



## APPENDIX 5-18

*REHABILITATION PLAN*

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# ACRONYMS AND ABBREVIATIONS

ABP	An Bord Pleanála
COLREG	Collision Regulations
EPA	Environmental Protection Agency
ERP	Emergency Response Plan
ERCoP	Emergency Response Co-Operation Plan
FMMS	Fisheries Management Mitigation Strategy
FST	Fuinneamh Sceirde Teoranta
GBS	Gravity Base Structure
GIS	Gas Insulated Switchgear
IAC	Inter Array Cable
INNS	Invasive Non-Native Species
IMO	International Maritime Organization
IRCG	Irish Coast Guard
MAC	Maritime Area Consent
MARA	Maritime Area Regulatory Authority
MAP Act 2021	Maritime Area Planning Act 2021
MINNSMP	Marine Invasive Non-Native Species Management Plan
MMMP	Marine Mammals Management Plan
MPCP	Marine Pollution Contingency Plan
MRCC	Maritime Rescue Coordination Centre
NtM	Notice to Mariners
OCC	Onshore Compensation Compound
OEC	Onshore Export Cable
OECC	Offshore Export Cable Corridor
OGC	Onshore Grid Connection
OLL	Onshore Landfall Location
OSS	Offshore Substation
PSDP	Project Supervisor Design Process
PSCS	Project Supervisor Construction Stage
ROV	Remotely Operated Vehicle
RWMP	Resource Waste Management Plan
SOLAS	Safety of Life at Sea

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TJB	Transition Joint Bay
VMP	Vessel Management Plan
WTG	Wind Turbine Generator
WMP	Waste Management Plan
WTIV	Wind Turbine Installation Vessel

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# 1. Introduction

## 1.1 The Project

Sceirde Rocks Offshore Wind Farm is being developed by Fuinneamh Sceirde Teoranta (FST), 'the Applicant'. Sceirde Rocks Offshore Wind Farm is located between 5 and 11.5 km off the coast of Connemara, Galway.

Sceirde Rocks Offshore Wind Farm, hereafter referred to as 'the Project', comprises the following main components:

- The offshore generating infrastructure including 30 no. WTGs with GBS foundations and inter-array cables;
- The offshore transmission infrastructure including Offshore Substation (OSS) with GBS foundation and Offshore Export Cable (OEC);
- The Landfall, northwest of Doonbeg, Co. Clare, including Transition Joint Bay (TJB) and utilising a trenchless landfall technology to connect the Offshore Site with the Onshore Site;
- The onshore transmission infrastructure including the Onshore Landfall Location, the Onshore Compensation Compound (OCC), and the Onshore Grid Connection (OGC) from the TJB to the OCC, and from the OCC to the existing Moneypoint 220kV Substation (Moneypoint);
- GBS and WTIV seabed preparation; and,
- Inter Array Cables (IAC) and OEC cable protection

A detailed description of the Project is provided in Chapter 5 of the EIAR. Where the 'Project' is referred to, this encompasses both the 'Offshore Site' and 'Onshore Site'.

Where the 'Offshore Site' is referred to, this includes the Offshore Array Area, Offshore Substation, the Offshore Export Cable, the Offshore Export Cable Corridor and the Landfall. Further details in relation to the Offshore Site elements are set out below:

- The 'Offshore Array Area' (OAA) – area within which the wind turbines generators (WTG), associated fixed bottom Gravity Base Structure (GBS) foundations, inter-array cabling and Offshore Substation are located. This area corresponds to the MAC Array Area.
- The 'Offshore Substation' (OSS) – offshore substation infrastructure including fixed bottom GBS foundation;
- The 'Offshore Export Cable' (OEC) – the cable that will export electricity to the landfall location from the OSS to the landfall site;
- The 'Offshore Export Cable Corridor' (OECC) – the 1km corridor assessed for the Offshore Export Cable; and
- The 'Landfall' - The location where the Offshore Export Cable will be brought ashore.

Where the 'Onshore Site' is referred to, this includes the Onshore Landfall Location, Onshore Grid Connection, and Onshore Compensation Compound. Further details in relation to the Onshore Site elements are set out below:

- The 'Onshore Landfall Location' (OLL) - The location where the Offshore Export Cable will be brought ashore to meet the Transition Joint Bay (TJB);
- The 'Onshore Grid Connection' (OGC) – cabling that transports electricity from the Onshore Landfall Location to the Onshore Compensation Compound, and a second section of cabling connecting the Onshore Compensation Compound to the existing Moneypoint 220kV Substation; and
- The 'Onshore Compensation Compound' (OCC) - A 220kV Onshore Compensation Compound located in the townland of Ballymacrinan, Co. Clare.

In addition:

- Where 'the site' is referred to, this relates to the primary study area for the Environmental Impact Assessment Report (EIAR), as delineated in green on Figure 1-1 of Chapter 1: Introduction, and hereafter referred to as the EIAR Site Boundary.

Consultation with An Bord Pleanála confirmed that the Project will be subject to one consenting process, subject to a planning application under Section 291 of the Planning and Development Act, 2000, as amended.

This appendix of the Environmental Impact Assessment Report (EIAR) describes the Rehabilitation Schedule for the Project.

## 1.2 Rehabilitation Schedule Background

The Project was granted a Maritime Area Consent (MAC) by the Department of Environment, Climate and Communications (DECC) on 23 December 2022 (Ref: 2022-MAC-007) for the occupation of a maritime area for the construction and operation of an Offshore Wind Farm and associated infrastructure under Section 101 of the Maritime Area Planning 2021 (MAP) Act. A subsequent amendment was granted by MARA in June 2024 to extend the array area within the MAC [Amendment B.1 dated 26/06/2024].

In accordance with the MAC, a Rehabilitation Schedule should accompany the consent application to An Board Pleanála, this Schedule may be subject to amendments in accordance with the consent.

Within Section 95 of the MAP Act, “rehabilitate” in relation to a part of the maritime area, is defined as:

- a) *a treatment for the part in such a way as to either—*
  - i. *restore the part to a satisfactory state, with particular regard to the seabed, water quality, wildlife, natural habitats, landscape and seascape, or*
  - ii. *restore the part to a satisfactory state to enable it to be reused for the purpose for which it was previously used (and whether or not pursuant to a MAC) or for another purpose and, consistent with such purpose, with particular regard to the seabed, water quality, wildlife, natural habitats, landscape and seascape,*
- and*
- b) *after the restoration referred to in paragraph (a)(i) or (ii) has been completed and, if appropriate, to maintain, for a period specified in the rehabilitation schedule concerned, the part so that it continues to be in the satisfactory state referred to in that paragraph.*

Section 96 of the MAP Act sets out the obligations of the holder of a MAC in relation to rehabilitation of the maritime area. The “holder of a MAC shall, before the expiration (if any) of the MAC, rehabilitate that part of the maritime area the subject of the MAC, and any other part of the maritime area, adversely affected by the maritime usage the subject of the MAC.”

Section 96 (2) states *without prejudice to the generality of the obligation under subsection (1) on the holder of a MAC to rehabilitate a part of the maritime area, that obligation may be or include one or more than one of the following:*

- a) *the decommissioning of infrastructure;*
- b) *the removal of infrastructure;*
- c) *the partial removal of infrastructure;*
- d) *the re-use of infrastructure for the same or another purpose;*
- e) *the burying or encasing of infrastructure;*
- f) *the removal of any deposited or waste material.*

Within Section 2 of this Rehabilitation Schedule, the proposed approach to rehabilitation is set out and in consideration of Section 96(2) of the MAP Act. This Rehabilitation Schedule has been prepared on the basis that the Project is decommissioned at the end of the operational lifetime of 38 years. The rehabilitation schedule will be reviewed prior to being implemented, to consider best practice, scientific knowledge and advancements in technology which may change or evolve over the life of the permission. Prior to decommissioning, the Applicant will engage with the Planning Authority and MARA to apply for permission to amend the Rehabilitation Schedule and to agree a specific plan for the Decommissioning Phase to ensure the appropriate decommissioning of the site having regard to prevailing environmental conditions, and to ensure the use of best available recycling technology and techniques available at the time. This document should, therefore,

be considered to be a ‘live’ document throughout the lifetime of the Project and which will be further developed by the appointed decommissioning contractor who will prepare and insert detailed method statements relative to each individual work stream.

## **1.3 Legislation, Policy and Guidelines**

In addition to the overarching legislation, policy and guidance documents which are applicable to the Environmental Impact Assessment (EIA) as a whole (as summarised in Chapter 2: Background and Planning Policy), the following legislation, policy and guidance documents are considered relevant to the preparation of this Rehabilitation Schedule.

### **1.3.1 Development Permissions**

The Applicant is applying for development permission to the Board under section 291 of the Act. The development application for the Project will be made to An Bord Pleanála under Section 291 of the Act. The planning application will include all offshore and onshore elements of the Project. The Project will have an operational life of 38 years.

### **1.3.2 Maritime Area Consent (MAC)**

As the Project is located partly in the outer maritime area, partly in the nearshore areas of more than one coastal planning authority, and partly on land, the legislative provisions of Chapter III of the Planning and Development Act 2000 (as amended) (“the Act”) applies. A maritime area consent was granted for the purposes of the Project on the 23rd of December 2022 (2022-MAC-007).

### **1.3.3 Guidelines**

Currently, there is no specific guidance in Ireland concerning the rehabilitation of maritime areas or the decommissioning of offshore renewable energy installations. As a result, in the preparation of this Rehabilitation Schedule, the following documents have been utilized to inform best practices and ensure a comprehensive approach to the decommissioning process.

- Scottish Government (2022) Decommissioning of Offshore Renewable Energy Installations in Scottish waters or in the Scottish part of the Renewable Energy Zone under The Energy Act 2004 Guidance notes for industry (in Scotland);
- Department for Business, Energy and Industrial Strategy (BEIS) (2019) Decommissioning of Offshore Renewable Energy Installations Under the Energy Act 2004, Guidance notes for industry (England and Wales);
- International Maritime Organisation (IMO) (1989) Guidelines and Standards for the Removal of Offshore Installations and Structures on the Continental Shelf and in the Exclusive Economic Zone; and
- United Nations (1982) United Nations Convention on the Law of the Sea (UNCLOS).



## 2. Rehabilitation Activities

Prior to the commencement of any decommissioning activities, a full risk assessment will be undertaken for all elements of rehabilitation and in line with the agreed rehabilitation schedule. A summary of the proposed rehabilitation activities is set out in Section 2.1 below.

### 2.1 Summary of Approach

Component	Approach
Wind Turbine Generators (WTG)	Full removal of infrastructure
Offshore Substation (OSS) Topside	Full removal of infrastructure
Gravity Base Structures (WTG and OSS)	Full removal of infrastructure
GBS and WTIV Seabed Preparation	Left in situ
Offshore Cables (IAC and OEC)	Exposed cables (above the seabed and where accessible) will be cut and removed. Buried cables will be left in situ. Cable protection will be left in situ.
Landfall	TJB infrastructure left in situ Cable through trenchless burial left in situ Cable cut at TJB for onshore removal
Onshore Grid Connection (TJB to OCC and OCC to Moneypoint), Cable, Cable ducting and joint bays	Cable Ducts and joint bay infrastructure left in situ. Cable pulled through ducts and fully removed (starting from TJB).
Onshore access tracks (on private lands)	Left in situ
OCC buildings and electrical infrastructure	Full removal of all above ground infrastructure
Planted area on OCC site	Left in situ

### 2.1.1 Wind Turbine Generators (WTG)

It is imperative before commencing decommissioning activities that the system is de-energised and the electrical systems are isolated from the grid.

All hazardous material, fluids such as WTG lubricants, will be removed from the WTG and disposed of in accordance with relevant regulations at the time of disposal. All components with hazardous fluids will be treated with care to minimise the risk of spillage.

Any lifting points will be installed on the components. The wires between key separation points will be cut or disconnected, such as between the Tower and the Nacelle. These initial operations do not require specialist vessels and can be undertaken using a crew transfer vessel (or similar small vessel).

WTG removal will be a reverse of the proposed installation procedure.

A suitable vessel, such as a WTIV jack-up vessel, will be mobilised to the array area and will position adjacent to the WTG. The WTG is dismantled component by component.

The dismantling process will be:

- Removal of WTG blades;
- Removal of all tower/nacelle internal cables as well as related control and communication cables;
- Removal of the nacelle and generator;
- Dismantle and remove the WTG tower; and,
- Transportation of all components to an onshore facility for processing.

A variety of tools such as plasma cutters will be used in the dismantling, angle grinders may also be required for some connections.

All components will be transported back to shore and once onshore, components are likely to be processed as follows:

- All steel components will be recycled. This forms the bulk of the WTG structures;
- The WTG blades (made predominantly of glass or carbon fibres) will be disposed of in accordance with the relevant regulations, and best practices, in force at the time of decommissioning. Within the wind industry, and particularly in the manufacturing of WTG blades, there is continued research and innovation surrounding WTG blade material composition to promote and enhance a circular economy. Current practices include the reuse and recycling of WTG blades through the use of mechanical and/or chemical/thermal processes. This would involve cutting or crushing the blades into smaller components which can be used as structural components to substitute or supplement high carbon materials like concrete and steel; and,
- All hazardous substances and fluids will be removed from the WTGs (such as oil reservoirs and any hazardous materials and components). These will be disposed of in accordance with relevant regulations at the time of disposal. All components with hazardous fluids will be treated with care to minimise the risk of spillage.

The port/harbour to which the infrastructure would be removed will be chosen depending on available facilities and the location of the appropriate onshore facility to which the materials will be taken.

Following the separation of the GBS and the WTG, the GBS will be recovered as described in Section 2.1.3.

### 2.1.2 Offshore Substation (OSS) Topside

The decommissioning of the OSS will follow a similar method as described for the decommissioning of the WTG.

The complete OSS topside structure will be separated from the GBS structure and removed in a single lift, taken by a suitable vessel to an onshore facility where the equipment and structure will be dismantled and the constituent parts processed for re-use, recycling and/or disposal.

Following the separation of the GBS & topside, the GBS will be recovered as described in Section 2.1.3.

### **2.1.3 WTG and OSS Gravity Base Structures (GBS)**

GBS decommissioning will involve the full removal of the GBS, while leaving in place the stonebeds from the seabed preparation. The seabed preparation is discussed further in Section 2.1.4. A key aspect and consideration of the GBS design, is the decommissioning requirements and it is therefore built into the design.

The GBS is re-floated by reversing the installation methodology, i.e. removing the ballast and subsequently re-floating the GBS. Then, with the help of tugs and/or external auxiliary tools, the GBS is towed away from the site to an onshore location with the infrastructure to support deconstruction, recycling and waste management.

The design of the GBS will ensure that a ballasting system that is sophisticated enough to assist the re-float and to monitor and control the structure's trim continuously during the tow-in and throughout the decommissioning phase.

### **2.1.4 GBS and WTIV Stonebeds**

As set out in Chapter 5: Project Description, during the construction stage, stonebeds will be placed on the seabed to ensure that the GBS has sufficient and adequate bearing strength and stability on the seabed. Additionally, stonebeds will also be put in place on the seabed, adjacent to certain turbines, to facilitate jacking-up operations by a WTIV.

Over the lifetime of the project, the stonebeds will have integrated into their surroundings and therefore, the removal of the stonebeds during decommissioning would likely increase the sediment plumes and may result in the removal of some of the original material. Therefore, it is deemed less damaging and the most environmentally practicable option to leave the stonebeds in place.

### **2.1.5 Cables (Inter-array and Export Cables)**

A similar methodology is adopted for both the inter-array (IAC) and export submarine cables (OEC). Initially both would be de-energised from the grid.

Buried cables would then simply be cut at the ends and left in situ as this is considered to be the most environmentally practicable option with the least amount of disturbance to the seabed. Once cut, the cable ends would be sealed and buried. This is likely to require the use of divers and/or a remotely operated vehicle (ROV) equipped with suitable trenching and burial equipment and accompanying support vessel.

To avoid any hazards to other users, all exposed and accessible cabling will be cut and removed via an offshore vessel utilising divers and/or an ROV and offshore lifting grab. Once removed, the cable will be spooled into the supporting vessel and transported to an appropriate port. Once onshore, the primary consideration would be to reuse and recycle the materials where possible. The submarine cables are striped back either using mechanical, chemical or thermal processes to remove the outer layer and insulations and to expose the copper or aluminium components. The copper and aluminium materials will be recycled and reused, this may be for new cabling or for alternative uses. Any remaining materials or residues will be disposed of to a suitable licenced facility.

Cable protection will be left in situ. Over the lifetime of the Project, the cable protection will have integrated into their surroundings and therefore, the removal of the stonebeds during decommissioning would likely increase the sediment plumes and may result in the removal of some original material. Therefore, it is deemed less damaging and the most environmentally practicable option to leave the cable protection in place.

### **2.1.6 Landfall**

The OEC at the Landfall will be installed using trenchless methodologies, and following decommissioning this will remain in situ. The buried cables would simply be cut at TJB and left in situ as this is considered to be the most environmentally practicable option with the least amount of disturbance to the seabed.

The transition joint bay (TJB) infrastructure at the OLL will remain in situ, the cable will be cut within the TJB to allow for the onshore cable to be pulled through. Given that the TJB will be buried below ground, its presence is not visible. Leaving the TJB in situ is considered a more environmentally prudent option, as to remove and dispose of that volume of reinforced concrete from the ground could result in significant environmental nuisance such as noise, dust and/or vibration.

### **2.1.7 Onshore Grid Connection, Cable ducting and Joint Bays**

The OGC is split into two underground sections: the first runs from the TJB to the OCC, and the second from the OCC to the existing Moneypoint Substation.

The ducts and joint bay infrastructure will remain in situ and can be used for future cable installation if required. To remove this infrastructure would be more disruptive as it would require digging out the infrastructure but also due to the disruption to traffic in the area. Therefore, it is considered to be the most environmentally practicable option to remain in situ.

The joint bays will be opened up and the cables will be cut. Once cut, the cables are pulled through the ducting and removed. The joint bays are then backfilled and reinstated to the relevant road standards, or to original condition for those located on private lands. The cables are striped back to expose the copper or aluminium components which will be recycled and reused. Any remaining materials or residues will be disposed of to a suitable licenced facility. Traffic management requirements during this stage will be similar to that implemented during the installation stage albeit reduced due to the ducts and joint bay infrastructure remaining in situ.

Onshore access tracks within private lands will remain in situ and can be provided for alternative future use by the landowners. This is considered to be the most environmentally practicable option, as removing the tracks would cause disturbance and require the removal of the materials, therefore causing an increase in traffic volumes.

#### **2.1.8 OCC building, compound and electrical infrastructure**

The above ground components of the OCC building and compound will be removed fully from site. For the underground components, such as the foundations and non-electrical infrastructure, the most environmentally practicable option is for these to remain in situ.

For the electrical infrastructure to be removed from site, any materials that can be reused or recycled will be. For example, steel or aluminium can be recycled and reused as building materials. This ensures that the volume of waste generated during decommissioning is kept to a minimum and promotes a circular economy.

The planted area adjacent to the OCC, as presented in the Landscape Mitigation Plan in Appendix 27-1, will remain in situ as this is considered to be the most environmentally practicable option. The remainder of the site will be reinstated to its original form with a grassed surface.

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## **3. Post Decommissioning Monitoring of the Site**

Once the decommissioning phase is complete certain post-decommissioning activities will be undertaken and in particular to monitor the rehabilitation to ensure that it will remain in line with the considerations of the rehabilitation schedule. For offshore activities, this could include geophysical surveys, targeted benthic surveys and ROV camera surveys (where required). For onshore activities, this could include terrestrial surveys (where required). This will ensure that a standard baseline of rehabilitation is achieved and maintained.

## 4. Environmental Management

The following sections provide an overview of the management plans, control measures and the implementation of the environmental management procedures for the Project during the decommissioning phase (i.e. rehabilitation). This will be updated prior to commencement of any decommissioning activities in line with this Rehabilitation Schedule.

### 4.1 Offshore

#### 4.1.1 Marine Pollution

The Marine Pollution Contingency Plan (MPCP) in Appendix 5-3 details the measures to be put in place to minimise any impacts due to the release of pollutants during the Offshore Site decommissioning phase.

#### 4.1.2 Resource Waste Management Plan

A Resource Waste Management Plan is included in Appendix 5-5 and has been prepared to deal with all aspects of waste produced during Offshore Site during the decommissioning phase. The RWMP is based on the waste hierarchy of reduce, reuse and recycle wherever possible. Disposal of waste will be a last resort. Contractors and subcontractors will be expected to supply relevant documents to demonstrate compliance with the requirements of the RWMP.

#### 4.1.3 Marine Mammal Management

The Marine Mammal Mitigation Protocol included in Appendix 5-6 sets out the mitigation measures to avoid injury and disturbance to marine mammals during decommissioning phase. This will be developed with full regard to the relevant guidelines and industry good practice from other jurisdictions.

Contractors and subcontractors will be expected to supply relevant documents to demonstrate compliance with the requirements of the MMMP during the decommissioning phase.

#### 4.1.4 Fisheries Management

The Fisheries Management and Mitigation Strategy (FMMS) included in Appendix 5-7 sets out the activities designed to manage and mitigate the impacts of the Offshore Site decommissioning on local fisheries.

Proactive communication with fisheries stakeholders, published notifications, and procedures for dropped objects are in place. Final details will be confirmed in the FMMS post-consent, accounting for any updated guidance or license conditions.

#### 4.1.5 Marine Invasive Non-Native Species Management

The measures to be adopted for the management of marine invasive non-native species during Offshore Site decommissioning phases are set out in the Marine Invasive Non-Native Species Management Plan (MINNSMP) in Appendix 5-8. Contractors and subcontractors will be expected to supply relevant documents to demonstrate compliance with the requirements of.

#### 4.1.6 Lighting and Marking Plan

The Lighting and Marking Plan in Appendix 5-9 sets out the marine lighting and marking requirements and procedures for the Offshore Site for the lifetime of the Project, and notes that any requirements for the decommissioning phase will be determined in agreement with relevant stakeholders and based on the relevant guidance at the time of decommissioning.

#### 4.1.7 Vessel Management

The Vessel Management Plan (VMP) included in Appendix 5-10 sets out how all vessels associated with the Offshore Site will comply with the provisions of the International Regulations for the Prevention of Collision at Sea (COLREGs) and the International Regulations for the Safety of Life at Sea (SOLAS). The Applicant will, as soon as practicable prior to the commencement of any decommissioning activities, ensure that marine stakeholders are made fully aware of such works through NtMs and other appropriate means such as newsletters and harbour notices. Stakeholders will also be made aware following completion of decommissioning.

A VMP will be prepared in advance of any decommissioning works.

#### **4.1.8 Archaeological Management Plan**

The Archaeological Management Plan (AMP) included in Appendix 5-11 sets out the procedures to be followed on discovering any marine archaeological assets during Offshore Site decommissioning phase.

## **4.2 Onshore**

### **4.2.1 Site Drainage**

The site drainage features for the Onshore Site are outlined in Chapter 5 of the EIAR. The drainage proposals, for the decommissioning phase, will be developed further prior to the commencement of decommissioning if deemed necessary. However, it should be noted that by the time decommissioning is undertaken, after the planned 38-year lifespan of the Onshore Site, the areas within the site will have revegetated resulting in a resumption of the natural drainage management that will have existed prior to any construction. It is not anticipated that the decommissioning phase will interrupt this restored drainage regime in any way with the works proposed.

### **4.2.2 Refuelling: Fuel and Hazardous Materials Storage**

Pollution prevention methods will be undertaken in accordance with those measures set out in the EIAR and prevailing best practice procedures.

The plant and equipment used during decommissioning works will require refuelling during the works. Appropriate management of fuels will be required to ensure that incidents relating to refuelling are avoided. The following mitigation measures are proposed to avoid release of hydrocarbons at the site:

- No refuelling of construction vehicles or plant will take place within the 50m of a watercourse;
- No maintenance of construction vehicles or plant will take place along the proposed route, except in emergency circumstances; and,
- Fuels or chemicals will not be stored along the OGC route.
- All plant will be inspected and certified to ensure that they are leak free and in good working order prior to use at the Onshore Site.
- On site re-fuelling of machinery will be carried out using a mobile double skinned fuel bowser:
  - The fuel bowser, a double-axel custom-built refuelling trailer will be re-filled off site, and will be towed around the site by a 4x4 jeep to where machinery is located;
  - The 4x4 jeep will also carry fuel absorbent material and pads in the event of any accidental spillages;
  - The fuel bowser will be parked on a level area in the construction compound when not in use and only designated trained and competent operatives will be authorised to refuel plant on site;
  - Mobile measures such as drip trays and fuel absorbent mats will be used during all refuelling operations;
- Onsite refuelling will be carried out by trained personnel only;
- A permit to fuel system will be put in place;
- Taps, nozzles or valves associated with refuelling equipment will be fitted with a lock system;
- All fuel storage areas will be bunded appropriately for the duration of the decommissioning phase. The temporary construction compounds will contain bunded refuelling and containment areas. All bunded areas will be fitted with a storm drainage system and an appropriate oil interceptor. Ancillary equipment such as hoses, pipes will be contained within the bunded area;
- Fuel and oil stores including tanks and drums will be regularly inspected for leaks and signs of damage;
- The electrical control building (at the substation) will be bunded appropriately to 110% of the volume of oils that will be stored, and to prevent leakage of any associated chemicals to groundwater or surface water. The bunded area will be fitted with a storm drainage system and an appropriate oil interceptor; and,
- The plant used during construction will be regularly inspected for leaks and fitness for purpose.

### **4.2.3 Ground Disturbance, Material Excavation & Reinstatement**

During decommissioning, all plant and machinery will keep to existing infrastructure (e.g. tracks and hardstanding) and will not encroach upon adjacent habitats unless this is essential in order to progress the decommissioning works. The reinstatement of any areas disturbed during the decommissioning works will be undertaken. The contractor will record excavated volumes and storage areas, and volumes and type of material utilised for reinstatement of relevant areas. This information will be updated for the duration of the decommissioning works. Reinstatement will be completed using site-won materials wherever possible without compromising or damaging established/existing habitats. Any compensation will be agreed with a suitably qualified ecologist to ensure that the reinstated habitats are compatible with those existing and surrounding the reinstated areas at the time of decommissioning. All temporarily stockpiled materials will be stored in designated areas and isolated from any surface drains and a minimum of 50m away from surface water where possible. Aggregate or fine materials storage will be enclosed and screened/sheeted. No storage of materials within sensitive habitats will be permitted. Soil and vegetation must be stored separately from subsoil and shall be retained and reinstated on all areas of stripped ground as soon as possible to prevent erosion and leaching/loss of nutrients.

### **4.2.4 Dust Control**

Dust can be generated from on-site activities during decommissioning such as covering of foundations and travelling on site roads during prolonged periods of dry weather. The extent of dust generation will depend on the type of activity undertaken, the location, the nature of the dust, i.e. soil, and the weather. In addition, dust dispersion is influenced by external factors such as wind speed and direction and/or, periods of dry weather. Traffic movements also have the potential to generate dust as they travel along the haul route. If necessary, haul roads and other areas of hardstanding will be damped down by water spray or water misting to prevent the generation of dust.

Proposed measures, which are the same as those proposed for the decommissioning phase, to control dust include:

- Sporadic wetting of any loose stone surface will be carried out during the decommissioning phase to minimise movement of dust particles to the air. In periods of extended dry weather, dust suppression may be necessary along road network to ensure dust does not cause a nuisance. Water bowser movements will be carefully monitored to avoid, insofar as reasonably possible, increased runoff;
- All plant and materials vehicles shall be stored in dedicated areas within the site; and,
- The agreed haul route road adjacent to the site will be regularly inspected for cleanliness and cleaned as necessary.

### **4.2.5 Noise Control**

The operation of plant and machinery, including site vehicles, is a source of potential impact that will require mitigation at all locations within the Onshore Site. Proposed measures to control noise during decommissioning are detailed in Chapter 26 of the EIAR and include measures such as:

- Selection of Quiet Plant;
- Noise Control at Source;
- Screening;
- Liaison with the Public; and,
- Noise Monitoring.

### **4.2.6 Invasive Species Management**

Any soil material that will be imported to site as part of the foundation reinstatement will be free of any invasive species (listed under the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011)). The site manager will take steps to ensure the sourcing of suitably clean soil material and verify the quality of the material by having it inspected prior to bringing it to site by a suitably qualified ecologist. Prior to decommissioning, a suitably qualified ecologist will complete an invasive species survey of the Onshore Site to identify invasive species where any minor excavation will be required. If present in these areas, the ecologist will propose suitable management measures.

### **4.2.7 Traffic Management**

A Traffic Management Plan is included in Appendix 29-3 of the EIAR and will be updated in advance of any decommissioning works. The traffic management arrangements will be agreed in advance of decommissioning with Clare County Council.



The TMP for the decommissioning phase will also include provision for the removal of underground cables from the underground ducts.

#### **4.2.8 Waste Management**

A Waste Management Plan (WMP) has been prepared for the construction phase of the Onshore Site and is included in the Onshore CEMP in Appendix 5-5. This WMP also applies to the decommissioning phase and will be updated prior to decommissioning to outline the methods of waste prevention and minimisation by recycling, recovery and reuse at each stage of decommissioning. Disposal of waste will be seen as a last resort. Prior to the commencement of the decommissioning, a Construction Waste Manager will be appointed by the Contractor. The Construction Waste Manager will be in charge of the implementation of the objectives of the plan, ensuring that all hired waste contractors have the necessary authorisations and that the waste management hierarchy is adhered to. The waste hierarchy will always be employed when designing the WMP to ensure that the least possible amount of waste is produced during decommissioning. Reuse of certain types of construction wastes will cut down on the cost and requirement of raw materials therefore further minimising waste levels.

## 5. Health and Safety

Decommissioning of the Project will necessitate the presence of a construction site and travel/vessel movements within the Onshore Site and the Offshore Site. Construction sites and the machinery/vessels used on them pose a potential health and safety hazard to construction workers if site rules are not properly implemented. Health and Safety legislation and regulations applicable to the Onshore Site and the Offshore Site will be adhered to during the decommissioning phase, the relevant legislation will be included in the Health and Safety Plan to be prepared pre commencement of decommissioning activities.

- A Health and Safety Plan covering all aspects of the decommissioning process will address the Health and Safety requirements in detail. This will be prepared on a preliminary basis at the procurement stage and developed further at decommissioning stage.
- All hazards will be identified, and risks assessed. Where elimination of the risk is not feasible, appropriate mitigation and/or control measures will be established. The contractor will be obliged under the decommissioning contract and current health and safety legislation to adequately provide for all hazards and risks associated with the decommissioning phase of the Project. The Applicant is required to ensure a competent contractor is appointed to carry out the decommissioning works. The contractor will be responsible for the implementation of procedures outlined in the Safety and Health Plan.
- All staff will be made aware of and adhere to the Health & Safety Authority's 'Guidelines on the Procurement, Design and Management Requirements of the Safety, Health and Welfare at Work (Construction) (Amendment) Regulations 2021'. This will encompass the use of all necessary Personal Protective Equipment and adherence to the Site Health and Safety Plan.

The scale and scope of the project necessitates that a Project Supervisor Design Process (PSDP) and Project Supervisor Construction Stage (PSCS) are required to be appointed in accordance with the provisions of the Health & Safety Authority's 'Guidelines on the Procurement, Design and Management Requirements of the Safety, Health and Welfare at Work (Construction) Regulations 2013'.

The PSDP appointed for the decommissioning phase shall be required to perform his/her duties as prescribed in the Safety, Health and Welfare at Work (Construction) Regulations. These duties include (but are not limited to):

- Identify hazards arising from the design or from the technical, organisational, planning or time related aspects of the project;
- Where possible, eliminate the hazards or reduce the risks;
- Communicate necessary control measures, design assumptions or remaining risks to the PSCS so they can be dealt with in the Safety and Health Plan;
- Ensure that the work of designers is coordinated to ensure safety;
- Organise co-operation between designers;
- Prepare a written Safety and Health Plan;
- Prepare a safety file for the completed structure and give it to the client; and
- Notify the Authority and the client of non-compliance with any written directions issued.

The PSCS appointed for the decommissioning stage shall be required to perform his/her duties as prescribed in the Safety, Health and Welfare at Work (Construction) Regulations. These duties include (but are not limited to):

- Development of the Safety and Health Plan for the decommissioning stage with updating where required as work progresses;
- Compile and develop safety file information.
- Reporting of accidents / incidents;
- Weekly site meeting with PSCS;

- 
- Coordinate arrangements for checking the implementation of safe working procedures. Ensure that the following are being carried out:
  - Induction of all site staff including any new staff enlisted for the project from time to time;
  - Toolbox talks as necessary;
  - Maintenance of a file which lists personnel on-site, their name, nationality, current Safe Pass number, current Construction Skills Certification Scheme (CSCS) card (where relevant) and induction date;
  - Report on site activities to include but not limited to information on accidents and incidents, disciplinary action taken and PPE compliance;
  - Monitor the compliance of contractors and others and take corrective action where necessary; and
  - Notify the Authority and the client of non-compliance with any written directions issued.

## 6. Emergency Response Plan

### 6.1 Introduction

An Emergency Response Plan (ERP) for the Offshore Site and the Onshore Site is presented in this section of the Rehabilitation Schedule. It provides details of procedures to be adopted in the event of an emergency in terms of site health and safety and environmental protection.

Prior to commencement of decommissioning activities, this Rehabilitation Schedule will be updated to reflect the applicable Emergency Response Cooperation Plan and Procedures and in line with relevant guidelines at that time.

### 6.2 Offshore

#### 6.2.1 Emergency Response Co-Operation Plan

The offshore site ERCoP details the response required and the responsibilities of all personnel in the event of an emergency as provided in Appendix 5-4. The ERCoP will require updating and submissions from the contractor/PSCS and sub-contractors prior to commencement of decommissioning activities. Where sub-contractors that are contracted onsite are governed by their own emergency response procedure a bridging arrangement will be adopted to allow for inclusion of the sub-contractor's ERCoP within this document.

The ERCoP sets out the following key procedures, for the construction, operational and maintenance and decommissioning phases of the project;

- Roles and Responsibilities
- Initial Steps
- Site Evacuation Procedures
- Spill Control Measures
- Contact for the emergency services
- Procedures for Personnel Tracking
- Induction Checklist

### 6.3 Onshore

#### 6.3.1 Emergency Response Procedure

The site ERP details the response required and the responsibilities of all personnel in the event of an emergency. The ERP will require updating and submissions from the contractor/PSCS and sub-contractors prior to commencement of decommissioning activities. Where sub-contractors that are contracted onsite are governed by their own emergency response procedure a bridging arrangement will be adopted to allow for inclusion of the sub-contractor's ERP within this document.

Within the Onshore CEMP, the ERP sets out the following key considerations applicable to the decommissioning phase;

- Roles and Responsibilities
- Hazard Identification
- Site Evacuation Procedures
- Spill Control Measures
- Contact for the emergency services
- Procedures for Personnel Tracking
- Induction Checklist

## 7. Programme of Works

### 7.1 Rehabilitation Schedule

The decommissioning phase will take approximately 24 months to complete from commencing the initial de-energising and isolation from the grid to the final reinstatement of the site. A full schedule will be provided prior to the commencement of any rehabilitation activities.

At this time, it is not possible to determine when exactly decommissioning will take place, however, it will be 38-years after the commissioning of the Project.

The phasing and scheduling of the main decommissioning task items are outlined in Figure 6-1 below.

**Figure 7-1 Indicative Decommissioning Schedule**

ID	Task Name	Task Description	Year 1	Year 2
1	Site Health and Safety			
2	WTG Decommissioning	Disconnect Power Output		
3	WTG dismantling and removal	Disassemble Turbine Components and transport of all turbine components offsite		
4	OSS topside removal	Dismantle and remove OSS topside and transport offsite		
5	IAC removal	Removal of exposed and accessible IAC		
6	GBS removal	Refloat and tow GBS offsite		
7	OEC removal	Removal of exposed and accessible OEC		
8	OGC	Cable pulled through ducts and fully removed (starting from TJB).		
9	OCC buildings and electrical infrastructure	Removal of all buildings and electrical infrastructure		
10	Accommodations Areas Reinstatement	Reinstate temporary abnormal load entrances and necessary boundary treatments		

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