

**UWF Grid Connection  
Environmental Management Plan (2019)**

**Tab 5  
Waste Management Plan**



*October 2019*



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# Waste Management Plan

## 1.1 Introduction

This Waste Management Plan (WMP) will provide the basis for the preparation of a final WMP, which will include any relevant planning conditions. The appointed Contractor will appoint a Project Supervisor Construction Stage (PSCS), who will draw up the final WMP and will be responsible for carrying out and managing the construction wastes in accordance with the WMP.

### 1.1.1 Objective of the Waste Management Plan

This Waste Management Plan (WMP) will be implemented to minimise waste, promote a practice of reduce, reuse and recycle where possible and ultimately to ensure the correct handling and disposal of construction waste streams in accordance with the Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects, Department of the Environment, July 2006.

Construction wastes will be managed and disposed of in a way that ensures the provisions of the Waste Management Acts and new Southern Waste Management Plan.

### 1.1.2 Scope of Waste Management Plan (WMP)

This WMP concentrates on the construction stage of the UWF Grid Connection which is the critical phase in the context of waste management.

### 1.1.3 Responsibilities

The responsibility of construction waste management will be placed with the Project Supervisor Construction Stage (PSCS) so that all reuse, recycling, wastage and necessary disposal can be monitored as close to the source as possible.

The PSCS will be assigned the authority to instruct all site personnel to comply with the specific provisions of this Plan. The PSCS will work closely with the Appointed Contractor to ensure that the Plan is implemented and updated when necessary in order to ensure that a waste management hierarchy of prevent, reduce, reuse, recycle and responsibility is implemented throughout the construction stage of the project.

An Environmental Clerk of Works will be employed by the Project Promoter to monitor the implementation of the WMP throughout the construction stage of the UWF Grid Connection.

All site personnel will have a responsibility to keep the construction works areas tidy, not to litter and to bring wastes back to the site compounds on a daily basis for storage.

## 1.2 Overview of UWF Grid Connection

UWF Grid Connection, comprises the following elements:

- A new 110kV electrical substation at Mountphilips townland (to be called Mountphilips Substation)
- A new 110kV underground electrical cable connecting the Mountphilips Substation to the consented UWF substation (to be called Mountphilips – Upperchurch 110kV UGC or 110kV UGC), and
- ancillary works, which include a new permanent access road, a permanent site entrance and temporary site compound at the Mountphilips Substation site.

The layout of the UWF Grid Connection is illustrated on **Figure WMP 1: Location of the Grid Connection on OSI Discovery Mapping**, which is included at the end of this plan (Section 1.6).

The purpose of UWF Grid Connection is to connect the Consented UWF Substation at Upperchurch Windfarm (UWF) to the proposed Mountphilips Substation at Mountphilips. Mountphilips Substation will be connected to the existing, adjacent Killonan - Nenagh 110kV overhead line and thereby export electricity, from Upperchurch Windfarm when constructed and operational, to the national grid.

This Waste Management Plan forms part of the UWF Grid Connection Environmental Management Plan, which is appended to the UWF Grid Connection EIA Report (2019). The characteristics of the UWF Grid Connection are described in more detail in the EIA Report, see **Chapter 5: Description of Development (UWF Grid Connection)**, in **Volume C2 EIAR Main Report**. The construction stage, is described at Section 5.3.1, construction materials which will be brought onto the site are described at Section 5.3.1.8, and wastes are described at Section 5.4.3, of Chapter 5: Description of the Development (UWF Grid Connection).

### 1.3 Construction Waste & Material Arising

The greatest potential for waste occurs during the construction stage of the project.

In the course of the construction of the UWF Grid Connection, the following construction wastes/ excavated materials will arise:

**Table 1: Construction Wastes/Excavated Materials**

Construction Waste Material	European Waste Code
Concrete	17 01 01
Wood pallets, timber shuttering, timber profiles (cables trench)	17 02 01
Hedgerow and Trees	03 03 01
Component packaging - paper/plastic/timber	17 02 01 / 17 02 03/ 20 01 01
Hazardous Materials – oil contaminated material, oily rags, construction vehicle fuel and oil , contaminated excavated material	17 03 02
Control building general materials – tiles, blocks, insulation materials, plaster, plastic covering and pipes, concrete	17 01 07/ 17 06 04/20 01 01
Canteen Waste – mixed municipal waste, waste water from washing and toilet facilities	20 03 01
Public Road Excavated Materials – Soil and Subsoil and rock	17 05 04
Public Road Excavated Materials – Bitumen Bound Mixtures	17 03 02
Excavated Materials arising – Soil, Subsoil and rock (includes old masonry culverts)	17 05 04

## 1.4 Management of construction waste/excavated materials

The waste materials will be moved off site by a specialist waste service contractor, who will possess the requisite authorisations for the collection and movement of waste, and who will bring the material to a facility which holds the requisite license for the specific waste.

All waste will be segregated and securely stored at the temporary compound, at the Mountphilips Substation site, in skips and receptacles, which will be covered to protect the contents from the weather. A licensed operator, will collect and transfer the skips/receptacles of both recyclable and non-recyclable wastes as they are filled.

The temporary compound will also accommodate the temporary site offices and toilet/washing facilities and this area will be secured by fencing and manned security 24/7 to prevent unauthorised access.

### 1.4.1 Waste Collection And Waste Facilities Operators

A number of appropriate licensed operators have been identified in the area.

**Table 2: Licenced Waste Collection Contractors and Licenced Waste Facilities**

Permit Number	Permit Type	Name of Permit Holder	Address of Waste Facility	Types of Waste Permitted
NWCPO-12-02583-02	Licenced Waste Carrier	Acorn Recycling 0504-57800	Galmoy, Co. Tipperary	Oils Chemicals Hazardous Waste 17 03 02 - Bitumen Mixtures
WFP-T-16-004-01	Licenced Waste Facility	Kellys of Fantan 0504-52118	Fantan, Co. Tipperary	17 01 01 – Concrete 17 03 02 - Bitumen Mixtures 17 05 04 – Soils and Subsoil
NWCPO-17-11915-01	Licenced Waste Carrier			
WFP-T-08-0003-02	Licenced Waste Facility	Fogarty Concrete 0504-52151	Gurrane, Co. Tipperary	17 01 01 – Concrete 17 01 07 – Mixtures of concrete blocks and tiles 17 05 04 – Soils and Subsoil and Rock
NWCPO-08-10599-03	Licenced Waste Carrier			
WFP-T-08-0003-02	Licenced Waste Facility	Kieran Kelly Haulage 065-6893012	Newmarket on Fergus, Co. Clare	17 01 01 – Concrete 17 01 07 – Mixtures of concrete blocks and tiles 17 03 02 - Bitumen Mixtures 17 05 04 – Soils and Subsoil and Rock
NWCPO-11-05-682-02	Licenced Waste Carrier			
WO041-01	Licenced Waste Facility  Licenced Waste Carrier	Enva 061-707400	Shannon, Co. Clare	Chemicals Hazardous Waste
WO184-02	Licenced Waste Facility	Enva 057-8678600	Portlaoise Co. Laois	Oils Hazardous Waste 17 02 01- Wood



	Licenced Waste Carrier			17 02 03 – Plastic 17 05 04 – Soils and Subsoil and Rock
WO0145-02	Licenced Waste Facility	Enva 021-4387200	Monkstown, Co. Cork	Waste Water
Recycling Facility		Donohill Civic Amenity Centre 062 76277	Donohill, Co. Tipperary	17 02 01- Wood 17 02 03 – Plastic 17 06 04 - Insulation materials 20 01 01 – Paper and Cardboard 20 03 01 – Mixed Municipal Waste
Recycling Facility		Nenagh Recycling Centre 076 1065000	Nenagh, Co. Tipperary	17 02 01- Wood 17 02 03 – Plastic 17 06 04 - Insulation materials 20 01 01 – Paper and Cardboard 20 03 01 – Mixed Municipal Waste
Recycling Facility		Cashel Civic Amenity Site 062 63294	Cashel, Co. Tipperary	17 02 01- Wood 17 02 03 – Plastic 17 06 04 - Insulation materials 20 01 01 – Paper and Cardboard 20 03 01 – Mixed Municipal Waste

General waste, waste water, hazardous waste, chemical waste and public road arisings will be collected from the construction site by a licensed operator for that waste material and transported to their approved licensed facilities.

#### 1.4.2 Excavated materials arising from the 110kV UGC along the public road

Outside the Mountphilips Substation site, the excavated material from the 110kV UGC trenches in the public road and in the private paved road will be collected at the works location by a licensed operator and transported to their approved licensed facilities. There will be a total of 23,380m<sup>3</sup> of public road arising: 20,640m<sup>3</sup> of subsoil (Waste Code: EWC 17 05 04) and 2,740m<sup>3</sup> of bitumen mixtures (Waste Code: EWC 17 03 02). These arising can be transported and disposed of by all operators list in the above Table 2.

Excavated material from the sections of the 110kV UGC within 15m of an Invasive Species infestation, will be classed as Hazardous Waste and disposed of as potentially contaminated material (17 03 02), by a licensed contractor to a suitably licensed waste facility. This amount to c.760m<sup>3</sup> of the total 23,380m<sup>3</sup> of excavated material.

#### 1.4.3 General Building Materials – concrete, timber, metal, packaging etc.

The PSCS will ensure that materials are ordered so that the quantity delivered, the timing of the delivery and the storage of the materials does not create unnecessary waste.

All individual waste streams will be identified at source, separated into recyclable and landfill waste and stored in designated skips in a designated part of the Temporary Compound. When full, the skips will be collected by authorised waste contractor.

#### 1.4.4 Canteen Wastes/WC facilities

Self-contained toilets and washing facilities, with integrated waste water storage tanks, will be provided for construction workers at the temporary site compound, with portable self contained toilets provide at works locations on the public roads, outside the Mountphilips Substation site. The waste water storage tanks will be emptied as needed, by the approved licensed operator, and transported to an approved water treatment plant.

All toilets will be serviced on a weekly basis. A record of servicing will be kept by a licensed waste removal operator. Servicing will include internal cleansing, emptying and recharging with water and toilet additive and replenishing of all consumables

Regular housekeeping of the temporary canteen/toilet and washing facilities will be carried out and this general waste will be stored secure from weather and vermin at the temporary compound, and collected regularly by the approved operator.

#### 1.4.1 Hazardous materials

Appropriate storage of all hazardous wastes, such as waste oil, oily rags and contaminated materials will be in a secure, covered, bunded area in a designated part of the Temporary Compound. Storage of any hazardous wastes produced will be kept separate from other waste materials, in order to avoid further contamination.

Contaminated material arising during the construction of UWF Grid Connection will be collected by an authorised waste contractor and transported to their facility

Excavated material from the sections of the 110kV UGC within 15m of an Invasive Species infestation, will be classed as Hazardous Waste and disposed of as potentially contaminated material. Once excavated, this will be removed immediately by a licensed contractor to a suitably licensed waste facility. Any contaminated material removed from vehicles entering the Mountphilips Substation site or from delivery vehicles at works areas along the public roads, will be stored in a designed container at the Temporary Compound for removal by a a licensed contractor to a suitably licensed waste facility.

To protect the environment and site workers, off-site removal by the authorised operator, will be organised on a regular basis.

#### 1.4.2 Training & Communication

During Site Induction training, personnel will be informed of the objectives of the WMP and their responsibilities under the Plan.

Copies of the Waste Management Plan (WMP) will be made available to all relevant personnel on site. Posters will be designed to reinforce the key messages within the Plan and will be displayed prominently for the benefit of site staff.

## 1.5 Waste Auditing

The PSCS will arrange for full details of all arisings, movements and treatment of construction waste discards to be recorded during the construction stage of the Project.

Each consignment of construction waste taken from the site and excavated materials arising on-site will be subject to documentation, which will conform to the table below. This will ensure full traceability of the material to its final destination.

**Table 3: Waste Disposal Record Sheet**

Waste Disposal Record Sheet	
Name of Project of Origin	UWF Grid Connection (e.g. Temporary Compound)
Material being Transported	e.g. Canteen Waste Water
Quantity of Material	tonnes
Date of Material Movement	dd/mm/yyyy
Name of Carrier	e.g. Enva
Destination of Material	e.g. Monkstown, Co. Cork
Proposed Use	e.g. treatment under EPA license before discharge to waters

Details of the inputs of materials to the construction site and the outputs of wastage arising from the Project will be recorded by the PSCS in a Waste Audit, which will identify the amount, nature and composition of the waste generated on the site.

The Waste Audit will examine the manner in which the waste is produced and will provide a commentary highlighting how management policies and practices may inherently contribute to the production of construction waste.

### 1.5.1 Waste Audit Report

The measured waste quantities will be used to quantify the costs of management and disposal in a Waste Audit Report. This report will be produced by the PSCS using inputs from the Waste Audit. The total cost of construction waste management will be measured and will take account of the purchase cost of materials, handling costs, storage costs, transportation costs, revenue from sales, disposal costs etc.

Costs will be calculated for the full range of construction waste materials, using the format shown in the table below:

**Table 4: Waste Audit Report**

Waste Audit Report	
Waste Material	Estimated Quantities & Costs
Purchase cost of general building materials i.e. import Costs	(€)
Materials Handling Costs	(€)
Material Storage Costs	(€)
Material Transportation Costs	(€)
Revenue from Material Sales	(€)
Material Disposal Costs	(€)
Material Treatment Costs	(€)
Total Waste General Building Materials Management Costs	(€)
Unit Waste General Building Materials Management Costs	(€)

(Sample relates to General Building Materials – separate record forms will be compiled in respect of each waste material and excavated soil & stone arising).


Final details of the quantities and types of construction waste arising from the Project will be forwarded to the Environment Section, Tipperary County Council.


1.6 Figures and Mapping





Legend:

 UWF Grid Connection - 110kV UGC

 UWF Grid Connection -  
Mountphilips Substation

 Consented Upperchurch  
Windfarm Substation



Project:

UWF Grid Connection (2019)

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