense of enclosure and visual separation from the nearby roads, PRoWs, and residential receptors.	The overall responsibility will be with the contractor. Specific responsibilities will be confirmed in the DRP(s). Landscape architect, arboriculturist, and ECoW are likely to ensure that the landscape and ecology requirements of the DRP(s) are adhered too and that the works are monitored.

	Decommissioning works to be carried out in phases in order to reduce the geographical extent of the activities within the Energy Park and movement in the landscape. All necessary protective fencing shall be installed prior to the commencement of any site decommissioning works. The Community Orchard to be retained as a community asset for a minimum of 50 years. It is envisaged that any decommissioning works are unlikely to affect any of the perimeter vegetation that encloses the Energy Park. In the unlikely event that the perimeter vegetation has to be removed / partially removed, a replacement planting shall be considered. **Lighting** Any artificial lighting to be set to the minimum acceptable standards in terms of lux level, current at the time. The location of the lighting columns to be considered in the context of the retained vegetation, potential effects upon the nocturnal species, and to provide maximum screening from the sensitive visual receptors. Any artificial lighting to be limited to the operational working hours only. Where security lighting is necessary this shall utilise passive infra-red (PIR) technology controlled and be triggered by movement only. Lighting shall use directional fitting to reduce and minimise any potential light spill and glare. Lighting fittings shall be installed with light hoods/cowls to direct lighting below the horizontal plane. The	

	height of the lighting units / columns to be as small as practical to reduce light spill and glare. Lighting units to be directed towards the interior of the Energy Park and not outside of the boundaries of the Order Limit. Lighting will be direct away from any known bat roosts, installed bat boxes or identified important bat foraging area.	

Table 2: Residential Amenity

Potential Impact	Mitigation/ Enhancement Measure	Monitoring Requirements
Visibility of Decommissioning Activities and Visual Effects on residential properties	**Site Design** The existing structural vegetation shall be retained and protected during the decommissioning phase by implementing exclusion zones and tree protective fencing and retained post decommissioning. The existing vegetation shall be managed, in accordance with best practice, where practicable to ensure its continued presence and to aid the screening of low-level views into the Energy Park. Decommissioning compounds to be located within the established construction and operational compounds. As the decommissioning work progresses, other locations within the Energy Park to be considered, if they benefit from a stronger sense of enclosure and visual separation from the nearby roads, PRoWs, and residential receptors. Decommissioning works to be carried out in phases in order to reduce the geographical extent of the activities within the Energy Park and movement in the landscape. It is envisaged that any decommissioning works are unlikely to affect any of the perimeter vegetation that encloses the Energy Park. In the unlikely event that the perimeter vegetation has to be removed / partially removed, a replacement planting shall be considered.	The overall responsibility will be with the decommissioning contractor. Specific responsibilities will be confirmed in the DRP(s). Landscape architect shall ensure that the requirements of the DRP(s) are adhered too and that the works are monitored.

	<u>Lighting</u> Any artificial lighting to be set to the minimum acceptable standards in terms of lux level, current at the time. The location of the lighting columns to be considered in the context of the retained vegetation, potential effects upon the nocturnal species, and to provide maximum screening from the sensitive visual receptors. Any artificial lighting to be limited to the operational working hours only. Where security lighting is necessary this shall utilise passive infra-red (PIR) technology controlled and be triggered by movement only. Lighting shall use directional fitting to reduce and minimise any potential light spill and glare. Lighting fittings shall be installed with light hoods/cowls to direct lighting below the horizontal plane. The height of the lighting units / columns to be as small as practical to reduce light spill and glare. Lighting units to be directed towards the interior of the Energy Park and not outside of the boundaries of the Order Limit.	

Table 3:Ecology and Ornithology

Potential Impact	Mitigation/ Enhancement Measure	Monitoring Requirements
Overall risk Potential risk of disturbance or loss of habitat, potential spillage to enter water courses. Potential disturbance, injury or death of protected species	An Ecological Clerk will be employed/contracted to provide ecological advice to decommissioning contractor including advise on legislation, findings of ecological surveys and protected species licensing.	Pre-decommissioning baseline ecological surveys will be undertaken in advance of any decommissioning works. This will include walkover extended phase habitat surveys and appropriate protected species surveys. These will provide advice on working methods, timing of works, mitigations measures. Licensing requirements and training/advisory programme requirements for the decommissioning contractors.
Damage or disturbance to woodlands and individual trees	Establishment of appropriate root protection zones around the four blocks of woodland.	Re-assessment of root protection zones to minimise risk during construction.
Damage or disturbance to hedgerows	All hedgerows will be fenced during decommissioning.	N/A
Clearance or damage of habitat to facilitate decommissioning – resulting potential direct and indirect effects on associated species, particularly nesting birds.	Where practicable habitat clearance undertaken outside the bird breeding season. Where impractical to be conducted under ecological supervision and appropriate surveys.	Breeding bird surveys to be conducted if habitat clearance to be carried out during bird breeding season. If nesting birds are found appropriate non-disturbance zones to be established until nesting attempts completed
Disturbance to nesting schedule 1/Annex 1 birds	Establishment of appropriate disturbance free zones (500m) during any nesting attempts of schedule 1 bird species.	Bird survey to identify likely location of breeding schedule 1/Annex1 birds. Surveys conducted during the lifetime of the Energy Park will have established any regular

		breeding location of schedule one birds such as Kingfisher, Barn Owl and possibly March Harrier.
Disturbance to roosting bats.	Appropriate buffer zones established around identified bat roosts.	Bat roost box surveys and re-survey of known roost sites to be carried out before commencement of de-commissioning works to identified occupied bat roots boxes.
Disturbance to bats due lighting during summer season (April – November)	Lighting will be direct away from any known bat roosts, installed bat boxes or identified important bat foraging area particularly over watercourses.	Bat roost box surveys and re-survey of known roost sites to be carried out before commencement of de-commissioning works to identified occupied bat roots boxes.
Disturbance to badgers	Measures to minimise vibration and works close to occupied badger setts. Appropriate buffer zones (30m) established around identified setts or appropriate licenced obtained to work within disturbance zone.	Badger survey prior to de-commissioning.
Disturbance to otter and water vole (if present)	Establishment of appropriate standoff distances from water courses and minimise water crossing where these species have been identified during pre-decommissioning surveys.	Otter and water vole surveys prior to de-commissioning.
Dust deposition on sensitive ecological receptors.	Measures to prevent and minimise dust creation and air pollution will be adopted throughout decommissioning.	
Potential for spillages or silt to enter watercourses and impact ecology.	Measures to prevent spillage and runoff into water courses through best practice working methods. An appropriate standoff distance from all internal and IDB drainage ditches. A Water Management Plan (WMP) will be prepared to document the mitigation measures to be implemented to protect the water environment from adverse effects during decommissioning.	Ongoing visual monitoring of watercourses.

Potential for spillages or silt to entering the pond and impact ecology.	Measures to prevent spillage and runoff into the pond through best practice working methods and fencing 10m from the pond.	

Table 4: Hydrology, Hydrogeology, Flood Risk and Drainage

Potential Impact	Mitigation/ Enhancement Measure	Monitoring Requirements
Potential adverse effects on drainage patterns, surface water flows and aquifer recharge	Best practice working methods to be undertaken to prevent both water pollution and adverse impacts upon the surface water drainage regime. Requirements set out in the pollution prevention guidance (and any other relevant guidance available at the time of decommissioning) will be provided in the DRP(s). A Water Management Plan (WMP) will be prepared to document the mitigation measures to be implemented to protect the water environment from adverse effects during decommissioning.	Water quality monitoring of potentially impacted watercourses will be undertaken to ensure that pollution events can be detected against baseline conditions and can be dealt with effectively. The overall responsibility will be with the decommissioning contractor. Specific responsibilities will be confirmed in the DRP(s).
Potential pollution of watercourses and underlying aquifers resulting from spilled hydrocarbons/petrochemicals from plant and the mobilisation of silts and contaminants during earthworks operations	**Management of Runoff** Mitigation measures for managing site runoff during decommissioning are described in detail below and will be adhered to during the decommissioning phase of the Proposed Development: i. Precautions would be in place to prevent silt laden run-off, arisings or chemicals entering watercourses. If still applicable at the point of decommissioning, the measures will accord with the principles set out in industry guidelines including the Construction Industry Research and Information Association (CIRIA) report 'C532: Control of water pollution from construction sites' (2001) and CIRIA report 'C649: Control of water pollution from linear construction sites' (2006). Measures may include use and maintenance of temporary lagoons, tanks, bunds and fabric silt fences or silt screens as well as consideration of the type of plant used;	

	ii. If applicable, the relevant sections of British Standard (BS) 6031: Code of Practice for Earthworks (2009) will be followed for the general control of site drainage; iii. Where practical, earth works will be undertaken during the drier months of the year. When undertaking earth moving works periods of very wet weather will be avoided, where practical, to minimise the risk of generating runoff contaminated with fine particulates. However, it is likely that some working during wet weather periods will be unavoidable, in which case other mitigation measures (see below) will be implemented to control fine sediment laden runoff. Water may also be required to dampen earthworks during dry weather to reduce dust impacts, and any runoff generated will need to be appropriately managed by the principal decommissioning contractor in accordance with the pollution prevention principles; iv. To protect watercourses from fine sediment runoff, topsoil/subsoil will where practicable, be stored a minimum of 20m from watercourses on flat lying land. Where this is not practicable, and it is to be stockpiled for longer than a two-week period, the material will either be covered with geotextile mats, seeded to promote vegetation growth, or runoff prevented from draining to a watercourse without prior treatment; v. Appropriately sized runoff storage areas for the settlement of excessive fine particulates in runoff will be provided. Site runoff will be treated onsite or discharged under a water discharge activity permit from the Environment Agency to controlled waters (potentially also including infiltration to ground); vi. Equipment and plant are to be washed out and cleaned in designated areas within the decommissioning compounds where runoff can be isolated for treatment before disposal as outlined above; vii. Mud deposits will be controlled at entry and exit points to the Order limits using wheel washing facilities and / or road sweepers operating during earthworks activities or other times as required;	

	viii. Debris and other material will be prevented from entering surface water drainage, through maintenance of a clean and tidy decommissioning areas, provision of clearly labelled waste ix. receptacles, grid covers and the presence of security fencing; and x. The WMP will include details of water quality monitoring. The WMP will be updated prior to decommissioning when details of decommissioning activities are known. This will be based on a combination of visual observations and reviews of the Environment Agency's automatic water quality monitoring network. **<u>Management of Spillage Risk</u>** The measures outlined below will be implemented to manage the risk of accidental spillages onsite and potential conveyance to nearby waterbodies via surface runoff or land drains during the decommissioning phase: i. Fuel will be stored and used in accordance with the prevailing regulations; currently the Control of Substances Hazardous to Health Regulations 2002, and the Control of Pollution (Oil Storage) (England) Regulations 2001 (or latest guidance/legislation at the point of decommissioning); ii. 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); iii. Any plant, machinery or vehicles will be regularly inspected and maintained to ensure they are in good working order and clean for use in a sensitive environment. This maintenance is to take place offsite if possible or only at designated areas within the Order limits compound. Only equipment and vehicles free of all oil/fuel leaks will be permitted onsite. Drip trays will be placed below static mechanical plant; iv. It is considered unlikely that the Proposed Development will require a high number of trips requiring the transportation of	

	hazardous loads; however, all vehicles carrying hazardous loads during decommissioning will be required to follow the regulations set out in the Health and Safety Executive's (HSE) Carriage of Dangerous Goods (2009) (or latest guidance/legislation at the point of decommissioning); v. Drivers must ensure that hazardous loads are always accompanied by a transport document which sets out detailed information on the load being carried, including full classification of any substances carried and how to package them. The transport document must include: • Information for each dangerous substance, material or article being carried; • Emergency instructions in writing; and • Means of identification, including a photograph of each member of the transportation crew. vi. All drivers of vehicles carrying hazardous loads must be appropriately trained, so that they: • Are aware of the hazards in the carriage of hazardous loads; • Can take steps to reduce the likelihood of an accident taking place; • Can take all necessary measures for their own safety and that of the public and the environment to limit the effects of any incident that does occur; and • Have individual practical experience of the actions they will need to take. **<u>Contamination</u>** The following measures will be in place to avoid contamination of the ground and water courses: i. All washing down of vehicles and equipment will take place in designated areas and untreated wash water will be prevented from entering watercourses;	

	ii. All refueling, oiling and greasing will take place above drip trays or on an impermeable surface which provides protection to underground strata and watercourses, and away from drains as far as reasonably practicable. Vehicles will not be left unattended during refuelling; iii. As far as reasonably practicable, only biodegradable hydraulic oils will be used in equipment working in or over watercourses; iv. All fixed plant use onsite will be self-bunded; v. Mobile plant is to be in good working order, kept clean and fitted with plant 'nappies' at all times; vii. The WMP will include details for pollution prevention and will be prepared and included alongside the DRP(s). Spill kits and oil absorbent material will be carried by mobile plant and located at high-risk locations across the Order limits and regularly topped up. viii. All workers will receive spill response training and tool box talks; ix. Where required, the Order limits will be secured to prevent any vandalism that could lead to a pollution incident; x. Decommissioning waste / debris are to be prevented from entering any surface water drainage or water body; xi. Surface water drains on public roads trafficked by plant or within the compound will be identified and, where there is a risk that fine particulates or spillages could enter them, the drains will be protected (e.g. using covers or sand bags) or the road regularly cleaned by road sweeper; and xii. Water quality monitoring of potentially impacted watercourses will be undertaken to ensure that pollution events can be detected against baseline conditions and can be dealt with effectively. In addition, any site welfare facilities will be appropriately managed, and all foul waste disposed of by an appropriate contractor to a suitably licenced facility.	

Potential adverse effects upon the Head Dike/Skerth Drain flood defences.	Any surface water potentially contaminated by hydrocarbons would be passed through oil interceptors prior to discharge.	To be confirmed in the DRP(s).
Potential adverse effects upon flood storage and flood flows/flood routing processes as a result of works within the floodplain	**<u>Management System of Flood Risk</u>** A management system would be in place to adequately manage works within the floodplain and in the vicinity of flood defences. The DRP(s) will incorporate measures aimed at preventing an increase in flood risk during the decommissioning works. Examples of measures that will be implemented onsite include: i. Topsoil and other materials will be stored outside of the 1 in 100-year floodplain extent. If areas located within Flood Zone 2 are to be utilised for the storage of materials, this will be done in accordance with the applicable flood risk activity regulations, if required; ii. Connectivity will be maintained between the floodplain and the adjacent watercourses, with no changes in ground levels within the floodplain; iii. During the decommissioning phase, the decommissioning contractor will monitor weather forecasts on a monthly, weekly and daily basis, and plan works accordingly; and iv. The laydown area, site office and supervisor will be notified of any potential flood occurring by use of the Floodline Warnings Direct or equivalent service. As part of the DRP the appointed decommissioning contractor will be required to produce an Emergency Response Plan (ERP) which will provide details of the response to an impending flood and include: i. A 24 hour availability and ability to mobilise staff in the event of a flood warning;	

	ii. The removal of all plant, machinery and material capable of being mobilised in a flood for the duration of any holiday close down period where there is a forecast risk that the Order limits may be flooded; iii. Details of the evacuation and Order limits closedown procedures; iv. Arrangements for removing any potentially hazardous material and anything capable of becoming entrained in floodwaters, from the temporary works areas; v. The decommissioning contractor will sign up to Environment Agency flood warning alerts and describe in the Emergency Response Plan the actions it will take in the event of a flood event occurring. These actions will be hierarchal meaning that as the risk increases the contractor will implement more stringent protection measures; vi. If water is encountered during below ground works (e.g. removal of foundations), suitable dewatering methods will be used. Any groundwater dewatering required in excess of the exemption thresholds will be undertaken in line with the requirements of the Environment Agency; vii. Safe egress and exits are to be maintained at all times when working in excavations. When working in excavations a banksman is to be present at all times. **<u>Increased flood risk due to climate change</u>** i. Appointing at least one designated Flood Warden who is familiar with the risks and remains vigilant to news reports, Environment Agency flood warnings and water levels of the local waterways; and ii. Health and safety plans developed for decommissioning activities will be required to account for potential climate change impacts on workers, such as flooding and heatwaves.	

Potential adverse effects resulting from compaction of the ground caused by plant and the temporary increase in the extent of impermeable surfaces associated with access roads and compound areas.	Appropriate storage of hydrocarbons and petrochemicals in accordance with Control of Substances Hazardous to Health (COSHH) Regulations 2002 and Control of Pollution (Oil Storage) (England) Regulations 2001.	To be confirmed in the DRP(s).

Table 5: Cultural Heritage

Potential Impact	Mitigation/ Enhancement Measure	Monitoring Requirements
Truncation / loss, through plant movements and removal of solar infrastructure, of buried remains of scattered Roman ditches not previously subject to strip map sample excavation.	Archaeological observation and recording during the removal of ground-mounted infrastructure.	Submission to the LPA Archaeological Advisors of details of the decommissioning strategy, and, if a need for archaeological observation and recording is confirmed, a Written Scheme of Investigation for such works; and the subsequent undertaking of the fieldwork and submission of a report to the LPA Archaeological Advisors upon completion. To be confirmed in the DRP(s).
Truncation / loss, through plant movements and removal of solar infrastructure, of buried remains of a post-medieval duck decoy.	Avoidance of levelling across the feature during removal of solar infrastructure, and perhaps also avoidance of future ploughing.	Submission to the LPA Archaeological Advisors of details of the decommissioning strategy, making reference to avoidance of levelling during removal of solar infrastructure, as well as future land use activities in this area. To be confirmed in the DRP(s).
Truncation / loss, through plant movements and removal of solar infrastructure, of buried remains of former outfarms.	No mitigation required due to the limited heritage significance of such remains.	N/A
Change to the setting of designated and non-designated heritage assets, through	Temporary indirect impacts to heritage assets through change to setting will be minimised by the retention of vegetative screening e.g., along Head Dike. The pre-development baseline conditions	N/A

removal of solar infrastructure and reversion to agricultural land use.	could essentially be restored if the site were returned to agricultural land use.	

Table 6: Socio-Economic

Potential Impact	Mitigation/ Enhancement Measure	Monitoring Requirements
Generation of jobs during the decommissioning period, but potential for leakage in the sourcing of employees from outside of the local area.	Preparation and agreement of an **Outline Supply and Employment Skills Plan** (document reference 7.12) (which would cover both the decommissioning as well as construction phases of development).	Measures to be used as monitoring points to be agreed with Planning Inspectorate and North Kesteven District Council during the drafting of the **Outline Supply and Employment Skills Plan** (document reference 7.12), of which a Supply and Employment Skills Plan will produced in accordance with the Outline Supply and Employment Skills Plan.
Disruption to users of Public Rights of Way	Temporary diversions of Public Rights of Way (PRoW) will be supported by appropriate and clearly signed alternative routes and where possible will be planned and programmed to minimise disruption to users.	Monitor temporary diversions of PRoWs during the decommissioning phase to ensure they are suitable and well maintained for use. To be confirmed in the DRP(s).

Table 7: Noise and Vibration

Potential Impact	Mitigation/ Enhancement Measure	Monitoring Requirements
Noise and vibration due to decommission activities potentially causing annoyance at noise sensitive receptors. Associated traffic, plant and machinery noise at nearby noise-sensitive receptors.	**Site Management** Decommission activities likely to generate substantial levels of noise and HGV traffic to the Energy Park shall be limited to daytime hours of 08:00 to 18:00 during Monday to Friday, and 08:00 to 13:00 on Saturdays, unless otherwise agreed with the local authorities. Other activities unlikely to generate high noise levels (e.g. Site access and inductions, light vehicle movements etc.) may continue during other day-time periods. The Energy Park access road surface will be checked and maintained prior to use. Consideration will also be given to traffic routing, timing and access points to the Order limits, as working methods are developed. Contractors will issue a project route map and delivery schedule to control construction traffic. Management of heavy goods vehicles (HGVs) within the Order limits and being let onto the highway network will be managed through the CTMP. Best Practicable Means (BPM) will be applied, as far as reasonably practicable, during construction works to minimise noise and vibration at noise sensitive receptors, including neighbouring residential properties and other sensitive receptors arising from construction activities. These include, as appropriate: • Reference to the guidance in BS 5228 which all contractors should be familiar with;	The detailed DRP(s) will set out a scheme for the provision of monthly reporting of information to local residents to advise of potential noisy works that are due to take place. This will include users of public rights of way which will be informed of periods of noisy works. In addition, specific engagement with Build-A-Future East Heckington will be undertaken to inform them of anticipated works periods. The DRP(s) will also set out a scheme for the monitoring of noise complaints and reporting to the Applicant for immediate investigation and action. This would include setting up and publicising a dedicated contact point which neighbouring residents can contact in the event of a complaint.

	• mobile plant and stationary plant items to be routed or located to maximise separation distance from noise-sensitive receptors (where possible), accounting for site-specific constraints; • select quieter plant units where possible; • all plant when not in use is to be switched off and unnecessary revving of engines will be avoided; • Regular maintenance by trained personnel will be undertaken to keep plant and equipment working to manufacturer's specifications; • All plant and equipment to be properly maintained, silenced where appropriate, operated to prevent excessive noise and switched off when not in use; • Loading and unloading of vehicles, dismantling of equipment or moving equipment or materials around the Order limits to be conducted in such a manner as to minimise noise generation, as far as reasonably practicable; • All vehicles used onsite shall incorporate reversing warning devices as opposed to the typical tonal reversing alarms to minimise noise disturbance where reasonably practicable; • Appropriate routing of decommissioning traffic on public roads and along access tracks pursuant to the DTMP; • Section 61 Consents, where required, would be obtained for the Proposed Development which would include agreed decommissioning noise limits for nearby noise sensitive receptors; • Provision of information to local planning authorities and local residents to advise of potential noisy works that are due to take place; • Monitoring of noise complaints and reporting to the Applicant for immediate investigation and action. A display board will be installed onsite. These will include contact details for the Site Manager or alternative public interface with whom nuisance or	

	complaints can be lodged. A log book of complaints will be prepared and managed by the decommissioning contractor; • Consideration will also be given to traffic routing, timing and access points to the Order limits to minimise noise impacts at existing receptors following appointment of a principal decommissioning contractor, and as decommissioning working methods are developed. • operate only well-maintained construction plant selected for the specific activity; and • provide site specific induction inclusive of good neighbourly behaviour and follow the Considerate Construction Scheme requirements. HGV movements to and from the Order limits and works likely to generate substantial levels of noise, would not be undertaken on Saturday afternoons (13:00 onwards). Other decommissioning activities unlikely to generate high noise levels (e.g., site access and inductions, light vehicle movements etc.) may continue during these hours. If night-time operation is required, the closest residents to the works shall be notified of the start and completion of the works.	

Table 8: Climate Change

Potential Impact	Mitigation/ Enhancement Measure	Monitoring Requirements
Emission of GHGs	• Decommissioning the Proposed Development in such a way as to minimise the creation of waste. • Increasing recyclability by segregating waste to be re-used and recycled where reasonably practicable; • Adopting the Considerate Constructors Scheme (CCS) to assist in reducing pollution, including GHGs, from the Proposed Development by employing good industry practice measures. These will be listed in the DRP(s); • Implementing staff minibuses to transport contractors to and from the Order limits or using car sharing options where possible; • Switching vehicles and plant off when not in use and ensuring vehicles and plant conform to UK emissions standards at the time of decommissioning; and • Conducting regular planned maintenance of the plant and machinery to optimise efficiency.	The overall responsibility will be with the decommissioning contractor. Specific responsibilities will be confirmed in the DRP(s).
In-combination Climate Effects: Flooding and Drainage	• Best practice decommissioning methods to avoid water pollution/silt laden run-off and adverse effects on the surface water drainage regime; • Storing materials outside of flood extent as far as reasonably practicable; and • Appointing at least one designated Flood Warden who is familiar with the risks and remains vigilant to news reports, Environment Agency flood warnings and water levels of the local waterways.	The overall responsibility will be with the decommissioning contractor. Specific responsibilities will be confirmed in the DRP(s).

Project Resilience: Employee Discomfort	• During periods of extreme temperatures or increased precipitation, decommissioning activities will be managed so that the hottest or wettest/coldest parts of the day are avoided to ensure worker safety, although it is noted that this may not always be possible during the decommissioning phase. • The risk of overheating/hypothermia will be incorporated into the site risk assessment and decommissioning of the Proposed Development will comply with all relevant UK legislation related to the work environment including The Health and Safety at Work etc. Act 1974 and The Management of Health and Safety at Work Regulations 1999 (as amended). For example, this may include measures such as ensuring appropriate personal protective equipment (PPE) is worn for the site conditions and adequate water supplies are available to ensure staff stay hydrated during hotter weather.	The overall responsibility will be with the decommissioning contractor. Specific responsibilities will be confirmed in the DRP(s).

Table 9: Transport and Access

Potential Impact	Mitigation/ Enhancement Measure	Monitoring Requirements
Vehicular Traffic Flows	Provision of a Decommissioning Traffic Management Plan (DTMP) will provide the mitigation measures required to reduce the impacts of increased traffic flows including heavy goods vehicles (HGVs) on roads including severance and intimidation associated with increased traffic and abnormal loads. The DTMP will be similar in structure and will contain similar measures to those set out in the CTMP produced prior to decommissioning to manage traffic.	The overall responsibility will be with the decommissioning contractor. Compliance with DTMP and DRP (s).
Accidents and Safety	Provision of a Decommissioning Traffic Management Plan (DTMP)	The overall responsibility will be with the decommissioning contractor. Compliance with DTMP and DRP (s).
Severance	Provision of a Decommissioning Traffic Management Plan (DTMP)	The overall responsibility will be with the decommissioning contractor. Compliance with DTMP and DRP (s).
Driver Delay	Provision of a Decommissioning Traffic Management Plan (DTMP)	The overall responsibility will be with the decommissioning contractor. Compliance with DTMP and DRP (s).
Hazardous and Dangerous Loads	Provision of a Decommissioning Traffic Management Plan (DTMP)	The overall responsibility will be with the decommissioning contractor. Compliance with DTMP and DRP (s)
Dust and Dirt	Provision of a Decommissioning Traffic Management Plan (DTMP)	The overall responsibility will be with the decommissioning contractor. Compliance with DTMP and DRP (s).

Table 10: Air Quality

Potential Impact	Mitigation/ Enhancement Measure	Monitoring Requirements
Impact of dust emissions on sensitive receptors.	To mitigate the potential impact of dust emissions, mitigation measures as detailed in the Institute of Air Quality Management (IAQM) guidance[1] have been listed below: **Communications** • Develop and implement a stakeholder communications plan that includes community engagement before work commences on site. • Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager. • Display the head or regional office contact information. **Site Management** • A Dust Management Plan may be required as part of the DRP(s) and would detail any dust monitoring required prior to and during decommissioning, including any relevant baseline dust monitoring to be undertaken before activities commence; • Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken. • Make the complaints log available to the Local Authority when asked. • Record any exceptional incidents that cause dust and/or air emissions, either on- or off- site, and the action taken to resolve the situation in the log book.	The overall responsibility will be with the decommissioning contractor. Specific responsibilities will be confirmed in the DRP(s).

	<u>Monitoring</u> • Undertake daily onsite and off-site inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the Local Authority when asked. This should include regular dust soiling check of surfaces such as street furniture, cars, window sills within 100 m of the site boundary, with cleaning to be provided if necessary. • Carry out regular site inspections to monitor dust emissions record inspection results, and make an inspection log available to the Local Authority when asked. • Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions. **<u>Preparing and maintaining the Order limits</u>** • Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible. • Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site. • Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period. • Avoid site runoff of water or mud. • Keep site fencing, barriers and scaffolding clean using wet methods. • Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used cover as described below. • Cover, seed or fence stockpiles to prevent wind whipping.	

	Operating vehicles/machinery and sustainable travel • Ensure all vehicles switch off engines when stationary – no idling vehicles. • Avoid the use of diesel or petrol-powered generators and use mains electricity or battery powered equipment where practicable. • Impose and signpost a maximum-speed-limit of 15 mph on surfaced and 10 mph on unsurfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the Local Authority, where applicable). • Manage the sustainable delivery of goods and materials within the **outline Construction Transport Management Plan (CTMP)** (document reference 7.10). **Operations** • Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems. • Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate. • Use enclosed chutes and conveyors and covered skips. • Minimize drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate. • Ensure equipment is readily available on site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods. **Waste management** • Avoid bonfires and burning of waste materials.	

	Demolition • Soft strip inside building before demolition. • Ensure effective water suppression is used during demolition activities. • Avoid explosive blasting, using appropriate manual or mechanical alternatives. • Bag and remove any biological debris before demolition.	
Impact of emissions associated with construction traffic on sensitive human receptors.	It is assumed that the number of vehicles during the decommissioning phase of the Proposed Development will be similar to the traffic anticipated during the construction phase. Construction traffic is expected to be below the Environmental Protection United Kingdom (EPUK)[2] and IAQM screening criteria for a detailed assessment. As such, it is effect to air quality is considered to be insignificant. Additionally, the assumed decommissioning phase of the Proposed Development will be at least 40 years in the future. It is expected that with improvements in technology and policy, transport will have reduced emissions and background pollutant concentrations will be improved compared to current levels.	Decommissioning traffic will be managed by the Decommissioning Transport Management Plan (DTMP).
Impact of Non-Road Mobile Machinery (NRMM) on sensitive receptors.	All NRMM will adhere to European regulations (EU 2016/1628) demonstrating compliance with emission limits.	The overall responsibility will be with the decommissioning contractor. Specific responsibilities will be confirmed in the DRP(s).

[1] Institute of Air Quality Management (2016) Guidance on the assessment of dust from demolition and construction v1.1 – [online], (Last accessed: 21/12/2022), Available at: [redacted]

[2] Environmental Protection UK and Institute of Air Quality Management (2017), Land-Use Planning & Development Control: Planning For Air Quality v1.2 – [online] (Last accessed: 21/12/2022), Available at: [redacted]

Table 11: Land Use and Agriculture

Potential Impact	Mitigation/ Enhancement Measure	Monitoring Requirements
Impacts on soil	Agricultural soils will be managed, preserved, retained and reinstated in accordance with Department for Environment, Food and Rural Affairs (Defra) guidance. The **outline Soil Management Plan (oSMP)** appended to the **oCEMP** (document reference 7.7) will inform decommissioning works to minimise the damage to soil structures during the decommissioning phase, and provide amelioration to any localised impacts using good agricultural practices. The **oSMP** will inform the preparation of a SMP prepared prior to decommissioning which will include: i. a description of the soil types and their resilience to being trafficked; ii. an outline description of proposed access routes and details of how access will be managed to minimise impacts on soils; iii. a description of works and how soil damage will be minimised and ameliorated; and iv. a methodology for monitoring soil condition, and criteria against which compliance will be assessed.	The overall responsibility will be with the decommissioning contractor. Specific responsibilities will be confirmed in the DRP(s).
Downgrading of land in areas being restored (e.g., tracks, transformers etc).	Careful handling in suitable conditions.	Specific details in the **outline Soil Management Plan (oSMP)** appended to the **oCEMP** (document reference 7.7).

Table 12: Glint and Glare

Potential Impact	Mitigation/ Enhancement Measure	Monitoring Requirements
<u>Rail receptors</u> Reflection from metal frames and deconstruction equipment. There is limited to no visibility from the railway tracks but in the unlikely event that offsite vegetation and buildings had been removed, there could be a potential safety issue from driver dazzle.	• Any onsite screening to be left in place until after the rest of the Order limits has been decommissioned. • Sections of the panels and legs to be removed sequentially rather than taking all the panels off and leaving lots of exposed steel that may reflect. That way the other panels will provide some screening for the exposed legs as well. • The panels and other infrastructure to be transported offsite as soon as they are decommissioned to avoid having reflective surfaces visible in the environment for prolonged periods.	The overall responsibility will be with the decommissioning contractor. Specific responsibilities will be confirmed in the DRP(s).
<u>Road Receptors</u> Reflection from metal frames and deconstruction equipment. Potential safety issue from driver dazzle	• Any onsite screening to be left in place until after the rest of the Order limits has been decommissioned. • Sections of the panels and legs to be removed sequentially rather than taking all the panels off and leaving lots of exposed steel that may reflect. That way the other panels will provide some screening for the exposed legs as well. • The panels and other infrastructure are transported offsite as soon as they are decommissioned to avoid having reflective surfaces visible in the environment for prolonged periods.	The overall responsibility will be with the decommissioning contractor. Specific responsibilities will be confirmed in the DRP(s).
<u>Dwellings</u> Reflection from metal frames and	• Any onsite screening to be left in place until after the rest of the Order limits has been decommissioned.	The overall responsibility will be with the decommissioning contractor. Specific

deconstruction equipment. Nuisance caused by glint reflections visible from houses	• Sections of the panels and legs to be removed sequentially rather than taking all the panels off and leaving lots of exposed steel that may reflect. That way the other panels will provide some screening for the exposed legs as well. • The panels and other infrastructure to be transported offsite as soon as they are decommissioned to avoid having reflective surfaces visible in the environment for prolonged periods.	responsibilities will be confirmed in the DRP(s).
<u>Aviation</u> Reflection from metal frames and deconstruction equipment. Potential safety issue from pilot dazzle or air traffic control tower dazzle. No aviation effects have been assessed as being present during operation so unlikely there will be any during decommissioning.	• Sections of the panels and legs to be removed sequentially rather than taking all the panels off and leaving lots of exposed steel that may reflect. • The panels and other infrastructure to be transported offsite as soon as they are decommissioned to avoid having reflective surfaces visible in the environment for prolonged periods.	The overall responsibility will be with the decommissioning contractor. Specific responsibilities will be confirmed in the DRP(s).

Table 13: Miscellaneous Issues (Major Accidents and Disasters)

Potential Impact	Mitigation/ Enhancement Measure	Monitoring Requirements
Potential for Major Accidents and Disasters- the health and safety of workers during the decommissioning phase.	The **outline Energy Storage Safety Management Plan (oESSMP)** (document reference 7.11) sets out the measures proposed to mitigate and manage all foreseeable hazards associated with the Energy Storage Systems, within the relevant regulatory frameworks. An ESSMP will be prepared in accordance with the prior oESSMP to commencement of the ESS. An Emergency Response Plan is detailed within the oESSMP, containing information on water supplies, drainage plans, hazards associated with lithium ion batteries, isolation of electrical sources to enable fire-fighting activities, measures to extinguish or cool batteries involved in fire, management of toxic or flammable gases, minimisation of the environmental impact of an incident, containment of fire water run-off, handling and responsibility for disposal of damaged batteries and establishment of regular onsite training exercises. A copy of this information could be included in an Information Box available onsite. To minimise risks to health and safety 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 induction. During decommissioning, all works will be subject to relevant risk assessments and will be required and produced by the contractor	Responsibility to be confirmed in the DRP (s). Compliance with ESSMP and DRP (s).

	prior to decommissioning, minimising the risk of major accidents and disasters on site. The perimeter security fence around the Proposed Development will be the last infrastructure to be removed until the end of the decommissioning phase to secure the Energy Park site.	

Table 14: Miscellaneous Issues (Waste)

Potential Impact	Mitigation/ Enhancement Measure	Monitoring Requirements
Potential for risk to the health of sensitive receptors during the decommissioning phase and associated waste generation, management of storage of waste and disposal of large volumes of waste. Sensitive receptors include humans, flora, fauna, and hydrological network.	The decommissioning contractor will manage the decommissioning of waste generation, and take into account the objectives of sustainable resource and waste management and seek to use material resources efficiently, reduce waste at source, reduce waste that requires final disposal to landfill and apply the principles of the Waste Hierarchy. This will include, where reasonably practical, working towards a cut and fill balance for excavations; segregation of materials onsite for appropriate re-use, recycling, and recovery, with landfill as a last resort. This will be achieved by a combination of the following measures: i. The decommissioning contractor will prepare and implement a Site Waste Management Plan (SWMP) which will set out targets for fuel, waste, and energy consumption; ii. All waste transported offsite will be delivered to the appropriately licensed receivers of such materials; and iii. As part of the SWMP, the decommissioning contractor will segregate decommissioning waste to be re-used and recycled where reasonably practicable. All soil to be reused onsite or disposed of offsite will be appropriately characterised by the decommissioning contractor. **Waste Hierarchy** The Waste (England and Wales) Regulations 2011 place a duty on all persons who produce, keep or manage waste to apply the	The overall responsibility will be with the decommissioning contractor. Specific responsibilities will be confirmed in the DRP(s).

	'Waste Hierarchy' in order to minimise waste production at every stage of the development. The 'Waste Hierarchy' promotes selection of the Best Practicable Environmental Option (BPEO) and preferred option for management of waste. The core waste management principles of prevention, reuse, recycle, recover and disposal as defined in the 'Waste Hierarchy' will be embedded within the DRP(s), produced prior to decommissioning. The separation of waste will be carried out at the source in order to maximise opportunities for reuse and recycling. Segregation of waste will require training, monitoring and enforcement. All areas used for temporary storage of waste within the Order limits will comply with Defra and the Environment Agency (EA) guidelines relevant at the point of decommissioning and will be clearly signed. Waste storage facilities will be provided at source using the best environmental options available. Any hazardous or special waste will be stored in separate, secure containers and clearly identified as such. **Waste Disposal** Disposal activities will also be carried out in accordance with the relevant Pollution Prevention Guidelines (or any relevant successive guidance in place) in order to ensure compliance with current waste legislation. All waste transported offsite will be delivered to the appropriately licenced receivers of such materials. Waste transportation will take place at regular intervals to avoid the accrual of waste.	

	Only registered waste carriers will be authorised to transport waste and subject to legislation at the point of decommissioning a Waste Transfer Note (WTN) will be completed for each load of waste, which must contain a record of their waste carrier registration number. Copies of each WTN will be filed as an appendix to the DRP(s) and held for a minimum of two years. The appropriate European Waste Catalogue (EWC) code will be noted on the WTN, in addition to how it is contained. All sites receiving waste must have an appropriate permit, licence or registration exemption, the details of which should also be recorded. **Hazardous Waste** If required, the EA will be advised in advance of any hazardous waste movements and Waste Consignment Notes (WCNs) will be purchased in advance for this type of waste transportation. These consignment notes will be held for a minimum of three years. Burning of waste or unwanted materials will not be permitted onsite. All hazardous materials including chemicals, cleaning agents and solvent containing products to be properly sealed in sealed containers at the end of each day prior to storage in appropriately protected and bunded storage areas. All fuel and oil will be stored within the Order limits and contained by a small bund constructed from material sourced onsite and lined with an impermeable membrane in order to prevent any contamination of the surrounding soils, vegetation and water table, in accordance with Defra and Environmental Agency Oil Storage Regulations for Businesses 2015 (as amended in 2020) (or latest guidance/legislation at the point of decommissioning). Any contaminated runoff within the bund will be disposed of at an appropriate waste management facility.	

	Any used (contaminated) spill kits, absorbent granules, sheets or fibres must be disposed of in accordance with the COSHH regulations (or latest guidance/legislation at the point of decommissioning) and in accordance with the Emergency Spillage Action Plan. **<u>Waste from Welfare and Domestic Facilities</u>** Temporary welfare facilities will be provided during the decommissioning phase. These facilities will include toilets, washing and drinking water. This will include a cess tank that will be periodically emptied and taken offsite by a licensed waste operator. All onsite welfare facilities will be clearly signposted and maintained. Where excess surface water occurs from the area of the buildings, this will be collected and treated in a Sustainable Drainage System (SuDS), prior to discharge. Effluent and waste from onsite decommissioning personnel will be treated at a package sewage treatment plant or a septic tank and discharged into a properly designed and sized drainage field, in accordance with Defra's GPP4 (2021), subject to obtaining the required consents. Where a septic tank is used, this will be emptied on a regular basis and taken away by a registered waste disposal contractor. Collection facilities for other domestic refuse will be provided to segregate waste. These facilities will be clearly marked, positioned in appropriate locations and protected from the weather and animals.	

Table 15: Miscellaneous Issues (Telecommunications, Television Reception and Utilities)

Potential Impact	Mitigation/ Enhancement Measure	Monitoring Requirements
Risk of utilities to be affected through damage caused as a result of excavation and engineering operations	Precautionary measures have been included as part of the embedded mitigation for the Proposed Development. These include: • The use of ground penetrating radar before excavation to identify any unknown utilities; and • Consultation and agreement of methods prior to works commencing.	The overall responsibility will be with the decommissioning contractor. Specific responsibilities will be confirmed in the DRP(s).

Table 16: Miscellaneous Issues (Electric, magnetic and electromagnetic fields)

Potential Impact	Mitigation/ Enhancement Measure	Monitoring Requirements
Risk of microshocks and other indirect effects of public exposure to electric fields	During the decommissioning phase, the 400kV underground cable will be disconnected from the local electricity network to be capped off and left *in situ*, buried underground. The underground cable once disconnected will not produce any significant EMFs or cause microshocks.	The overall responsibility will be with the decommissioning contractor. Specific responsibilities will be confirmed in the DRP(s).

1.17 IMPLEMENTATION OF THE DRP

1.17.1 The DRP(s) will set out all roles, responsibilities and actions required in respect of implementation of the measures described in this oDRP, including:

a) An organogram showing team roles, names, and responsibilities;

b) Training requirements for relevant personnel on environmental topics;

c) Information onsite briefings and toolbox talks that will be used to equip relevant staff with the necessary level of knowledge to follow environmental control procedures;

d) Measures to advise employees of changing circumstances as work progresses;

e) Communication methods;

f) Document control; and

g) Environmental emergency procedures.

1.18 MONITORING AND RECORDING

Monitoring

1.18.1 To meet the requirement of the DRP(s), environmental monitoring of the Proposed Development and its impacts will be undertaken throughout the decommissioning phase.

1.18.2 As part of the monitoring process the decommissioning contractor will allocate a designated Environmental Manager(s), who will be present onsite throughout the decommissioning works and when new activities are commencing. The Environmental Manager will observe decommissioning activities and report any deviations from the measures set out within the DRP(s), along with the action taken and general conditions at the time. The Applicant will be informed of any deviations from the measures set out within the DRP(s) as soon as possible following identification of such issues. The Environmental Manager will also act as day-to-day contact with relevant local authorities and other regulatory agencies such as the Environment Agency.

1.18.3 During the decommissioning phase, the Environmental Manager will conduct walkover surveys to ensure all requirements of the DRP(s) are being met. Action from these surveys will be documented on an Environmental Action Schedule, discussed with the Site Manager for programming requirements and issued weekly for actioning. The Environmental Manager and /or the Project Manager will arrange regular formal inspections to ensure the requirements of the DRP(s) are being adhered to. After completion of the works, the Environmental Manager will conduct a final review.

Records

1.18.4 The Environmental Manager will retain records of environmental monitoring and implementation of the DRP(s). This will allow provision of evidence that the DRP(s) is being implemented effectively. These records will include:

a) Environmental Action Schedule;

b) Licenses and approvals;

c) Results of inspections by Environmental Manager/ Project Manager;

d) Other environmental surveys and investigations; and

e) Environmental equipment test records.