19 Schedule of Environmental Commitments

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19 Schedule of Environmental Commitments

19.1 Introduction

19.1.1 Best practice in Environmental Impact Assessments (EIA) recommends the use of a Schedule of Environmental Commitments, which can act as a quick reference for anyone interested in the mitigation measures which the Applicant has committed to implementing and upon which the assessment of residual effects presented within the EIA Report has been based. It will be utilised by the Applicant 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.

19.1.2 Table 19.1 presents a Schedule of Environmental Commitments for the Proposed Development, listed according to the relevant environmental topic area. Individual EIA Report chapters should be referred to for full details of the mitigation.

Table 19.1 - Schedule of Environmental Commitments

Subject Area	Commitment	Timing
3. Proposed Development		
Construction Environmental Management Plan (CEMP)	As part of the construction contract, the Applicant will produce, and adhere to, a CEMP. The CEMP shall be developed in accordance with the joint Scottish Renewables, NatureScot, SEPA, Forestry Commission Scotland and Historic Environment Scotland guidance on Good Practice During Windfarm Construction (2019). The CEMP shall describe how the Applicant will ensure suitable management of, but not limited to, the following environmental issues during construction of the Proposed Development: ▪ 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); ▪ underwater noise; ▪ dredging; ▪ 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:	Pre-construction / construction

Subject Area	Commitment	Timing
	▪ details of the all the environmental mitigation which is described within this chapter that is required during construction of the Proposed Development, and of how the Applicant will implement this mitigation and monitor its implementation and effectiveness; ▪ details of how the Applicant will abide by the local and national legislative requirements e.g. The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended); ▪ details of how the Applicant will implement and monitor construction best practice techniques e.g. the control of noise and dust; ▪ details of how the Applicant will implement the Joint Nature Conservation Committee (JNCC) piling protocol to minimise potential impacts to marine mammals from underwater noise associated with piling of the new landing jetty; ▪ details of any additional underwater noise mitigation measures, specifically the use of a bubble curtain; ▪ 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; ▪ details of dredging disposal plans; 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 NatureScot, SEPA, Historic Environment Scotland and OIC on the relevant aspects of the CEMP. The Applicant shall amend and update the CEMP as required throughout the construction and decommissioning period. The CEMP shall, where applicable, cross-reference and correspond with the 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 footpaths.	

Subject Area	Commitment	Timing
	The Applicant shall amend and update the CTMP as required throughout the construction and decommissioning period. Specific requirements of the CEMP for each of the environmental topics assessed in the EIA are provided in the relevant EIA Report chapters and an outline CEMP is provided in Appendix 3.1.	
Design	There will be a micro-siting allowance of up to 50 m 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.	Pre-construction
Pollution Prevention Strategy	A pollution prevention strategy, contained within the CEMP, will be agreed with SEPA to ensure that appropriate measures are put in place to protect watercourses and the surrounding environment. 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 within the temporary construction compound, 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. High standards of health and safety will 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.	Pre-construction and construction
Operation Environmental Management Plan (OEMP)	The OEMP will be developed in consultation with NatureScot, SEPA and OIC and will include but not be limited to: ▪ details on the track 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 (as amended); and	Operation

Subject Area	Commitment	Timing
	▪ a Habitat Management Plan and relevant protected species management plans (if required).	
7. Ornithology		
CEMP	All ornithological mitigation measures will be incorporated into a Construction Environmental Management Plan (CEMP). This CEMP will outline all required mitigation for ornithological receptors, providing details of key sensitivities present and timings. A Site Restoration Plan (SRP) will be developed as part of the CEMP to ensure the regeneration of those areas of habitat that have been temporarily lost through development.	Pre-construction and construction
Ecological Clerk of Works (ECoW)	A suitably experienced Ecological Clerk of Works (ECoW) will oversee all works to ensure adherence to the mitigation measures.	Construction
Targeted checks	Prior to any construction of the Proposed Development, the Applicant will undertake a series of pre-construction ornithological targeted checks to update the baseline information reported in Chapter 7 of the EIA. The full scope and requirements of the pre-construction checks will be agreed with the Planning Authority and involve engaging a Suitably Qualified Ecologist (SQE). This would be in addition to completing a final check prior to construction for protected species and would be discussed and agreed with NatureScot.	Construction
Site clearance works	Wherever possible, all vegetation clearance will occur outside the bird breeding season (i.e. between December – March, inclusive), to ensure that no active nests are damaged or destroyed by the proposed works. If work is required after March 31st, the SQE will search areas of clearance in advance of works and buffer active nests as appropriate. This would include any areas of clearance and vegetation removal for access tracks, compounds or turbine bases due to the populations of ground nesting birds on and around the site.	Construction
Ecological toolbox talk	An ecological toolbox talk with supporting literature will be given to all site personnel as part of site induction on the potential presence of ornithological species and any measures that need to be undertaken should such species be discovered during construction activities. The toolbox talk will also include the requirement to report and log any bird casualties (including due to the met-mast) at the Proposed Development during construction and operation of the site.	Construction/ operation

Subject Area	Commitment	Timing
Restoration	In order to facilitate restoration, disturbed ground will be restored as soon as practicably possible using materials removed during the construction of access tracks, excavation of cable trenches and turbine foundations. To achieve this, any excavated soil will need to be stored in such a manner that is suitable to facilitate retention of the seed bank. This will aid site restoration and help conserve the pre-construction floristic interests at the site.	Construction
The prevention of increased predation	During the construction and operation of the wind farm, strict biosecurity measures will be put in place and followed to prevent the introduction of potential predators accessing the island and desecrating not only nesting storm petrel but other ground nesting birds across the island, such as waders, gulls and terns. Prior to the construction and operation of the wind farm a 'Biosecurity Plan' is required to be drafted and agreed with NatureScot and Orkney Islands Council and will be put in place to prevent rodents being introduced to the site.	Pre-construction / construction / operation
New Storm Petrel breeding habitat	The main storm petrel breeding colony is located along the north-west corner of the island within a partially collapsed dry-stone dyke that shows signs of ongoing decay. In order to further support the storm petrel colony on the site, it is proposed that collapsed sections of the dyke are carefully re-built with suitable petrel breeding burrows located within. The location of the newly created structure will be completed out with both the seal and bird breeding seasons (i.e. between the end of December and end of March) and created so not to modify areas already used by petrel or impinge on the seal breeding grounds.	Construction
Storm Petrel Monitoring	A full monitoring program of the storm petrel colony is proposed, focusing on the newly created nesting habitat with a yearly full island callback count to be completed in late June / July in each of the first five years following construction of the nest wall. This will be repeated every three years thereafter throughout the operation of the Proposed Development. Further monitoring will include a minimum of two visits a year for the first five years and again each three years thereafter for another five visits, throughout a total of 20 years of operation, for ringing and monitoring of the storm petrel on the island.	Operation
Storm Petrel Relocation	There is a single storm petrel nesting location in a boulder pile directly alongside the track in the south of the island. If disturbance to the nesting location is unavoidable then it is required to relocate (and rebuild or recreate if unable to move in complete condition) the boulder pile a minimum of 100 m away from site infrastructure and turbines. In advance of being moved either whole or brick by brick the boulder pile will first be checked by an archaeologist. In	Construction

Subject Area	Commitment	Timing
	addition to the relocation of the above nest, it is proposed to ensure the pointing and stone work within the small structure adjacent to the landing area is maintained in order to prevent the structure, which is currently assessed as unsuitable for breeding storm petrels, deteriorating and providing suitable habitat for breeding petrels. The maintenance of this structure will prevent colonisation by storm petrels in an area likely to be highly disturbed during both construction and operation of the wind farm and encourage newly colonising birds to use habitat elsewhere on the island away from site infrastructure, most notably the newly constructed 'stone petrel wall'.	
Waders and other ground nesting species	The island is a working sheep farm and the entire island is grazed by sheep at certain times of year. The current grazing regime involves the use of temporary fencing to prevent sheep accessing certain areas around the island during lambing in particular the sections of higher cliffs, in order to prevent lambs falling over cliff edges. In order to provide areas of longer grassy sward and a mosaic of grassland swards on the island for the benefit of ground nesting birds it is proposed to extend these fenced off areas (using a combination of permanent or currently standing fencing and temporary fencing). Sheep will be excluded out of these fenced off areas between the start of April and the end of June to allow the completion of incubation of ground nesting species such as lapwing, snipe and oystercatcher. In agreement with the tenant, a total of 16.6 hectares will be included in the areas of restricted grazing and the variable sward heights in these areas will also provide good foraging areas for some wading species as well as cover for incubating and newly hatched birds.	Construction
8. Terrestrial Ecology		
ECoW	A suitably qualified Ecological Clerk of Works (ECoW) will be appointed prior to the commencement of any construction activities. The ECoW will be present and oversee construction activities as well as providing toolbox talks to all site personnel with regards to priority species and habitats, as well as undertaking monitoring works and briefings to relevant staff and contractors as appropriate.	Pre-construction / construction
Standard Mitigation	Adherence to current environmental protection policies and guidance (refer to Chapter 8). Development of Method Statements for use during construction (i.e. part of the CEMP), to include current good practice and prescribed use of low noise and vibration plant and construction techniques to reduce potential for acoustic disturbance to the surrounding marine habitats, including "soft-start" procedures (i.e. gradually increasing a	Pre-construction / construction

Subject Area	Commitment	Timing
	disturbance activity up to full operation of a minimum of 20 minutes) to limit wildlife avoidance behaviours when working near the shore. Development of Method statements to control dust-generating activities, such as aggregate extraction and vehicle movements. Standard mitigation includes damping-down surfaces. A preconstruction otter survey programme of habitats and field drain crossing points, to identify any changes to otter use of the island, to feed into the final micro-siting process. Development of a Species Protection Plan for otter, inclusive of: • capping of any exposed pipe systems when not being worked and providing exit ramps for any exposed trenches or excavations (to prevent otters entering and becoming trapped); • driver awareness and 10 mph speed controls within the site to limit the risk of vehicle movement accident mortality; and • implementation of an exclusion zone of at least 30 m (NatureScot, 2020a) to be implemented around any new otter holt or resting place. An exclusion zone of a minimum 100 m to be applied to any holts identified (200 m for a breeding holt), to ensure protection from borrow pit operations. Development of a Species Protection Plan for seals. In order to prevent pollution of watercourses/field drains and waterbodies within the site (particulate matter or other pollutants, such as fuels), best practice techniques will be employed (refer to Chapter 8). Regular monitoring of watercourses/field drains will be required during construction. The monitoring will include a responsive element, with an on-site ECoW checking areas where active works are taking place and areas where sediment run-off may be a concern during periods of high rainfall. A Site Restoration Plan (SPR) will be developed and implemented. In order to facilitate restoration, including of the borrow pits, disturbed ground will be restored as soon as practicably possible using materials removed during the construction of access tracks, excavation of cable trenches and turbine	

Subject Area	Commitment	Timing
	foundations. To achieve this, any excavated soil will need to be stored in such a manner that is suitable to facilitate retention of the seed bank. Additionally, as part of this process, there will be development of an Operational Site Management Plan (OSMP) and maintenance task Method Statements.	
Designated seal haul-outs	Delivery of staff, plant and materials to the island will be controlled though development of method statements to provide the least-disturbing route to site; this could potentially include varying the route from the port of origin (likely to be Hatston Quay for personnel movements).	Construction
Habitats	Identification of appropriate exclusion zones around sensitive features (e.g. waterbodies), to prevent construction vehicles tracking through these areas. Operative awareness education, in the form of toolbox talks, to ensure the value of the island and its coastal environment is understood. Careful wash-down of plant and other equipment will be mandatory prior to access to (i.e. before embarking on the vessel for transport to the island) or egress from the Proposed Development site, to prevent potential biosecurity risks associated with plant movements; potentially contaminated materials will be identified and the handling of such strictly controlled.	Construction
Otters	Avoidance of creating any obstructions to established otter pathways, or access to open water as instructed by the ECoW. Avoidance working in the vicinity of identified otter habitat (i.e. the drainage channels and pools) during the hours of darkness and within two hours after sunrise and two hours before sunset. This can be reduced to one hour between January and February, due to limited daylight, should construction be required at this point in the year (N.B. no works will occur during the seal breeding season mid-September-December).	Construction
Seals	A Landing facilities construction Method Statement.	Construction

Subject Area	Commitment	Timing
	The potential for collision with marine traffic will require consideration when planning navigation routes from port to site and procedures. Navigational Method Statements will be developed to cover port to Faray transport and use of the island landing facilities. In the case of seals using the extended slipway and landing jetty area, the approach of a vessel is likely to cause an unavoidable dispersal. Given the use of the area, visual, olfactory and acoustic deterrents, such as those described in MMO (2018 & 2020) for use with fishing gear are considered unsuitable. Consultation will be undertaken with NatureScot with regards to the possibility of disturbance licence requirements. Control of borrow pit works to limit duration of disturbance events caused by material extraction. This will be covered through development of a borrow pit operations Method statement. Use of sound barriers along the coastal edge of the secondary borrow pit to reduce noise propagation from extraction operations. Construction plant will be selected for the lowest noise output possible, with sound barriers also to be available for deployment around stationary plant, such as generators. Restrict extraction of material from the secondary borrow pit to periods when no seals are present within the landing facility and Scammalin Bay area. Where this is not possible, use of a standard “soft-start” procedure (i.e. slowly increasing the level of noise in the works area, prior to commencing full operations), to avoid causing a potentially stressful “scare” reaction to a sudden noise, may reduce the intensity of any such disturbance events. With the Proposed Development to be constructed onshore, the impact of any piling activity on the surrounding marine habitat is likely to be reduced (i.e. insulated by the surface geology), but low impact methodologies will be selected for base construction and use of these methodologies will be programmed such that there are no sustained periods of disturbance. Formation of any piled foundations will also be programmed, as far as possible, for the earliest part of the construction “season”, in order to avoid the times of highest seal presence. Though of a lower potential for disturbance impact, use of vibromatic compaction will also be limited to short periods of time, with a minimum of two hours between any compaction operations, if displacement behaviour is observed in any nearby seals. Strict control of potential for human presence near hauled-out seals. In general, no personnel should approach within 50 m of a seal resting on the shore. However, Method Statements and site staff protocols/toolbox talks will be in place	

Subject Area	Commitment	Timing
	prior to all construction activities commencing, with the sensitivities of the adjacent habitats and their wildlife (and how to reduce/avoid impacts) explained to site personnel prior to commencement.	
Faray and Holm of Faray SAC/SSSI and designated haul-outs	Maintenance checks, including normal repair works/replacement of parts timed to avoid the seal breeding season (15th September to 31st December), where possible; if visits are still required, then these will be limited to the minimum, in order to reduce the potential for adverse impacts to any breeding seals close to the landing facility. Repair works to the turbines, including large operations such as replacing a blade, required within the breeding season would be considered as a major, unplanned procedure. Any major planned maintenance will be programmed to avoid the seal breeding season. In the unlikely event that unplanned major maintenance is required (e.g. turbine failure), the OEMP, which will include emergency plans and appropriate mitigations, will be followed. This will include method statements for such unplanned major maintenance events and the required mitigations. These method statements will be discussed and agreed with NatureScot prior to works commencing. Regular, detailed inspections will be undertaken during the non-breeding season, this will reduce the likelihood of major maintenance works occurring during the breeding season. In the very unlikely event that major unplanned maintenance work is required during the breeding season, NatureScot will be notified in accordance with the method statement. Maintenance check vessel routing to follow the same method statement as applied to the construction phase, in order to minimise disturbance to the seal populations on the haul-outs passed en route to the island.	Operation
Habitats	Exclusion of sheep from the restored borrow pit areas to permit habitat recovery free from grazing pressure (which otherwise has the potential to degrade the surface).	Operation
Species	Maintenance check vessel routing and final approach to the island landing facility to follow the same method statement as applied to the construction phase, in order to minimise disturbance and collision risk, with particular reference to the seals present within Scammalin Bay. Application of a site driving Method Statement for maintenance works, should vehicles be required to facilitate completion of tasks, including application of speed limits.	Operation

Subject Area	Commitment	Timing
9. Noise		
Good practice measures	The following good practice measures will be implemented during construction to limit unnecessary noise: • avoid unnecessary revving of engines and switching off plant when not required (i.e. no idling); • haul routes to be kept well maintained; • minimising the drop height of materials during delivery to, and movement around, site; • starting up plant and vehicles sequentially, rather than all together; • specification of plant with white-noise or directional reversing alarms, rather than beeper type alarms; • where possible, selection of quiet / noise reduced plant; • vehicles accessing the site will have regard to the normal operating hours of the site and the location of nearby NSRs; and • use and siting of equipment will be considered such that noise is minimised. For example, any generators or powered cabins within the construction compound will be sited such that noise from the generator exhaust is directed away from the closest NSRs, and cabins and other infrastructure are used to screen noise from such plant wherever possible. The measures outlined above, plus additional measures put in place relating to specific construction challenges associated with access to the island will be formalised in a Construction Environmental Management Plan (CEMP).	Construction
Fixed (non-turbine) plant noise	Noise from non-turbine operational plant will comprise noise from substations only. The sound power level and final location of the substation(s) are yet to be finalised, however, noise from the final type and location of the substation will be attenuated by acoustic enclosure (if required), such that it meets the derived non-turbine noise limits. A total sound power level of 93 dB(A), equivalent to a sound pressure level of 75 dB(A) at 10 m, would enable the noise limit to be met. The installed plant will meet these criteria.	Operation

Subject Area	Commitment	Timing
Noise limits	The Applicant commits to meeting the noise limits, however, and should the Proposed Development be determined to be exceeding its noise limits at any Noise Sensitive Receptors (NSR), mitigation will be put in place. As required, a noise management plan will be enacted under specific wind speeds and directions, when operational wind turbine noise exceeds the noise limits. Potential options to control wind turbine noise will comprise curtailment of the closest turbines to the affected NSRs, either by operation in low-noise modes, or switching individual turbines off.	Operation
10. Cultural Heritage		
Archaeological sites	Following completion of the survey all known heritage assets within 50 m of the proposed working areas, including all areas to be used by construction vehicles, will, where appropriate, be fenced off under archaeological supervision prior to construction. This fencing will be maintained throughout the construction period to ensure the preservation of these assets.	Pre-construction/ construction
Archaeological evaluation	A geophysical survey of the proposed access routes, cable routes, turbine locations, crane pads and other infrastructure will be undertaken. The geophysical survey will cover a 60 m buffer on either side of the proposed centrelines for the access tracks and cable routes so as to allow for micro-siting in the event of significant remains being identified during the trial trenching. A 50 m buffer around each of the proposed turbine locations will be covered to allow for micro-siting and the future presence of the turbines, as once constructed their magnetic signatures will prevent further magnetometry geophysical surveys from being undertaken within their vicinity. The geophysical survey will be followed by trial trenching which will be targeted on any possible anomalies that were identified and will also include a representative percentage of the total footprint of the development infrastructure. Depending on the results of these investigations further works during construction including further excavations and/or an archaeological watching brief may be required. The purpose of the geophysical survey and the archaeological trial trenching will be to identify any archaeological remains threatened by the Proposed Development, to assess their significance and to mitigate any impact upon them either through avoidance or, if preservation in situ is not warranted, through preservation by record. Depending upon the results of the geophysical survey and the trial trenching there is the potential that further works, such as excavation and post-excavation	Pre-construction/ construction

Subject Area	Commitment	Timing
	analyses, could be required. Details of mitigation will be agreed with OIC in consultation with the Orkney Country Archaeologist through a Written Scheme of Investigation (WSI).	
11. Geology, Hydrology, and Hydrogeology		
CEMP	With specific reference to the SEPA 'Guidelines for Water Pollution Prevention from Civil Engineering Contracts' and 'Special Requirements', the contractor will produce a CEMP (refer to Chapter 11 and Appendix 3.1).	Pre-construction / Construction
Weather	Site management will check the local weather forecast daily and prime all site staff to ensure that everyone is aware of their responsibilities to maintain the pollution control system during wet weather.	Construction
Pre-construction Site Investigations	Detailed pre-construction site investigations would be conducted, focusing on areas where construction is proposed to be undertaken to inform suitable micro-siting of the turbines and associated infrastructure. Targeted monitoring and assessment of the groundwater levels and flows beneath the site would also be carried out to inform micro-siting and to assist in the detailed design of infrastructure, the selection of appropriate materials for use during the construction process, and the requirement for any additional measures required to ensure protection of groundwater during construction. This will help to clarify whether identified areas of potential GWDTE are in fact groundwater fed and if any micro-siting or additional protective measures are required to minimise impacts to groundwater quality and flow in these areas.	Pre-construction / construction
Control of Pollution from Chemical Contaminated Runoff	All fuel and other chemicals will be stored in accordance with best practice procedures, including in a designated fuelling site located at a safe distance from existing drainage ditches and in appropriate impermeable bunded containers/areas which will be defined within the CEMP. These will be designed to capture any leakage, whether from a tank or from associated equipment such as filling and off-take points, sighting gauges etc., all of which will be located within the bund. Oil booms and soakage pads will be maintained in all work areas and spill kits kept in all vehicles to enable a rapid and effective response to any accidental spillage or discharge. All construction staff will be trained in the effective use of this equipment.	Construction

Subject Area	Commitment	Timing
	Construction vehicles and plant will be regularly maintained and all maintenance, fuelling and vehicle washing will be undertaken on appropriate impermeable surfaces away from drainage ditches in order to minimise risks of leaks to soil and surface waters. The contractor will develop a method statement to address the transport, transfer, handling and pouring of liquid concrete at foundations. Cement, grout and unset concrete will not be allowed to enter the water environment. No operations involving concrete transfer between vehicles or into vehicles will take place within 30 m of water bodies. As noted in Chapter 3, it is likely that concrete batching will be undertaken on site. The mobile concrete batching plant will be sited away from watercourses and ditches, within an enclosed or shielded area. The plant will incorporate a suitable wastewater collection and treatment system to minimise potential pollution impacts on local ditches/watercourses. Environmental controls specific to the concrete batching plant will be incorporated into the CEMP. All vehicles used for delivery of concrete will only be washed out at locations to be agreed with SEPA. Excess concrete or wash-out liquid will not be discharged untreated to drains or drainage ditches on site or at compounds. Drainage from washout facilities will be collected and treated or removed to an appropriate treatment point/licensed disposal site. The requirement for dewatering will be minimised in all locations by timely and efficient excavation of the foundation void and subsequent concrete pouring and backfilling.	
Surface Water Drainage	Prior to construction, a detailed Drainage Strategy (DS) will be developed and agreed with SEPA and OIC. The DS would detail the site drainage design, including the type of surface to be used for the access track, the soft engineering and habitat enhancement measures proposed to slow surface water flows and any necessary ponds, swales, cross drains and bunds, to ensure that runoff from hard surfaces will be controlled. Should the detailed DS incorporate the existing site drainage into the Proposed Development drainage, then this will be agreed with SEPA. Where topography dictates that working platforms are needed, these would be formed to ensure that surface water drains away from watercourses.	Pre-construction / construction / operation

Subject Area	Commitment	Timing
12. Traffic and Transport		
Construction Traffic	Subject to consent, the Applicant will prepare a Construction Traffic Management Plan (CTMP) for agreement with Orkney Islands Council prior to construction works commencing. The following measures would be implemented through the CTMP during the construction phase: • All materials delivery lorries (dry materials) will be sheeted to reduce dust and stop spillage on public roads. • Traffic originating from Cursiter Quarry could be fully or part routed via Zion's Loan to avoid integration with other road users in Finstown. This option will be further considered by the Balance of Plant (BoP) contractor in liaison with OIC prior to commencement of construction activities on site. • Specific training and disciplinary measures will be established to ensure the highest standards are maintained to prevent construction vehicles from carrying mud and debris onto the carriageway. • Provision of construction updates on the project website and distribution of a newsletter to study area road residents on material delivery routes. • Requirement for all delivery drivers supplying bulk materials for export to Faray from Hatston to attend an induction to include a safety briefing, the need for appropriate care and speed control, particularly in sensitive areas, identification of specific sensitive areas, identification of the specified route, and the requirement not to deviate from the specified route. • The production and implementation of a Staff Travel Plan for use on the Orkney Mainland or where staff are to be billeted during construction, which will include pick up times and car sharing information for those travelling to and from site.	Pre-construction/construction
Pre-construction phase	Video footage of the pre-construction phase condition of the abnormal loads access route and the construction vehicles route will be recorded to provide a baseline of the state of the road prior to any construction work commencing. This baseline will inform any change in the road condition during the construction stage of the Proposed Development. Any necessary repairs will be coordinated with Orkney Islands Council. Any damage caused	Pre-construction/construction

Subject Area	Commitment	Timing
	by traffic associated with the Proposed Development, during the construction period that would be hazardous to road users, will be repaired immediately.	
Abnormal loads	All abnormal load deliveries would be undertaken at appropriate times (to be discussed and agreed with the OIC Marine Services) with the aim to minimise the effect on other port users. It is likely that the abnormal load movements will avoid ferry and passenger vessel embarking / disembarking periods.	Construction
Abnormal loads	Advance warning signs would be installed on the approaches to the pier. Information signage could be installed to help assist drivers and to improve general safety.	Construction
Abnormal loads	An Abnormal Load Transport Management Plan would be developed. This will include: • procedures for liaising with OIC Ports and ferry operators to ensure that vehicles are not impeded by the loads; • a diary of proposed delivery movements to liaise with port operators and users to avoid key dates and times; and • proposals to establish a construction liaison committee to ensure the smooth management of the project / public interface with the applicant, the construction contractor and port stakeholders. This committee would form a means of communicating and updating on forthcoming activities and dealing with any potential issues arising.	Pre-construction / construction
Port Management Plan	Following consent, the Applicant will need to undertake a procurement exercise with the turbine suppliers to agree timescales for the import of components through Hatston Pier. As part of this process, the turbine suppliers will be required to formulate a Port Management Plan with the OIC Marine Services. The management plan will: • agree timescales for deliveries to be made; • agree quay space and temporary storage areas; • agree crane and stevedore access arrangements;	Pre-construction/construction

Subject Area	Commitment	Timing
	• book quay space; • detail the vessels that will undertake the deliveries; • dredge disposal plans; and • agree access rights along the access road from the pier and the convoy management with Orkney Islands Council, OIC Marine Services and Police. To ensure that there are no detrimental issues at Hatston Pier, the Applicant would produce a Port Management Plan secured by planning condition that will be agreed prior to the delivery of the first turbine component.	
13. Socio-economic, Recreation and Tourism		
Procurement	Best practice is set out in a 2014 report by RenewableUK (2014), which considered how developers can increase economic impacts in the local area. There are six main recommendations, which the Applicant has indicated a commitment to, subject to procurement processes and procedures: ▪ maximise local presence and begin early – identify potential suppliers and increase visibility in the local area; ▪ work with local authorities and business groups to gain information on local expertise and spread the message to local businesses; ▪ leverage primary contractors – ensure that primary contractors also consider the impact that they can make in the local area; ▪ provide the right information – give information in plenty of time and in the right format so that local businesses are able to prepare; ▪ communicate technical requirements early – provide opportunities for local companies to upskill and form local consortia; and ▪ having inserted local-content commitments in the planning application where applicable, undertake post-construction auditing.	Pre-construction

Subject Area	Commitment	Timing
14. Aviation and Radar		
Turbine lighting	Medium intensity fixed red LED obstruction lights (2000 cd) on every turbine; daylight hours only. The intensity can be reduced in conditions of high visibility. If the horizontal meteorological visibility in all directions from every wind turbine generator is more than 5 km, the intensity for the light may be reduced to not less than 10 % of the minimum peak intensity; i.e. 200 cd. The lighting specified to suppliers will meet CAA and ICOA lighting requirements for medium intensity obstruction lighting. The MOD request for aviation lighting will be met with the installation of IR lighting on every turbine. The MOD specifies the lighting requirement. This specification will be stipulated to suppliers to ensure appropriate lighting is fitted.	Operation
16. Underwater Noise Assessment		
Timing of operations	Piling will not take place any later than 15 August. This will ensure piling is out with the breeding season and the month prior where seals may be returning to the island for breeding purposes	Construction
JNCC Piling Protocol	The JNCC piling protocol will be followed to minimise potential impacts to marine mammals from underwater noise associated with piling of the new landing jetty, specifically – ▪ **Mitigation zone:** implementation of a mitigation zone where the area will be monitored either visually and/or acoustically (via Passive Acoustic Monitoring, PAM) for marine mammals prior to piling commencing. Monitoring will be undertaken by a suitably qualified Marine Mammal Observer (MMO) / PAM operative. The extent of the mitigation zone, assumed to be 500 m for the Proposed Development, will be agreed with the consenting authority prior to the works taking place. ▪ **Pre-piling search and delayed start:** the mitigation zone will be monitored visually by the MMO and/or acoustically via PAM for a period of at least 30 minutes. Piling will not commence if marine mammals are detected within the mitigation zone or until 20 minutes after the last visual or acoustic detection.	Construction

Subject Area	Commitment	Timing
	▪ **Avoid piling at night or in poor visibility:** piling activities will not commence during periods of darkness, poor visibility (e.g. fog) or a rough sea state where it is not conductive to visual mitigation as there is a greater risk of failing to detect a marine mammal within the mitigation zone. ▪ **Soft-start:** the piling activities will employ a soft-start, where the piling power is gradually ramped up incrementally until full power is achieved. This is to allow for any marine mammals within the area to move away from the noise source and will reduce the likelihood of exposing marine fauna to sounds which can cause injury. The soft-start period should be a minimum of 20 minutes. If a marine mammal enters the area during the soft start then, wherever possible, the piling should cease, or at the least the power should not be increased until the marine mammal exits the mitigation zone and there is no further marine mammal detection for 20 minutes. When piling at full power, there is no requirement to cease piling or reduce the power if a marine mammal is detected in the mitigation zone as it is deemed to have entered "voluntarily". JNCC does recognise in the piling protocol that it may not be technically possible to stop piling at full power until the pile is in position. ▪ **Break in piling activity:** If there is a pause in the piling operations for a period of greater than 10 minutes, then the pre-piling search and soft-start procedure will be repeated before piling recommences. If a watch has been kept during the piling operation, the MMO or PAM operative should be able to confirm the presence or absence of marine mammals, and it may be possible to commence the soft-start immediately. However, if there has been no watch, the complete pre-piling search and soft-start procedure should be undertaken.	
Bubble curtain	A bubble curtain will be used to further reduce potential impacts to marine mammals from underwater noise associated with piling of the new landing jetty	Construction
17. Marine Water and Sediment Quality		
CEMP	The CEMP will include details on dredging and dredging disposal along with pollution incidence response (for both land and water.	Construction

Subject Area	Commitment	Timing
OEMP	The OEMP will include a pollution prevention plan and a pollution incidence response plan.	Operation
18. Other Issues		
Television	Although no impacts or effects are anticipated on television signals, the Applicant will fully investigate and provide alternative television reception, for example a satellite dish, should it be determined that the Proposed Development is the cause of an unacceptable level of interference. It is proposed that this is secured through a mitigation scheme requirement condition attached to the permission.	Operation
Dust	The CEMP will contain standard best practice for the control of dust from both construction activities and aggregate extraction from the borrow pits which will be implemented during construction.	Construction
Coastal processes	Suitable vessels will be determined by the turbine manufacturer. Where possible, efforts will be made to identify vessels, such as barges, that would not require anchoring or dredging, in order to limit the size of the infrastructure and channel dredging requirements.	Pre-construction
Benthos	Suitable vessels will be determined by the turbine manufacturer. Where possible, efforts will be made to identify vessels, such as barges, that would not require anchoring or dredging, in order to limit the size of the infrastructure and channel dredging requirements.	Pre-construction
Marine radar	Following consent, the Applicant will need to undertake a procurement exercise with the turbine suppliers to agree timescales for the import of components through Hatston Pier. As part of this process, the turbine suppliers will be required to formulate a Port Management Plan with the OIC Marine Services (see above).	Pre-construction/construction
	The following notifications will be made: ▪ Marine Safety Information and Notice to Mariners will be published prior to, and during, the works ▪ following completion of the construction works, the UK Hydrographic Office will be notified of the as-built layout of the new slipway and jetty, along with the revised depths as a result of dredging	Pre-construction/construction

Subject Area	Commitment	Timing
Commercial fisheries	Consultation with the local fleet, via Orkney Fisheries, will continue as the design develops to ensure fishermen are aware of any works being undertaken and any potential temporary displacement as a result of the works.	Pre-construction/construction