Chapter 15 Schedule of Environmental Commitments

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15 Schedule of Environmental Commitments

15.1 Introduction

15.1.1 Best practice in Environmental Impact Assessment (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 in this 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 at the construction stage.

15.1.2 **Table 15.1** presents a Schedule of Environmental Commitments for the Proposed Development, listed according to the relevant environmental topic area.

Table 15.1: Schedule of Environmental Commitments

Subject Area	Mitigation Measure	Timing
The Proposed Development		
Micrositing	A micro-siting allowance of up to 50 m in all directions is being sought in respect of each turbine and its associated infrastructure in order to address any potential difficulties which may arise in the event that pre-construction surveys identify unsuitable ground conditions or environmental constraints that could be avoided by slight relocation. It is proposed that the micro-siting of all infrastructure will be subject to an appropriately worded planning condition.	Construction
Turbines, Turbine Foundations and Crane Hardstandings	A full ground investigation will be completed prior to construction. This will inform final foundation and crane hardstanding design.	Pre-construction
	Detailed construction drawings with final dimensions will be provided prior to commencement once the final turbine model has been selected.	Pre-construction
	Turbines will be painted an off-white or light grey colour with low reflectivity semi-matt finish, or similar, as agreed with the Local Planning Authority.	Operation
Access Tracks	Existing onsite access tracks and wayleaves, where possible, will be retained, re-used and upgraded (where necessary).	Construction
	New access tracks will be made largely of locally sourced stone and from the on-site borrow pits	Construction
	Prior to construction, any required improvements to public roads will be undertaken and appropriate highway safety measures will be agreed with Midlothian Council (MC) and Transport Scotland, with necessary signage or traffic control measures implemented throughout the construction phase on the agreed basis.	Pre-construction
Water Crossings	The final detailed design for all water crossings, including any potential upgrades or amendments required to existing crossings, will be addressed through an appropriately worded condition and in accordance with the requirements of the Water Environment (Controlled Activities) (Scotland) Regulations 2011.	Pre-construction
Drainage	A detailed drainage design will be undertaken and submitted to the Scottish Ministers and MC, in consultation with Scottish Environment Protection Agency (SEPA), for approval prior to construction.	Pre-construction

Subject Area	Mitigation Measure	Timing
Construction Compounds	Prior to commencing construction work, a detailed appraisal of the construction compound areas will be required, including an assessment by the project ecologist and also trial pits and/or boreholes to confirm the nature of the sub-strata.	Pre-construction
	The detailed location, size and engineering properties of the construction compounds will be confirmed prior to the start of construction, after the turbine supplier and model have been confirmed.	Pre-construction
	On completion of construction works, it is proposed that all temporary structures be removed, and the compound areas be restored.	Post-construction
Substation, Energy Storage & Cabling	The design of the substation and control room building is relatively flexible and where appropriate may be clad in local materials to match in with the surroundings	Construction
	Details of the final design of all components of the substation, energy storage and cabling compound are proposed to be secured through an appropriately worded condition.	Pre-construction
Borrow pits	Detailed site investigations prior to construction will be carried out to further confirm the rock type, rock characteristics and suitability, as well potential volumes to be extracted from the search area. The final borrow pit(s) identified during the geotechnical evaluation will be defined within the Construction Environmental Management Plan (CEMP).	Pre-construction
Construction hours	Normal construction hours will be between 07:00 and 19:00 Monday to Friday and 07:00 to 13:00 on a Saturday. During the turbine erection phase, operations may proceed round the clock to ensure that lifting processes are completed safely. Delivery of abnormal loads may be made out with normal construction hours, as agreed with the relevant authorities.	Construction
Construction traffic	The Applicant will ensure that the vehicles will be routed as agreed with MC, Transport Scotland and Police Scotland.	Construction
Construction Environment Management Plan (CEMP)	The Contractor will produce and adhere to a CEMP. This shall be developed in consultation with the Scottish Ministers, NatureScot, SEPA, Historic Environment Scotland (HES) and MC. The Contractor shall amend and update the CEMP as required throughout the construction and decommissioning period.	Pre-construction
	The CEMP shall describe how the Contractor will ensure suitable management of, as a minimum, the aspects listed below during construction of the Proposed Development. A draft CEMP is included in **Technical Appendix 3.1:** • noise and vibration; • dust and air pollution;	Pre-construction

Subject Area	Mitigation Measure	Timing
	• surface and groundwater; • ecology and ornithology (including protection of habitats and species); • agriculture (including protection of livestock and land); • cultural heritage; • waste (construction and domestic); • details of the size, location and volumes to be extracted from borrow pits; • pollution incidence response (for both land and water); and • site operations (including maintenance of the construction compound, working hours, monitoring of construction procedures and safety of the public).	
	Prior to commencement of construction activities, a pollution prevention strategy, will be agreed with SEPA and provided within the CEMP.	Pre-construction
Operation Environmental Management Plan (OEMP)	The Applicant will implement an OEMP in consultation with MC, SEPA, NatureScot and HES where relevant. The OEMP will set out how the Applicant will manage and monitor environmental effects throughout operation.	Pre-construction
Forestry	The design of the Proposed Development has sought to minimise potential impacts on existing forestry on site as far as possible. The proposed location for turbine T1 (see Figure 1.3) will require the removal of approximately 10 ha of commercial forestry. This is the only existing forestry on the site that will be impacted by the Proposed Development. The area of forestry to be removed comprises 9.838 ha of native upland birch, which was planted in 2018. In line with the Scottish Government's Control of Woodland Removal Policy, compensatory planting will be required. It is envisaged that the extent, location and composition of such planting will be agreed with the landowner and Scottish Forestry via a planning condition of any consent for the Proposed Development.	Pre-construction/construction
Public Access	No access to any Core Paths or Rights of Way will be restricted by the Applicant during the construction, operation and maintenance of the wind farm. There will be some restriction of public access during construction of tracks and turbines, however the Applicant aims to maintain public access to the project site during the construction of the Proposed Development where there would be no health and safety risk. The Applicant will provide an Outdoor Access Management Plan developed in consultation with MC prior to construction of the Proposed Development.	Pre-construction
Landscape & Visual		

Subject Area	Mitigation Measure	Timing
Design	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. The position of the substation, construction compound, battery array and borrow pits are located so as to minimise their influence on the surrounding area. The turbines themselves will be painted an off-white colour with a low reflectivity semi-matt finish (or similar as agreed with MC). Such a finish is widely regarded to be the least intrusive in the landscape when seen against the sky in a host of weather conditions typically experienced within the UK.	Pre-construction
Aviation Lighting	Mitigation of visible turbine aviation lighting has been designed into the scheme by adopting a cardinal lighting scheme where only the outermost turbines are lit (T01, T03, T09, T10, T13, T16 and T18). Visibility sensors will be installed on relevant turbines to measure the prevailing atmospheric conditions and visibility range.	Operation
Light Intensity	The inherent directional intensity of 2,000 cd lights can be used to reduce vertical downwards lighting impacts at elevations less than -1° degree vertical angle from the horizontal plane from the aviation light. By ensuring the lights installed comply with the ICAO recommendations, it is possible to attenuate the vertical downwards light to a level that reduces the visual impact from receptors at ground levels below the lights.	Operation
Cultural Heritage		
Embedded Measures	The landscape would be reinstated to its original state following decommissioning.	Post-construction
Protective Fencing (Sheepfold, asset SLR35)	Heritage asset within 10 m of the access track 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 this asset.	Pre-construction, Construction
Watching Brief (Enclosure, asset SLR42)	A watching brief will be maintained on asset due to location within borrow pit at east of site and on other ground breaking works to assess the potential for hitherto unrecorded buried archaeological remains to survive within the Proposed Development. If significant archaeological remains are identified during the watching brief, there is the potential that further works, such as excavation and post-excavation analysis, could be required. Details of mitigation will be agreed with MC through a Written Scheme of Investigation (WSI).	Construction

Subject Area	Mitigation Measure	Timing
Ecology		
Pre-construction surveys	Pre-construction surveys will be undertaken to check for any new protected species or features in the vicinity of the construction works. The results of the pre-construction surveys will be used to update the outline SPP ahead of construction starting. The	Pre-construction
Ecological Clerk of Work (ECoW)	To ensure all reasonable precautions are taken to avoid negative effects on habitats, protected species and aquatic interests, a suitably qualified Ecological Clerk of Works (ECoW) will be appointed prior to the commencement of construction to advise the Applicant and the Contractor on all ecological matters. The ECoW will be required to be present on-site during the construction phase and will carry out monitoring of works and briefings with regards to any ecological sensitivities on the site to the relevant staff of the Contractor and sub-contractors.	Construction
Species Protection Plan (SPP)	An SPP will be implemented during the construction phase. The SPP details measures to safeguard protected species known or likely to be in the area. The SPP includes pre-construction surveys and good practice measures during construction. SPP will remain a live document to be updated as required and in agreement with the ECoW where changes to the distribution and status of protected species and features are recorded	Construction
Micrositing	Any micrositing of infrastructure will be based on a review of existing ecological data and the completion of pre-construction surveys, to take into consideration the potential for direct encroachment onto protected species features, sensitive habitats or Ground Water Dependent Terrestrial Ecosystems (GWDTEs), or indirect alteration of hydrological flows supporting sensitive habitats or GWDTEs. Any micrositing will also take into consideration any buffer distances on protected features identified, as detailed within the SPP	Construction
Construction Environmental Management Plan (CEMP)	A Construction Environmental Management Plan (CEMP) in consultation with the SEPA and the planning authority. This document will detail how the successful Contractor will manage the works in accordance with all commitments and mitigation detailed in the EIA Report, the SPP, statutory consents and authorisations, and good industry practice and guidance for environmental management, including implementation of appropriate pollution prevention (particularly in relation to watercourses).	Construction
Biodiversity Enhancement Management Plan	Enhancement and restoration of habitats through the delivery of a Biodiversity Enhancement Management Plan (BEMP) would reduce effects on habitats further. The BEMP would include provisions for the following proposals: • 36.69 ha of peatland restoration/enhancement in Search Area A, likely primarily delivered through livestock exclusion/management, peat hagg reprofiling, drain blocking and removal of self-seeding trees;	Construction

Subject Area	Mitigation Measure	Timing
	• 17.27 ha of broadleaved woodland creation through the replacement of conifer planation with native broadleaves in Search Area B; • 45.16 ha of grassland restoration through the removal and management of dense/continuous bracken in Search Area C; • 5.69 ha of species-rich meadow/grassland creation through the conversion of arable land in Search Area D; and • Creation of approximately 2,500 m of new native species-rich hedgerows in Search Area E.	
Bats	Creation of woodland habitat and hedgerows, as well as other valuable foraging habitats, through the delivery of a BEMP, as detailed in the oBEMP (**Technical Appendix 8.6**), would create and enhance bat foraging and commuting habitat within the site and locally. Reduced rotation speed whilst idling by feathering, at all wind turbines, to reduce collision risks to bats during the bat active period (April to October).	Operation
Ornithology		
Breeding Bird Protection Plan (BBPP)	A Breeding Bird Protection Plan (BBPP) will be required to ensure compliance with the Wildlife and Countryside Act (a) to avoid any disturbance to species specially protected under Schedule 1 of that Act and (b) to avoid any damage to active nests. The BBPP will also include measures to ensure the protection of all other nesting birds. If any nesting Schedule 1 birds were found, then potentially disturbing activities would be suspended for the breeding season within an appropriate zone (dependent on the location of the birds and the species involved, to be agreed with NS and MC.	Construction
Biodiversity Enhancement Management Plan	A BMP will be delivered to ensure that the development delivers a net gain to the local bird communities, in line with NPF4. The operational ornithological impacts of the Proposed Development will be mitigated (in order to deliver a net gain in line with NPF4) through a combination of the enhancements that will be delivered through the BEMP, and further measures that RES provide that will be developed and implemented in consultation with RSPB, NatureScot and the Southern Uplands Partnership (SUP). These will include the development and implementation of a regional plan for breeding waders, and contribution to the SUP Black Grouse project.	Operation
Geology, Hydrology & Hydrogeology		

Subject Area	Mitigation Measure	Timing
Design	The infrastructure layout avoids hydrologically sensitive areas where possible and provides appropriate buffer zones between construction elements and watercourses to minimise the risk of water pollution and increased sediment loading. The layout has been designed iteratively to avoid areas of peat where possible (as detailed in **Chapter 3, Technical Appendix 10.1 and Technical Appendix 10.2**).	Pre-construction
Construction Environnemental Management Plan (CEMP)	The Principal Contractor would implement measures outlined in the CEMP, in relation to pollution risk, sediment management, peat management and management of surface runoff rates and volumes. This would be secured by a planning condition and would be prepared prior to construction commencing. The final CEMP would include details and responsibilities for environmental management onsite for environmental aspects and would outline the necessary surface water management, oil and chemical delivery and storage requirements, waste management, traffic and transport management and would specify monitoring requirements for wastewater, water supply and all appropriate method statements and risk assessments for the construction of the Proposed Development. During and following construction the drainage measures deployed at the site (temporary and permanent), the works would be subject to routine inspection by the dedicated site ECoW on behalf of the developer. This would be specified in a site-specific CEMP and would be secured by an appropriately worded predevelopment condition of consent.	Construction, Post-construction
Baseline Water Quality Monitoring	Baseline water quality monitoring will be undertaken as required. The monitoring programme would be agreed with Scottish Water, SEPA, NatureScot, MC, Forth Rivers Trust (FRT) and Forth District Salmon Fisheries Board (FDSFB) and it is expected to include monitoring of the watercourses which drain from the site	Pre-construction
Geotechnical Risk Register	A geotechnical risk register is maintained during the construction and post-construction phase of the Proposed Development. It is expected that this would be maintained by the developer, and again, secured by an appropriately worded predevelopment condition of consent	Construction, Post-construction
Traffic & Transport		
Traffic Updates	A website, blog or Twitter feed for the Proposed Development would be regularly updated to provide the latest information relating to traffic movements associated with vehicles accessing the site. This would be agreed with MC.	Construction
Construction Traffic Management Plan (CTMP)	A CTMP will be prepared prior to works commencing and will confirm all of the measures proposed for the site. Should any assumptions in material supply vary as a result of the commercial tendering process, the CTMP will address these, as per standard practice. The need for the CTMP will likely	Construction

Subject Area	Mitigation Measure	Timing
	be required by planning condition and the applicant would welcome draft text on a suggested condition from MC.	
Abnormal indivisible loads (AIL) Route Survey Report	The AIL RSR highlights a number of pinch points on the proposed access route, which have been assessed within the report using swept path assessment software. The RSR identifies key points and issues associated with the route that require mitigation works. Examples of the anticipated mitigation works include temporary removal of obstacles such as street furniture, lighting columns, traffic / pedestrian crossing signals, road signs, bollards, walls / fences / barriers and utility poles / junction boxes. It is also proposed to introduce traffic management measures such as contraflow manoeuvres and suspension of parking as well as vegetation trimming, the provision of load bearing surfaces and the provision of a newly provided access junction. These works are to be agreed with MC and other relevant stakeholders. Advance warning signs would be installed on the approaches to the affected road network. This signage would assist in helping improve driver information and allow other road users to consider alternative routes or times for their journey (where such options exist). The location and numbers of signs would be agreed post consent and would form part of the wider CTMP for the project.	Construction
Transport Management Plan (TMP)	A TMP would be developed for AIL movements. All abnormal load deliveries would be undertaken at appropriate times (to be discussed and agreed with the relevant roads authorities and police) with the aim of minimising the effects on the local and trunk road network. It is likely that the abnormal load convoys would travel in to avoid school drop off and pick up times. The TMP would also include: • 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; • A diary of proposed delivery movements to liaise with the communities to avoid key dates; • A protocol for working with local businesses to ensure the construction traffic does not interfere with deliveries or normal business traffic; and • Proposals to establish a construction liaison committee to ensure the smooth management of the project / public interface with the applicant, the construction contractors, the local community, and if appropriate, the police forming the committee. This committee would	Construction

Subject Area	Mitigation Measure	Timing
	form a means of communicating and updating on forthcoming activities and dealing with any potential issues arising.	
Path Management Plan (PMP)	Within the site, consideration will be given to pedestrians and cyclists alike due to potential interactions between construction traffic and users of the paths: • Users of the tracks would be separated from construction traffic through the use of barriers and other features to be approved in discussion with MC. Crossing points would be provided where required, with path users having right of way. Appropriate Traffic Signs Manual Chapter 8 compliant temporary road signage would be provided to assist at these crossing for the benefit of all users. • The Principal Contractor would ensure that speed limits are always adhered to by their drivers and associated subcontractors. This is particularly important within close proximity to the core paths and at crossing points. Advisory speed limit signage would also be installed on approaches to areas where path users may interact with construction traffic. • Signage would be installed on the exit that makes drivers aware of local speed limits and reminding drivers of the potential presence of pedestrians and cyclists in the area. This would also be emphasised in the weekly toolbox talks.	Construction
Staff Travel Plan	A Staff Travel Plan would be deployed where necessary, to manage the arrival and departure profile of staff and to encourage sustainable modes of transport, especially car-sharing. A package of measures could include: • Appointment of a Travel Plan Coordinator; • Provision of public transport information; • Mini-bus service for transport of on-site staff; • Promotion of a car sharing scheme; and • Car parking management.	Construction
Damage	Damage to road infrastructure caused directly by construction traffic would be made good and street furniture that is removed on a temporary basis would be fully reinstated. There would be a regular road review and any debris and mud would be removed from the carriageway using an on-site road sweeper to ensure road safety for all road users.	Construction
Noise & Vibration		
Good practice measures	The following noise mitigation options will be implemented where appropriate:	

Subject Area	Mitigation Measure	Timing
	• Consideration would be given to noise emissions when selecting plant and equipment to be used on-site; • All equipment will be maintained in good working order and fitted with the appropriate silencers, mufflers or acoustic covers where applicable; • Stationary noise sources will be sited as far away as reasonably possible from residential properties and where necessary and appropriate, acoustic barriers could be used to screen them; and • The movement of vehicles to and from the site will be controlled and employees instructed to ensure compliance with the noise control measures adopted.	
Blasting	With specific regard to borrow pit blasting, it is proposed that the following mitigation measures are implemented: • Good practice on blasting, as recommended by Planning Advice Note (PAN) 50 'Controlling the environmental effects of surface mineral workings' will be followed; • The vibration and air overpressure reduction methods outlined in Section 8.6.9.2 of BS 5228-2:2009 will be adhered to where appropriate; • Advance warning will be given to nearby residents; • Blasting will only occur between the hours of 08:00-18:00 on Mondays-Fridays or between the hours of 08:00-13:00 on Saturdays; and • No more than three blasts per day will occur with a maximum charge size of 200 kg per blast at the eastern most borrow pit near the site entrance. • No more than three blasts per day will occur with a maximum charge size of 1,000 kg per blast for the other five borrow pits (excluding the eastern most borrow pit). Depending upon the charge sizes required it may be prudent to perform trial blasts with smaller amounts of explosive and measure vibration magnitudes at various distances to more accurately determine how vibration propagates at the site.	Construction
Socio-economics		
Community Benefit Package	The community benefit package, incorporates the following elements: A community benefit fund based on £5,000 per installed MW per year, up to £540,000 annually; May also include a Local Electricity Discount Scheme (LEDS) that would help to reduce energy bills for Midlothian residents; and Implement a locally weighted procurement process to favour local businesses.	Construction, Operation

Subject Area	Mitigation Measure	Timing
Climate Change Assessment		
There are no mitigation measures required during the construction, operational and decommissioning phases.		
Other Issues		
Telecommunications	It is considered that there will be no significant effects on telecommunication interests as a result of the Proposed Development	N/A
Aviation	The Eskdalemuir 'noise budget' within the 50 km zone applies to the Proposed Development. It is expected that the impact can be mitigated once the Military of Defence (MoD) and Scottish Government has agreed on the updated technical 'noise budget' and allocation policy. This mitigation could be secured through an appropriately worded suspensive planning condition. Infrared lighting will be agreed with the Defence Infrastructure Organisation (DIO) for the MpD low flying requirements and a visible lighting scheme has been agreed with the Civil Aviation Authority (CAA).	Operation
Shadow Flicker	Mitigation measures could include planting tree belts between any affected dwelling and the responsible turbine(s) and/or shutting down individual turbines during periods when shadow flicker would occur in practice.	Operation