Environmental Impact Assessment Report

Lairdmannoch Energy Park

Chapter 15: Schedule of Mitigation

Lairdmannoch Energy Park Limited

May 2025

Contents

Tables

Figures

Appendicies

Glossary of Terms

Term	Definition
The Applicant	Lairdmannoch Energy Park Limited
The Agent	Atmos Consulting Limited
Environmental Advisors and Planning Consultants	Atmos Consulting Limited
Environmental Impact Assessment	Environmental Impact Assessment (EIA) is a means of carrying out, in a systematic way, an assessment of the likely significant environmental effects from a development
Environmental Impact Assessment Regulations	The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (EIA Regulations)
Environmental Impact Assessment Report	A document reporting the findings of the EIA and produced in accordance with the EIA Regulations
The Proposed Development	Lairdmannoch Energy Park
The Proposed Development Site	The full application boundary as per Figure 1-1

List of Abbreviations

Abbreviation	Description
ACoW	Archaeological Clerks of Works
BESS	Battery Energy Storage System
CAA	Civil Aviation Authority
CAR	Controlled Activity Regulations
CEMP	Construction Environment Management Plan
CMS	Construction Method Statement
CTMP	Construction Traffic Management Plan
DGC	Dumfries and Galloway Council
ECoW	Ecological Clerk of Works
EnvCoW	Environmental Clerk of Works
GWDTE	Ground Water Dependent Terrestrial Ecosystem
HMP	Habitat Management Plan
LED	Light Emitting Diode
MOD	Ministry of Defence
NATS	National Air Traffic Services
PPP	Pollution Prevention Plan
SEPA	Scottish Environmental Protection Agency
SUDS	Sustainable Drainage Systems
WSI	Written Scheme of Investigation

15 Schedule of Mitigation

15.1 Introduction

This Chapter of the EIA Report provides a summary of the mitigation measures identified through the assessments as being required to address particular effects and to demonstrate how Schedule 4, paragraph 7 of the EIA Regulations is met.

An EIA Report is required to include: "*A description of the measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment and, where appropriate, of any proposed monitoring arrangements*".

The mitigation measures included in the EIA for the Proposed Development fall into the following categories:

- Embedded mitigation, incorporated into the design of the Proposed Development, such as the use of existing infrastructure where possible. All embedded mitigation measures are detailed within **Chapter 3: Description of Development** as well as the relevant technical chapters; and
- Additional mitigation measures, including monitoring and enhancement, identified as a result of the EIA, e.g., topic specific management plans such as a **Technical Appendix 6-6 Habitat Management Plan** or **Technical Appendix 8-2 Peat Management Plan**.

The additional mitigation measures that have been identified are presented in the relevant technical chapters of the EIA Report (**Chapters 5** to **14**) and are summarised in the Schedule of Mitigation below.

15.2 Schedule of Mitigation

A Schedule of Mitigation, proposed to address potential significant adverse effects arising from the Proposed Development, is provided in Table 15-1.

The Schedule of Mitigation is supported by an outline **Construction Environment Management Plan (OCEMP)** provided in **Technical Appendix 15-1**.

The **OCEMP** should be read in conjunction with **Chapters 5** to **14** and their respective technical appendices, in particular, the CEMP is supported by:

- **Technical Appendix 6-5 Outline Habitat Management Plan (OHMP).**

Table 15-1: Schedule of Mitigation

ID	Section Reference	EIA Report Chapter and Document	Phase	Mitigation Commitments
Landscape & Visual				
LV-01	Section 5.12 Figure 5-12	Chapter 5 Landscape & Visual Assessment	Construction/ Operation	Screen Planting to Solar Farm North and South Arrays
Ecology				
EC-01	6.6.1	Chapter 6: Ecology	Design Mitigation	A Pollution Risk assessment will be carried out identifying materials, areas and activities of greatest risk and laying out controls on these. From this a Pollution Prevention Plan (PPP) will be prepared. The PPP will be a sub plan of the CEMP. A PPP will also be in place during operation and decommissioning phases.
EC-02	6.6.1	Chapter 6: Ecology	Design Mitigation	A minimum stand-off buffer of 50 m will be maintained between the rotor-swept area and the nearest linear feature, which is considered to be the conifer plantation tree-lines bordering the Proposed Development Site.
EC-03	6.6.2	Chapter 6: Ecology	Pre-Construction Phase	A pre-construction survey will be undertaken within 4 weeks of the start of construction, covering suitable habitat within 200 m from construction areas. This buffer accounts for potential otter as well as all other possible protected species interests.
EC-04	6.6.2	Chapter 6: Ecology	Pre-Construction Phase	Root Protection Areas as per BSI (2012) will be in place around all woodland blocks both within and immediately adjacent the Proposed Development Site boundary.
EC-05	6.6.3	Chapter 6: Ecology	Construction Phase	Full details of construction mitigation measures will be provided in a CEMP to be agreed with Dumfries and Galloway Council prior to development commencing.
EC-06	6.6.3	Chapter 6: Ecology	Construction Phase	Works to be overseen by an Environmental Clerk of Works (EnvCoW) and their role and responsibilities are to be detailed in the CEMP. In outline, this role will include ongoing monitoring of environmental / ecological constraints, review and audit of the appointed contractor's environmental performance, delivery of toolbox talks, and supervision of construction works.
EC-07	6.6.3	Chapter 6: Ecology	Construction Phase	There will be no direct discharges to any natural watercourses, with all drainage waters being dispersed as overland flows, as directed by the EnvCoW to avoid erosion or siltation of existing watercourses in the process.
EC-08	6.6.3	Chapter 6: Ecology	Construction Phase	Silt fencing will be placed at the Proposed Development boundary edge where watercourses occur within 50 m of the boundary.

ID	Section Reference	EIA Report Chapter and Document	Phase	Mitigation Commitments
EC-09	6.6.3	Chapter 6: Ecology	Construction Phase	Wind turbines and associated infrastructure including tracks and other hardstandings will have a micro siting allowance of up to a radius of 50 m.
EC-10	6.6.3	Chapter 6: Ecology	Construction Phase	Drainage measures, including drainage ditches and silt traps, will be provided to collect and treat increased surface run off.
EC-11	6.6.3	Chapter 6: Ecology	Construction Phase	Appropriate bunded storage will be in place for storage of fuels/oils, with onsite storage of hydrocarbons to be kept to a minimum.
EC-12	6.6.3	Chapter 6: Ecology	Construction Phase	Use of wet-cement products within the hydrological buffer will be avoided, insofar as possible. Should their use be proposed, this would be in agreement between the EnvCoW and SEPA prior to their use.
EC-13	6.6.3	Chapter 6: Ecology	Construction Phase	Wastewater emanating on-site (sewage, wastewater from site office) will be taken off-Site for disposal/treatment at controlled facilities. To this effect, welfare facilities for construction site workers will include self-contained port-a-loos with an integrated waste holding tank.
EC-14	6.6.3	Chapter 6: Ecology	Construction Phase	No water will be sourced or discharged from works.
EC-15	6.6.3	Chapter 6: Ecology	Construction Phase	Infiltration interception drains utilised for upslope 'clean' water collection and dispersion.
EC-16	6.6.3	Chapter 6: Ecology	Construction Phase	Flow attenuation and filtration check dams will be installed, where appropriate, to reduce velocities, with consideration given to gradient with drains to determine spacing requirements.
EC-17	6.6.3	Chapter 6: Ecology	Construction Phase	Silt fences, straw bales and biodegradable matting will be used to control surface water runoff for deposition areas.
EC-18	6.6.3	Chapter 6: Ecology	Construction Phase	Deposition areas will be sealed with a digger bucket and vegetated as soon possible to reduce sediment entrainment in runoff.
EC-19	6.6.3	Chapter 6: Ecology	Construction Phase	Machines are to be operated, and materials are to be stored within the footprint of permanent construction features wherever practicable, to minimise habitat loss.
EC-20	6.6.3	Chapter 6: Ecology	Construction Phase	Ensure that vehicles and their operators do not inadvertently stray onto adjacent habitat areas.
EC-21	6.6.3	Chapter 6: Ecology	Construction Phase	Best practice techniques for vegetation and habitat re-instatement will be adopted and implemented on areas subject to disturbance, such as the temporary construction

ID	Section Reference	EIA Report Chapter and Document	Phase	Mitigation Commitments
				compound area, as soon as is practicable.
EC-22	6.6.3	Chapter 6: Ecology	Construction Phase	Materials and other temporary infrastructure will be removed off-site and all habitats displaced by temporary construction areas will be reinstated.
EC-23	6.6.3	Chapter 6: Ecology	Construction Phase	The surface layer of soil and vegetation will be stripped separately from the lower soil layers, stored separately, and replaced as intact as possible once the construction phase is complete. Turf material will be replaced as far as possible in similar locations to where it was removed.
EC-24	6.6.3	Chapter 6: Ecology	Construction Phase	Soils removed from the excavated area will be stored separately in piles, no greater than 3 m in height, directly adjacent to, or near the tracks on ground appropriate for storage of materials, i.e. relatively dry and flat ground, a minimum of 50 m away from watercourses (where possible). Wherever possible, reinstatement of ground disturbed to facilitate construction of the track will be carried out as track construction progresses.
EC-25	6.6.3	Chapter 6: Ecology	Construction Phase	No refuelling will be permitted at works locations within 50 m of watercourses (where possible).
EC-26	6.6.3	Chapter 6: Ecology	Construction Phase	The time between excavating and backfilling of individual sections of cable trench will be minimised near GWDTEs. As a rule, these should be backfilled within three days to minimise drying and disturbance.
EC-27	6.6.3	Chapter 6: Ecology	Construction Phase	Impermeable barriers and/or clay plugs will be used to avoid the trenches acting as preferential conduits of groundwater.
EC-28	6.6.3	Chapter 6: Ecology	Construction Phase	Areas of identified sensitivity (GWDTEs and flushes) will be marked out / fenced-off to prevent accidental vehicular access.
EC-29	6.6.3	Chapter 6: Ecology	Construction Phase	As there is potential for fauna to access the Proposed Development Site excavations/holes will be covered at the end of each working day, or a wooden plank placed inside to allow faunal species to escape, should they enter the hole. Any temporarily exposed open pipe system would be capped in such a way as to prevent wildlife gaining access.
EC-30	6.6.3	Chapter 6: Ecology	Construction Phase	No in-channel obstructions (floodlighting, fencing or diversions) will be permitted within watercourses unless specifically authorised in writing by the relevant authority (i.e., SEPA and/or a suitably experienced freshwater Ecologist).
EC-31	6.6.3	Chapter 6: Ecology	Construction Phase	In the event that a protected species is discovered all work in that area would stop immediately and the EnvCoW would be contacted. Increased buffer areas may be

ID	Section Reference	EIA Report Chapter and Document	Phase	Mitigation Commitments
				required in these locations.
EC-32	6.6.3	Chapter 6: Ecology	Construction Phase	A toolbox talk highlighting the presence of protected species should be given to all staff during their induction.
EC-33	6.6.3	Chapter 6: Ecology	Construction Phase	The pre-construction survey will confirm if measures such as 'badger gates' are required within works fencing to ensure safe access to badger setts and the wider area for foraging.
EC-34	6.6.3	Chapter 6: Ecology	Construction Phase	No new ground will be cleared without prior inspection by the EnvCoW to ensure reptiles, should they be present, are encouraged to disperse before clearance. Clearance will occur in a manner to ensure dispersal routes for reptiles.
EC-35	6.6.3	Chapter 6: Ecology	Construction Phase	A speed limit of 15 mph will be in place at all times to reduce the risk of collision and protected species mortality associated with construction vehicles.
EC-36	6.6.3	Chapter 6: Ecology	Construction Phase	Measures shall be implemented to reduce the potential for even non-significant construction impacts to bats, e.g., downward-directed artificial lighting will be used to shine light to the working area only and reduce 'light leakage' that may temporarily affect bat flightlines.
EC-37	6.6.3	Chapter 6: Ecology	Construction Phase	The following measures will be incorporated into a sensitive lighting regime in respect of bats: • Lighting columns that are set back from treelines; • Use of warm white LEDs (lights should peak higher than 550 nm); • Lights with a 0% upward spill ratio (no vertical light spill); • Light should be kept near to or below the horizontal; and Waterbodies or watercourses will not be directly illuminated.
EC-45	6.7.1	Chapter 6: Ecology	Construction Effects	A pre-construction survey for otter will be undertaken within 4 weeks of the start of construction covering suitable habitat within 200 m from construction areas. Should a resting place be found, works will be halted and an appropriate buffer (as directed by the EnvCoW) implemented. The buffer will work within the 50 m micro-siting allowance, or in the case of a breeding holt, a derogation licence with Species Protection Plan from NatureScot may be required.
EC-46	6.7.1	Chapter 6: Ecology	Construction Effects	A 50 m buffer around known badger setts will be maintained between these locations during works which will include boundary fencing. Safe foraging access will be maintained to and from sett locations to the wider, area with badger gates within fencing

ID	Section Reference	EIA Report Chapter and Document	Phase	Mitigation Commitments
				if required - assuming setts are confirmed as active during the pre-construction survey.
EC-47	6.7.1	Chapter 6: Ecology	Construction Effects	The two reptile hibernacula will not be removed during works and habitat will be retained to ensure adequate escape by reptiles from them, should they be present. The EnvCoW will check them before works occur ensuring no disturbance, particularly during the hibernation period (October to early May).
EC-38	6.6.4	Chapter 6: Ecology	Operational Phase	Measures shall be implemented to reduce the potential for even non-significant construction impacts to bats, e.g., downward-directed artificial lighting will be used to shine light to the working area only and reduce 'light leakage' that may temporarily affect bat flightlines.
EC-39	6.6.4	Chapter 6: Ecology	Operational Phase	The following measures will be incorporated into a sensitive lighting regime in respect of bats: • Use of warm white LEDs (lights should peak higher than 550 nm); • Lights with a 0% upward spill ratio (no vertical light spill); • Light should be kept near to or below the horizontal; and Waterbodies or watercourses will not be directly illuminated.
EC-40	6.6.4	Chapter 6: Ecology	Operational Phase	Details of the habitat reinstatement/restoration and monitoring programme are included in the HMP (**TA 6-6**). Including 88 ha of Peatland restoration.
EC-41	6.6.4	Chapter 6: Ecology	Operational Phase	The EnvCoW will monitor the condition of sensitive habitats, including areas of GWDTE, restored peat and watercourses. Details of the reinstatement and monitoring programme are included in the HMP (TA 6-6). Quadrats will be established in year 1 following the start of restoration with surveys carried out in year 3 and 5. Further surveys will be carried out in years 7,10, 15 and 40.
EC-42	6.6.4	Chapter 6: Ecology	Operational Phase	The proposed access tracks will be left in place after completion of the construction phase as they will provide access for maintenance, repairs, and the eventual decommissioning phase.
EC-43	6.6.4	Chapter 6: Ecology	Operational Phase	Hardstanding areas at each turbine location will be retained for use in on-going maintenance operations, with the edges as far as possible blended to the adjacent contours with natural vegetation being allowed to re-establish.
EC-44	6.6.4	Chapter 6: Ecology	Operational Phase	A site speed limit of 15 mph will be always in place to reduce the risk of faunal collisions with maintenance vehicles.
EC-48	6.7.3	Chapter 6: Ecology	Decommissioning	Once the Proposed Development Site ceases operation after the period of generation,

ID	Section Reference	EIA Report Chapter and Document	Phase	Mitigation Commitments
			Effects	all major equipment and structures will be removed or may be replaced with a new set of turbines subject to planning permission being obtained.
EC-49	6.7.3	Chapter 6: Ecology	Decommissioning Effects	Upon decommissioning of the Proposed Development, the wind turbines would be disassembled in reverse order to how they were erected. All above ground turbine components would be separated and removed off-site for recycling.
EC-50	6.7.3	Chapter 6: Ecology	Decommissioning Effects	Tracks and crane hardstands will remain and be grassed over or reseeded. Underground cables will be de-energised and left in place. Turbine foundations will be buried, and the area will be reseeded.
EC-51	6.7.3	Chapter 6: Ecology	Decommissioning Effects	A Decommissioning Plan will be prepared prior to any decommissioning, which will be agreed with Dumfries and Galloway Council. The plan will provide details of the methodologies that will be adopted, the environmental controls that will be implemented, the Emergency Response Procedure, methods for reviewing compliance and an indicative programme of decommissioning works.
EC-52	6.8	Chapter 6: Ecology	Residual Effects	A curtailment programme, designed to restrict wind farm operation at times when highest levels of bat activity would occur, reducing the risk of collision and barotrauma to foraging bats. A tiered approach to mitigation is set out in **TA 6-3**, whereby, weather conditions and time inform curtailment.
EC-53	6.8	Chapter 6: Ecology	Residual Effects	Post-construction monitoring of bat activity is recommended for a minimum of the first five years of operation, as set out in **TA 6-3** in order to adjust the mitigation strategy iteratively during years two to five; it is assumed that by year five an optimum level of avoidance will have been determined and would be perpetuated for the lifetime of the Proposed Development.
Ornithology				
O-1	7.62	Chapter 7: Ornithology	Construction	An CEMP and CMS will be developed and agreed with stakeholders, and will include measures to safeguard habitats and species and provide details of all pre-construction surveys including methods and timings
O-2	7.62	Chapter 7: Ornithology	Construction	An ECoW will be present during enabling works and throughout the construction period. They will: • Give regular Toolbox talks regarding the ornithological sensitivities of the Proposed Development Site • Carry out or oversee ornithological monitoring before and during the

ID	Section Reference	EIA Report Chapter and Document	Phase	Mitigation Commitments
				construction period Monitor any active nests and remove buffers once activity has ceased
O-3	7.62	Chapter 7: Ornithology	Construction	Where possible vegetation clearance should occur outwith the breeding season (within September – mid-March inclusive). Should vegetation or ground clearance occur within the breeding season then it should be checked no more than 48 hours before any vegetation stripping/removal for the presence of breeding works by a suitably qualified individual, either the ECoW or overseen by the ECoW.
O-4	7.62	Chapter 7: Ornithology	Construction	If construction occurs during the breeding season (mid-March – August inclusive) then regular checks will be carried out to search for nests of all species within 100m of working areas; this would be extended to 1km for breeding Red kite and other Schedule 1 species.
O-5	7.62	Chapter 7: Ornithology	Construction	If an active nest is identified, then it should be buffered based upon current guidance (currently Goodship & Furness 2022) after review from the ECoW to determine the most appropriate distance for that particular location. Where a species is not listed in guidance then a minimum 5 m buffer would observed, with the ECoW being able to increase this at their discretion. The buffer must not be removed until the ECoW has determined that the nest is no longer in use and there are no dependent young in the vicinity.
O-6	7.62	Chapter 7: Ornithology	Construction	A Species Protection Plan will be developed as part of the CEMP. It will detail protection and mitigation measures aimed primarily at Twite and Red kite but will also for all bird species to ensure works are carried out lawfully.
O-7	7.62	Chapter 7: Ornithology	Construction	In the breeding season prior to construction commencing, a breeding raptor survey, using methodology described in Hardey *et al* 2013 will be carried out to establish the distribution of nests across and in the vicinity of the Proposed Development Site. Monitoring will also continue during the construction period to ensure that nests are identified and protected.
O-8	7.62	Chapter 7: Ornithology	Construction	In the breeding season prior to construction and breeding seasons during the construction period, Black grouse lek surveys should be undertaken between mid March and mid May within 500m of the access route, using methodology set out in Gilbert *et al*
Hydrology, Geology and Hydrogeology				
HYD-01	8.8	Chapter 8: Hydrology, Geology and	Construction	Final CEMP to be submitted for written approval of DGC, SEPA and NatureScot prior to construction commencing.

ID	Section Reference	EIA Report Chapter and Document	Phase	Mitigation Commitments
		Hydrogeology		
HYD-02	8.8	Chapter 8: Hydrology, Geology and Hydrogeology	Construction	Implementation of Geotechnical Risk Register.
HYD-03	8.8	Chapter 8: Hydrology, Geology and Hydrogeology	Construction	Implementation of Peat Management Plan.
HYD-04	8.8	Chapter 8: Hydrology, Geology and Hydrogeology	Construction	Use of ECoW / EnvCoW during construction.
HYD-05	8.8	Chapter 8: Hydrology, Geology and Hydrogeology	Construction	Implementation of confirmatory water quality monitoring, the scope and frequency of which will be agreed with SEPA, DGC and Scottish Water.
HYD-06	8.8	Chapter 8: Hydrology, Geology and Hydrogeology	Construction	Commitment to deploy SuDS and prepare a detailed flood risk assessment and drainage design as part of the final CEMP
HYD-07	8.8	Chapter 8: Hydrology, Geology and Hydrogeology	Construction	Commitment to design watercourse crossings in accordance with best practice.
HYD-08	8.8 and 8.9	Chapter 8: Hydrology, Geology and Hydrogeology	Operational	Appropriate storage and handling of potential pollutants in accordance with CAR authorisations.
HYD-09	8.8 and 8.9	Chapter 8: Hydrology, Geology and	Operational	Appropriate drainage design that incorporates sediment management measures, including sediment traps, to attenuate and treat runoff. Adopted through a long-term operational drainage and monitoring programme.

ID	Section Reference	EIA Report Chapter and Document	Phase	Mitigation Commitments
		Hydrogeology		
HYD-10	8.8 and 8.9	Chapter 8: Hydrology, Geology and Hydrogeology	Operational	Good practice measures adopted through a long term operational drainage and monitoring programme.
HYD-11	8.8 and 8.9	Chapter 8: Hydrology, Geology and Hydrogeology	Operational	Inspection of the operational drainage system and compliance with the attenuated rate of runoff agreed with DGC at the detailed design stage. This will include removal of blockages at watercourse crossings as required.
HYD-12	8.8 and 8.9	Chapter 8: Hydrology, Geology and Hydrogeology	Operational	Adoption of suitable firewater management plan at the BESS.
HYD-13	8.9	Chapter 8: Hydrology, Geology and Hydrogeology	Decommissioning	Methods for decommissioning and mitigation measures to be employed at decommissioning stage will follow best practice measures and guidance at that time.
Cultural Heritage				
CH-01	10.8	Cultural Heritage	Construction	A Written Scheme of Investigation (WSI) will be designed with the Archaeologist at Dumfries and Galloway Council and the Client. The WSI will set out the fencing of known heritage assets within the Proposed Development footprint and those potentially impacted by the Habitat Management Plan (HMP) as well as allowing for the recording of hitherto unknown heritage assets.
CH-02	10.8	Cultural Heritage	Construction	Archaeological Clerk of Works (ACoW) to oversee implementation of the mitigation plan outlined in the Written Scheme of investigation (WSI)
Transport and Access				
TT-01	11.8	Transport and Access	Construction	Construction Traffic Management Plan (CTMP)
Other Considerations				
OC-01	14.6.1	Chapter 14: Other considerations	Design	NATS - The Applicant is prepared to pay the demonstrably and reasonably incurred costs associated with the specific mitigation measures identified to address the evident

ID	Section Reference	EIA Report Chapter and Document	Phase	Mitigation Commitments
				impacts of the Proposed Development.
OC-02	14.6.1	Chapter 14: Other considerations	Design	As the Proposed Development turbines tip heights exceed 150m, aviation safety lighting is required. A bespoke lighting scheme that maintains flight safety for aviation operations in the area and to meet MOD and CAA specific requirements is necessary. Following consultation, the Applicant has agreed the lighting scheme presented in **Technical Appendix 14-2 Reduced Lighting Scheme** with the CAA: • Medium intensity steady red (2000 candela) lights on the nacelles of turbines T3, T5, T7 and T9 forming a cardinal layout; • A second 2000 candela light on the nacelles of the above turbines to act as alternates in the event of a failure of the main light noting that both lights will not be lit at the same time; • The lights the lights on these turbines to be capable of being dimmed to 10% of peak intensity when the lowest visibility as measured at a suitable point around the wind farm by one or more visibility measuring devices exceeds 5km; • Removal of the requirement for intermediate level 32 candela lights; and • All turbines will be fitted with Infra-Red as per MOD specification. Please note the turbine numbering on **Technical Appendix 14-2** does not match the turbine numbering in the rest of the EIAR. This is simply a numbering inconsistency and the turbines are in the same locations in both **TA 14-2** and in the rest of the EIAR.