17 Schedule of Environmental Commitments

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17 Schedule of Environmental Commitments

17.1 Introduction

17.1.1 Table 17.1 provides a Schedule of Environmental Commitments for the Proposed Development. This supersedes Chapter 17 of the 2020 Supplementary Environmental Information (SEI) (which had itself superseded Chapter 17 of the 2019 EIA Report) and provides a comprehensive record of the mitigation measures to which the Applicant has committed. It provides details of how the proposed mitigation has changed from the 2020 SEI and where no change has been made to the previously proposed mitigation this has been stated.

Table 17.1 Schedule of Environmental Commitments

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
3. Proposed Development				
Turbines and associated infrastructure locations	A micro-siting allowance of up to 100 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 preconstruction surveys identify unsuitable ground conditions or environmental constraints that could be avoided. The assessments within the 2019 EIA Report, the 2020 SEI and this SEI 2, have included the considerations of this 100 m micro-siting and it does not alter the conclusions formed as to worst case effects. Any variation of between 50 m and 100 m shall only be permitted following prior written approval of Shetland Islands Council (SIC) in consultation where relevant with aviation consultees, Scottish Water, Scottish Environment Protection Agency (SEPA) and/or Scottish Natural Heritage (SNH). It is proposed that the final positioning of all infrastructure will be agreed through an appropriately worded planning condition.	Pre-construction only	It is noted that SNH renamed as NatureScot in August 2020, otherwise the commitment remains unchanged.	
Turbine Foundations	The actual foundation design will be specific to the site conditions as verified during detailed site investigations undertaken before construction commences.	Pre-construction only	Commitment remains unchanged.	
Access	Appropriate highway safety measures will be agreed with Shetland Island Council (SIC), with necessary signage or traffic control measures implemented throughout the construction phase.	Pre-construction	Commitment remains unchanged.	
	The Dalsetter Hill Road (known locally as the Old Cullivoe Road) to the Proposed Development site access track will be improved to a suitable load-bearing surface of minimum 5 m width from the A968 to the junction with the new access tracks. Access to the site from the Old Cullivoe Road will controlled by a security hut adjacent to the access track to ensure the safety of the staff and the public.	Construction/ Operation	Commitment remains unchanged.	

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
	The Old Cullivoe Road is designated as a Core Path and will be accessible throughout the operational life of the Proposed Development. The road will remain open to the public during construction, with signage erected to alert members of the public of construction traffic. A regular maintenance plan will be set out as part of the site traffic management plan to ensure the road is kept in an acceptable condition. Pedestrian access will be maintained during construction, but in the interests of health and safety, will be segregated by means of temporary fencing running parallel to the access road. If the path needs to be temporarily diverted during construction, any temporary diversions will be clearly signposted. It is proposed that details of temporary path diversions can be secured by an appropriately worded condition.	Construction/ Operation	Commitment remains unchanged.	
Watercourse Crossings	Where watercourses will be crossed by access tracks the crossings may be simple concrete pipe culverts or arch culverts depending on the watercourse and will be designed in accordance with SEPA Good Practice Guidance (2010).	Pre-construction only	Commitment remains unchanged.	
	The design of each crossing will be determined following ground investigations and it is proposed that the final solution and detailed design for all water crossings will be addressed through an appropriately worded condition in order to ensure that the works comply with the Water Environment (Controlled Activities) (Scotland) Regulations 2011. Where necessary, CAR licences for work affecting watercourses will be applied for post-consent, prior to construction commencing once final design has been reached.	Pre-construction only	Commitment remains unchanged.	
Drainage	A detailed drainage design will be undertaken and provided to SEPA and SIC prior to construction.	Pre-construction only	Commitment remains unchanged.	
Borrow Pits	Detailed site investigations will be carried out prior to construction to confirm the rock type, rock characteristics and suitability, as well potential volumes to be extracted from the borrow pit search areas. The final borrow pits will be defined within the Construction Environmental Management Plan	Pre-construction only	Commitment remains unchanged.	

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
	(CEMP). The pollution control measures to be implemented during usage of the borrow pits and its reinstatement will also be covered within this document.			
Fuel and Oil	Any fuel or oil held on site will only be of an amount sufficient for the plant required. This will be stored in a bunded area and an oil interceptor will be installed in the construction compounds to prevent pollution in the event of a spillage. There will be no long-term storage of lubricants or petrochemical products on-site at the Proposed Development.	Construction	Commitment remains unchanged.	
Construction Environmental Management Plan (CEMP)	The Applicant shall produce and adhere to a CEMP, developed in accordance with the joint Scottish Renewables, Scottish Natural Heritage, SEPA, Forestry Commission Scotland and Historic Environment Scotland guidance on Good Practice During Windfarm Construction (2015). The CEMP shall describe how the Applicant will ensure suitable management of, but not limited to, the following environmental issues during construction: - noise and vibration; - dust and air pollution; - surface and ground water; - ecology (including protection of habitats and species); - agriculture (including protection of livestock and land); - cultural heritage; - waste (construction and domestic); - pollution incidence response (for both land and water); and - site operations (including maintenance of the construction compound, working hours and safety of the public). The Applicant shall provide the following for integration within the CEMP: - details of all environmental mitigation which is described within this chapter and how the Applicant will implement this mitigation and monitor its implementation and effectiveness;	Pre-construction/ Construction	It is noted that SNH renamed as NatureScot in August 2020, otherwise the commitment remains unchanged.	

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
	- details of how the Applicant will abide by the local and national legislative requirements e.g. The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (amended 2013); - details of how the Applicant will implement and monitor construction best practice techniques; - details of a Peat Management Plan, following the principles set out in the joint Scottish Renewables and SEPA guidance on the assessment of peat volumes, reuse of excavated peat and the minimisation of waste' (Scottish Renewables and SEPA, 2012); - details of a Waste Management Plan which will include opportunities to reduce and re-use waste on site, recycling of waste which cannot be reused and disposal of waste to landfill; and - details on how the Applicant will liaise with the public and local landowners and how they will respond to any queries and/or complaints.			
	The Applicant shall consult with SNH, SEPA, Historic Environment Scotland and SIC on the production of the CEMP.	Pre-construction	It is noted that SNH renamed as NatureScot in August 2020, otherwise the commitment remains unchanged.	
	Where applicable the CEMP will cross-reference and correspond with the Construction Traffic Management Plan (CTMP).	Pre-construction	Commitment remains unchanged.	
Construction Traffic Management Plan (CTMP)	The CTMP will detail the management of traffic to and from site, including abnormal loads and daily workers commute. It shall also include mitigation for impacts to public transport, local private access and public foot paths. The Applicant shall amend and improve the CTMP as required throughout the construction and decommissioning period.	Pre-construction/ Construction	Commitment remains unchanged.	
Health and Safety	High standards of health and safety shall be established and maintained. At all times, all activities will be undertaken in a manner compliant with applicable health and safety legislation and with relevant good practice as defined under applicable statutory approved codes of practice and guidance.	Construction/ Operation	Commitment remains unchanged.	

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
Operation and Maintenance	Any diesel or oil stored on-site will be held within an appropriately bunded location within the substation building.	Operation	Commitment remains unchanged.	
	In the unlikely event that a major turbine component requires replacement, vehicles will use the new access tracks and crane pads.	Operation	Commitment remains unchanged.	
Operation Environmental Management Plan (OEMP)	The Applicant will implement an OEMP. Similar to the CEMP the OEMP will set out how the Applicant will manage and monitor environmental effects throughout operation. This will be developed in consultation with SNH, SEPA and SIC and will include but not be limited to: - details on the track, water crossings and turbine maintenance; - the control and monitoring of noise; - the control and monitoring of surface and groundwater; - a pollution prevention plan and a pollution incidence response plan; - details of how the Applicant will abide by the local and national legislative requirements e.g. The Water Environment (Controlled Activities) (Scotland) Regulations 2011; - an operational Peat Management Plan; and - a Habitat Management Plan and relevant protected species management plans.	Operation	It is noted that SNH renamed as NatureScot in August 2020, otherwise the commitment remains unchanged.	
Decommissioning	The CEMP would be updated prior to decommissioning by the Principal Contractor to reflect current legislation and policy and will be agreed with SIC, SNH, SEPA and Historic Environment Scotland.	Decommissioning	It is noted that SNH renamed as NatureScot in August 2020, otherwise the commitment remains unchanged.	
5. Landscape and Visual				
Design	Mitigation of landscape and visual effects is embedded in the design of the layout of the Proposed Development.	Pre-construction only	Commitment remains unchanged.	

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
6. Ornithology				
Construction Environmental Management Plan (CEMP)	A CEMP will include the following best practice measures: - appointment of a suitably qualified and experienced Environmental Clerk of Works (ECoW) to oversee application of the CEMP; - a Habitat Management Plan (HMP); - pre-construction ornithological survey programme to provide updated baseline information to feed into the CEMP and other operational plan documents; - use of Method Statements during construction to include current good practice and prescribed use of low noise and vibration plant to limit disturbance and displacement effects; and - development of an Operational Site Management Plan (OSMP) to include an HMP and maintenance task Method Statements.	Pre-construction	Commitment remains unchanged.	
Ground nesting birds	Vegetation will be removed in the winter (between October and February inclusive but preferably between November and January). Any habitat cleared outside this period will be overseen by an ECoW.	Construction	Commitment remains unchanged.	
	Internal construction tracks will, where possible, be laid down in winter. If work is to take place between March to August, vegetation on any areas for tracks, material laydown, turbine bases and other infrastructure will be kept short and devoid of vegetation until such time as they are developed. This will be achieved by regular mechanical cutting or strimming during the breeding season. These cleared areas will be checked by the ECoW for nesting birds, and further restrictions and measures put in place.	Construction	Where construction is to be undertaken between March and August inclusive, the vegetation in any areas for tracks, material laydown, turbine bases and other infrastructure will be kept short during the breeding season until such time that they are developed. This will be achieved by mechanical cutting or strimming, where practicable, during the breeding season. If	Construction

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
			necessary other nesting deterrents may be used, such as visual bird scarers (e.g. kites). The cleared areas will be visited by an ECoW to check whether they have been colonised by nesting birds, advise on any restrictions the presence of nesting birds pose and whether further measures are needed to keep the vegetation under control and deter birds from nesting.	
	The ECoW will undertake surveys of birds within the site and record breeding success.	Construction	Commitment remains unchanged.	
Red-throated Diver	Construction of infrastructure and turbines within 500 m of historical breeding lochans will not be undertaken when red-throated diver arrive (mid-March). The ECoW will monitor diver activity between mid-March to late-July. Once breeding is confirmed, and chicks observed, the construction buffer can be reduced to 300 m. Observations will continue within 500 m of active disturbance to check for signs of disturbance behaviour.	Construction	An ECoW will monitor diver activity at all lochans within 500 m of the 2021 Layout between mid-March and late-July pre-construction. If breeding is confirmed or assessed as probable at any monitored lochan, then a 500 m construction buffer around the lochan will be applied. Once the nest is established and chicks observed to be present, the construction buffer can be reduced based on the results of monitoring. The construction buffer will not be reduced below 300 m.	Construction
	If heavy construction traffic or active works are anticipated to occur closer than 250 m of a historical breeding lochan, then work will only proceed following the completion of a checking survey	Construction	Commitment remains unchanged.	

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
	that confirms that breeding red-throated diver are not present. If breeding red-throated divers are present, then work will only commence once the chicks have fledged and the nest vacated.			
	No work or construction traffic will occur within 250 m of a breeding lochan.	Construction	Commitment remains unchanged.	
	Small, degraded lochans will be enhanced or new lochans created both on-site and offsite (if possible).	Pre-Construction	Enhancement of small, degraded lochans locally (beyond 500 m of turbine locations) will be undertaken during the construction phase (so that enhancement measures are allowed to establish as early into the operation phase of the Wind Farm as possible).	Construction/operation
Waders and Merlin	ECoW will survey for breeding birds within a perimeter of up to 620 m of the Proposed Development footprint ahead of active works. The search distance is dependent on species and has been re-assessed during the 2020 SEI. The updated distances are detailed in 2020 SEI Chapter 6 (Ornithology) section 6.7.	Pre-construction/ construction	An ECoW will scan for breeding birds within a perimeter of up to 400 m of the Proposed Development footprint ahead of the active works.	Pre-construction/ construction
	If breeding is confirmed within the survey perimeter then active works will be prohibited in that area (marked out by the ECoW), with allowance for passage by low-level construction traffic only until the ECoW is satisfied the nest is empty.	Construction	Commitment remains unchanged.	
	The outcome of recorded nests will be recorded by the ECoW in an annual report.	Construction	Commitment remains unchanged.	
Habitat Management Plan (HMP)	Identified management areas will be subject to managed grazing through the provision of stock fencing to benefit foraging and breeding habitat. These will be identified following consultation with SIC, SEPA, SNH and Scottish Water.	Operation	An updated HMP (referred to as Draft HMP 3) is submitted as Appendix 7.1 of SEI 2. It is noted that SNH renamed as NatureScot in August 2020, otherwise the commitment remains unchanged.	

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	Scrapes will be created in areas of managed blanket bog to provide feeding opportunities for waders.	Operation	Commitment remains unchanged.	
Monitoring	A monitoring programme will be implemented to record the use of the site by birds following construction. The frequency and method of monitoring will be agreed with stakeholders.	Operation	Commitment remains unchanged.	
	Management measures outlined in the HMP will be monitored for the duration of the Management Plan. The information obtained through monitoring will be issued in annual reports to stakeholders, including SNH, RSPB Scotland, The Shetland Amenity Trust, Shetland Bird Club and SIC. The monitoring regime will be subject to review based on outcomes in each annual report.	Operation	An updated HMP (referred to as Draft HMP 3) is submitted as Appendix 7.1 of SEI 2. It is noted that SNH renamed as NatureScot in August 2020, otherwise the commitment remains unchanged.	
7. Ecology and Nature Conservation				
Programme of Ecological Surveys	Preconstruction surveys of habitats and watercourse crossing points to identify any changes to otter or fish use of the channels, to feed into the final micro-siting process.	Pre-construction	Commitment remains unchanged.	
Environmental Protection and Guidance	Adherence to current environmental protection policies and guidance, including but not limited to: - Good Practice During Wind Farm Construction (SNH, 2015a) - Constructed tracks in the Scottish uplands (SNH, 2015b); - WAT-SG-75 (SEPA, 2018); - A Practical Guide to the CAR Regulations (SEPA, 2019); and - LUPS-GU31 (SEPA, 2014).	Pre-construction/ Construction/ Operation	Commitment remains unchanged.	
Construction Environmental Management Plan (CEMP)	A CEMP will include the following best practice measures: - appointment of a suitably qualified Environmental Clerk of Works (ECoW) to oversee application of the CEMP; - a Site Water Management Plan (SWMP); - a Peat Management Plan (PMP);	Construction	Commitment remains unchanged.	

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
	- a Materials Management Plan (MMP) to include a Waste Policy/Management Plan; and - a Habitat Management Plan (HMP).			
Method Statements	Use of method statements during construction to include current good practice and prescribed use of low noise and vibration plant to limit fish avoidance behaviours when working near watercourses.	Construction	Commitment remains unchanged.	
Habitat Management Plan (HMP)	The HMP will be produced post consent and agreed with SIC, SNH and SEPA. The HMP will be based on the Outline HMP provided in 2020 SEI Appendix 7.1 and will include the following: - Management and restoration of blanket mire habitat in borrow pit areas within the Proposed Development site boundary through use of excavated peat and control of grazing. - Management and restoration of degraded blanket mire habitat elsewhere on Yell, out with the application boundary of the Proposed Development site, through local hag-reprofiling, stabilisation of bare peat, and control of grazing and peat cutting. - Enhancement of currently unoccupied lochans to increase their potential value to breeding red-throated divers. - Restoration of degraded lochans to provide suitable habitat for breeding red-throated divers. - Creation of scrapes for waders to improve feeding areas. - Protection and, where possible, enhancement of existing pools to improve feeding areas. - Maintenance of mosaic habitat. - Restoration and maintenance of heather vegetation which is neither too open and short nor too dense and tall.	Pre-construction/ Construction only	The final HMP will be produced post consent and agreed with SIC, NatureScot and SEPA. The HMP will be based on the Draft HMP 3 provided in SEI 2 Appendix 7.1. The broad aims and objectives of the final HMP will be: ▪ Blanket mire: - Management and restoration of blanket mire habitat in borrow pit areas within the Proposed Development site boundary through use of excavated peat and control of grazing. - Management and restoration of degraded blanket mire habitat elsewhere on Shetland, out with the site boundary of the Proposed Development, through local hag-	Construction and Operation

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
			reprofiling, stabilisation of bare peat, and control of grazing and peat cutting. ▪ Red-throated diver: - Enhancement of currently unoccupied lochans to increase their potential value to breeding red-throated divers. - Restoration of degraded lochans to provide suitable habitat for breeding red-throated divers. ▪ Waders: - Creation of scrapes for waders to improve feeding areas. - Protection and, where possible, enhancement of existing pools to improve feeding areas. - Maintenance of mosaic habitat. ▪ Merlin: - Restoration and maintenance of heather	

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
			vegetation which is neither too open and short nor too dense and tall.	
Operational Site Management Plan (OSMP)	An OSMP to include an HMP and maintenance task Method Statements.	Operation	Commitment remains unchanged.	
Habitat Mitigation	Identification of appropriate exclusion zones around sensitive features, to prevent construction vehicle tracking through areas.	Pre-construction	Commitment remains unchanged.	
	Careful strip and retention of turves for re-use in the restoration of tracks and turbine batters.	Construction	Commitment remains unchanged.	
	Operative awareness education, in the form of toolbox talks, to ensure the value of the habitat is understood.	Construction	Commitment remains unchanged.	
	Wash-down of plant and other equipment will be mandatory prior to access to or egress from the site, to prevent potential biosecurity risks associated with plant movements.	Construction	Commitment remains unchanged.	
	Exclusion of livestock from the restored temporary borrow pit areas, to permit habitat recovery free from grazing pressure.	Construction / Operation	Management of grazing pressures in the restored borrow put areas to permit habitat recovery and aid manage vegetation establishment.	Construction/ Operation
Otter Mitigation	Development of an otter-specific protection plan.	Pre-construction	Commitment remains unchanged.	
	Driver awareness and 10 mph site speed controls to limit the risk of road traffic accidents.	Construction/ Operation	Commitment remains unchanged.	
	Avoid creating any obstructions to established otter pathways or access to open water as instructed by the ECoW.	Construction	Commitment remains unchanged.	
	Exclusion zone of 30 m minimum around any holt of resting place.	Construction	Commitment remains unchanged.	
	Avoid working in the vicinity of otter habitat during the hours of darkness and within two hours after sunrise and two hours	Construction	Commitment remains unchanged.	

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	before sunset. This can be reduced to one hour between November and February due to limited daylight.			
	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).	Construction	Commitment remains unchanged.	
Fish Mitigation	Development of a fish species protection plan, which will include electro-fishing and macro-invertebrate surveys for 12 months prior to, during and 12 months after, construction.	Pre-construction	Commitment remains unchanged.	
	A Site Water Quality Management Plan (SWMP) will be developed to ensure stream habitats and fauna are protected.	Pre-construction	Commitment remains unchanged.	
	Where possible stream crossings will avoid areas of salmonid spawning habitat.	Construction	Commitment remains unchanged.	
	Crossings should not create new barriers to migration of trout unless clearly upstream of potentially productive fish habitat.	Construction only	Commitment remains unchanged.	
	If substantial instream work is required, or there is likely to be significant disturbance (i.e. disturbance/removal of bed substrates for channel culverting) to the riverbed, SEPA may require that works avoid periods when eggs are in the gravel or fry are emerging. This would typically cover the period between October and May (SEPA 2010b).	Construction	Commitment remains unchanged.	
	Regular monitoring of turbidity and suspended solids during construction, with the on-site ECoW checking areas where active works are taking place and areas where sediment run-off may be a concern.	Construction	Commitment remains unchanged.	
	A programme of water quality and aquatic biomonitoring, including salmonid fish.	Construction	Commitment remains unchanged.	
8. Noise				
Construction Environmental Management Plan (CEMP)	A CEMP will implement the following best practice measures: - any compressors brought on to site to be silenced or sound reduced models fitted with acoustic enclosures; - all pneumatic tools to be fitted with silencers or mufflers;	Construction	Commitment remains unchanged.	

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
	- the majority of deliveries to be programmed to arrive during normal working hours only; - care to be taken when unloading vehicles to minimise noise. Delivery vehicles to be routed to minimise disturbance to local residents; - delivery vehicles to be prohibited from waiting within or in the vicinity of the site with their engines running; - all plant items to be properly maintained and operated according to manufacturers' recommendations in such a manner as to avoid causing excessive noise; - all plant to be sited so that the noise impact at nearby noise-sensitive receptors is minimised; - local hoarding, screens or barriers to be erected as necessary to shield particularly noisy activities; - normal working hours will be between 07:00 and 19:00 Monday – Friday, and 08:00 – 18:00 Saturday with no work on Sundays or public holidays. This is with the exception of turbine installation, which will take advantage of appropriate wind conditions when they occur; - night-time deliveries will be minimal and will only be undertaken with special consideration. Care will be taken to minimise noise when unloading vehicles; and - construction traffic will be prohibited from unnecessary idling within the site boundary or at the site access points.			
Communication	The contractor will be required to ensure effective liaison with the local community.	Construction	Commitment remains unchanged.	
Fixed (Non-turbine) Plant Noise (if required)	A noise mitigation scheme will include measures such as the following: - appropriate plant selection; - building fabrication; - plant enclosures; and - appropriate plant orientations.	Pre-construction	Commitment remains unchanged.	

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
Borrow Pits	Following detailed ground investigations, should blasting be required to remove rock then a blasting assessment including a vibration assessment will be undertaken and submitted to SIC prior to construction commencing.	Pre-construction	Commitment remains unchanged.	
9. Cultural Heritage				
Heatherdale to Cullivoe Road	All ground breaking works in the vicinity of the former road from Heatherdale to Cullivoe (Site 148) would be subject to archaeological monitoring in order to identify and accurately record the extent of any below ground remains associated with this feature prior to construction.	Construction only	Commitment remains unchanged.	
General Construction Mitigation	All known heritage features within 50m of the proposed working areas, including all areas to be used by construction vehicles, will be fenced off under archaeological supervision prior to construction. This fencing will be maintained throughout the construction period to ensure the preservation of these features.	Pre-construction/ Construction	Commitment remains unchanged.	
	The paleoenvironmental potential of the site will thus be further assessed through the sampling and specialist analysis of a sediment core, which could provide environmental contextual detail to any archaeological remains preserved within the site.	Pre-construction only	Commitment remains unchanged.	
	To mitigate the potential for previously unrecorded features to be impacted during the construction phase, an archaeological watching brief will be undertaken on all ground breaking works.	Construction only	Commitment remains unchanged.	
	Details of mitigation will be agreed with SIC in consultation with the Shetland Island Amenity Trust through a Written Scheme of Investigation.	Pre-construction only	Commitment remains unchanged.	
Heritage Interpretation Plan	A Heritage Interpretation Plan will be undertaken. The scope will be agreed with HES and SIC but will potentially include: - Investigation of the paleoenvironmental potential of Burgi Geos through the sampling and analysis of a sediment core to improve the understanding and	Operation only	Commitment remains unchanged.	

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
	appreciation of the past setting of the Burgi Geos fort and how it relates to its current setting. - A detailed archaeological survey within Heatherdale, coupled with improved access to information on the features identified and surveyed will serve to increase both our understanding of the historic landscape of the site and increase the knowledge of local communities. The findings would be disseminated via an interpretation leaflet or schools pack and on information boards.			
10. Geology, Peat, Hydrology and Hydrogeology				
Construction and Environmental Management Plan (CEMP)	The CEMP will include the following: - Appointment of a suitably qualified and experienced Environmental Clerk of Works (ECoW) and Hydrological Clerk of Works (HCoW) to oversee application of the CEMP; - a Site Water Management Plan; - an Outline Peat Management and Restoration Plan (PMP); - a Materials Management Plan to include a Waste Policy/Management Plan; and - a Habitat Management Plan (HMP).	Pre-construction/ Construction	Commitment remains unchanged.	
Geotechnical risk register	Preparation of a geotechnical risk register (GRR) providing explicit mitigation measures tailored to each "Medium" or "Low" risk location will enable risks to be further minimised. The GRR will provide a series of measures detailing additional site investigation and assessment needs, indicating site specific features that may require active management during construction (e.g. pool complexes, drains), provide monitoring protocols to identify any early signs of reduced stability during construction works, and control measures to address unanticipated ground displacement.	Pre-construction	The GRR will include all the mitigation measures outlined to reduced peat slide risk in SEI 2 Appendix 10.2. Commitment remains otherwise unchanged.	

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
	The GRR will include all the mitigation measures outlined to reduced peat slide risk in 2019 EIA Report Appendix 10.4.			
Peat Hydrology	Tracks: - On slopes above tracks the cut off ditch should be positioned close to the track so that as much water as possible has the opportunity to infiltrate into the upgradient peat. - Regular discharge of water from the track and from the upgradient diversion channel to the down gradient land is required. This process will allow the water to infiltrate a short distance from the track and can help counter potential down gradient dewatering effects; and - Dressing the cut slopes alongside the tracks with low permeability material can potentially help reduce flow rates from more permeable sections as it will act as a barrier to groundwater flow.	Pre-construction/ Construction	Commitment remains unchanged.	
	Turbine Bases and Other Infrastructure: - Dewatering of the turbine bases may be required depending on the permeability of the surrounding geology, however evidence suggests this is low. This will be limited to as short duration as possible to keep the excavation dry until the concrete is poured, cured and the void space backfilled. - Any water from dewatering excavations should be discharged to peat areas surrounding the turbine base excavation during this period to promote recharge and reduce the impact of dewatering. This is a recognised method of mitigating the environmental impact of an abstraction (Forestry Commission, 2011). If there are no peat areas immediately surrounding the infrastructure but they are close by then the water should be discharged between the excavation and the peat to	Construction	Commitment remains unchanged.	

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	reduce the extent of drawdown in the other formations that may extend to the peat. - Cut off ditches on upgradient slopes should also be close to the excavated areas as is practical to allow water to recharge the surrounding peat. - Excavations should be left open for as short duration as practical to reduce the impact of dewatering on the surrounding peat.			
	Peat Habitat and Deep Peat Avoidance: - Additional micro-siting of infrastructure following ground investigations will be undertaken in conjunction with the ECoW prior to construction for further avoidance as described in the Outline Peat Management and Restoration Plan (Appendix 10.3 of the 2019 EIA Report). - Areas of disturbed peat will be reinstated as described in the Outline Peat Management and Restoration Plan (Appendix 10.3 of the 2019 EIA Report).	Pre-construction/ Construction	An updated Outline Peat Management and Restoration Plan is provided as Appendix 10.1 of this SEI 2. Commitment remains otherwise unchanged.	
Avoidance and Minimisation of Peat Disturbance	The appointed Principal Contractor (and / or Designer) will aim to minimise the volumes of excavated peat. As far as possible, appropriate handling and storage of excavated materials will be undertaken such that their integrity and subsequent reuse is not jeopardised.	Pre-construction/ Construction	Commitment remains unchanged.	
	The ECoW will walk the site with engineers before construction commences, pointing out areas of sensitive habitat and identifying where impact can be reduced by minor movement of infrastructure within the micro-siting available. These areas will be clearly marked with post and tape. The ECoW will also ensure that any micro-siting does not lead to movements into more sensitive habitats.	Pre-construction/ Construction	Commitment remains unchanged.	
	The principles of the waste hierarchy be adhered to in order to: - avoid and/or minimise production of excavated peat; - reuse, where possible, excavated peat on site in landscaping and re-profiling works, to minimise visual	Pre-construction/ Construction	Commitment remains unchanged.	

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
	impacts and facilitate habitat, ecological and hydrogeological restoration, improvement and enhancement; and - avoid waste peat being sent for disposal, recovery and/or reuse off site.			
	All contractors will be made aware of the sensitivity of peat and wetland habitats and the ECoW will clearly mark sensitive habitats near to construction areas. Contractors will be required to work within the narrowest practical construction corridor when working in or near areas of peat.	Pre-construction/ Construction	Commitment remains unchanged.	
	All plans and method statements will be accompanied by justification of the final design and/or construction methods identified by the Principal Contractor, including reasons for discounting alternative methods. This is required in order to demonstrate that all avenues for avoiding hydrological disruption and reducing the disturbance and excavation of peat have been considered.	Pre-construction/ Construction	Commitment remains unchanged.	
Handling Excavated Materials	The following methodologies for excavation of peat will be undertaken: - Areas of peat within the footprint of any excavation will have the top layer of vegetation stripped off as turf prior to construction by an experienced specialist contractor. When excavating areas of peat, excavated turfs should be as intact as possible. Often it is easiest to achieve this by removing large turfs up to 500mm in order to keep the peat intact. - These turfs should be stored adjacent to the construction area in a way that ensures they remain moist and viable (see temporary storage below). Excavated turfs should be as intact as possible so as to minimise carbon losses. - Peat will then be removed, stored separately and kept damp (Carbon and Water Guidelines 2012). The moisture content of stored/stockpiled peat will be	Pre-construction/ Construction	Commitment remains unchanged.	

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
	monitored monthly and if it falls below 25% of that in surrounding, intact peat then it will be watered. - Excavated soils and turfs will be handled so as to avoid cross contamination between distinct horizons and ensure reuse potential is maximised. - Prior to any excavations, the Contractor will produce a detailed Method Statement identifying where and how excavated peat will be used in reinstatement or landscaping works. Specific requirements for the excavation, handling, storage and reinstatement of peat will be outlined in this Method Statement. The Contractor will consider potential impacts on downstream hydrological receptors and also the potential for instability issues with the excavated material. - Care will be taken when stripping and removing topsoil and peat turfs and appropriate storage methods used on site, i.e. excavated material will be stored in separate horizons and vegetation rich top layers will be stored vegetation side up. - Classification of excavated materials will depend on their identified re-use in reinstatement works. At this site it is anticipated that the material to be excavated will comprise peat (which may be sub-divided into turf, acrotelm and catotelm/amorphous), peaty soils and mineral soils (subsoil and topsoil).			
	Following excavation, peat will be required to be temporarily stored before reuse or disposal, although peat restoration will commence in locations as soon as feasible e.g. in borrow pits as they are completed. Excavated peat should be stored in stockpiles to minimise carbon losses while being stored.	Construction	It is not anticipated that any peat will be disposed of as all peat will be used in onsite restoration. Commitment remains otherwise unchanged.	
	Where possible excavated turfs will be stored adjacent to the construction area such that they remain moist and viable.	Construction	Commitment remains unchanged.	

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
	Areas for temporary storage required for peat will be identified in the Principal Contractors Method Statement taking into account constraints and mitigation requirements identified in the environmental information. This will describe any intended drainage, pollution prevention and material stability mitigation measures that may be required. The following general guidelines will apply: - The appropriate temporary storage areas for excavated peat will also be as close to the excavation as practicable. - The design and location of stockpiles, including incorporated drainage elements, will be agreed with the ECoW and Geotechnical Consultant / Geotechnical Clerk of Works prior to excavation works commencing. - Temporary peat storage areas should be located so that erosion and run off is limited, leachate from the material is controlled, and stability of the existing peatland in the vicinity is not affected. - Excavated material is to be stockpiled at least 50m away from watercourses. This will ensure that any wetting required on stored peat does not runoff and discharge into adjacent watercourses. - Any edges of cut peat that may remain exposed, or areas of peat excavation on steep slopes, will be covered with geotextile or similar approved. This will allow re-turfing and re-vegetation and reduce erosion risks. - Suitable storage areas are more appropriately sited in areas with lower ecological value and low slopes. - Temporary peat storage should be in locations where the water table can be kept artificially high. - An up-gradient cut off ditch should be installed around the edge of the storage bund in order to collect up-	Pre-construction/ Construction	Commitment remains unchanged.	

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
	gradient surface water runoff and divert water runoff from eroding the toe of the bund. - It is desirable to keep haul distances of excavated peat as short as possible and as close to intended re-use destinations to minimise plant movements in relation to any earthworks activity including peat management in order to minimise the potential impact on the peat structure. It is important that temporary storage is safe and keeps the material suitable for its planned reuse. - The handling and storage of peat will seek to ensure that excavated peat does not lose either its structure or moisture content. Peat turves require careful storage and wetting and to be maintained to prevent drying out and subsequent oxidisation to ensure that they remain fit for re-use. - Stockpiling of peat should be in large volumes, taking due regard to potential loading effects. Piles should be bladed off at the side to minimise the available drying surface area. - Higher piles are more likely to become dewatered, while smaller piles expose a greater area to evaporation. Reducing mound size may also increase likelihood of erosional losses as particulate organic carbon (POC). Overall volumes of stockpiling should be minimised and height and surface areas kept to a minimum – for example, a maximum of 1m high and against rock faces in borrow pits where possible. - Stockpiles should be battered so as to limit instability and erosion and should be bunded or covered using impermeable material. The bunds should extend to a level above the toe of the stockpiled material to provide restraint to surface runoff. - When planning the temporary storage areas any additional disturbance areas should be minimised.			

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
	- Transport of peat to temporary storage areas, restoration areas or designated spoil areas will be by low ground pressure vehicles to avoid excessive compaction of the peat.			
Peat Re-use	The Principal Contractor will be required to provide appropriate plant for undertaking all reinstatement works such that no unnecessary disturbance of the ground surface occurs. In order to minimise disturbance and damage to the ground surface, any mobile plant required for reinstatement and landscaping works will be positioned on constructed access tracks, hard standing areas or existing disturbed areas wherever possible. The use of a long reach excavator for excavations and reinstatement works is preferable as it enables sufficient room to allow initial side casting and subsequent pulling back of turves over reinstated peat or soil.	Pre-construction/ Construction	Commitment remains unchanged.	
	Immediately following construction some turfs will be replaced along the road edges to allow quicker re-vegetation and to soften the road edges.	Construction	Commitment remains unchanged.	
	When constructing cut tracks rapid restoration will be undertaken as track construction progresses.	Construction	Commitment remains unchanged.	
	Peat turfs should be replaced on all disturbed areas, including constructed roadside drainage channel embankments where possible.	Construction	Commitment remains unchanged.	
	Any reinstatement and re-profiling proposals will consider, and mitigate against, identified significant risks to environmental receptors. In particular, in areas of replaced peat, water management will be considered in the Contractor's Construction Method Statements to ensure that as far as possible an appropriate hydrological regime is re-established within areas of disturbance. Particular attention will be paid to maintaining hydrological continuity and preventing the creation of preferential subsurface flow paths (for instance within backfilled cable trenches).	Pre-construction/ Construction	Commitment remains unchanged.	

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
	Appropriate drainage will be required where peat is used in reinstatement, for instance track verges and reinstatement of construction compounds, etc so that the peat will be maintained in a saturated condition.	Pre-construction/ Construction	Commitment remains unchanged.	
	Reinstatement of vegetation will be focused on natural regeneration utilising peat vegetated turfs. To encourage stabilisation and early establishment of vegetation cover, where available, peat turfs (acrotelmic material) or other topsoil and vegetation turves in keeping with the surrounding vegetation type will be used to provide a dressing for the final surface.	Construction	Commitment remains unchanged.	
	Excavated catotelm or amorphous peat will only be used in restoration works where the topography allows straight forward deposition with no pre-treatment or containment measures and without risk to the environment. Suitable scenarios may be present in those disturbed areas where natural topography profile allows such use. A fibrous layer of acrotelm and turf will be placed above any catotelm or amorphous peat reinstated.	Construction	Commitment remains unchanged.	
	Any landscaping of road batters should be limited to the areas of ground already disturbed (including floating tracks).	Construction	Commitment remains unchanged.	
	The re-vegetation of temporary hardstanding areas will depend on the identified reinstatement use and associated vegetation character bounding the areas of restoration, with the aim being to match turves and topsoil to similar ground conditions. Where appropriate, excess peat turves, if acrotelm in nature and considered suitable by the ECoW, could be used for screening bunds, landscaping or as part of an HMP in conjunction with reseeding. The seed mix used on site would be agreed with the ECoW and SNH and would use local native species akin to the local ecological baseline.	Construction	It is noted that SNH renamed as NatureScot in August 2020, otherwise the commitment remains unchanged.	
	The design and construction of tracks on peat shall be done in such a way so as to reduce impacts on the existing peat hydrology at the site. The built track should allow for the	Pre-construction/ Construction	Commitment remains unchanged.	

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
	transmittance of water, so natural drainage can be maintained as far as possible.			
	Track edges and passing places would be reinstated post construction through the removal of capping material and the reuse of peat turves. Where peat turves are used to reinstate track edges this will be done in a manner to ensure works tie in with the surrounding topography, landscape and ground conditions.	Construction	Commitment remains unchanged.	
Water Environment	During the tendering process for the works, environmental specifications and objectives will be included in the tender documents so that all contractors can allow for mitigation measures in their tender costs. Sub-contractors are required to implement Energy Isles Environmental Management Procedures.	Pre-construction	Commitment remains unchanged.	
	During the induction of contractors, a specific session on good practice to control water pollution from construction activities would be included. The responsibility for protecting the water environment would be shared with all staff on the site with an appropriate level of support from construction managers to achieve this. The site induction process would be based on the Pollution Prevention Guidance and best practice documents indicated within the hydrology chapter (Chapter 10 of the 2019 EIA Report).	Pre-construction/ Construction	Commitment remains unchanged.	
	Construction Method Statement (CMS) - The Tender procedures for construction contracts will include the requirement to produce a CMS, in consultation with SEPA, SIC and Scottish Water. - Following the more detailed design of tracks and drainage, the CMS will define the construction planning and procedures to be applied. The CMS will demonstrate, to the satisfaction of SEPA, how construction will be in accordance with PPG5, PPG6 and the Forests and Water Guidelines 2011. This document will be produced to function alongside the CEMP.	Pre-construction/ Construction	Commitment remains unchanged.	

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
	- In all construction designs SUDS (Sustainable Urban Drainage Systems) shall be incorporated to minimise hydrological effects of the development and to maintain the current hydrological systems.			
	Watercourse Crossings - The main watercourses are shown to be at risk of flooding however the flood risk zones are close to the main channels as a result of the steep valleys. The crossings should be designed so that their presence does not increase flood risk down gradient by having adequate capacity and by avoiding any structure within the channel or flood zone. The crossings of main watercourses will also allow for appropriate fish, eel and otter passage. - Watercourse crossings will be the subject of detailed design within a Construction Method Statement (CMS) to be submitted to SEPA and the local authority (as appropriate) prior to commencement of construction. A monitoring programme for maintenance of crossings (to prevent blockages and flooding) will be provided within the CMS and is anticipated to be a condition of planning. - Where it is necessary to cross watercourses or flowing drains, appropriately designed crossings and culverts will be installed, and licensed where appropriate, in consultation with SEPA (see Mitigation below).	Pre-construction/ Construction	Commitment remains unchanged.	
	All tracks that will be excavated will have the material removed and replaced in the same manner, particularly the peat and the topsoil layer in accordance with the approved peat management plan.	Construction	Commitment remains unchanged.	
	All dewatering activities will be managed through dewatering permits and method statements and the ECoW must be consulted and agree pumping and associated mitigation measures prior to commencement of works.	Pre-construction/ Construction	Commitment remains unchanged.	

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
	Suitable mitigation measures will be installed to minimise the volume of silt contained within pumped waters and to avoid or minimise the impact of the pumped water discharge on the water environment, including: - Installation of upgradient cut off drains to reduce the volume of water entering excavations. - In order to prevent disturbance from the base of excavations or from the bed of watercourses during abstraction, any pump intakes will be protected from sediment by raising the intake using a floating rose and a geotextile filter. - The discharge of abstracted water through sediment control structures and over natural vegetation to filter and infiltrate.	Construction	Commitment remains unchanged.	
Management of Sediment	Loose track material generated during the use of access tracks will be prevented from reaching watercourses by adequate maintenance of the track, utilising measures deemed necessary by the ECoW. In dry weather, dust suppression methods will be employed.	Construction	Commitment remains unchanged.	
	Standard erosion control techniques and sediment control structures are used across the site during the construction period.	Construction	Commitment remains unchanged.	
	Drainage will be installed on either side of tracks where required to enable appropriate management, capture and discharge of clean, and potentially sediment laden runoff. Regular discharge of upgradient water to down gradient vegetation will be installed and appropriate sediment control structures to manage contact water.	Construction	Commitment remains unchanged.	
	Roadside drains likely to carry high sediment loads will not be allowed to discharge directly into watercourses but will discharge into sediment control structures or buffer areas of adequate width. The purpose of these drainage ditches is to collect track drainage, control run-off during intense rainfall events and mitigate erosion. These ditches will have filter check	Construction	Commitment remains unchanged.	

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
	dams at intervals along their length to encourage infiltration and reduce velocity of flow within the channels. The drainage design will encourage run-off to leave access tracks quickly and prevent their acting as flow pathways and will also protect the site's soils from erosion. Sediment control structures will be located at the end of all cross drains and cut off drains.			
	Watercourse crossings will be sized sufficiently to avoid overloading, blocking or washout, and will be protected and well bedded to avoid settlement.	Pre-construction	Commitment remains unchanged.	
	Minor ephemeral watercourses and drains will be twin wall UPVC or precast concrete pipe culverts or half-moon culverts where reasonably practicable to retain the natural stream bed.	Construction	Commitment remains unchanged.	
	Turbine bases are to be located at least 50m away from any watercourse mapped on the 1:50,000 scale Ordnance Survey mapping and confirmed to be present during site visits where reasonably practicable.	Pre-construction	Commitment remains unchanged.	
	Soil movement will be undertaken with reference to best practice guidelines Good Practice Guide for Handling Soils (MAFF 2000). Subsoil from the foundation excavations would be primarily replaced around the foundations following pour and curing. Any remaining spoil would be used to fill borrow pits or spread in areas that are not environmentally sensitive as agreed by landowners and relevant consultees. Topsoil and turfs will be stored so as to maintain their vitality and used to recover the foundation. This will help to maintain surface hydrological characteristics in terms of near surface infiltration and run-off regimes.	Construction	Commitment remains unchanged.	
	The installation of the electrical cables will be within small trenches. Where trenches are dug on steep slopes they will be dug in sections or plugs of soil may be left in place at intervals to prevent them acting as preferential drainage pathways and increasing soil erosion. As indicated above, best practice cable installation means that the trenches will not remain open for	Construction	Commitment remains unchanged.	

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
	long periods of time and will be restored by replacing the subsoil and topsoil removed earlier.			
	Run-off and discharge water from the excavation sites will be discharged into sumps where sediment would be allowed to settle, and the drainage waters would be pumped out and discharged via vegetated soakaways to a vegetated area or infiltration trench down gradient of the excavation site. The exact method of site discharge will be confirmed with the SEPA prior to the commencement of construction. These measures are also designed to reduce soil erosion by controlling discharges from the excavations.	Construction	Commitment remains unchanged.	
	In the event of shuttering collapse during a concrete pour it is unlikely that material will escape as the excavation required to erect the shuttering will be below ground and of a larger volume than the shuttering capacity. However, in this unlikely event, actions as defined below would be put in place. When the concrete had solidified, it would be dug out and disposed of appropriately.	Construction	Commitment remains unchanged.	
	Careful consideration will be given to the location of topsoil and subsoil storage areas for all facilities during construction, either by siting in a flat dry area away from watercourses or by the addition of cut-off drains above the storage, which will help to maintain a buffer from streams. The areas will be regularly inspected to ensure that erosion of the material is not taking place.	Construction	Commitment remains unchanged.	
	Settlement lagoons and silt traps will be inspected regularly especially after periods of heavy rainfall. This inspection period will be agreed with SEPA during the development of the CMS. Maintenance will be carried out in periods of dry weather where practicable.	Construction	Commitment remains unchanged.	
	The construction compound will have provision for the storage of fuel, oil and chemicals in designated areas, together with	Construction	Commitment remains unchanged.	

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
Oil, Fuel and Chemical Contamination	areas for vehicle compounds, refuelling sites, waste depots and on-site sewage systems.			
	Mitigation is to be demonstrated in accordance with PPG1, GPP2, GPP4, PPG6, GPP8 and PPG26. Good practice will be adopted for handling potentially polluting substances (such as fuel, oil, cement and concrete additives) including: - Designated facilities designed and used for storage and refuelling, located away from watercourses. - Fuel, oils and chemicals will be stored on an impervious base within a bund able to contain at least 110% of the volume stored. Rainwater will not be allowed to accumulate within the bund and in any way compromise the required 110% volume capacity. - Interceptor drip trays will be positioned under any stationary mobile plant to prevent oil contamination of the ground surface or water. - A site oil, chemical and product inventory. - A site drainage plan, including notations of areas of highest sensitivity. - A list of emergency procedures, responsive to a risk assessment of areas of high sensitivity. - Site induction of all personnel on emergency spillage procedures and staff trained in emergency procedures. - A contact list for emergency services, the relevant environmental regulators, the local water supply and sewerage undertakers, the Health and Safety Executive and specialist clean up contractors, if required. - Emergency response equipment will be available at appropriate locations.	Construction	Commitment remains unchanged.	
	In the event of an accidental spillage, a predefined 'Procedure in the event of a contaminant spillage' will become effective.	Construction	Commitment remains unchanged.	
	Concrete foundations will adhere to a specific code of practice for concrete design to ensure that the concrete mix is designed	Construction	Commitment remains unchanged.	

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
	to withstand concrete attack. Concrete for the turbine bases will be batched on site.			
	On site engine and hydraulic oil waste will be stored in an appropriately constructed compound and storage bund.	Construction	Commitment remains unchanged.	
	Waste oils will be stored in the construction compounds in an above ground tank within a concrete bunded area to prevent oil escaping to the environment in the event of leakage from the main tank. The bund will be 110% of the storage tank capacity. The bund will be emptied by a specialist company. Procedure for storage, removal and accidental spillage will be defined in the 'Pollution Incident Response Plan' with spill kits available adjacent to the bunded area.	Construction	Commitment remains unchanged.	
	The following additional measures will also be implemented to manage oil waste: - Drip trays will be provided for machinery. - Machinery will be repaired and maintained, where practicable, in suitable designated locations. - Facilities will be provided to ensure appropriate waste management. - Wheel washing facilities where required will be located away from watercourses. - Should dewatering be required pumped water will be discharged via settlement ponds or filter strips prior to direct discharge into a watercourse.	Construction	Commitment remains unchanged.	
Monitoring	Prior to commencement of any invasive investigations or site works, a strategic set of water sampling locations will be identified. The locations will be considered within the choice of sampling locations as well as any upgradient works on other developments. Any samples taken will be analysed for a suite of typical determinants used by SEPA for their water quality assessments in freshwater rivers and updated to include any requirements arising from the Water Framework Directive or Scottish Water requirements	Pre-construction	Commitment remains unchanged.	

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
	Water samples during construction will be collected from the same locations as during baseline sampling and taken at intervals agreed with SEPA. Sampling locations will include some control points outside the influence of the construction. These will be analysed for a suite of typical determinant used by SEPA and Scottish Water in order to ensure that there is no negative effect on surface water quality during the construction phase.	Construction	Commitment remains unchanged.	
	Temporary drainage features, access track drainage channels, drainage crossings on tracks, silt traps, sediment lagoons etc. will be inspected on a regular basis to ensure they are clear and capable of performing their functions.	Construction	Commitment remains unchanged.	
	Periodic inspection of the river beds and banks will be undertaken during the operational phase of the works and culverts will be modified if required (for example by installing baffles within the culverts to reduce flow rates exiting the culvert). Streams and drains will be inspected to ensure they are operating correctly and they will be cleaned of silt or vegetation if required.	Operation	Commitment remains unchanged.	
	In the decommissioning phase, monitoring will be undertaken to the same level and frequency as for the construction phase as activities and risks to receptors are similar.	Decommissioning	Commitment remains unchanged.	
	Energy Isles Wind Farm Proposed Protection for Gossa Water Catchment (2019 EIA Report Appendix 10.6) will be implemented.	Pre-construction/ Construction/ Operation	Commitment remains unchanged.	
11. Traffic and Transport				
General Construction Traffic	During construction the project website will regularly be updated to provide the latest information relating to traffic movements associated with vehicles accessing the site and will be agreed with SIC.	Construction	Commitment remains unchanged.	
	The widening of the Old Cullivoe Road will be subject to detailed discussions with SIC, detailed design and the granting of	Construction	Commitment remains unchanged.	

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
	technical approval through the appropriate road works licensing process.			
	Core Path CPPY04 access will be maintained throughout. Conflict between construction traffic and non-motorised users will be minimised through appropriate traffic management and segregation if necessary. Should closures be required, their duration will be minimised. This will be managed through implementation of a CTMP and Traffic Management Plan (TMP) (which may form part of the CTMP).	Construction	Commitment remains unchanged.	
	Access to National Cycle Route 1 which follows parts of the A968 would be maintained. Conflict between construction traffic and cyclists would be prevented through appropriate traffic management and segregation (if necessary). This would be managed through implementation of a CTMP and TMP (which may form part of the CTMP).	Construction	Commitment remains unchanged.	
	A pre-construction survey of the abnormal loads access route and the construction vehicles route would be recorded to provide a baseline of the state of the road prior to any construction work commencing. This baseline would allow identification of any change in the road condition during the construction stage of the Proposed Development. Any necessary repairs would be coordinated with the Roads Authority. Any damage caused by traffic associated with the Proposed Development during the construction period that would be hazardous to public traffic would be repaired immediately.	Construction	Commitment remains unchanged.	
	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.	Construction	Commitment remains unchanged.	
	A daily road edge review and any debris and mud will be removed from the carriageway using an onsite road sweeper.	Construction	Commitment remains unchanged.	
Construction Traffic	A CTMP will implement the following measures during construction:	Construction	Commitment remains unchanged.	

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
Management Plan (CTMP)	- All materials delivery lorries (dry materials) should be sheeted to reduce dust and stop spillage on public roads; - Specific training and disciplinary measures should be established to ensure the highest standards are maintained to prevent construction vehicles from carrying mud and debris onto the carriageway; - Wheel wash facilities would be established at an appropriate location prior to vehicles exiting onto the A968; - Normal site working hours would be limited to between 0700 and 1900 Monday to Friday and 0800 - 1800 Saturday, with no work undertaken on Sundays or public holidays. Although component delivery and turbine erection may take place outside these hours; - Appropriate traffic management measures would be put in place on the A968 and Old Cullivoe Road to avoid conflict with general traffic, subject to the agreement of the roads authority. Typical measures would include HGV turning and crossing signs and/ or banksmen at the A968/Old Cullivoe Road junction and site accesses and warning signs; - Provision of construction updates on the project website and a newsletter to be distributed to residents within an agreed distance of the site on Yell; - Adoption of a voluntary speed limit of 30mph for all construction vehicles on Old Cullivoe Road; - Out of hours chartering of the ferry to reduce conflicts with other users; - All drivers would be required to attend an induction to include: ▪ a safety briefing; ▪ the need for appropriate care and speed control;			

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
	▪ a briefing on driver speed reduction agreements (to slow site traffic at sensitive locations); ▪ identification of specific sensitive areas; ▪ identification of the specified route; and ▪ the requirement not to deviate from the specified route.			
Abnormal Indivisible Loads (AIL)	The required road improvements would be carried out in agreement with SIC to ensure that during delivery of turbine components minimal damage is caused to road surfaces, verges, street furniture and surrounding vegetation. These will be implemented subject to detailed discussions with SIC, detailed design and the granting of technical approval through the appropriate road works licensing process.	Construction	Commitment remains unchanged.	
	A TMP for the delivery of abnormal loads would be developed to reduce conflicts between abnormal load traffic and other road users.	Pre-construction	Commitment remains unchanged.	
	Before the AILs traverse the route, the following tasks would be undertaken to ensure load and road user safety: - a review of clear heights with utility providers and the transport agencies along the route. The Applicant would ensure, in consultation with providers that there is sufficient clearance with an appropriate safety factor, especially with respect to power lines; - ensuring any vegetation which may foul the loads is trimmed back to allow passage; - confirming that there are no roadworks or closures that could affect the passage of the loads; - checking that no new or diverted underground services on the proposed route are at risk from the abnormal loads; - confirming that the police are satisfied with the proposed movement strategy;	Construction	Commitment remains unchanged.	

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
	- the Applicant would contact the appropriate agencies to ensure that the above points are reviewed before the transport of components commences; and - confirm that all transport permits are in place.			
12. Socio-Economic, Tourism and Recreation				
Access to core path	An Access Route Plan will be produced and if required, will include a map detailing any diversions and any management of access during and after construction. This may be addressed through an appropriately worded condition.	Pre-construction	Commitment remains unchanged.	
13. Aviation and Radar				
Radar mitigation scheme	Probable establishment of a Non-Auto-Initiation Zone (NAIZ) within the radar data processing system. This will be agreed with the MOD and may be addressed through a suitably worded condition.	Operation	Commitment remains unchanged.	
Aviation Lighting	Tall cranes during construction will require aviation lighting, and the Defence Geographic Centre will be informed prior to their operation on site.	Construction	Commitment remains unchanged.	
	Medium intensity steady red lights (2000 candela) will be fixed to the top of the nacelle. At least 3 low intensity (32 candela) lights will be provided at an intermediate level of half the nacelle height.	Operation	As detailed in SEI 2 Appendix 13.1, medium intensity steady red lights (2000/200 candela) will be fixed to the top of the nacelle for 11 turbines. Low intensity (32 candela) lights will be provided at an intermediate level of half the nacelle height on 5 turbines. MOD compliant infra-red lighting will also be provided on 12 of the turbines.	Operation

Environmental Subject Area	Previous Environmental Commitment (2020 SEI)	Timing	New Environmental Commitment	Timing
14. Shadow Flicker				
No effects are anticipated to occur during construction, operation or decommissioning of the Proposed Development, therefore no mitigation measures were deemed necessary.			Assessment outcome remains unchanged therefore no mitigation measures are proposed.	
15. Telecommunication				
No effects were anticipated to occur during construction, operation or decommissioning of the Proposed Development, therefore no mitigation measures were deemed necessary.			Assessment outcome remains unchanged therefore no mitigation measures are proposed.	

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