Planning and Environmental Consultants

Decommissioning Plan

Briskalagh Renewable Energy Development, Co. Kilkenny

Appendix 4-5

Table of Contents

1. INTRODUCTION

This Decommissioning Plan has been developed by MKO on behalf of Briskalagh Ltd., to accompany an application for planning permission to Kilkenny County Council (KCC) for the Proposed Project. The Proposed Project comprises the Proposed Wind Farm and the Proposed Grid Connection.

This document is being prepared alongside an Environmental Impact Assessment Report (EIAR) and the Natura Impact Statement ('NIS') which accompany this planning application for the Proposed Project to KCC.

For the purposes of this EIAR, the various project components are described and assessed using the following references: 'Proposed Project, 'the Site', 'Proposed Wind Farm', 'Proposed Wind Farm site' and 'Proposed Grid Connection'. Please see Section 1.1.1 of this EIAR for further details. A detailed description of the Proposed Project is provided in Chapter 4 of this EIAR.

Decommissioning of the Proposed Wind Farm will be scheduled to take place after the proposed 35-year lifespan. The Proposed Grid Connection infrastructure, including the onsite 38kV electricity substation, will remain in place as it will be part of the Electricity Grid under the ownership and control of the ESBN.

As noted in the Scottish Natural Heritage report (SNH) *Research and Guidance on Restoration and Decommissioning of Onshore Wind Farms* (SNH, 2013) reinstatement proposals for a wind farm are made approximately 30 years in advance, so within the lifespan of the wind farm, technological advances and preferred approaches to reinstatement are likely to change. According to the SNH guidance, it is therefore:

> *"best practice not to limit options too far in advance of actual decommissioning but to maintain informed flexibility until close to the end-of-life of the wind farm".*

In this regard, this Decommissioning Plan will be reviewed and updated prior to commencement of decommissioning works to take account of the relevant conditions of the planning permission and current health and safety standards.

This report provides the environmental management framework to be adhered to during the decommissioning phase of the Proposed Wind Farm and it incorporates the mitigating principles to ensure that the work is carried out in a way that minimises the potential for any environmental impacts to occur.

1.1 Scope of the Decommissioning Plan

This report is presented as a guidance document for the decommissioning of the Proposed Wind Farm. The Decommissioning Plan clearly outlines the mitigation measures and monitoring proposals that are required to be adhered to in order to complete the works in an appropriate manner.

The report is divided into eight sections, as outlined below:

Section 1 provides a brief introduction as to the scope of the report.

Section 2 outlines the Site and Project details, detailing the targets and objectives of this plan along with providing an overview of works methodologies that will be adopted throughout decommissioning.

Section 3 sets out details of the environmental controls to be implemented on site including the mechanisms for implementation. A waste management plan is also included in this section.

Section 4 outlines the general Health and Safety measures that will be implemented on site during the decommissioning-phase of the Proposed Project.

Section 5 outlines the Emergency Response Procedure to be adopted in the event of an emergency in terms of site health and safety and environmental protection.

Section 6 sets out a programme for the timing of the works.

Section 7 consists of a summary table of all mitigation measures to be adhered to during the decommissioning-phase.

Section 8 consists of a summary table of all monitoring requirements for the operational and decommissioning-phases.

Section 9 outlines the proposals for reviewing compliance with the provisions of this report.

2. SITE AND PROJECT DETAILS

2.1 Site Location and Description

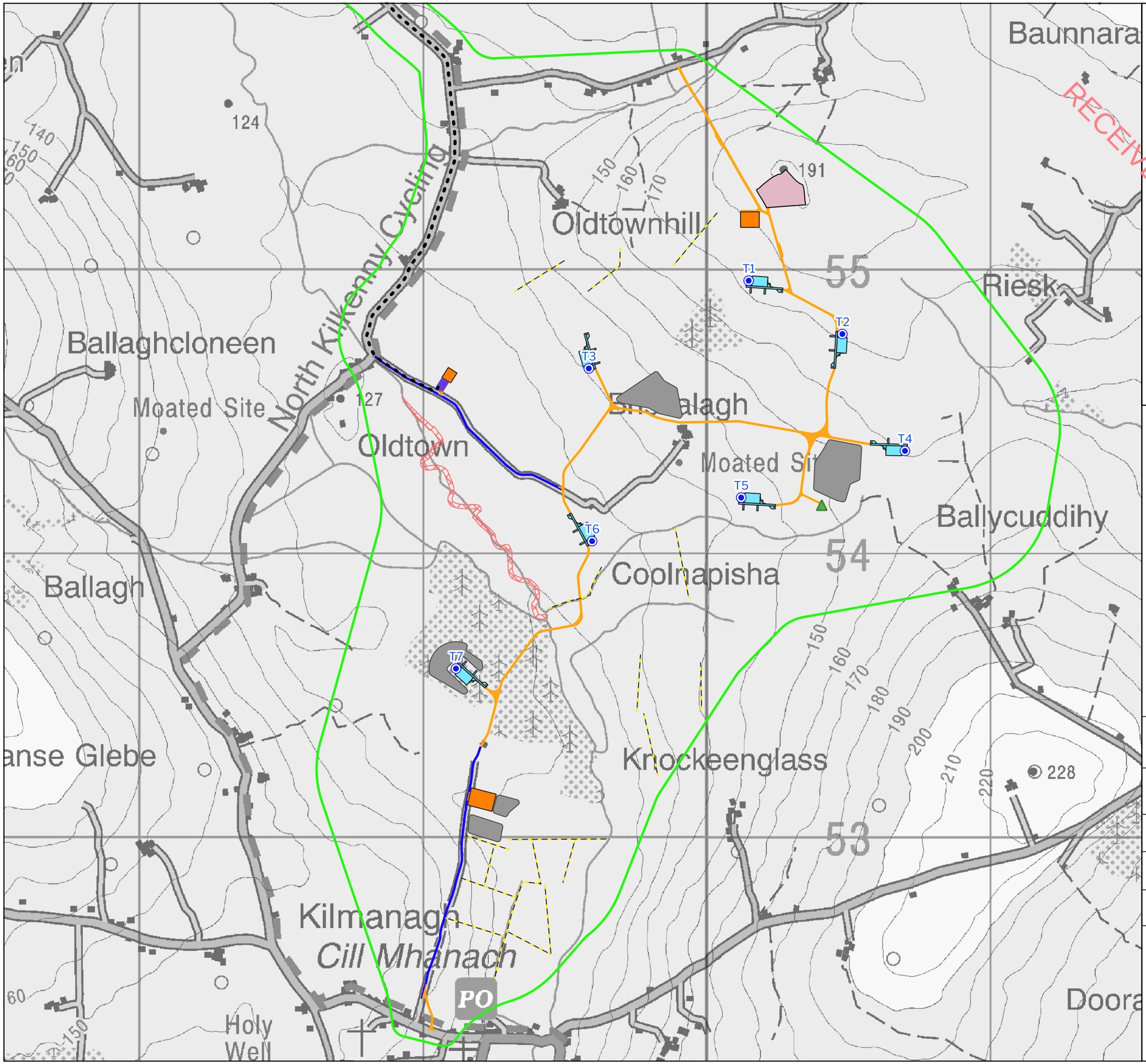
The Site is located within a rural setting in northwest Kilkenny, approximately 9km west of Kilkenny City. Kilmanagh is located approximately 1.2km south of the nearest proposed turbine, and the Tullaroan is located approximately 2.7km north of the nearest proposed turbine. The R695 regional road runs in an east-west orientation entering Kilmanagh and then heading south from Kilmanagh towards Callan, passing within 1.3km of the nearest proposed turbine. Existing access is via farm entrances off the L5023 local road to the northwest, L5024 to the north, and L1009 to the south. Landuse currently comprises a mix of pastoral agriculture, and small-scale private forestry. The surrounding landuse predominantly comprises pastoral agriculture, local roads and residential within Kilmanagh and Tullaroan. The site is also served by a number of existing agricultural roads and tracks.

2.2 Description of the Proposed Project

This section describes the Proposed Wind Farm and the Proposed Grid Connection, collectively referred to as the Proposed Project. A full description of the Proposed Wind Farm and the Proposed Grid Connection can be found in Chapter 4: Description of the Proposed Development.

This application seeks a ten-year planning permission and 35-year operational life from the date of commissioning of the Proposed Wind Farm.

The Proposed Wind Farm is illustrated on Figure 2-1, the Proposed Grid Connection is illustrated on Figure 2-2 and the Proposed Project is illustrated on Figure 2-3 below.



Map Legend

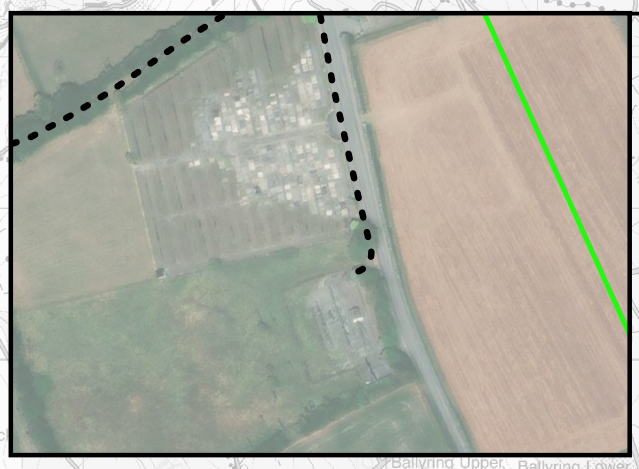
- EIAR Site Boundary
- Proposed Turbine Locations
- Proposed Met Mast
- Proposed Hardstands
- Existing Roads to be Upgraded
- Proposed New Roads
- Proposed Borrow Pit
- Proposed Spoil Management Area
- Temporary Construction Compound
- Proposed Riparian Buffer
- Proposed Felling Area
- Proposed Hedgerow Planting and Enhancement Measures
- Proposed 38kV Substation
- Proposed 38kV Underground Grid Connection Cabling

Drawing Title
Proposed Wind Farm

Project Title
Briskalagh Renewable Energy Development

Drawn By	Checked By
MC	EMC
Project No.	Drawing No.
230502	Figure 2-1
Scale	Date
1:13,000	2024-10-03

MKO
Planning and Environmental Consultants
Tuam Road, Galway
Ireland, H91 VW84
+353 (0) 91 735611
email:info@mkoireland.ie
Website: ww.mkoireland.ie



Map Legend

- EIAR Site Boundary
- Proposed Turbine Locations
- Proposed Project Infrastructure
- Proposed Temporary Construction Compound
- Proposed 38kV Substation
- Proposed 38kV Underground Grid Connection Cabling
- Proposed Horizontal Directional Drilling

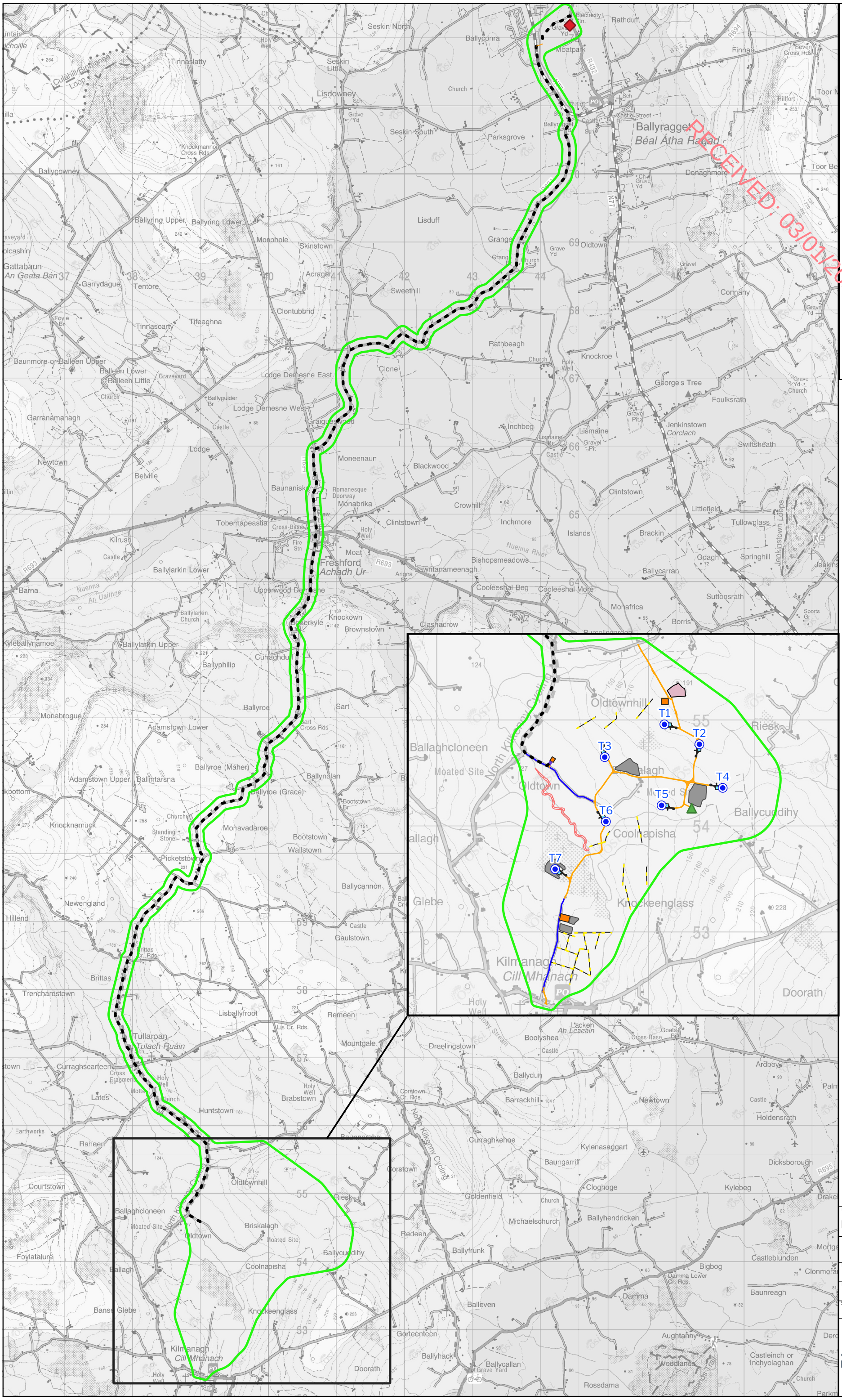
T1 T2 T3 T4 T5 T6 T7

Drawing Title: Proposed Grid Connection

Project Title: Briskalagh Renewable Energy Development

Drawn By	Checked By
MC	EMC
Project No.	Drawing No.
230502	Figure 2-2
Scale	Date
1:50,000	2024-10-03

MKO
Planning and Environmental Consultants
Tuam Road, Galway
Ireland, H91 VW84
+353 (0) 91 735611
email:info@mkoireland.ie
Website: ww.mkoireland.ie



Drawing Title
Proposed Project Layout

Project Title
Briskalagh Renewable Energy Development

Drawn By	Checked By
MC	EMC
Project No.	Drawing No.
230502	Figure 2-3
Scale	Date
1:50,000	2024-10-03

MKO
Planning and Environmental Consultants
Tuam Road, Galway
Ireland, H91 VW84
+353 (0) 91 735611
email:info@mkoireland.ie
Website: www.mkoireland.ie

2.3 Targets and Objectives

The decommissioning phase works will be completed to the approved standards at the time of decommissioning, which include specified materials, standards, specifications and codes of practice. This Decommissioning Plan has considered environmental issues and this is enhanced by the works proposals as part of decommissioning.

The key site targets are as follows:

- Ensure decommissioning works and activities are completed in accordance with mitigation and best practice approach presented in the accompanying Environmental Impact Assessment Report (EIAR), Natura Impact Statement (NIS) and associated planning documentation.
- Ensure decommissioning works and activities have an imperceptible impact/disturbance to local landowners and the local community.
- Ensure decommissioning works and activities have an imperceptible impact on the natural environment.
- Adopt a sustainable approach to decommissioning; and,
- Provide adequate environmental training and awareness (to the approved standards at the time of decommissioning) for all project personnel.

The key site objectives are as follows:

- Using recycled materials if possible, e.g. soil and overburden material for backfilling and reinstatement. Ensure sustainable sources for materials supply where possible.
- Avoidance of any pollution incident or near miss as a result of working around or close to existing watercourses and have emergency measures in place.
- Avoidance of vandalism.
- Keeping all watercourses free from obstruction and debris.
- Correct implementation of the sustainable drainage system (SuDS) drainage design principles.
- Keep impact of decommissioning works to a minimum on the local environment, watercourses, and wildlife.
- Correct fuel storage and refuelling procedures to be followed.
- Good waste management and housekeeping to be implemented.
- Air and noise pollution prevention to be implemented.
- Monitoring of the works and any adverse effects that it may have on the environment.

2.4 Decommissioning Methodologies Overview

2.4.1 Introduction

An experienced main contractor will be appointed to undertake the decommissioning of the Proposed Wind Farm. The main contractors will comply with the Decommissioning Plan (DP) prepared for the decommissioning phase and any revisions made to this document throughout the phase in which it is adopted. An overview of the decommissioning methodologies is provided below.

2.4.2 Decommissioning Methodology

2.4.2.1 Proposed Wind Farm

As construction will be completed, elements of the project that will be developed as a temporary facilitator will either be removed, restored to its original condition, or will naturally revegetate. These include the temporary construction compound and temporary construction stage access road. All access roads and hardstanding areas forming part of a site roadway network will be required by the ongoing farming operations, and therefore will be left in situ for future use.

It is intended that decommissioning process will remove all the remaining elements i.e., above ground components and underground cabling from the Proposed Wind Farm, and reinstate areas where infrastructure is removed. The following elements will be decommissioned:

- Wind turbines and Met Mast: dismantling and removal off site;
- Turbine and Met Mast foundation: Turbine and met mast foundation backfilling following dismantling and removal of wind turbines (foundations that protrude above ground level will be backfilled with soil - underground reinforced concrete remaining in-situ);
- Internal Underground cabling: removal (ducting remaining).;

2.4.2.1.1 *Wind Turbines and Met Mast*

Prior to any works being undertaken on wind turbines or the met mast, they will be disconnected from the grid by the site operator in conjunction with ESB Networks. The dismantling and removal of wind turbines and met mast of this scale is a specialist operation which will be undertaken by the turbine supplier or competent subcontractor. Turbine dismantling will be undertaken in reverse order to methodology employed during their construction. Cranes will be brought back to the Proposed Wind Farm site utilising the hardstand areas adjacent to each turbine. The dismantling of turbines and met mast will be bound by the same safety considerations as will be the case during construction in terms of weather conditions. Works will not be undertaken during adverse weather conditions and in particular not during high winds.

The turbines and met mast will be removed from the Proposed Wind Farm site in a similar manner to how they will be transported to the site originally in extended articulated trucks. The details of transport to and from the Proposed Wind Farm site are assessed in Chapter 15.1 of the EIAR, which accompanies this application.

The transport of disassembled turbines from the Proposed Wind Farm site will be undertaken in accordance with a Transport Management Plan (TMP). The TMP will be issued to and agreed with the planning authority at that time as part of a permit application for the delivery of abnormal loads using the local roads under the Road Traffic (Special Permits for Particular Vehicles) Regulations 2007. The TMP will provide for all necessary safety measures, including a convoy and Garda escort as required, off-peak turning/reversing movements and any necessary safety controls. A Traffic Management Plan is included as Appendix 15-2 of this EIAR.

2.4.2.1.2 *Turbine and Met Mast Foundations*

On the dismantling of turbines and met mast, it is not intended to remove the concrete foundation from the ground. It is considered that its removal will be the least preferred options in terms of potential effects on the environment. Therefore, the foundations of the 7 no. turbine and met mast will be covered with soil material. If there is usable soil or overburden material on the Proposed Wind Farm site after construction, this material will be used. Alternatively, where material is not readily available on site, soil will be sourced locally and imported to site on heavy good vehicles (HGVs). The imported soil will be spread and graded over the foundation using a tracked excavator and revegetation

enhanced by spreading of an appropriate seed mix to assist in revegetation and accelerate the resumption of the natural drainage management that will have existed prior to any construction.

2.4.2.1.3 *Internal Underground Cabling*

The underground cabling within the site, connecting the turbines to the onsite substation, will be pulled from the cable duct using a mechanical winch which will extract the cable and re-roll it on to a cable drum. This will be undertaken at each of the pull pits along the cable. The ground above original pulling pits will be excavated using a mechanical excavator and will be fully re-instated once the cables are removed.

The cable ducting will be left in-situ as it is considered the most environmentally prudent option, avoiding unnecessary excavation and soil disturbance for an underground element that is not visible with no environmental impact associated with leaving the ducting in-situ.

The Proposed Grid Connection underground electrical cabling route and onsite substation will remain in place as it will be under the ownership and control of the ESBN.

2.4.2.2 Proposed Grid Connection

As construction will be completed, the Proposed Grid Connection temporary construction compound that was developed as a temporary facilitator will either be removed and restored to its original condition or will naturally revegetate. The Proposed Grid Connection underground cabling and onsite substation will remain in place as it will be under the ownership and control of ESBN.

3. ENVIRONMENTAL MANAGEMENT

The following sections give an overview of the drainage, dust and noise control measures, a waste management plan for the Site and the implementation of the environmental management procedures for the Site.

3.1 Site Drainage

The site drainage features for this Proposed Wind Farm site during its construction and operation are outlined in the EIAR which accompany this application. As this Decommissioning Plan is a working document and is presented as an Appendix to the EIAR, the drainage measures are not included in this document. When the final Decommissioning Plan is prepared prior to decommissioning and presented as a standalone document, all drainage management measures, which will include maintenance of the operational drainage measures, will be included in that document, as required. The drainage proposals 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 35-year lifespan of the Proposed Wind Farm, the areas within the Proposed Wind Farm 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. As a minimum measure, areas where freshly placed soil material as part of turbine foundation reinstatement will be surrounded by silt fencing if deemed necessary until the area has naturally revegetated.

3.2 Refuelling, Fuel and Hazardous Material Storage

Wherever possible, vehicles will be refuelled off-site, particularly for regular road-going vehicles. On-site refuelling of machinery will be carried out at designated refuelling areas at various locations throughout the Site. Heavy plant and machinery will be refuelled on-site by a fuel truck that will come to the Site as required on a scheduled and organised basis. All refuelling will be carried out outside designated watercourse buffer zones. Only designated trained competent operatives will be authorised to refuel plant onsite. Mobile measures such as drip trays and fuel absorbent mats will be used during refuelling operations as required. All plant and machinery will be equipped with fuel absorbent material and pads to deal with any event of accidental spillage.

The following mitigation measures are proposed to avoid release of hydrocarbons at the Site:

- Road-going vehicles will be refuelled off site wherever possible;
- Fuels volumes stored on site will be minimised;
- Any fuel storage areas will be bunded appropriately for the fuel storage volume for the time period of the construction and fitted with a storm drainage system and an appropriate oil interceptor;
- Oils or fuels stored in turbines will be drained and disposed of off-site by a licenced waste contractor, to prevent leakage to groundwater or surface water;
- The plant used will be regularly inspected for leaks and fitness for purpose;
- An emergency plan for the decommissioning phase to deal with accidental spillages will be developed (refer to Section 5 of this Plan). Spill kits will be available to deal with an accidental spillage in and outside the refuelling area.
- A programme for the regular inspection of plant and equipment for leaks and fitness for purpose will be developed at the outset of the decommissioning phase.

3.3 Dust Control

Dust can be generated from on-site activities during decommissioning such as reinstatement 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. Site 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 to control dust, which are the same as those proposed for the construction phase, include:

- Any site roads with the potential to give rise to dust will be regularly watered, as appropriate, during dry and/or windy conditions. Silty or oily water will not be used for dust suppression;
- Traffic will be restricted to defined routes and a speed limit implemented.
- All related traffic will have speed restrictions on un-surfaced roads to 15 kph;
- The designated public roads outside the Proposed Wind Farm site and along the main transport routes to the Proposed Wind Farm site will be regularly inspected by the ECoW for cleanliness, and cleaned as necessary;
- Material handling systems and material storage areas will be designed and laid out to minimise exposure to wind;
- Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods;
- Water misting or bowsers will operate on-site as required to mitigate dust in dry weather conditions. Water bowser movements will be carefully monitored, as the application of too much water may lead to increased runoff;
- The transport of soils or other material, which has significant potential to generate dust, will be undertaken in tarpaulin-covered vehicles where necessary;
- All Site related traffic will have speed restrictions on un-surfaced roads to 15 kph;
- Daily inspection of construction sites to examine dust measures and their effectiveness.
- The Proposed Wind Farm site access roads will be checked weekly for damage/potholes and repaired as necessary..

3.4 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 Site. To avoid unsociable hours where possible, decommissioning works will be restricted to occur between 07:00hrs and 19:00hrs Monday to Saturday, which are the same as those proposed during the construction phase. Proposed measures to control noise include:

- Plant and machinery with low inherent potential for generation of noise and/or vibration will be selected. All plant and equipment to be used on-site will be modern equipment and will comply with the European Communities (Construction Plant and Equipment) (Permissible Noise Levels) Regulations.
- Regular maintenance of plant will be carried out in order to minimise noise emissions. Particular attention will be paid to the lubrication of bearings and the integrity of silencers.
- All vehicles and mechanical plant will be fitted with effective exhaust silencers and maintained in good working order for the duration of the works.
- Compressors will be of the “sound reduced” models fitted with properly lined and sealed acoustic covers which will be kept closed whenever the machines are in use and all ancillary pneumatic tools shall be fitted with suitable silencers.
- Machines, which are used intermittently, will be shut down during those periods when they are not in use.

- Training will be provided by the Site Manager to drivers to ensure smooth machinery operation/driving, and to minimise unnecessary noise generation; and;
- Local residents will be kept informed of the proposed working schedule where appropriate, including the times and duration of any abnormally noisy activity that may cause concern;
- Any extraordinary site work occurring outside of the core working hours will be programmed, when appropriate, so that haulage vehicles would not arrive at or leave the Proposed Wind Farm site between 19:00 and 07:00, with the exception of abnormal loads that would be scheduled to avoid anticipated periods of high traffic flows;
- All ancillary pneumatic percussive tools will be fitted with mufflers or silencers of the type recommended by the manufacturers;
- Machines will be shut down between work periods (or when not in use) or throttled down to a minimum;
- All equipment used on site will be regularly maintained, including maintenance related to noise emissions;
- Vehicles will be loaded carefully to ensure minimal drop heights so as to minimise noise during this operation;
- All ancillary plant such as generators and pumps will be positioned so as to cause minimum noise disturbance and if necessary, temporary acoustic screens or enclosures will be provided; and
- Training will be provided to drivers to ensure smooth machinery operation/driving, and to minimise unnecessary noise generation.

3.5 Invasive Species Management

Any soil material that will be imported to the Proposed Wind Farm 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 Site to identify invasive species where any minor excavation will be required. If present in these areas, the ecologist will propose suitable management measures.

3.6 Traffic Management

A Traffic Management Plan will be prepared in advance of any decommissioning works. The removal of turbines from the Site will be undertaken for a specialist haulier. The traffic management arrangements although similar to those that will be implemented for turbine delivery as outlined in the EIAR will be agreed in advance of decommissioning with the competent authority.

3.7 Waste Management

This section of the DP provides a waste management plan (WMP) which outlines the best practice procedures during the decommissioning of the Proposed Wind Farm. The WMP outlines the methods of waste prevention and minimisation by recycling, recovery and reuse at each stage of decommissioning. Disposal of waste will be a last resort.

3.7.1 Legislation

The Waste Management Act 1996 and its subsequent amendments provide for measures to improve performance in relation to waste management, recycling and recovery. The Act also provides a

regulatory framework for meeting higher environmental standards set out by other national and EU legislation.

The Act requires that any waste related activity has to have all necessary licenses and authorisations. It will be the duty of the Waste Manager on the Site to ensure that all contractors hired to remove waste, have valid Waste Collection Permits. It will then be necessary to ensure that the waste is delivered to a licensed or permitted waste facility. The hired waste contractors and subsequent receiving facilities must adhere to the conditions set out in their respective permits and authorisations. Waste removal-related traffic volumes during the decommissioning phase, will be less than those anticipated and assessed for the construction phase.

The Department of the Environment provides a document entitled, *'Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects'* (2006). It is important to emphasise that no demolition will take place at this site, however, this document was referred to throughout the process of completing this WMP.

3.7.2 Waste Management Hierarchy

The waste management hierarchy sets out the most efficient way of managing in the following order:

Prevention and Minimisation:

The primary aim of the WMP will be to prevent and thereby reduce the amount of waste generated at each stage of the project.

Reuse of Waste:

Reusing as much of the waste generated on site as possible will reduce the quantities of waste that will have to be transported off site to recovery facilities or landfill.

Recycling of Waste:

There are several established markets available for the beneficial use of Construction and Demolition waste such as using waste concrete as fill for new roads.

At all times during the implementation of the WMP, disposal of waste to landfill will be considered only as a last resort.

3.7.3 Waste Arising from Decommissioning

The relevant components will be removed from the Proposed Wind Farm site for re-use, recycling or waste disposal. Any structural elements that are not suitable for recycling will be disposed of in an appropriate manner. All lubrication fluids will be drained down and put aside for appropriate collection, storage, transport and disposal. Any materials which cannot be re-used or recycled will be disposed of by an appropriately licenced contractor.

The waste types arising from the decommissioning of the Proposed Wind Farm site are outlined in Table 3-1 below.

Table 3-1 Expected waste types arising during the Decommissioning Phase

Material Type	Example	EWC Code
Cables	Electrical wiring	17 04 11
Metals	Copper, aluminium, lead and iron	17 04 07
Fibreglass	Turbine blade component	10 11 03
Hydrocarbons	Oils and lubricants drained from the turbines	13 01 01, 13 02 04

3.7.3.1 Reuse

Many construction materials can be reused several times before they have to be disposed of:

- Electrical wiring can be reused on similar wind energy projects.
- Elements of the turbine components can be reused but this will be determined by the condition that they are in.

3.7.3.2 Recycling

If a certain type of construction material cannot be reused onsite, then recycling is the most suitable option. The opportunity for recycling during decommissioning will be limited and restricted to components of the wind turbines.

All waste that is produced during the decommissioning phase including dry recyclables will be deposited in the on-site skip initially and sent for subsequent segregation at a remote facility. The anticipated volume of all waste material to be generated at the Site is low which provides the justification for adopting this method of waste management.

3.7.3.3 Implementation

3.7.3.3.1 *Roles and Responsibilities*

Prior to the commencement of the decommissioning, a Construction Waste Manager will be appointed by the Contractor. The Construction Waste Manager will oversee 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 person nominated must have sufficient authority so that they can ensure everyone working on the decommissioning adheres to the management plan.

3.7.3.3.2 *Training*

It is important for the Construction Waste Manager to communicate effectively with colleagues in relation to the aims and objectives of the waste management plan. All employees working on site during the decommissioning phase of the project will be trained in materials management and thereby, should be able to:

- Distinguish reusable materials from those suitable for recycling.
- Ensure maximum segregation at source.
- Co-operate with site manager on the best locations for stockpiling reusable materials.
- Separate materials for recovery; and
- Identify and liaise with waste contractors and waste facility operators.

3.7.3.3.3 *Record Keeping*

The WMP will provide systems that will enable all arisings, movements and treatments of construction waste to be recorded. This system will enable the contractor to measure and record the quantity of waste being generated. It will highlight the areas from which most waste occurs and allows the measurement of arisings against performance targets. The WMP can then be adapted with changes that are seen through record keeping.

The fully licensed waste contractor employed to remove waste from the Site will be required to provide documented records for all waste dispatches leaving the Site. Each record will contain the following:

- Consignment Reference Number
- Material Type(s) and EWC Code(s)/LOW Codes(s)
- Company Name and Address of Site of Origin
- Trade Name and Collection Permit Ref. of Waste Carrier
- Trade Name and Licence Ref. of Destination Facility
- Date and Time of Waste Dispatch
- Registration no. of Waste Carrier vehicle
- Weight of Material
- Signature of Confirmation of Dispatch detail
- Date and Time of Waste Arrival at Destination
- Site Address of Destination Facility

3.7.3.4 Waste Management Plan Conclusion

The WMP will be properly adhered to by all staff involved in the project which will be outlined within the induction process for all site personnel. The waste hierarchy should always be employed when designing the plan 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.

This WMP has been prepared to outline the main objectives that are to be adhered to and it will be updated as required prior to decommissioning.

3.8 Environmental Management Implementation

3.8.1 Roles and Responsibilities

The Site Manager and/or Environmental Clerk of Works (ECoW) are the project focal point relating to decommissioning-related environmental issues.

In general, the ECoW will maintain responsibility for monitoring the decommissioning works and Contractors/Sub-contractors from an environmental perspective. The ECoW will act as the regulatory interface on environmental matters. The Site Manager will be responsible for reporting to and liaising with Kilkenny County Council and other statutory bodies as required.

The Site Manager in consultation with the ECoW will be responsible for employing the services of a suitably qualified ecologist and any other suitably qualified professionals as required throughout the decommissioning works.

4. HEALTH AND SAFETY

Decommissioning of the Proposed Wind Farm will necessitate the presence of a construction site and travel on the local public road network to and from the Site. Construction sites and the machinery used on them pose a potential health and safety hazard to construction workers if site rules are not properly implemented.

The Proposed Wind Farm will be decommissioned in accordance with all relevant Health and Safety Legislation, including:

- Safety, Health and Welfare at Work Act 2005 (No. 10 of 2005);
- Safety, Health and Welfare at Work (General Application) (Amendment) Regulations 2016 (S.I. No. 36 of 2016);
- S.I. No. 528/2021 - Safety, Health and Welfare at Work (Construction) (Amendment) Regulations 2021 and
- Safety, Health and Welfare at Work (Work at Height) Regulations 2006 (S.I. No. 318 of 2006).

The following measures below are also detailed in Chapter 18 Schedule of Monitoring and Mitigation Measures.

- 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 Wind Farm. Safepass registration cards are required for all decommissioning, delivery and security staff. Decommissioning operatives will hold a valid Construction Skills Certificate Scheme card where required. The developer 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. Public safety will be addressed by restricting Site access during construction. Fencing will be erected in areas of the Site where uncontrolled access is not permitted.
- The suitability of machinery and equipment for use near power lines will be risk assessed.
- All staff will be trained on operating voltages of overhead electricity lines running the Site. All staff will be trained to be aware of the risks associated with overhead lines. All contractors that may visit the Site are made aware of the location of lines before they come on to Site.
- Barriers will run parallel to the overhead line at a minimum horizontal distance of 6 metres on plan from the nearest overhead line conductor wire.
- When activities must be carried out beneath overhead lines, e.g., turbine component removal, a site-specific risk assessment will be undertaken prior to any works. The risk assessment must take into account the maximum potential height that can be reached by the plant or equipment that will be used prior to any works. Overhead line proximity detection equipment will be fitted to machinery when such works are required.
- Information on safe clearances will be provided to all staff and visitors.
- Signage indicating locations and health and safety measures regarding overhead lines will be erected in canteens and onsite.
- 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 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):

- 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 PSDP;
- 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.
- An Emergency Response Plan (ERP) is presented in this section of the Decommissioning Plan. It provides details of procedures to be adopted in the event of an emergency in terms of Site Health, Safety and Environmental protection.

5. EMERGENCY RESPONSE PLAN

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

5.1 Emergency Response Procedure

The Site ERP includes details on 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 as decommissioning progresses. Where sub-contractors that are contracted on site 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 within this document.

This is a working document that requires updating throughout the various stages of the project.

5.1.1 Roles and Responsibilities

The chain of command during an emergency response sets out who is responsible for coordinating the response. The Site Supervisor/Decommissioning Manager will lead the emergency response which makes him responsible for activating and coordinating the emergency response procedure. The other site personnel who can be identified at this time who will be delegated responsibilities during the emergency response are presented in Figure 5-1. In a situation where the Site Supervisor/Decommissioning Manager is unavailable or incapable of coordinating the emergency response, the responsibility will be transferred to the next person in the chain of command outlined in Figure 5-1. This will be updated throughout the various stages of the decommissioning process.

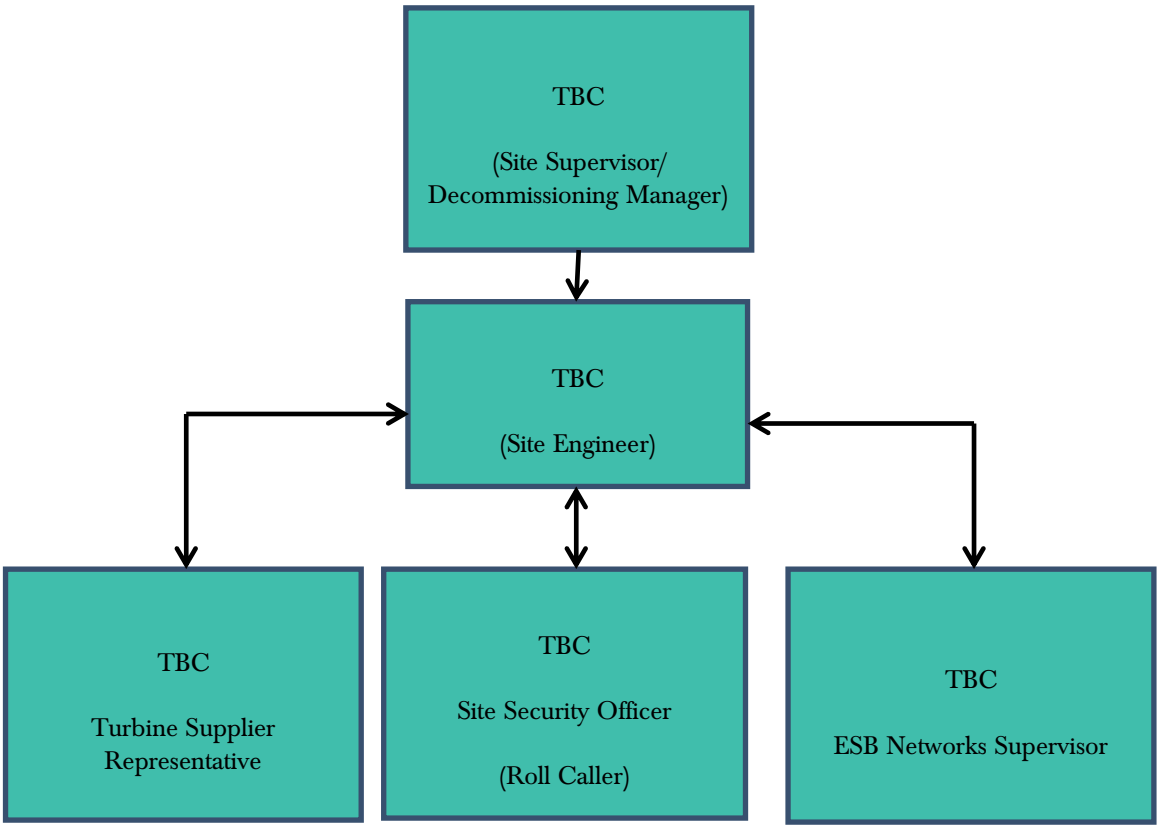


Figure 5-1 Emergency Response Procedure Chain of Command

5.1.2 Initial Steps

To establish the type and scale of potential emergencies that may occur, the following hazards have been identified as being potential situations that may require an emergency response in the event of an occurrence.

Table 5-1 Hazards associated with potential emergency situations

Hazard	Emergency Situation
Construction Vehicles: Dump trucks, tractors, excavators, cranes etc.	Collision or overturn which has resulted in operator or third-party injury.
Abrasive wheels/Portable Tools	Entanglement, amputation or electrical shock associated with portable tools
Contact with services	Electrical shock or gas leak associated with an accidental breach of underground services
Fire	Injury to operative through exposure to fire
Falls from heights including falls from scaffold towers, scissor lifts, ladders, roofs and turbines.	Injury to operative after a fall from a height
Sickness	Illness unrelated to site activities of an operative e.g. heart attack, loss of consciousness, seizure
Turbine Specific Incident	This will be included the turbine manufacturers' emergency response plan.

In the event of an emergency situation associated with, but not restricted to, the hazards outlined in Table 5-1 the Site Supervisor/Decommissioning Manager will carry out the following:

- Establish the scale of the emergency situation and identify the number of personnel, if any, have been injured or are at risk of injury.
- Where necessary, sound the emergency siren/foghorn that activates an emergency evacuation. The Site Supervisor/Decommissioning Manager must proceed to the assembly point if the emergency poses any significant threat to their welfare and if there are no injured personnel at the scene that require assistance. The Site Supervisor/ Decommissioning Manager will be required to use their own discretion at that point. In the case of fire, the emergency evacuation should proceed, without exception. The evacuation procedure is outlined in Section 5.1.3.
- Make safe the area if possible and ensure that there is no identifiable risk exists with regard to dealing with the situation e.g. if a machine has turned over, ensure that it is in a safe position so as not to endanger others before assisting the injured.
- Contact the required emergency services or delegate the task to someone. If delegating the task, ensure that the procedures for contacting the emergency services as set out in Section 5.2 is followed.
- Take any further steps that are deemed necessary to make safe or contain the emergency incident e.g. cordon off an area where an incident associated with electrical issues has occurred.
- Contact any regulatory body or service provider as required e.g. ESB Networks the numbers for which as provided in Section 5.2.
- Contact the next of kin of any injured personnel where appropriate.

5.1.3 Site Evacuation/Fire Drill

A site evacuation/fire drill procedure will provide basis for carrying out the immediate evacuation of all site personnel in the event of an emergency. The following steps will be taken:

- Notification of the emergency situation. Provision of a siren or foghorn to notify all personnel of an emergency situation.
- An assembly point will be designated in the construction compound area and will be marked with a sign. All site personnel will assemble at this point.
- A roll call will be carried out by the Site Security Officer to account for all personnel on site.
- The Site Security Officer will inform the Site Supervisor/Decommissioning Manager when all personnel have been accounted for. The Supervisor/Decommissioning Manager will decide the next course of action, which be determined by the situation that exists at that time and will advise all personnel accordingly.

All personnel will be made aware of the evacuation procedure during site induction. The Fire Services Acts of 1981 and 2003 require the holding of fire safety evacuation drills at specified intervals and the keeping of records of such drills.

5.1.4 Spill Control Measures

Every effort will be made to prevent an environmental incident during the decommissioning phase of the project. Oil/fuel spillages are one of the main environmental risks that will exist on the Site which will require an emergency response procedure. The importance of a swift and effective response in the event of such an incident occurring cannot be over emphasised. The following steps provide the procedure to be followed in the event of such an incident:

- Stop the source of the spill and raise the alarm to alert people working in the vicinity of any potential dangers.
- If applicable, eliminate any sources of ignition in the immediate vicinity of the incident.
- Contain the spill using the spill control materials, track mats or other material as required. Do not spread or flush away the spill.
- If possible, cover or bund off any vulnerable areas where appropriate such as drains, watercourses or sensitive habitats.
- If possible, clean up as much as possible using the spill control materials.
- Contain any used spill control material and dispose of used materials appropriately using a fully licensed waste contractor with the appropriate permits so that further contamination is limited.
- Notify the ECoW immediately giving information on the location, type and extent of the spill so that they can take appropriate action.
- The ECoW will inspect the Site and ensure the necessary measures are in place to contain and clean up the spill and prevent further spillage from occurring.
- The ECoW will notify the appropriate regulatory body such as Kilkenny County Council, and the Environmental Protection Agency (EPA), if deemed necessary.

The importance of a swift and effective response in the event of such an incident occurring cannot be over emphasised. Environmental incidents are not limited to just fuel spillages. Therefore, any environmental incident must be investigated in accordance with the following steps.

- The ECoW must be immediately notified.
- If necessary, the ECoW will inform the appropriate regulatory authority. The appropriate regulatory authority will depend on the nature of the incident.
- The details of the incident will be recorded on an Environmental Incident Form which will provide information such as the cause, extent, actions and remedial measures used

following the incident. The form will also include any recommendations made to avoid reoccurrence of the incident.
- A record of all environmental incidents will be kept on file by the ECoW and the Main Contractor. These records will be made available to the relevant authorities such as Kilkenny County Council, or the EPA if required.

The ECoW will be responsible for any corrective actions required as a result of the incident e.g. an investigative report, formulation of alternative works methodologies or environmental sampling, and will advise the Main Contractor as appropriate.

5.2 Contact the Emergency Services

5.2.1 Emergency Communications Procedure

In the event of requiring the assistance of the emergency services the following steps will be taken:

Stay calm. It is important to take a deep breath and not get excited. Any situation that requires 999/112 is, by definition, an emergency. The dispatcher or call-taker knows that and will try to move things along quickly, but under control.

Know the location of the emergency and the number you are calling from. This may be asked and answered a couple of times but do not get frustrated. Even though many emergency call centres have enhanced capabilities meaning they are able to see your location on the computer screen they are still required to confirm the information. If for some reason you are disconnected, at least emergency crews will know where to go and how to call you back.

Wait for the call-taker to ask questions, then answer clearly and calmly. If you are in danger of assault, the dispatcher or call-taker will still need you to answer quietly, mostly "yes" and "no" questions.

If you reach a recording, listen to what it says. If the recording says your call cannot be completed, hang up and try again. If the recording says all call takers are busy, WAIT. When the next call-taker or dispatcher is available to take the call, it will transfer you.

Let the call-taker guide the conversation. He or she is typing the information into a computer and may seem to be taking forever. There is a good chance, however, that emergency services are already being sent while you are still on the line.

Follow all directions. In some cases, the call-taker will give you directions. Listen carefully, follow each step exactly, and ask for clarification if you do not understand.

Keep your eyes open. You may be asked to describe victims, suspects, vehicles, or other parts of the scene.

Do not hang up the call until directed to do so by the call taker.

Due to the location of the Site it may be necessary to liaise with the emergency services on the ground in terms of locating the Site. This may involve providing an escort from a designated meeting point that may be located more easily by the emergency services. This should form part of the site induction to make new personnel and sub-contractors aware of any such arrangement or requirement if applicable.

5.3 Contact Details

A list of emergency contacts is presented in Table 5-2. A copy of these contacts will be included in the Site Safety Manual and in the site offices and the various site welfare facilities.

Table 5-2 Emergency Contacts

Contact	Telephone no.
Emergency Services – Ambulance, Fire, Gardaí	999/112
Doctor – Callan Primary Care Centre	076 1082150
Hospital – St. Luke's General Hospital – Kilkenny City	056 7785000
ESB Emergency Services	1850 372 999
Gardaí – Kilkenny Garda Station	056 7775000
Health and Safety Co-ordinator - Health & Safety Services	TBC
Health and Safety Authority	1890 289 389
Inland Fisheries Ireland (IFI)	1890 347 424
Project Supervisor Construction Stage (PSCS): TBC	TBC
Project Supervisor Design Stage (PSDS): TBC	TBC
Client: Briskalagh Ltd.	021 7336034

5.4 Procedure for Personnel Tracking

All operatives on site without any exception will have to undergo a site induction where they will be required to provide personal contact details which will include contact information for the next of kin.

In the event of a site operative becoming in an emergency situation where serious injury has occurred and hospitalisation has taken place, it will be the responsibility of the Site Manager or next in command if unavailable to contact the next of kin to inform them of the situation that exists.

5.5 Induction Checklist

Table 5-3 provides a list of items highlighted in this ERP which must be included or obtained during the mandatory site induction of all personnel that will work on the site. This will be updated throughout the various stages of the Proposed Project.

Table 5-3 Emergency Response Plan Items Applicable to the Site Induction Process

ERP Items to be included in Site Induction	Status
All personnel will be made aware of the evacuation procedure during site induction	
It may be necessary to liaise with and assist the emergency services on the ground in terms of locating the Site. This may involve providing an escort from a designated meeting point that may be located more easily by the emergency services. This should form part of the site induction to make new personnel and sub-contractors aware of any such arrangement or requirement if applicable.	

ERP Items to be included in Site Induction	Status
All operatives on site without any exception will have undergo a site induction where they will be required to provide personal contact details which will include contact information for the next of kin.	

6. PROGRAMME OF WORKS

6.1 Decommissioning Schedule

The decommissioning phase will take approximately 3 – 6 months to complete from commencing the removal of turbines to the final reinstatement of the Proposed Wind Farm site.

At this time, it is not possible to determine when decommissioning will take place. The phasing and scheduling of the main decommissioning task items are outlined in Figure 6-1 below.

ID	Task Name	Task Description	Month 1-3	Month 3-6
1	Site Health and Safty			
2	Turbine Decommissioning	Disconnect Power Output		
3	Turbine & Met Mast Dismantling	Disassemble Turbine Components		
4	Turbine Removal	Tranpsort of all Turbine Componetns off Site		
5	Cable Removal	Remove Undeground Cables from Ducting		
6	Turbine & Met Mast Foundations Backfill	Reinstate Foundation Areas by Covering with Soil Material		
7	Accommodation Areas Reinstatement	Reinstate Temporary Abnormal Load Entrance and any necessary Boundary Treatments		

Figure 6-1 Indicative Decommissioning Schedule

7. MITIGATION PROPOSALS

All mitigation measures relating to the pre-commencement, construction and operational phases of the Proposed Project are set out in the various sections of the Environmental Impact Assessment Report (EIAR) and NIS prepared as part of the planning permission application to KCC.

This section of the Decommissioning Plan groups together all of the mitigation measures presented in the above documents. The Mitigation Measures are presented in the following pages.

By presenting the mitigation proposals in the below format, it is intended to provide an easy to audit list that can be reviewed and reported on during the decommissioning phase of the Proposed Wind Farm.

Table 7-1 Proposed Mitigation Measures

Ref. MM no.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
EIAR Chapter 4 – Description of the Proposed Project					
Decommissioning Phase					
MM46	Decommissioning Plan	EIAR Chapter 4	Prior to the end of the operational period the Decommissioning Plan will be updated in line with decommissioning methodologies that may exist at the time and will agree with the competent authority at that time.		
MM47	Decommissioning Plan	EIAR Chapter 4 DP Section 2	› Upon decommissioning of the Proposed Wind Farm site, turbine foundations will remain in place underground and will be covered with earth and reseeded with an appropriate seed mix to accelerate the resumption of natural drainage management. › The underground cable ducting within the Proposed Wind Farm site will be left in-situ as it is considered the most environmentally prudent option, avoiding unnecessary excavation and soil disturbance.		
MM48	Refueling	EIAR Chapter 4, 8, 9. DP Section 3	The following mitigation measures are proposed to avoid release of hydrocarbons at the Proposed Wind Farm site: › Wherever possible, vehicles will be refuelled off-site, particularly for regular road-going vehicles. › On-site refuelling of machinery will be carried out at designated refuelling areas at various locations throughout the Site. › Fuel volumes stored on site will be minimised. › Heavy plant and machinery will be refuelled on-site by a fuel truck that will come to the Site as required on a scheduled and organised basis. › All refuelling will be carried out outside designated watercourse buffer zones. › Only designated trained and competent operatives will be authorised to refuel plant on-site.		

Ref. MM no.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			› Mobile measures such as drip trays and fuel absorbent mats will used during refuelling operations as required. › All plant and machinery will be inspected for leaks and fitness for purpose daily. › All plant and machinery will be equipped with fuel absorbent material and pads to deal with any event of accidental spillage › An emergency plan for the decommissioning phase to deal with accidental spillages will be developed (refer to Section 5 of this Plan). Spill kits will be available to deal with an accidental spillage in and outside the refuelling area. › A programme for the regular inspection of plant and equipment for leaks and fitness for purpose will be developed at the outset of the decommissioning phase.		
Chapter 7 Birds					
Decommissioning Phase					
MM68	Birds	EIAR Chapter 7	During the decommissioning phase, disturbance limitation measures and monitoring will be as per the construction phase and pre-construction phase, respectively.		
EIAR Chapter 8 Land Soils & Geology					
Decommissioning Phase					
MM73	Decommissioning Phase	EIAR Chapter 8	Mitigation measures applied during decommissioning activities will be similar to those applied during the construction phase. Some of the impacts will be avoided by leaving elements of the Proposed Project in place where appropriate. The substation will be permanent infrastructure under the control of ESBN. The turbine foundations will be rehabilitated by covering with local topsoil in order to regenerate vegetation, which will reduce runoff		

Ref. MM no.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			and sedimentation effects. Internal roads will remain as access roads for farmers and forestry operations. Mitigation measures to avoid contamination by accidental fuel leakage and erosion of soil by on-site plant will be implemented as per the construction phase mitigation measures.		
EIAR Chapter 9 Water					
Decommissioning Phase					
MM92	Decommissioning	EIAR Chapter 9	Mitigation measures to avoid contamination by accidental fuel leakage and compaction of soil by on-site plant will be implemented as per the construction phase mitigation measures.		
Chapter 10 Air Quality					
Decommissioning Phase					
MM96	Decommissioning Phase	EIAR Chapter 10	Any impact and consequential effect that occurs during the decommissioning phase are similar to that which occur during the construction phase, be it of less effect. The mitigation measures prescribed for the construction phase of the Proposed Project will be implemented during the decommissioning phase thereby minimising any potential impacts.		
Chapter 11 Climate					
Decommissioning Phase					
MM99	Decommissioning Phase	EIAR Chapter 11	The mitigation measures prescribed for the construction phase of the Proposed Project will be implemented during the decommissioning phase thereby minimising any potential impacts.		
EIAR Chapter 12 Noise					
Decommissioning Phase					
MM103	Noise	EIAR Chapter 12	During the decommissioning phase of the Proposed Wind Farm there will be noise emissions from site traffic and other on-site activities. A conservative assessment assuming similar overall noise levels as those calculated for the construction phase can be considered for elements that are proposed to be decommissioned. The noise and vibration impacts associated with any decommissioning of the site are considered to be less than those outlined in relation to the construction of the Proposed Project. The mitigation measures prescribed for the construction phase of the Proposed Project will be		

Ref. MM no.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			implemented during the decommissioning phase thereby minimising any potential impacts.		
Chapter 13 Landscape and Visual					
Decommissioning Phase					
MM106	Landscape Effects	EIAR Chapter 13	Through the iterative project design process, informed by early-stage impact assessment work, landscape modelling, ZTV mapping and photomontage preparation, public and stakeholder consultation every effort has been made to bring forward the optimum design for the Proposed Wind Farm with respect to landscape and visual factors. The Proposed Project layout that is the subject of this LVIA, already incorporates the following landscape and visual design considerations for good wind farm design, with a particular focus on site selection: › The proposed turbines are strategically sited within a modified working landscape with limited visibility from large areas of the LVIA Study Area and designated high-sensitivity landscape and visual receptors. › The characteristics of the elevated landforms and terrain surrounding the proposed turbines provide visual enclosure, obscuring visibility and reducing the visual envelope of the Proposed Project from vast areas of the wider landscape and LVIA Study Area. › The turbine layout has been designed to create a coherent arrangement of turbines, contiguous and connected to each other visually and with consistent spacing in line with the sitting of wind farms within Hilly and Flat Farmland Landscape Types in the 'Wind Energy Development Guidelines for Planning Authorities' published by the Department of the Environment, Heritage and Local Government (DoEHLG) in 2006: hereafter, 'the Guidelines' . › Siting of proposed turbines adheres to the minimum 500m set back distance from residential receptors in the Guidelines and also the recommended 4 times tip height set back distance to third party properties, explicitly set out for residential visual amenity in the 'Draft Revised Wind Energy Development Guidelines' published by the		

Ref. MM no.	Reference Heading	Reference Location	Mitigation Measure	Audit Result	Action Required
			Department of Housing, Planning and Local Government (DoHPLG in 2019): hereafter, 'the draft Guidelines' . › The proposed turbines are sited within a landscape characterised by agricultural fields bordered by mature hedgerows and treelines which provide visual screening of the Proposed Wind Farm, limiting its visibility from receptors in a large proportion of the wider landscape setting. › The layout of the Proposed Project ensures minimal loss of valuable landscape receptors and biodiversity corridors. In addition, as part of the Proposed Project, it is proposed to plant, a 5m riparian buffer in the form of hedgerows along both sides of a 1.1km segment of the Tullaroan Stream within the Proposed Wind Farm site. The proposed riparian buffer comprises an area of 1.7ha of planting. Please see Chapter 6 Biodiversity and Appendix 6-4 Biodiversity Management and Enhancement Plan for details. › The onsite 38kV substation is the only above-ground component of the Proposed Grid Connection, and it is situated within the Proposed Wind Farm site. The substation is within an agricultural field enclosed by mature vegetation, which provides visual screening and substantially limits views of the proposed structure.		
Chapter 15 Other Material Assets					
Decommissioning					
MM117	Decommissioning	EIAR Chapter 15	The measures outlined for the construction phase are considered the same for the decommissioning phase.		

8. MONITORING PROPOSALS

All monitoring proposals relating to the pre-commencement, construction and operational phases of the Proposed Project were set out in various sections of the EIAR and NIS prepared as part of the planning permission application to KCC.

This section of the Decommissioning Plan groups together all of the monitoring proposals presented in the planning documentation. The monitoring proposals are presented in the following pages.

By presenting the monitoring proposals in the below format, it is intended to provide an easy to audit list that can be reviewed and reported on during the decommissioning phase of the Proposed Wind Farm.

Table 8-1 Proposed Monitoring Measures

Ref. No.	Reference Heading	Reference Location	Monitoring Measure	Frequency	Reporting Period	Responsibility
Decommissioning Phase						
MX24	Decommissioning	DP Section 1	In accordance with SNH guidance, "best practice not to limit options too far in advance of actual decommissioning but to maintain informed flexibility until close to the end-of-life of the wind farm". A Decommissioning Plan will be reviewed and updated prior to commencement of decommissioning works to take account of the relevant conditions of the planning permission and current health and safety standards	End of operational life	As required	Developer/ Appointed Contractor
MX25	Decommissioning	DP Section 3	In general, the ECoW will maintain responsibility for monitoring the decommissioning works and Contractors/Sub-contractors from an environmental perspective. The ECoW will act as the regulatory interface on environmental matters. The Site Manager will be responsible for reporting to and liaising with Kilkenny County Council and other statutory bodies as required. The Site Manager in consultation with the ECoW will be responsible for employing the services of a suitably qualified ecologist and any other suitably qualified professionals as required throughout the decommissioning works.	As required	As required	Site Manager
MX26	Decommissioning	DP Section 3	Prior to decommissioning, a suitably qualified ecologist will complete an invasive species survey of the Site to identify invasive species where any minor excavation will be required. If present in these areas, the ecologist will propose suitable management measures.	As required	As required	Project Ecologist
MX27	Decommissioning	Appendix 7-6	Decommissioning surveys will be undertaken prior to the initiation of decommissioning works at the Proposed Wind Farm site. The survey will aim to identify sensitive sites (e.g. nests or roosts). Any requirement for decommissioning works to run into subsequent breeding or winter seasons following the commencement of works will be subject to a repeat of the decommissioning bird surveys.	As required	As required	Project Ornithologist

Ref. No.	Reference Heading	Reference Location	Monitoring Measure	Frequency	Reporting Period	Responsibility
			Monitoring will be undertaken by a suitably qualified ornithologist. The survey will include a thorough walkover survey to a 500m radius of the development footprint and/or all works areas. If winter roosts or breeding activity of birds of high conservation concern is identified, the roost or nest site will be located and earmarked for monitoring at the beginning of the first winter or breeding season of the construction phase. If the roost/nest is found to be active during the decommissioning phase no works shall be undertaken, works will cease within a species-specific buffer of this location (as per Goodship, N.M. and Furness, R.W., 2022) in line with best practice. No works shall be permitted within the buffer until it can be demonstrated that the roost or nest is no longer occupied. All site staff and subcontractors will be made aware of any restrictions to be imposed by means of a toolbox talk and a map of the 'no-work zone' will be made available to all construction staff. The restricted area will also be marked off using hazard-tape fencing to alert all personnel on site to the suspension of works within that area			

9. COMPLIANCE AND REVIEW

9.1 Site inspections and Environmental Audits

Routine inspections of decommissioning activities will be carried out on a daily and weekly basis by the ECoW and the Site Supervisor/Decommissioning Manager to ensure all controls to prevent environmental impacts, relevant to the decommissioning activities taking place at the time, are in place.

Environmental inspections will ensure that the works are undertaken in compliance with this Decommissioning Plan and all other planning application documents. Only suitably trained staff will undertake environmental site inspections.

9.2 Auditing

Environmental audits will be conducted at planned intervals to determine whether the Decommissioning Plan is being properly implemented and maintained. The results of environmental audits will be provided to project management personnel. In contrast to monitoring and inspection activities, audits are designed to shed light on the underlying causes of non-compliance, and not merely detect the non-compliance itself. In addition, audits are the main means by which system and performance improvement opportunities may be identified. Environmental audits will be carried out by the ECoW on behalf of the appointed contractor. It is important that an impartial and objective approach is adopted.

Once the Proposed Wind Farm has been decommissioned and all identified infrastructure removed from the Site, a report of compliance with decommissioning works mitigation measures will be prepared.

9.3 Environmental Compliance

The following definitions shall apply in relation to the classification of Environmental Occurrences during decommissioning of the Proposed Wind Farm:

Environmental Near Miss: An occurrence which if not controlled or due to its nature could lead to an Environmental Incident.

Environmental Incident: Any occurrence which has potential, due to its scale and nature, to migrate from source and have an environmental impact beyond the Site.

Environmental Exceedance Event: An environmental exceedance event occurs when monitoring results indicate that limits for a particular environmental parameter (as indicated in the Environmental Monitoring Programme) has been exceeded.

An exceedance will immediately trigger an investigation into the reason for the exceedance occurring and the application of suitable mitigation where necessary.

Exceedance events can be closed out on achieving a monitoring result below the assigned limit for a particular environmental parameter.

Environmental Non-Compliance: Non-fulfilment of a requirement and includes any deviations from established procedures, programs and other arrangements related to the EMP.

9.4 Corrective Action Procedure

A corrective action is implemented to rectify an environmental problem on-site. Corrective actions will be implemented by the Site Supervisor/Decommissioning Manager, as advised by the Site Environmental Clerk of Works. Corrective actions may be required as a result of the following:

- Environmental Audits.
- Environmental Inspections and Reviews.
- Environmental Monitoring.
- Environmental Incidents; and,
- Environmental Complaints.

A Corrective Action Notice will be used to communicate the details of the action required to the main contractor. A Corrective Action Notice is a form that describes the cause and effect of an environmental problem on site and the recommended corrective action that is required. The Corrective Action Notice, when completed, will include details of close out and follow up actions.

If an environmental problem occurs on site that requires immediate attention direct communications between the Site Supervisor/Decommissioning Manager and the ECoW will be conducted. This in turn will be passed down to the Site staff involved. A Corrective Action Notice will be completed at a later date.

9.5 Decommissioning Plan Review

This Decommissioning Plan will be reviewed and updated prior to commencement of any decommissioning works. In accordance with the guidelines set out in the SNH Research and Guidance 2013 document pertaining to *restoration and decommissioning of onshore wind farms*, further updates will be completed to the plan during decommissioning works to adapt to specific situations or site conditions which may be encountered and consequently need to be considered by the plan.

This report provides the environmental management framework to be adhered to during the decommissioning phase of the Proposed Wind Farm and it incorporates the mitigating principles to ensure that the work is carried out in a way that minimises the potential for any environmental impacts to occur.