EDF RENEWABLES IRELAND LIMITED

KELLYSTOWN WIND FARM

CO. LOUTH

CONSTUCTION ENVIRONMENTAL MANAGEMENT PLAN (CEMP)

MANAGEMENT PLAN 5

WASTE MANGEMENT PLAN

NOVEMBER 2024

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DOCUMENT APPROVAL

PROJECT	Kellystown Wind Farm	
CLIENT / JOB NO	EDF Renewables Ireland Limited	6918
DOCUMENT TITLE	Construction Environmental Management Plan (CEMP) Waste Management Plan	

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1 INTRODUCTION

1.1 Scope and Requirements

This Management Plan is a 'live' document that can be reviewed and updated at regular intervals throughout the project life cycle. The Contractor is required to develop and adapt this document in line with the activities of the project being undertaken for Kellystown the Proposed Development. The contractor will approve this Plan (and any future amendments of the document) with the Ecological Clerk of Works prior to any work commencing.

The information in this document forms part of the Construction Environmental Management Plan (CEMP) and is the Site Waste Management Plan for the Kellystown Project.

The CEMP and the measures detailed in this Wate Management Plan are part of the main requirements for consents for planning permissions. As such, the contractor (and all sub-contractors) on site are obligated to incorporate these waste requirements (contained herein) in all operations.

The general methods and principles detailed within this document will be adhered to by the contractor as they are committed to reduce the resources it uses in the construction work of Kellystown the Proposed Development.

1.2 Waste Prevention & Waste Regulations:

In 2012, the Department of the Environment, Community and Local Government published the Waste Management Policy in Ireland (DoECLG, 2012). One of its guiding principles is to minimise waste.

The Waste Hierarchy which contractors are obligated to apply: (Source: EC[1]):

The waste management hierarchy applies to all waste, including hazardous waste. The top of the hierarchy indicates that the priority should be in preventing waste being produced in the first place.

The Contractor will:

- Ensure that the disposal and recovery of waste does not present a risk to water, air, soil, plants and animals
- Not allow waste disposal to constitute a public nuisance through excessive noise levels or unpleasant odours, or to degrade places of special natural interest
- Prohibit the dumping or uncontrolled disposal of waste
- Prepare Waste Management Plans
- Ensure that waste treatment operations are licensed
- Require waste collectors to have special authorization and to keep records
- Ensure that the waste which cannot be prevented or recovered is disposed of without causing environmental pollution.

[1] European Commission [Available at: https://ec.europa.eu/environment/topics/waste-and-recycling/waste-framework-directive_en] [Accessed at: 27/06/2024]

The EU Integrated Pollution Prevention and Control Directive (Directive 96/61/EC) provides for a permit system for activities including waste management. In adherence with this Directive the Contractor must:

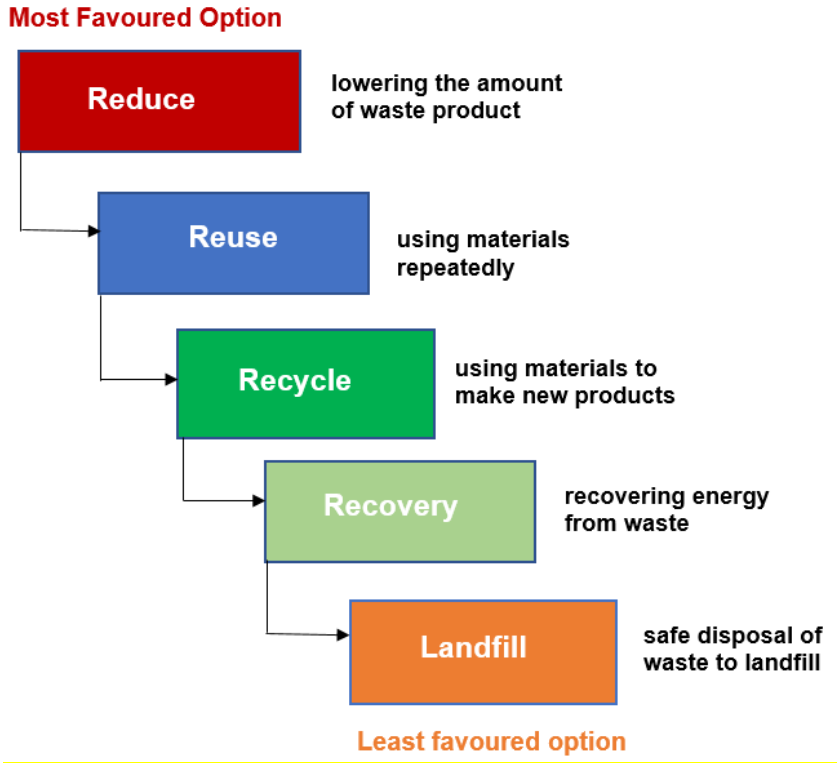
- Be in possession of a waste permit for waste disposal and
- Be prepared at all times for inspection regarding monitoring of waste activities.

1.3 Benefits of Waste Prevention

The contractor will prevent waste through implementing reduction and effectively managing resources from the design stage of construction to the completion of the construction of the project. This will ensure that:

- Legal obligations are met
- Waste production is minimised
- Build costs are minimised
- A framework for continuous assessment and best practice is implemented
- Carbon emissions and negative environmental impacts of and from waste materials are reduced

The following image explains this in more detail. The least favoured option is to dispose of waste to landfill where embodied energy is not recovered. The Waste Hierarchy (EU Waste Framework Directive, 2008) is outlined below:



1.4 Reference Documentation

As well as the Waste Management Act 1996-2008 other guidance documents have been used to develop this plan. These include:

Pollution Prevention Guidelines:

Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects, Department of Environment, Heritage & Local Government, July 2006.

EU Directive:

Article 4 of Waste Framework Directive (Directive 2008/98/EC)

This sets out the five steps for dealing with waste.

2 WASTE MANAGEMENT PLAN MINIMUM REQUIREMENTS

A Site Waste Management Plan involves the following stages:

- Planning
- Implementation
- Monitor
- Review

2.1 Planning

The planning stage of Kellystown the Proposed Development has taken into account the nature of the Site, design of the wind farm, environmental considerations and construction methods to minimise the quantity of waste produced on site during its construction.

2.2 Implementation

This Waste Management Plan will include:

1. An inventory of waste type expected to be produced in the course of the project.
2. Estimates of each type of waste that will be produced in the construction of this wind farm.
3. A statement showing how the contractor will minimise each type of waste to be produced prior to any activity generating this waste.
4. Procedures for identification of the waste management actions proposed for each different waste type, including re-using, recycling, recovery and disposal (in accordance with the waste hierarchy priorities).

2.3 Monitoring

2.3.1 Checks and Records

All stores on site of oil, fuel, chemicals etc will be regularly checked (in particular in extreme weather conditions) for evidence of leaks or spills. The timing of each of these checks is detailed in Section 3. These checks will be visual inspections to look for evidence of contamination.

Records of all visual checks will be maintained and be available for inspection on request. Waste Management will be a regular item on team meetings as required by the CEMP. Waste Management Practices will be revised at these meetings. A waste audit will be carried out every six months (Section 2.3.3).

2.3.2 Waste Inventory

A waste inventory will be maintained and kept up to date. It will include an inventory of all waste materials leaving the site for disposal and the name of the licensed operator and intended disposal facility. A Waste Inventory Spreadsheet will be added to this plan by the Contractor.

2.3.3 Monitoring of Site Waste Management Plan

The contractor will appoint a person to implement and monitor the Waste Management Plan. This will be the Environmental Manager.

As stated, the Waste Management Plan will include an inventory of the types and estimates of the waste to be produced on site. The appointed person will ensure that a Site Waste Audit is carried out every six months.

2.4 Completion, Audit and Review

Upon completion of construction works but before the end of the defect's correction period, a Waste Management Review will be undertaken. The aim of this is to identify project progress, measure compliance with licenses and to consider lessons learnt.
A Waste Management Review will be carried out at the end of construction.

2.5 Site Waste Management as Part of Site Induction process

All workers on-site at Kellystown the Proposed Development will be fully briefed with the Waste Management Plan. All site visitors will be briefed on appropriate waste

storage and disposal units. Littering on site will not be tolerated. All personnel have a Duty of Care to challenge others noted littering on site.

3 GENERAL WASTE MANAGEMENT PRINCIPLES

3.1 The Contractor will avoid or minimise the volume of waste generated.

3.2 Waste will be stored a minimum of 65m from nearby watercourses or drains at the Kellystown Site.

3.3 Waste storage and disposal will be carried out in a way which prevents pollution in compliance with legislation.

3.4 All waste is to be transported off-site to a licensed disposal site. The three nearest licensed waste facilities are over 5 km to the south of the Site in Drogheda, Co. Louth.

Waste Facilities:

- Drogheda Landfill - Drogheda Borough Council (RegCD: W0033) is 6.2 km south.
- Height for Hire Ltd (RegCD: W0154) is 6.3 km south.
- Stagrennan Polder (RegCD: W0052) has a surrendered license and is 7.5 km south.

Excavated material along the Grid Connection Route will be removed to a licenced waste facility. A list of waste facilities within the vicinity of the Proposed Development has been included in **Appendix I**. Duty of Care Waste Control dockets must be produced and filed on site with each load. These **MUST** detail:

- An adequate description of the waste
- Where the waste came from
- The appropriate code from the List of Wastes Regulations for the waste (commonly referred to as the European Waste Codes)[2]
- Information on the quantity and nature of the waste and how it is contained

[2] Monitoring & Assessing Water [Available at: https://www.epa.ie/our-services/monitoring--assessment/waste/] [Accessed at 27/06/2024]

- Names and addresses of the transferor at Kellystown Wind Farm (the person currently in control of the waste) and the transferee (usually either a registered waste carrier or a waste management licence holder (waste manager)
- The Standard Industry Classification code (2007 or 2003 for hazardous waste only) of the business from where the waste was received
- Where applicable, indicate that the Waste Hierarchy has been complied with
- The place, date and time of transfer of the waste. If using a season ticket, the period for which it is valid (i.e., valid from dd/mm/yyyy to dd/mm/yyyy)

3.5 Only trained operatives will handle hazardous substances. All stored hazardous waste will be clearly labelled.

3.6 All oil storage facilities will have secondary containment facilities of 110% storage capacity (e.g., bund, enclosure, drip tray). All of these will be regularly inspected for visual signs of leaks or something that would impact on their capacity – e.g., a drip tray full of rainwater.

3.7 Waste storage areas will be clearly located and signed. Key waste streams will be separated.

3.8 All waste will be transported from site at appropriate frequency by a registered waste contractor to prevent over-filling of waste containers.

3.9 Frequency of Checks. The contractor will ensure that all storage facilities are checked on a weekly basis. The checklist for completion is attached below.

VISUAL WASTE STORAGE CHECKLIST		
Waste Area Checked	**Date Checked**	**Initials of Checker**
GENERAL OFFICE WASTE		
BOWSER		
PORTALOO		
EXCAVATED SOIL		
WASHINGS		
CONCRETE		
OIL		
HAZARDOUS WASTE e.g., 17 05 03* soil and stones containing hazardous substances 3		

[3] Monitoring & Assessing Water [Available at: https://www.epa.ie/our-services/monitoring--assessment/waste/] [Accessed at 27/06/2024]

4 ANTICIPATED CONSTRUCTION WASTE STREAMS

As stated previously, the Contractors will outline prior to commencement of construction all anticipated waste streams to be produced at the construction site at the Kellystown Proposed Development.

4.1 Waste from Staff Facilities

4.1.1 General Waste Generate at Staff facilities

There will be the typical waste generated in an office such as left-over food and sandwich wrappers. This is a non-hazardous waste. All such waste will be stored appropriately and safely from wind, rain and wild animals that often tear apart rubbish bags. Provision for separation of waste streams will be provided so that e.g., paper and cardboard waste and bottles may be recycled.

4.1.1 Sewage

The self-contained port-a-loo units which will be managed and serviced regularly (by removal of the contents by tanker to a designated sewage treatment plant such the Waste Treatment Plant, Dunleer (Reg No D0111-01) which is 4.75 km North. The waste will be removed off site on completion of construction. Toilet waste is a non-hazardous waste.

4.2 Concrete

4.2.1 Concrete Waste and wash-out water

- Precast concrete will be used wherever possible i.e., formed offsite. Elements of the Proposed Development where precast concrete will be used have been identified and are indicated in the CEMP. Elements of the Proposed Development where the use of precast concrete will be used include structural elements of watercourse crossings (single span / closed culverts) as well as Cable Joint Bays. Elements of the Proposed Development where the use of precast concrete is not possible includes turbine foundations and joint bay pit excavations. Where the use of precast concrete is not possible the following mitigation measures will apply.
- The acquisition, transport and use of any cement or concrete on site will be planned fully in advance and supervised at all times.
- Vehicles transporting such material will be relatively clean upon arrival on site, that is; vehicles will be washed/rinsed removing cementitious material leaving the source location of the material. There will be no excess cementitious material

on the vehicle which could be deposited on trackways or anywhere else on site. To this end, vehicles will undergo a visual inspection prior to being permitted to drive onto the proposed site or progress beyond the contractor's yard. Vehicles will also be in good working order.

- Any shuttering installed to contain the concrete during pouring will be installed to a high standard with minimal potential for leaks. Additional measures will be taken to ensure this, for example the use of plastic sheeting or other sealing products at joints.
- Concrete will be poured during metrological dry periods/seasons. This will reduce the potential for surface water run off being significantly affected by freshly poured concrete. This will require limiting these works to dry meteorological conditions i.e. avoid foreseen sustained rainfall (any foreseen rainfall event longer than 4-hour duration) and/or any foreseen intense rainfall event (>3mm/hour, yellow on Met Eireann rain forecast maps), and do not proceed during any yellow (or worse) rainfall warning issued by Met Eireann. This also will avoid such conditions while concrete is curing, in so far as practical.
- Ground crew will have a spill kit readily available, and any spillages or deposits will be cleaned/removed as soon as possible and disposed of appropriately.
- Pouring of concrete into standing water within excavations will be avoided. Excavations will be prepared before pouring of concrete by pumping standing water out of excavations to the buffered surface water discharge systems in place.
- Temporary storage of cement bound sand (if required) will be on hardstand areas only where there is no direct drainage to surface waters and where the area has been bunded e.g., using sand-bags and geotextile sheeting or silt fencing to contain any solids in run-off.
- No surplus concrete will be stored or deposited anywhere on site. Such material will be returned to the source location or disposed of off-site appropriately. A concrete washings area can be seen on Drawing

4.3 Chemicals, Fuel and Oils

All storage containers of over 200 litres will have a secondary containment of 110% capacity to ensure that any leaking oil is contained and does not enter the aquatic environment. Oil waste is classified as hazardous.

A **Chemical and Waste Inventory will be kept**. This inventory will include:

- List of all substances stored on-site (volume and description);
- Procedures and location details for storage of all materials listed; and
- Waste disposal records, including copies of all Waste Transfer Notes detailing disposal routes and waste carriers used.
- Any tap or valve permanently fixed to the mobile unit through which oil can be discharged to the open or when delivered through a flexible pipe which is fitted permanently to the mobile unit, will be fitted with a lock and locked shut when not in use.
- Sight gauges will be fitted with a valve or tap, which will be shut when not in use. Sight gauge tubes, if used will be well supported and fitted with a valve.
- Mobile units must have secondary containment when in use/out on site.

Where mobile bowers are used on site guidelines will be followed so that:

- Any flexible pipe, tap or valve will be fitted with a lock where it leaves the container and be locked shut when not in use;
- Flexible delivery pipes will be fitted with manually operated pumps or a valve at the delivery end that closes automatically when not in use. Where possible, a nozzle designed to dispense oil is used;
- The pump or valve will have a lock and be locked shut when not in use.

4.3.1 Transport of Diesel/Oils to the site

Diesel is classified as a dangerous substance. Under the EU Directive 95/55/EC all such dangerous substances will be conveyed in a container that compiles with the ADR. As such the manufacturer of each bowser will provide certification to contractors that the following:

- A leak-proof test certificate
- A copy of the IBC approval certificate
- An identification plate attached to the container

For loads in excess of 1000 litres (220 gallons), the bowser vehicle driver will have undergone training and hold a special license.

4.3.2 Refuelling on Site

Where possible all refuelling on site will be within the temporary compound within the re-fuelling area (see Drawing). Only essential refuelling (e.g., cranes) will be carried out, outside of this area, but not within 65m of any watercourse. In such cases a non-permeable High-density Polyethylene (HDPE) membrane will be provided beneath connection points to catch any residual oil during filling and disconnection. This membrane will be inspected and if there is any sign of oil contamination, it will be removed from site by a specialist licensed waste contractor.

All vehicles will be well maintained and free from oil or hydraulic fuel leaks.

4.4 Packaging

Packaging will be brought on Site and can include cardboard, wood and plastics used to package turbine components. In accordance with the waste hierarchy, packaging will be returned to the originator ahead of re-use or recycling. Where this is not possible, waste will be separated as appropriate and safely stored on site appropriately site in anticipation of recycling. This waste is non-hazardous.

4.5 Waste Metals

Waste metals from concrete reinforcing etc will have commercial value and will be re-used or recycled with the appropriate licensed waste contractor. This waste is non-hazardous.

5 EXCAVATED MATERIALS

Excavated materials will be required for habitat and ecological restoration, reprofiling and backfilling in accordance with the **Spoil Management Plan**. As such, excavated materials will not be classified as waste except along the Grid Connection Route.

5.1 Anticipated materials to be excavated on site.

No excavated material will be removed from within the Site Boundary. Road surfacing will be stored in slabs for reuse/recycling. Please see Chapter 16: Traffic and Transportation for nearest soil and store sites.

It is anticipated that 27,902m^3 of topsoil and 38,499m^3 of subsoil will be excavated during construction.

5.1.1 Classification and Plan for Excavated Materials on site

The contractor will liaise with the Local Authority on all aspects of waste management relating to excavated soil to ensure compliance during construction. The Environmental Manager will ensure all mitigation measures outlined are adhered to. All excavated materials are to be reused on site except that which is excavated along the Grid Connection Route. A list of potential Local Authority licenced facilities in the vicinity of the Proposed Development is included in **Appendix I**.

5.2 Estimated Volumes of Soil

Volumes are outlined in a **Spoil Management Plan** and provided in Management Plan 4 of the CEMP. Whilst there will be significant volumes of soil to be excavated on site during the construction of Kellystown the Proposed Development, excavated material will be used for reinstatement and restoration works. Where this is not possible, e.g., along the Grid Connection Route and Turbine Delivery Route where some soils contain hydrocarbons (hazardous material), the waste materials will be taken to a licenced facility by an authorised permit holder.

The **Spoil Management Plan** outlines the re-use proposals for excavated materials.

5.3 Waste or Not Waste

Any excavated materials which are not intended to be disposed of, or discarded, will NOT be considered as waste. It will not be regulated under waste management controls where the following six criteria are ALL met:

i) Use is a necessary part of the planned works
ii) Material is suitable for that use
iii) Material does not require any processing or treatment before it is reused
iv) No more than the quantity necessary is used
v) Use of the material is not a mere possibility but a certainty and
vi) Use of the soil will not result in pollution of the environment or harm to human health

Where excavated soil on site does not meet all of the six criteria listed above, for the purposes of waste description, it would fall under chapter 17 of the European Waste Catalogue (EWC) Construction and Demolition wastes. The EWC code '17 05 04 soil and stones (non-hazardous) waste or 17 05 03* soil and stones containing hazardous substances would apply. This will occur on along the Grid Connection Route and parts of the Turbine Delivery Route.

The principles of the waste hierarchy will be strictly adhered to avoid and minimise production of excavated soil, and to ensure that all materials are recovered and reused on site.

6 PEST CONTROL

Responsible rodenticide use will be practiced on site. Incorrect use and management of rodenticide can indirectly have a negative impact on wildlife. Best practice use include:

- Pest control on site will be undertaken by a trained professional.
- Rodenticide baits will only be used for as long as is necessary to achieve satisfactory control.
- Good house-keeping and proper waste management practices will ensure there are no flood sources available to vermin.
- A record of all bait points and the amount of bait laid will be maintained during the treatment. Activity will be noted at each bait point, including any missing or disturbed baits, as the treatment progresses.
- By carefully recording the sites of all bait points, responsible users of rodenticides will return to these sites at the end of the treatment and remove uneaten bait so that it does not become available to wildlife.
- The bodies of dead rodents may carry residues of rodenticides and, if eaten by predators or scavengers, may be a source of wildlife exposure to rodenticides.
- Regular searches for rodent bodies will be carried out, both during and after the treatment period. Bodies may be found for several days after rats have eaten the bait and rats may die up to 100 metres or more away from the baited site.
- Any rodent bodies will be removed from the Site and disposed of safely using the methods recommended on the label.
- Bait will be sufficiently protected to avoid accidentally poisoning other mammals and birds. Natural materials will be used where possible.
- Bait stations will be appropriate to the prevailing circumstances. They will provide access to the bait by rodents, while reducing the risks of non-target access and interference by unauthorised persons. They will protect the bait from contamination by dust or rain. Their design, construction and placement will be such that interference is minimised.
- On completion of the treatment, records will be updated to signify that the infestation is controlled and that, as far as reasonably practical, all steps have been taken to ensure that the site is now free of rodenticide bait.

WASTE INVENTORY

THE CONTRACTOR WILL PREPARE AND UPDATE REGULARLY A WASTE INVENTORY FOR INCLUSION IN THE WASTE MANAGEMENT PLAN

APPENDIX I

LICENCED FACILITIES

Local Authority Waste Facility Register: Louth;			
Authorisation Reference	**Name**	**Trading As**	**Address**
W0033-01	Drogheda Landfill - Drogheda Borough Council	Waste	Collon Road, Mell, Drogheda, Louth, A92 N126
W0154-01	Height for Hire Ltd	Waste Transfer Station	Mell, North Road, Drogheda, Louth
W0052-02	Stagrennan Polder	Dredging Facility	Marsh road, Stragrennan, Drogheda, Louth
W0278-01	Roadstone Limited (Mullaghcrone Quarry)	Soil Recovery Facility	Mullaghcrone Quarry, Platin and Cruicerath Townlands, Donore, County Meath, Meath
W0151-01	Murphy Concrete Manufacturing Limited	Concrete waste	Sarsfieldtown, Gormanstown, Meath
W0103-01	Knockharley Landfill	Waste	Townlands of Knockharley, Flemingstown and Tuiterath, Navan, Co. Meath,, Meath
W0219-01	Organic Gold (Marketing) Ltd.	Composting	Wilkinstown, Navan, Meath
W0195-02	Padraig Thornton Waste Disposal Limited (Kilmainhamwood)	Waste	Ballynalurgan, Kilmainhamwood, Kells, Meath, A82A6P9
W0091-01	Bailieborough Landfill	Waste	Tanderagee, Bailieborough, Cavan
W0300-01	Kilsaran Concrete	Concrete waste	Halverstown, Kilcullen, Kildare, R56 DD21
W0182-01	Natures Way Composting Ltd	Composting	Corbollis, Ready Penny, Dundalk, Louth
W0034-02	Dundalk Landfill & Civic Waste Facility - Dundalk Town Council	Waste	Newry Road, Dundalk, Louth
W0296-01	Kilsaran Concrete Unlimited Company	Concrete waste	Tullykane, Kilmessan, Meath
W0010-02	Basketstown Landfill Facility	Waste	Basketstown, Summerhill, Meath
W0129-02	Integrated Materials Solutions Limited Partnership	Waste	Hollywood Great, Nags Head, The Naul, Dublin
W0265-01	Clashford Recovery Facilities LTD	Soil Recovery Facility	Naul Townland, Naul, Meath

Local Authority Waste Facility Register: Louth;			
Authorisation Reference	**Name**	**Trading As**	**Address**
W0272-01	Milverton Waste Recovery Facility	Waste	Milverton, Skerries, County Dublin, Dublin
W0093-01	Ballyjamesduff Landfill	Waste	Derrylurgan, Ballyjamesduff, Cavan
W0144-01	Oxigen Environmental (Coes Road)	Waste Management	Coes Road, Dundalk, Louth
W0262-01	Kiernan Sand & Gravel Ltd	Gravel/Sand waste	Foxtown, Summerhill, Co. Meath, Meath