CLEVE HILL SOLAR PARK

MITIGATION SCHEDULE

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CLEVE HILL
SOLAR PARK

1 SUMMARY AND INTRODUCTION

1. Cleve Hill Solar Park is a proposed solar photovoltaic (PV) array electricity generating facility and electrical storage facility, each with a total capacity exceeding 50 megawatts (MW), and an export connection to the National Grid (the Development).

2. An Environmental Statement (ES) has been prepared on behalf of the Applicant in relation to an application to be made to the Secretary of State (SoS) for Department for Business, Energy & Industrial Strategy (BEIS), under Section 37 of the Planning Act 2008.

3. The Application is for a Development Consent Order (DCO) for the construction, operation and maintenance, and decommissioning of Cleve Hill Solar Park. The Development is classified as a Nationally Significant Infrastructure Project (NSIP) under the Planning Act 2008. An Environmental Impact Assessment (EIA) has been undertaken for the Development and as such The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) apply.

4. This Mitigation Schedule forms part of the application to PINS for a DCO for the Cleve Hill Solar Park. Its purpose is to summarise the mitigation measures identified within the ES (DCO Document Reference 6).

5. This document does not include "embedded mitigation" or "development design" mitigation, i.e., that which forms part of (or is "embedded in") the Development Design and has already been taken into account in the EIA assessments within the ES.

1.1 MONITORING

6. Monitoring is not included in this summary. Monitoring is proposed in respect of certain aspects of the Development and any monitoring will be undertaken in accordance with the monitoring provisions of various construction and operational management plans to be approved by the relevant authorities according to the Requirements of the draft DCO.

2 MITIGATION SCHEDULE

ES Chapter [Doc. Ref]	Phase of Development	Mitigation	Where Secured
Chapter 8 Ecology (Section 8.6) [6.1.8]	Construction	To minimise any potential adverse effects of disturbance to, or loss of, Important Ecological Features (IEF) habitat and IEF species, such as the ditch system and adjacent riparian habitats, and semi-improved neutral grassland, under the Outline Construction Environmental Management Plan (CEMP), the following measures will be implemented: • Prior to and during the construction phase, the Ecological Clerk of Works (ECoW) will provide contractor briefings to ensure as far as practicable that impacts from construction activities are minimised; and • Use of measures such as temporary fencing and signing of retained IEF habitats and areas of importance to IEF species where at potential risk from construction activity, including the use of covers over, or escape ramps to allow egress from, excavations. To minimise the potential adverse effects to IEF species from their presence within construction areas where the growth of new habitats prior to the start of the construction phase is required, under the Outline CEMP, the following measures will be implemented: • Use habitat management measures, such as mowing or grazing of grassland habitats within the solar PV fields, such that the grassland maintains a short sward and does not encourage the colonisation of this habitat by IEF species from neighbouring extant habitat; and • The timing and requirement for habitat management within each field is to be confirmed by the ECoW following site observations during the construction phase.	Technical Appendix A5.4: Outline Construction Environment Management Plan (DCO Document Reference: 6.4.5.4)
Chapter 11 Cultural Heritage and Archaeology (Section 11.6.1.1) [6.1.11]	Construction	Direct effects to archaeological remains during the construction phase could be mitigated through a programme of archaeological works which would preserve archaeological remains by record. It is proposed that a programme of archaeological investigation be undertaken within the electrical compound location. The scope, extent and detail will be agreed with Kent County Council in the form of a Written Scheme of Investigation. The purpose is to afford an opportunity to identify and record any buried archaeological remains in this area, which is the largest specific piece of ground disturbance within the Development. This area is also closest to where archaeological remains were recorded during archaeological works for the adjacent onshore connection works substation. Implementation of an appropriate scheme of archaeological investigation would lead to preservation by record.	Technical Appendix A11.4: Outline Written Scheme of Investigation (DCO Document Reference 6.4.11.4)

ES Chapter [Doc. Ref]	Phase of Development	Mitigation	Where Secured
Chapter 12 Noise and Vibration (Section 12.6.1.2) [6.1.12]	Construction	In order to reduce noise at ecological receptors during active piling operations, a 10 dB reduction in noise levels should be achieved through implementation of one (or more) of the following: • Selection of quieter equipment than that assessed; • Use of pile hammer shrouds; • Use of pile press rather than hammer; or • Use of acoustic quilts, barriers or water jackets In order to address the potentially significant effects identified for the Special Protection Area (SPA) boundary (applicable during the breeding season only), mitigation is required. This may include (for example): • The use of quieter plant and equipment than modelled here; • Modelling and application of noise mitigation measures, similar to those given as examples for piling noise above; • The ECoW overseeing work undertaken adjacent to the northern boundary of the site and observing ornithological responses to inform any further action; and/or • Applying set-back distances at which specific construction activities can take place during the breeding season. The Outline SPA Construction Noise Management Plan will be updated prior to construction setting out the final mitigation options based on the equipment planned to be used on site. This is likely to be a combination of the above example measures.	Technical Appendix A12.10: Outline Special Protection Area (SPA) Construction Noise Management Plan (DCO Document Reference: 6.4.12.10)
Chapter 12 Noise and Vibration (Section 12.6.2.1) [6.1.12]	Operation	Given the flexibility in the design of the Development, there are numerous approaches to meeting the required noise levels at receptor locations: • By relocating some of the noise sources; • By operating according to a structured programme designed to reduce noise at receptor locations (e.g., avoiding two noise sources operating simultaneously); • By selecting plant with lower noise emission ratings than those assessed; and/or • By providing noise insulation around the plant. The plant items to be installed will take up different amounts of the noise budget, i.e. the noise limit. Some items selected for installation may have lower noise emissions that those assessed, and as such this may free up noise budget for other sources of noise, providing that the overall limit is not exceeded. In addition, where mitigation is required, some items may have relatively simple measures available, such as: • Orientating noise emission points away from receptors; • Fitting of manufacturer supplied mitigation, i.e., silencers, etc.; or • Siting noisy equipment behind other site	Draft DCO Requirement 14, Operational Noise (Draft DCO Schedule 1, Part 2: Requirements) (DCO Document Reference 3.1)

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		infrastructure such as substation building, etc. Noise from transformers is generally caused by the cooling system, for which several mitigation measures are available, including: • Acoustic silencers installed on inlet / extract ventilation; • Cooling fans located within transformer enclosures; • Extract ventilation orientated away from receptors; • Relocation of transformers to maximise distance to nearest receptors; or • Selection of transformer unit with lower noise emission levels than that assessed. The noise level provided for the transformers associated with the energy storage is significantly lower than that for the batteries and inverters, and as such mitigation should be applied to the containers housing the batteries and inverters. Mitigation measures include, in addition to those set out in section 12.4.2: • Acoustic silencers installed on inlet / extract ventilation; • Cooling fans located within container units; • Container units to include acoustic insulation (e.g., mineral rockwool) to prevent noise breakout; • Extract ventilation orientated away from receptors; or • Selection of battery storage unit with lower noise emission levels than that assessed. With regards to the Harmonic Filters and 400 kV Transformer Fan Cooling, mitigation measures could include, in addition to the embedded mitigation set out in section 12.4.2: • Selection of harmonic filter / transformer fan cooling units with lower noise emission levels than that assessed; • Extract ventilation orientated away from receptors; • Acoustic attenuators fitted to extract cooling (unlikely to be an option for harmonic filters); and / or • Acoustic screening / enclosures fitted around noise emitting elements.	
Chapter 13 Socio-economics, Tourism, Recreation and Land Use (Section 13.6.1) [6.1.13]	Construction	A separate Public Rights of Way (PRoW) Management Plan has been developed which is provided as Appendix G to the Outline Construction Traffic Management Plan (CTMP), which is Technical Appendix A14.1 of the ES. This sets out management measures to mitigate direct effects on users of the PRoW network around the Recreation Core Study Area.	Technical Appendix A14.1: Outline Construction Traffic Management Plan (DCO Document Reference 6.4.14.1) (See below for further details on

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			Outline CTMP)
Chapter 14 Access and Traffic (Section 14.5) [6.1.14]	Construction	An outline CTMP has been written and is included as Technical Appendix A14.1, which details the measures to be implemented to mitigate against traffic generated during the construction phase. The outline CTMP details the routeing of HGVs, and control measures ensuring the effect of construction traffic on the surrounding network is kept as low as possible. This includes: • Traffic timing and routeing strategies; • Staff routeing and minibuses; • Staff travel planning; • PRoW Management; • Vehicle cleaning; • Highways conditions surveys; • Information packs and communication; • Speed restrictions; • Delivery management systems; • Temporary signage; • Traffic marshals; and • Where possible construction traffic will be restricted to outside school opening and closing timings. Extensive mitigation is proposed along Head Hill Road and Seasalter Road which is detailed in the outline CTMP. A final CTMP, in line with the outline CTMP, will be provided for approval by KCC prior to commencement of development.	Technical Appendix A14.1: Outline Construction Traffic Management Plan (DCO Document Reference 6.4.14.1)
Chapter 16 Air Quality (Section 16.4.5) [6.1.16]	Construction and Decommissioning	Additional guidance has been provided by the IAQM in relation to dust and air mitigation measures. As some elements and activities of the Development have been assessed as high risk it is recommended that the good practice measures outlined in the IAQM guidance and Greater London Authority's (GLA) guidance on the *control of dust and emissions from construction and demolition* (2006) are followed. A number of best practice mitigation measures could be employed to minimise dust emissions during construction and decommissioning. Measures such as, but not limited to, the following will be considered for the final construction environmental management plan (CEMP), and are included in the Outline CEMP which will provide the framework for this: • Excavation and earthworks areas will be stripped	Technical Appendix A5.4: Outline Construction Environmental Management Plan (DCO Document Reference 6.4.5.4) Technical Appendix A5.5: Outline Decommissioning and Restoration Plan (DCO Document Reference 6.4.5.5)

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		as required in order to minimise exposed areas; • During excavation works, drop heights from buckets will be minimised to control the fall of materials reducing dust escape; • Completed earthworks and other exposed areas will be covered with topsoil and re-vegetated as soon as it is practical in order to stabilise surfaces. • During stockpiling of loose materials, stockpiles shall exist for the shortest possible time; • Material stockpiles will be low mounds without steep sides or sharp changes in shape; • Material stockpiles will be located away from the site boundary, sensitive receptors, watercourses and surface drains; • Material stockpiles will be sited to account for the predominant wind direction and the location of sensitive receptors; • Water bowsers will be available on site and utilised for dust suppression during roadworks/ vehicle movements when and where required; • Daily visual inspections will be undertaken to assess need for use of water bowsers, with increased frequency when activities with high potential to generate dust are carried out during prolonged dry or windy conditions; • Shielding of dust-generating activities; • Use of enclosed chutes, conveyors and covered skips; • Covering vehicles carrying dry spoil and other wastes to prevent escape of materials; • Provision of wheel washing and wet suppression during loading of wagons/vehicles; and • Daily visual inspections will be undertaken to assess the condition of the junction of the site track with Seasalter Road and its approaches. The Outline CEMP and Technical Appendix A5.5: Outline Decommissioning and Restoration Plan (DRP) accompany Chapter 5: Development Description and set out measures included in the Development design during construction and decommissioning phases to address dust generation. Recommended mitigation measures in relation to Non-Road Mobile Machinery (NRMM) are detailed below: • All NRMM should use fuel equivalent to ultra-low sulphur diesel (fuel meeting the specification within EN590:2004); • All NRMM should comply with either the current or previous EU Directive Staged Emission Standards (97/68/EC, 2002/88/EC, 2004/26/EC). As new emission standards are introduced the acceptable standards will be updated to the most current standard; • All NRMM should be fitted with Diesel Particulate Filters conforming to defined and demonstrated filtration efficiency (load/duty cycle permitting). • The on-going conformity of plant retrofitted with Diesel Particulate Filters, to a defined performance standard, should be ensured through	

ES Chapter [Doc. Ref]	Phase of Development	Mitigation	Where Secured
		a programme of on-site checks; • Implementation of energy conservation measures including instructions to throttle down or switch off idle construction equipment; switch off the engines of trucks while they are waiting to access the site and while they are being loaded or unloaded; and ensure equipment is properly maintained to ensure efficient energy consumption; and • NRMM and plant should be well maintained. If any emissions of dark smoke occur then the relevant machinery will stop immediately and any problem rectified.	

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