



Meath Waste-to-Energy

Site Sustainability Project 2020

Environmental Impact Assessment Report

Vol 2: Main Text

Preface

This Environmental Impact Assessment Report (EIAR) for the proposed Site Sustainability Project consists of three volumes, of which this is the second:

Volume 1 Non-Technical Summary (NTS)

Volume 2 EIAR (Main Text)

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Volume 2

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Glossary of Terms

µg	microgram (10 ⁻⁶ gram)
AA	Appropriate Assessment
ACA	Architectural Conservation Area
AER	Annual Environmental Report (submitted to the EPA under the IE licence)
AGI	Above Ground Installation
Alluvium	Sediment deposited by flowing water
aOD	Above Ordnance Datum
AQS	Air Quality Standards
Aquifer	A geological unit that stores and transmits significant quantities of groundwater under normal hydraulic conditions
barg	A unit used for the measurement of pressure (referred to as gauge pressure)
BAT	Best Available Techniques
Berm	Raised bank, artificial embankment
BGE	Bord Gáis Éireann, the Irish gas board (now called Gas Networks Ireland GNI)
bgl	Below ground level
BTEX	Benzene, Toluene, Ethylbenzene and Xylene
BTO	British Trust for Ornithology
BREF	BAT reference document published by the European Commission under the Industrial Emissions Directive IED, 2010/75/EU)
Carboniferous	The geological period between 355 and 290 million years ago
CCGT	Combined Cycle Gas Turbine
CCTV	Close Circuit TV
CD	Chart Datum
CDM	Clean Development Mechanism
CEMP	Construction Environmental Management Plan
C.Eng	Chartered Engineer
CHP	Combined Heat and Power
CMLI	Chartered Member of the Landscape Institute
CITES	Convention of International Trade of Endangered Species
CIRIA	Construction Industry Research and Information Association
CO ₂	Carbon Dioxide
COP21	Conference of the Parties to the Convention (United Nations Framework Convention on Climate Change)
cSAC	Candidate Special Areas of Conservation
CRTN	Calculation of Road Traffic Noise
CSO	Central Statistics Office
CV	Calorific Value
dB	decibel

dB _(A)	The “A” suffix denotes the fact that the sound levels have been “A-weighted” in order to account for the non-linear nature of human hearing.
DAHG	Department of Arts, Heritage and Gaeltacht
DEFRA	Department of the Environment Food and Rural Affairs (UK)
DeNO _x	Removal of nitrogen oxides
DETR	Department of the Environment, Transport & the Regions (UK)
DOC	Dissolved Organic Carbon
DOEHLG	Department of the Environment, Heritage and Local Government
EHS	Environmental Health and Safety
EIAR	Environmental Impact Assessment Report
ELV	Emission Limit Value
EPA	Environmental Protection Agency
ERT	Emergency Response Team
ETS	Emission Trading Scheme
EU	European Union
EWC	European Waste Catalogue
Excavation (Archaeology)	For archaeology, excavation means the manual and mechanical excavation by an archaeologist-led team with specific objectives as regards information, preservation, recording, etc. of archaeological information. Its purpose is to fully investigate archaeological deposits and features
Ferrous metals	Term for a group of metals that contain iron and share similar properties e.g. aluminium
fg	femtogram (10 ⁻¹⁵ gram)
Flue Gas	Combustion exhaust gas produced during the incineration process
Fluorinated Gases	Gases containing fluoride that are classed as a greenhouse gas
Gasification	Gasification is the conversion of a solid or liquid feedstock into combustible gas by partial oxidation under the application of heat and water.
GHG	Greenhouse Gas
GHS	Geological Heritage Site
GLC	Ground Level Concentration
Groundwater	Water that occupies pores and crevices in rock and soil, below the surface and above a layer of impermeable material
GSI	Geological Survey of Ireland
GWP	Global Warming Potential
Ha	Hectares
Habitat	The dwelling place of a species or community which provides a particular set of environmental conditions
HAZID	Hazard Identification and Risk Assessment
HAZOP	Hazard and operability study
HEFS	High End Future Scenarios
HEPA	High Efficiency Particulate Air (filter)

HF	Hydrogen fluoride
HGU	Hydrogen Generation Unit
HGV	Heavy Goods Vehicle
HSA	Health and Safety Authority
HVL	High Value Landscape
IAH	International Association of Hydrogeologists
ICOMOS	International Council of Monuments and Sites
IED	Council Directive 2010/75/EU on Industrial Emissions Directive
IEEM	Institute of Ecology and Environmental Management
IGI	Institute of Geologists of Ireland
IGV	Interim Guideline Values
In-situ	In its original place, for archaeology it refers to the preservation of archaeological sites/features without disturbance
IPCC	Intergovernmental Panel on Climate Change
IPPC	Integrated Pollution Prevention and Control
ISO	International Standards Organisation
I-TEQ	International Toxic Equivalents
I-WeBS	Irish Wetland Bird Survey
JI	Joint Implementation
JT	Joint Implementation
kph	Kilometres per hour
L_{A90}	Sound level that is exceeded for 90% of the sample period (A-weighted). It is typically used to describe background noise
L_{Aeq}	The equivalent continuous sound level, used to describe a fluctuating noise in terms of a single noise level over the sample period (A-weighted).
$L_{Aeq T}$	The equivalent continuous sound level, used to describe a fluctuating noise in terms of a single noise level over a particular time period (A-weighted).
L_{Amax}	The instantaneous maximum sound level measured during the sample period.
$L_{Ar, T}$	The equivalent continuous sound level at a particular residential location, used to describe a fluctuating noise in terms of a single noise level over a particular time period (A-weighted).
LAP	Local Area Plan
L_{AX}	The “A-weighted” Sound Exposure Level of the event considered (dB)
Leachate	Water that has percolated through soil or other material and contains soluble or suspended solids, or any other component of the material through which it has passed.
LEL	Lower explosive limit
Limit value	Specified in European Union directives or Irish regulation as a concentration of a pollutant which must not be exceeded in order to protect health or the environment
Lithology	Of a rock unit that describes its physical characteristics such as colour, texture, grain size or composition

LOAEL	Lowest Observed Abnormal Effect Levels
LoLo	Lift-on, Lift-off
LoW Codes	List of waste codes (replacing original EWC terminology)
$L_{w(A)}$	Combined Sound Power
Made Ground	Deposits which have accumulated through human activity and may consist of natural materials, e.g. clay and/or man made materials, e.g. refuse
MBT	Mechanical Biological Treatment
Methodology	The specific approach or techniques use to analyse impacts or describe environments
MIAI	Member of the Institute of Archaeologists of Ireland
MIEI	Member of the Institute of Engineers Ireland
MIOA	Member of Institute of Acoustics
mg/Nm ³	milli grams per normal metres cubed
MJ/Kg	Mega Joules per kilogram
Mn	Manganese
mOD	metres above Ordnance Datum
MRFS	Mid-range future scenarios
MSW	Municipal Solid Waste
Mt	Million tonnes
MTCE	Metric tonnes of carbon equivalent
MW	Mega Watts
MWh	Mega Watts per Hour
NAAQS	National Ambient Air Quality Standards
NCDWC	National Construction and Demolition Waste Council
NDP	National Development Plan
ng	nanogram (10 ⁻⁹ gram)
NG4	Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Schedules Activities, Environmental Protection Agency (2012)
NHA	Natural Heritage Area
NIAH	National Inventory of Architectural Heritage
NHWMP	National Hazardous Waste Management Plan
NIS	Natura Impact Statement
NMI	National Museum of Ireland
NMS	National Monuments Service
NO ₂	Nitrogen Dioxide
NO _x	Nitrogen Oxides
NPWS	National Parks and Wildlife Service
NRA	National Roads Authority
NSL	Noise Sensitive Locations
NSS	National Spatial Strategy
O ₂	Oxygen

OD	Ordnance Datum
ODM	Ordnance Datum Malin
OEL	Occupational Exposure Limit
OPW	Office of Public Works
OSI	Ordnance Survey Ireland
Outcrop	An exposure of bedrock
PCDD	Polychlorinated Dibenzo-p-Dioxin
PCDF	Polychlorinated Dibenzofuran
PCU	Passenger Car Units
PEL	Probable effect level
pg	Picogram (10^{-12} gram)
pH	Potential of Hydrogen, measure of acidity or alkalinity of solution
PM ₁₀	Particulate matter less than 10µg (dust)
PM _{2.5}	Particulate matter less than 2.5µg (dust)
pNHA	proposed Natural Heritage Area
Pollution	The direct or indirect alteration of the physical, chemical, thermal, biological, or radioactive properties of any part of the environment in such a way as to create a hazard or potential hazard to the health, safety or welfare of living species.
POP	Persistent Organic Pollutant
PPE	Personal Protection Equipment
PSD	Prevention of significant deterioration
QESH	Quality, Environmental, Health & Safety
QNHS	Quarterly National Household Survey
Quaternary	The most recent Period of geological time (the last two million years)
Red List	In relation to protected species of birds
Rhizome	Underground stem of plants, laterally growing and capable of producing the root and shoot system of a new plant
River Basin District (RBD)	The area of land from which all surface run-off flows through a sequence of streams rivers, and possibly lakes into the sea at a single river, mouth, estuary or delta
RMP	Record of monuments and places
RPS	Record of Protected Structures
Run-off	The flow of water under gravity in open channels
SAC	Special Area of Conservation
SI	Statutory Instrument
SMR	Sites and Monuments Records
SNCR	Selective Non-Catalytic Reduction
SO ₂	Sulphur Dioxide
SPA	Special Protection Area
STEL	Short Term Exposure Limit

Subsoils	Soil lying immediately under the surface soil.
SuDS	Sustainable Drainage System
SWDS	Solid Waste Disposal Sites
SWL	Still water level
t/a	tonnes/annum
TA Luft	Technical Instructions on Air Quality Control – TA Luft. In accordance with article 48 of the Federal Emission Control Law (BimSchG) dated 15 March 1974 (BGBl. I p. 721) Federal Ministry for Environment, Bonn 1986.
TFL	Traffic Modelling Guidelines
TFS	Transfrontier Shipment
TII	Transport Infrastructure Ireland
TOC	Total Organic Carbon
tpa	Tonnes per annum
TU	Toxicity Unit
TRL	Transport Research Laboratory
UN	United Nations
UPS	Un-interruptible Power Supply
USEPA	United States Environmental Protection Agency
VRP	Viewshed Reference Points
Visual envelope	The extent of potential visibility of the proposed development to or from a specific area or feature in the landscape - defined by topography and vegetation
WeBS	Wetland Bird Survey
WEEE	Waste Electrical and Electronic Equipment
WFD	Water Framework Directive
WHO	World Health Organisation
WMP	Waste Management Plan
WWTP	Wastewater Treatment Plant
ZAP	Zone of Archaeological Protection