## **Environmental Impact Statement**

Volume 1 of 3 Main Report

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### Glossary and defined terms

List of Abbreviations	
AOD	Above Ordnance Datum
AOX	Halogenated organics
As	Arsenic
AQS	Air Quality Standards
Ва	Barium
B <sub>[a]</sub> P	Benzo(a)pyrene
BAT	Best Available Techniques
bgl	below ground level
BMW	Biodegradable Municipal Waste (as defined in EU directive 1999/31)
BOD	Biochemical Oxygen Demand
BREF	BAT reference document
BTEX	Benzene, Toluene, Ethylbenzene, Xylene
CCGT	Combined Cycle Gas Turbine
CCTV	Close Circuit Two
Cd	Cadmium
CFD	Computerised fluid dynamics
CIG	Community Interest Group
CIO2	Chlorine dioxide
CO	Carbon Monoxide
Со	Cobalt
CO <sub>2</sub>	Carbon dioxide
CPO	Compulsory Purchase Order
Cr	Chromium
CSO	Central Statistics Office
Cu	Copper
dB	decibel

The "A" suffix denotes the fact that the sound levels have been "A $dB_{(A)}$ weighted" in order to account for the non-linear nature of human

hearing.

**DEFRA** Department of the Environment Food and Rural Affairs (UK) **DETR** Department of the Environment, Transport & the Regions (UK)

DOC Dissolved Organic Carbon

**DOEHLG** The Department of the Environment, Heritage and Local Government

DS/OHSAS Recognised as the standard for a sound working environment EC50 Concentration at which 50% of test organisms are affected by the

substance

EHS Environmental Health and Safety EΙΑ **Environmental Impact Assessment** EIS **Environmental Impact Statement** 

ELV	Emission Limit Value
EPA	Environmental Protection Agency
EPS	Emergency Procedure Strategy
ESB	Electricity Supply Board
EU	European Union
EWC	European Waste Catalogue
fg	femtogram (unit of mass equal to 10 <sup>-15</sup> grams)
.9	Terror grann (anni er meet equal to 10 granne)
FGT	Flue Gas Treatment
FO	Free Residual Oxidant
GHG	Greenhouse Gas
GJ	Giga Joule (joule x 10 <sup>9</sup> )
GLC	Ground Level Concentration
GPS	Global Positioning System
	• •
GSI	Geological Survey of Ireland
GWP	Global Warming Potential
$H_2O_2$	Hydrogen peroxide
Ha	Hectares
HAT	Highest Astronomical Tide
HAZOP	Hazard and operability study
HCI	Hydrogen Chloride
HEPA	High Efficiency Particulate Air (filter)
HF	Hydrogen Fluoride
Hg	Mercury and Mercury
HGV	Heavy Goods Vehicle
HOBr	Hydrogen Fluoride  Mercury  Heavy Goods Vehicle troth  Hypobromous acid reduced the second troth  Hypochlorite coloridate the second troth of the
HOCI	Hypochlorite colority  Health and Safety Authority
HSA	Health and Safety Authority
ID	Induced Draught
IMS	Industria methylated spirits
IPCC	Intergovernmental Panel on Climate Change
IPPC	Integrated Pollution Prevention and Control
ISO	International Standards Organisation
I-TEQ	International Toxic Equivalents
Kow	Octanol-water partition coefficient
KV	Kilovolt
KVA	Kilovolt Amperes
L <sub>A10</sub>	The sound level that is exceeded for 10% of the sample period (A
	weighted). It is typically used as a descriptor for traffic noise
L <sub>A90</sub>	Sound level that is exceeded for 90% of the sample period (A
	weighted). It is typically used to decribe background noise
L <sub>Aeq</sub>	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 <sub>A</sub> max	Instantaneous maximum sound level measured during the sample
	period (A weighted).
L <sub>A</sub> min	Instantaneous minimum sound level measured during the sample
	period (A weighted).
LC50	Lethal Concentration at which 50% of test organisms die.
LCV	Lower Calorific Value (identical to Net Calorific Value).
LFG	Landfill Gas

LOD Limit of Detection

MAPP Major Accident Prevention Policy

Mb millibars

Mbgl metres below ground level
MBT Mechanical Biological Treatment
MDL Maximum Detectable Limit
MHWN Mean High Water Neap
MHWS Mean High Water Spring
MLWN Mean Low Water Neap
MLWS Mean Low Water Spring

Mn Manganese
Mo Molybdenum
m OD Malin Head Datum
MSL Mean Sea Level
MSW Municipal Solid Waste

Mt Mega tonnes (1 mega tonne = 1 million metric tonnes)

MW Megawatt

MWe Megawatt electricity MWh Megawatt hours

MWWTP Municipal Wastewater Treatment Plant

MVA Megavoltvolt Amperes

NATO/CCMS North Atlantic Treaty Organisation's Committee on Challenges of

Modern Society

NAAQS National Ambient Air Quality Standards

NCV Net Calorific Value (identical to Lower Calorific Value)

ng nanogram (10 gram)
NHA Natural Heritage Area

NH<sub>3</sub> Ammonia

NH₄OH Hydroxyl ammonium

Ni Nickel

Nm³ Cubic Metres (Normalised)
NMI National Museum of Ireland

NO<sub>2</sub> Nitrogen Dioxide

NOEC No Observed Effect Concentration

NO<sub>x</sub> Nitrous Oxides

NRA National Roads Authority

O<sub>2</sub> Oxygen

OD Ordnance Datum

OEL Occupational Exposure Limit
PAH Polycyclic Aromatic Hydrocarbons

Pb Lead

PCB Polychlorinated Biphenols

PCDD Polychlorinated Dibenzo-para-Dioxins

PCDF Polychlorinated Dibenzofurans
PCDD/F The sum of PCDD and PCDF

PCE Perchloroethylene

PEC Predicted Environmental Concentration

PEL Probable Effect Level

pH potential of Hydrogen, measure of acidity or alkalinity of solution

pg	picogram (10 <sup>-12</sup> gram)
PM <sub>10</sub>	Particulate matter less than 10µg (dust)
PM <sub>2.5</sub>	Particulate matter less than 2.5µg (dust)
PNEC	Predicted No-Effect Concentration
POP	Persistent Organic Pollutant
PSD	Prevention of Significant Deterioration
PSU	Practical Salinity Unit
QNHS	Quarterly National Household Survey
RMP	Record of Monuments and Places
RPGs	Regional Planning Guidelines
SAC	Special Area of Conservation
Sb	Antimony
SCADA	Supervisory Control And Data Acquisition
SCR	Selective Catalytic Reduction
Se	Selenium
SI	Statutory Instrument
SMR	Sites and Monuments Records
SNCR	Selective non-catalytic reduction
SO <sub>2</sub>	Sulphur Dioxide
SO <sub>x</sub>	Sulphur Oxides expressed as Sulphur Dioxide
SPA	Special Protection Area
STEL	
t/a	tonnes/annum age
TA Luft	tonnes/annum  Technical Instructions on Air Quality Control - TA Luft. In accordance
	with article 48 of the Federal Emission Control Law (BlmSchG) dated
	15 March 1974 (BGB) 721) Federal Ministry for Environment,
	Bonn 1986. Tetrachlorodiben 20-p-dioxin
TCDD	Tetrachlorodibenzo-p-dioxin
TCE	Tricholorgethylene
TDI	Tolerable Daily Intake
TEF	Toxic Equivalence Factor
TEL	Threshold Effect Level
TEQ	Toxic Equivalent
TFS	Transfrontier Shipment
TGD	Technical Guidance Document
THM	Trihalomethane
Ti	Thallium
TOC	Total Organic Carbon
TOMPS	Toxic Organic Micropollutants
TPH	Total Petroleum Hydrocarbons
TRO	Total Residual Oxidant
UN	United Nations
UPS	Un-interruptible Power Supply
V	Vanadium
VOC	Volatile Organic Compounds
WHO	World Health Organisation
WtE	Waste to Energy
WTP	Water Treatment Plant
WWTP	Wastewater Treatment Plant
Zn	Zinc
μg	microgram (10 <sup>-6</sup> gram)

#### **Defined terms**

- "Age Dependency Ratio" means the ratio of those in the population considered to be dependent (below 15 years and above 65 years), to those considered to be of working age (15-64 years).
- "Biocides" means additive to the cooling water system to prevent fouling as recommended in the BREF document on industrial cooling.
- "Boiler ash" has the meaning assigned to it in Chapter 10 "Residues and consumables"
- "Bottom ash" has the meaning assigned to it in Chapter 10 "Residues and consumables"
- "BREF document" means "The Reference Document on the Best Available Techniques for Waste Incineration dated July 2005" published by the European Commission.
- "Commercial Waste" has the meaning given to it in the Waste Management Act from time to time.
- "Construction Period" means the period commencing on the day, which all the conditions required for construction are fulfilled and ending on the Operational Commencement Date
- "Daytime" means the period from 0800 hrs to 2200 hrs
- "Effective Date" means the later of the date on which all the Conditions Precedent set out in Schedule 02 (Conditions Precedent) have been satisfied in accordance with this Agreement;
- "ESB PGS" means ESB Poolbeg Generating Station
- "Fabric filter" also called bag filters are the filter system applied after the boiler to reduce the dust emission from the facility
- "Facility" means the Dublin Waste to Energy facility as constructed and located on the Site
- "FGT residues" means flue gas treatment residues and has the meaning assigned to it in Chapter 10 "Residues and consumables"
- "Fly ash" has the meaning assigned to it in Chapter 10 "Residues and consumables"
- "Household Waste" has the meaning given to it in the Waste Management Act from time to time.
- "Liffey Estuary" is where River Liffey meets the sea and the tide. The Liffey Estuary can be defined as the water body from the Weir at Islandbridge to the end of the North and South Bulls that mark the entrance to Dublin Port.
- "Night-time" means the period from 2200 hrs to 0800 hrs
- "Non-Hazardous Industrial Waste" means Industrial Waste, which is not Hazardous Waste
- "Operational Commencement Date" means the date on which the 720 hours continous operation test is passed.
- "Operational Period" means the period of up to 30 years commencing on the Operational Commencement Date
- "WTW" means Ringsend Wastewater Treatment Works
- "Site" means the area of land located at Poolbeg, Dublin as more particularly defined by the redline area in drawing BE002 'Definition of sites'
- "Synergen" means the Synergen Dublin Bay Power Plant

"Temporary possession area" means the area of land located at Poolbeg, Dublin as defined by the orange line in drawing UZT / BE 002 "Definition of sites"

"Waste" is Household, Commercial and Non Hazardous Industrial Waste for thermal treatment.

### Suggested terms

Benthic Describes organisms that live on or in the seabed. Benthic epifauna

live upon the seafloor or upon bottom objects and benthic infauna live

within the surface sediments.

Biodiversity The number, variety and variability of living organisms in a particular

habitat

Cairn Mound composed of stones, sometimes with internal structure; usually

a burial mound but sometimes used as a memorial.

Calcareous Substance containing calcium carbonate

Carcinogenic Tending to cause cancer

Culvert Structure or drain for the diversion of a stream or river

Dissolved Oxygen A measure of the concentration of oxygen in a liquid, such as water or

waste water, usually expressed in mg/l or per cent saturation

Do Nothing Scenario This scenario assumes construction of the Limerick Southern Ring

Road Phase I from Rossbrien to Annacotty plus the recently opened

Adare to Limerick scheme

Do Something Scenario

This scenario assumes construction of the Limerick Southern Ring

Road Phase I and Phase II and takes cognisance of PLUTS (Planning, Land Use and Transportation Study), which includes a Northern Dis-

tributor Road the Corbally Link and a City Centre Strategy.

Enclosure Any monument consisting of an enclosing feature such as a bank or a

ditch, usually earthen, such as barrows or ringforts. In this report, en-

closures are circular or oval unless otherwise stated.

Fauna A collective term for the animals of a region

Fill Material used for raising the level of the ground

Flora A collective term for the plants of a region

Groundwater Water stored in the soil and rock both above and below the water table

Greenhouse Effect Enhanced warming of the atmosphere due to the reduction in outgoing

solar radiation due to increased concentrations of gases, in particular,

 $CO_2$ 

Habitat The dwelling place of a species or community, providing a particular set

of environmental conditions (e.g. forest floor)

Hydraulics The science of the conveyance of fluid through pipes

Mitigation Measures Measures to ease or soothe the effect of something. Mitigation meas-

ures suggest ways to avoid or lessen the negative effects of a project

on the environment

Pollution The direct or indirect alteration of the physical, chemical, thermal bio-

logical, 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

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The manner by which water and other matter in the atmosphere Precipitation

reaches the earth's surface. Wet precipitation includes rainfall, snow, hail, mist and fog. Dry precipitation describes the deposition of gases,

aerosols and particles not dissolved in atmospheric borne water

Particulate matter Materials suspended in the air in the form of minute solid particles or

liquid droplets especially when considered as an atmospheric pollutant

The Board Refers to An Board Pleanála

Topographical Surveys Mapping of land surface shape

Zone of Archaeological Po-An exclusion area around an archaeological site or monument where tential

potential exists for the recovery of archaeology associated with a site or

monument.

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