



Chapter 13 Schedule of Environmental Commitments

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13 Schedule of Environmental Commitments

13.1 Introduction

13.1.1 Best practice in Environmental Impact Assessments (EIA) recommends the use of a schedule of environmental commitments, which can act as a quick reference for anyone interested in the mitigation measures to which the Applicant has committed to implementing and upon which the assessment of residual effects presented within the EIA Report has been based. It will be utilised by the Applicant's design team throughout development of the detailed design, and the appointed contractors will be required to allow for, and ultimately implement, each of the measures in this schedule as a minimum.

13.1.2 **Table 13.1** presents the schedule of environmental commitments for the Proposed Development, listed according to the relevant environmental topic area. Individual EIA Report chapters should be referred to for full details of the mitigation.

Table 13.1 Schedule of Environmental Commitments

Subject Area	Commitment	Timing
Project Design		
Micro-siting	A micro-siting allowance of up to 50 m in all directions is being sought in respect of all infrastructure, to suitably respond in the event that pre-construction surveys identify unsuitable ground conditions or environmental constraints that could be avoided by relocation. No micro-siting will be undertaken that results in significant adverse effect which would otherwise be non-significant.	Pre-construction Construction
Turbine, turbine foundations and crane hardstandings	<p>A full ground investigation will be completed prior to construction. This will inform final foundation and crane hardstanding design.</p> <p>Detailed construction drawings with final dimensions will be prepared once the final turbine model has been selected.</p> <p>Turbines will be of a typical modern, three-blade, horizontal axis design in semi-matt white or light grey colour with no external advertising or lettering except for statutory notices.</p>	Pre-construction/Construction Construction Operation
Battery energy storage system (BESS)	Details of the final design the battery energy storage system are proposed to be secured through an appropriately worded condition.	Operation
Access tracks	<p>Existing on-site access tracks, where possible, will be retained, reused, widened and upgraded (where necessary).</p> <p>All new access tracks have been designed to avoid significant effects on sensitive environmental receptors. They will be formed largely of locally sourced stone from the on-site borrow pits.</p> <p>Video footage of the pre-construction phase condition of the abnormal loads access route and the construction vehicles route will be recorded to provide a baseline of the condition of the road prior to any construction work commencing. This baseline will inform any change in the</p>	Construction Construction Pre-construction

Subject Area	Commitment	Timing
Operational Environmental Management Plan	The Applicant will implement an Operational Environmental Management Plan (OEMP). Similar to the CEMP, the OEMP will set out how the Applicant will manage and monitor environmental effects throughout the operation of the Proposed Development. The OEMP will also be developed in consultation with SIC, SEPA, NatureScot and HES where relevant.	Pre-operation
Drainage	A detailed drainage design will be undertaken and agreed with Shetland Island Council (SIC) in consultation with the Scottish Environment Protection Agency (SEPA), for approval prior to construction.	Pre-construction
Construction hours	Normal construction hours will be between 07:00 and 19:00 Monday to Friday and 08:00 to 16:00 Saturdays. It is noted, however, that if required certain activities such as abnormal loads deliveries may occur outside of these specific hours.	Construction
Construction traffic	<p>The Applicant will ensure that the vehicles will be routed as agreed with SIC, Transport Scotland and Police Scotland.</p> <p>Final details of construction traffic management will be confirmed in a finalised CTMP and CEMP to be agreed with SIC prior to commencement of construction.</p>	<p>Construction</p> <p>Pre-construction</p>
Pre-construction Surveys	Pre-construction surveys will be undertaken to update the ecological and ornithological baseline and to perform detailed geotechnical ground surveys, further details of these are provided in the relevant technical chapters.	Pre-construction
	The Applicant will engage an Environmental Clerk of Works (ECoW) and Archaeological Clerk of Works (ACoW) onsite during the construction phase. The ECoW and ACoW be responsible for preconstruction surveys and will monitor the construction process on site to provide advice and ensure that the measures within the CEMP are followed.	

Subject Area	Commitment	Timing
OEMP	The Applicant will implement an Operation Environmental Management Plan (OEMP). Similar to the CEMP, the OEMP will set out the mitigation measures proposed in the EIA Report and how the Applicant will manage and monitor environmental effects throughout the operation of the Proposed Development. The OEMP will also be developed in consultation with SIC, SEPA, NatureScot and Historic Environment Scotland (HES) where relevant.	Operation
Landscape and Visual		
The primary mitigation adopted in relation to the Proposed Development is embedded within the design of the Proposed Development and relates to the consideration that was given to avoiding and minimising landscape and visual effects during the evolution of the Proposed Development layout.		
Ecology		
CEMP	All ecological mitigation will be incorporated into the CEMP. The CEMP will also outline a timetable of actions and form part of the contract documents to ensure delivery of mitigation specified below.	Pre-construction
Environmental Clerk of Works (EcoW)	A suitably qualified Environmental Clerk of Works (EcoW) will be appointed prior to the commencement of any construction activities taking place. The EcoW will be present and oversee construction activities as well as providing toolbox talks to all site personnel with regards to priority species and habitats, as well as undertaking monitoring works and briefings to relevant staff and contractors as appropriate.	Pre-construction/ Construction
Otter Protection Plan	Development of an otter-specific protection plan inclusive of: <ul style="list-style-type: none"> ▪ Pre-construction survey to update the baseline with regards to otter within 200 m of works areas. 	Construction

Subject Area	Commitment	Timing
	<ul style="list-style-type: none"> ▪ Cap any exposed pipe systems when not being worked and provide exit ramps for any exposed trenches or excavations (to prevent otters entering and becoming trapped). ▪ Driver awareness and 10 mph speed controls within works areas to limit the risk of road traffic accident mortality. ▪ Implementation of an exclusion zone of at least 30 m to be implemented around any new holt or resting place. 	
Pollution Prevention	<p>In order to prevent pollution of watercourses and impacts on fish within the site (with particulate matter or other pollutants such as fuel), best practice techniques will be employed. These will include:</p> <ul style="list-style-type: none"> ▪ For water crossings: buffer strips around sections of track adjacent to watercourse crossings; and bund and embankment features to be implemented. ▪ For tracks: camber in track design; trackside drains, e.g. infiltration trenches with check dams; routine maintenance of tracks; cross drains at regular intervals along access tracks; and check dams will be installed immediately above cross drain inlets. ▪ General drainage: no direct discharges of water from works areas to existing drainage channels or surface watercourses; drainage will be directed to infiltration trenches, settlement swales or lagoons. 	Construction
Habitat Restoration and Enhancement	<p>An outline Biodiversity Enhancement Plan (oBEP) has been produced (Appendix 6.4) which sets out the objectives and measures for protection, reinstatement and re-creation of both dry dwarf shrub heath and blanket mire habitats within the Site inclusive of the following:</p> <ul style="list-style-type: none"> ▪ Measures to minimise disturbance to habitats; ▪ Restoration of areas of disturbed habitat during construction; 	Operation

Subject Area	Commitment	Timing
	<ul style="list-style-type: none"> ▪ Increase abundance of typical species associated with each habitat both within and out with the Site; and ▪ Grazing management for biodiversity enhancement both within and out with the Site. ▪ Exclusion of livestock from any restored areas to permit habitat recovery free from grazing pressure (which otherwise has the potential to degrade the surface). This will be detailed in the PMP (Appendix 11.3) and BEP. 	
Ornithology		
CEMP	<p>All ornithological mitigation will be incorporated into the CEMP. The CEMP will also outline a timetable of actions and form part of the contract documents to ensure delivery of mitigation specified below.</p> <p>A Site Restoration Plan (SRP) will be developed and implemented as part of the CEMP to ensure the regeneration of those areas of habitat that have been temporarily lost through development.</p>	Pre-construction
Pre-construction ornithology surveys	Not more than 12 months prior to construction of the Proposed Development, the Applicant will engage a Suitably Qualified Ecologist (SQE) to undertake a series of pre-construction ornithological surveys, complementing the seasonality of the construction start date, to update the baseline information reported in the EIA Report. This would be in addition to completing a final check prior to construction for key target species and would be discussed and agreed with NS.	Pre-construction
Vegetation clearance outside the breeding season	Wherever possible, all vegetation clearance will occur outside the breeding season (i.e. clearance to be undertaken between October and February inclusive), to ensure that no active nests are damaged or destroyed by the proposed works. This would include any areas of shrub	Construction

Subject Area	Commitment	Timing
	clearance and vegetation removal for access tracks, compounds or turbine bases due to the populations of ground nesting birds on and around the site.	
Construction phase vegetation management and breeding bird checks	It is anticipated that the internal access tracks within the Proposed Development site will be laid down in the winter. If this is not possible, and construction has to take place between March and August inclusive, any areas for tracks, material laydown, turbine bases and other infrastructure will be kept short and largely devoid of vegetation during the breeding season until construction is complete. The cleared areas will be visited by an ECoW, to check whether they have been colonised by nesting birds, with advice given on any restrictions these pose and whether further measures are needed to keep the vegetation under control and deter birds from nesting.	Construction
Construction phase bird surveys	The ECoW will undertake construction phase surveys of birds within the Proposed Development and will record information of breeding success as far as is possible (avoiding disturbance, and following relevant NatureScot survey guidance). The data will be used with preconstruction baseline survey data and future data obtained during monitoring work to provide population information across each phase of the development.	Construction
Minimising ground clearance	Avoidance of unnecessary disturbance to habitats by minimising the extent of ground clearance and other construction practices as far as practicable.	Construction
Restoration of disturbed ground	To facilitate restoration, disturbed ground will be restored as soon as practicably possible using materials removed during the construction of access tracks, excavation of cable trenches and turbine foundations. To achieve this, any excavated soil will need to be stored in such a manner that is suitable to facilitate retention of the seed bank.	Construction

Subject Area	Commitment	Timing
Ecological toolbox talk	An ecological toolbox talk will be given to all construction personnel as part of site induction on the potential presence of ornithological species and any measures that need to be undertaken should such species be discovered during construction activities. The toolbox talk will also include the requirement to report and log any bird casualties at the Proposed Development during construction and operation of the site.	Construction
Biodiversity Enhancement Plan (BEP)	To deliver biodiversity enhancement, an outline BEB has been drafted and will be implemented during the construction and operation phases. The BEP will improve current and create new foraging and breeding habitats for identified ornithological features on the site. The BEP will lead to improved habitats for a broad range of qualifying species of the Caithness and Sutherland Peatlands Special Protection Area (SPA), including dunlin, golden plover and merlin. The HMP will be consulted on further and agreed with SIC, in consultation with NatureScot, prior to commencement of construction.	Pre-construction/ Construction/ Operation
Minimise disturbance to red-throated diver	Pre-construction surveys, complementing the seasonality of the construction start date, will be completed in order to confirm any new breeding diver locations closer to the scheme than previously recorded, and a 500 m no-disturbance buffer will be implemented on any diver breeding attempts. In order to further minimise impacts on breeding red-throated diver, any significant maintenance works will be completed outside this (April to July inclusive) time period	Pre-construction
	The site will be subject to a breeding diver check of the site and a wider 1 km buffer in order to identify all breeding attempts by red-throated diver and to monitor breeding success. The survey will comprise 4 visits between mid-April and August and be completed in years 1-3, year 5 and year 10 post-construction. Should any breeding attempts be recorded within 1 km of the operational turbines at total of 36 hours of focal diver lochan surveys will be completed between June and August covering each breeding lochan (while any breeding attempt is still active, completed from the least possible VP locations to cover all breeding lochans).	Pre-construction/ Construction / Operation

Subject Area	Commitment	Timing
Cultural Heritage		
<p>Programme of archaeological works</p>	<p>A programme of archaeological works will be undertaken preconstruction and during the construction of the Proposed Development. The works may include interpretation boards around the Site or at the adjacent archaeological Site of Kebister (centred Asset 2) and may also include community talks, ArcMap story maps and/or interactive content.</p> <p>Any such programme of dissemination will be developed in conjunction with the Regional Archaeologist at Shetland Amenity Trust prior to works being undertaken, through agreement of a Written Scheme of Investigation (WSI).</p>	<p>Pre-construction/ Construction</p>
<p>Preservation of heritage assets in situ</p>	<p>Heritage assets within 50 m of the proposed working areas, including all areas to be used by construction vehicles, will be fenced off where appropriate under archaeological supervision prior to construction. This fencing will be maintained throughout the construction period to ensure the preservation of these assets.</p> <p>The Applicant is seeking in-perpetuity permission for the Proposed Development. However, if further groundworks are required in the event of decommissioning, or replacement of turbines then all known sites within 50 m of the proposed working areas will be fenced off where appropriate with a visible buffer under archaeological supervision. This will be undertaken prior to decommissioning in order to avoid accidental damage by heavy plant movement.</p>	<p>Construction</p>
<p>Post-excavation assessment and reporting</p>	<p>If new, archaeologically significant discoveries are made during archaeological monitoring, and it is not possible to preserve the discovered remains in situ, provision will be made for the excavation where necessary, of any archaeological deposits encountered. The provision will include the consequent production of written reports, on the findings, with post-excavation analysis and publication of the results of the works, where appropriate.</p>	<p>Construction</p>

Subject Area	Commitment	Timing
Noise		
Construction Noise	The Applicant is committed to meeting appropriate noise limits during the construction phase. Methods for maintaining compliance with construction phase noise limits will be provided in the CEMP.	Construction
Fixed (Non-Turbine) Plant Noise	Noise from non-turbine operational plant will comprise noise from the substation and Battery Energy Storage System (BESS). The items of plant and sound power levels are unknown, however, noise from the installed plant will be attenuated by acoustic enclosure (if required), such that it meets the derived non-turbine noise limits.	Operation
Wind turbine noise	The Applicant has committed to meeting appropriate operational noise limits. Should noise levels due to the Proposed Development exceed the proposed noise limits then appropriate mitigation, such as a noise management plan, will be put in place.	Operation
Traffic and Transport		
Abnormal Indivisible Loads Transport Management Plan	An Abnormal Load Transport Management Plan (TMP) will be prepared to cater for all movements to and from the Proposed Development. The TMP will outline procedures for liaising with the emergency services to ensure that police, fire and ambulance vehicles are not impeded by the loads. This is normally undertaken by informing the emergency services of delivery times and dates and agreeing communication protocols and lay over areas to allow overtaking.	Pre-construction
CTMP	A Construction Traffic Management Plan (CTMP) will be prepared and agreed with THC prior to commencement of construction.	Pre-construction/ construction

Subject Area	Commitment	Timing
	The CTMP will detail the management of traffic to and from site, including abnormal loads and daily workers' commutes. It shall also include mitigation for impacts to public transport, local private access and public footpaths/rights of way, cycleways and bridleways. The Principal Contractor and/or Applicant shall amend and improve the CTMP as required throughout the construction and decommissioning period.	
Repair and Reinstatement	Damage to road infrastructure caused directly by construction traffic will be repaired and street furniture that is removed on a temporary basis will be fully reinstated.	Construction/ Post-construction
Pre-Construction Condition Surveys	Video footage of the pre-construction condition of the abnormal loads access route and the construction vehicles route will be recorded to provide a baseline of the condition of the road prior to any construction work commencing. This baseline will inform any change in the road condition during the construction phase. Any necessary repairs, as a result of the construction of the Proposed Development, will be coordinated with the relevant authority. Any damage caused by traffic associated with the Proposed Development during the construction period that will be hazardous to public traffic will be repaired immediately.	Pre-construction/Construction
Geology, Hydrology, Hydrogeology and Peat		
Pre-construction site surveys	Prior to construction being undertaken, relevant detailed site investigations would be conducted. This could include of underlying deposits, in particular where proposed infrastructure is sited and informing suitable micro-siting of the turbines and associated infrastructure.	Pre-construction
CEMP	<p>A CEMP will be compiled as noted above, and the Principal Contractor will implement measures outlined within the CEMP, as agreed with relevant consultees, including SEPA, NatureScot and SIC. This will also include a construction method statement, which will account for:</p> <ul style="list-style-type: none"> ▪ Pollution Risk Assessment; 	Pre-construction/ Construction

Subject Area	Commitment	Timing
	<ul style="list-style-type: none"> ▪ Planning and design of dewatering activities to minimise the local drawdown; ▪ Planning and design of pollution control measures, in particular during earthworks; ▪ Storage of fuel and chemicals in a designated area in accordance with best practice procedures, outwith 50 m buffers of watercourses and water bodies; ▪ Borrow pit management measures; ▪ Designated area for concrete batching, at least 100 m from watercourses; ▪ Pollution control system management, including dewatering of excavations; ▪ Contingency planning and emergency procedures; and ▪ On-going monitoring of construction procedures. <p>Embedded measures will be included in the CEMP to prevent sedimentation pollution and erosion, to prevent chemical pollution, and to enable surface water drainage management.</p>	
Water Quality Monitoring	A Water Quality Management Plan (WQMP) will be prepared and agreed with SIC, in consultation with SEPA, prior to commencement of construction. It is anticipated that this will include a programme of preconstruction, construction and post-construction monitoring of groundwater and surface water quality, over a period to be set out in the plan. Regular visual inspections will be required as part of the water quality monitoring programme.	Pre-construction/ Construction/ Post-construction
Peat Landslide and Hazard Risk Assessment (PLHRA)	Infrastructure has been sited outside areas identified as high risk within the Peat Landslide and Hazard Risk Assessment (PLHRA).	Construction

Subject Area	Commitment	Timing
Peat Management Plan	<p>A detailed Peat Management Plan (PMP) will be prepared (updating the Outline PMP provided as Appendix 11.2 of the EIA Report), and this will confirm the peat handling, storage, restoration and monitoring works.</p> <p>The PMP will be agreed with NatureScot, SEPA and SIC prior to construction and will be implemented during construction works.</p> <p>Excavated peat will be re-used on-site to provide suitable restoration, landscaping, and repair/reprofiling of local hag features to improve peatland habitat and hydrological function.</p>	Pre-construction/ Construction
Telecommunications, Aviation and Radar		
The Proposed Development was designed to ensure there was no interference on the BT telecommunications link and as there are no telecommunications links close to the Proposed Development, no effects have been identified and no mitigation is required.		
Aviation Obstruction Lighting	12.3.15 If confirmed as a requirement by the MoD, the turbine will be fitted with infra-red aviation obstacle lighting, meeting MoD requirements, to mitigate impacts to military low flying at night. The infra-red lighting is not visible to the human eye.	Construction



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