

East Meath - North Dublin Grid Upgrade Environmental Impact Assessment Report (EIAR): Volume 2

Preface, Contents and Glossary

EirGrid

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Preface

The structure of this Environmental Impact Assessment Report (EIAR) for the East Meath – North Dublin Grid Upgrade (hereafter referred to as the Proposed Development) is summarised as follows:

Volume 1: Non-Technical Summary

Volume 1 provides a non-technical summary of the information contained in Volume 2 of the EIAR.

Volume 2: Main Environmental Impact Assessment Report

Volume 2 provides a general introduction, outlines the environmental impact assessment process, describes the scope of the Proposed Development, presents the consideration of reasonable alternatives and describes the environmental impacts specific to the Proposed Development.

Volume 3: Appendices

Volume 3 provides documentation and data that is supplemental to the information provided in Volume 2 of the EIAR.

Volume 4: Figures

Volume 4 provides drawings and large format images (labelled as 'Figures') that illustrate the information detailed in Volume 2 of the EIAR.

Volume 5: Supporting Documents

Volume 5 provides supporting documentation that were produced during the development of the Proposed Development.

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Glossary of Terminology, Abbreviations and Acronyms

Term, Abbreviation or Acronym	Description
AA	Appropriate Assessment
AADT	Annual Average Daily Traffic
ABP	An Bord Pleanála
AC	Alternating Current
Accident	Something that happens by chance or without expectation
ACA	Architectural Conservation Area
ACM	Asbestos-containing Materials
AD	Anno Domini
AEP	Annual Exceedance Probability
AIS	Air Insulated Switchgear
ALC	Agricultural Land Classification
ALO	Agricultural Liaison Officers
AOD	Above Ordnance Datum
AONB	Area of Outstanding Natural Beauty
Annex I Habitats	Habitat types whose conservation requires the designation of Special Areas of Conservation. Priority habitats, which are in danger of disappearing within the EU territory, are highlighted with an asterisk.
Annex I Species	Annex I of the Birds Directive lists 193 bird species and sub-species which are: i) in danger of extinction, ii) vulnerable to specific changes in their habitat, iii) considered rare because of small populations or restricted local distribution and / or iv) require particular attention for reasons of the specific nature of habitat. Article 4 of the Birds Directive has classified a number of Special Protection Areas (SPAs) for regularly occurring migratory birds and those birds listed on Annex I of the directive.
Annex II Species	Animal and plant species whose conservation requires the designation of Special Areas of Conservation
Annex IV	Animal and plant species in need of strict protection
Annex V	Animal and plant species whose taking in the wild and exploitation may be subject to management measures.
AQGs	Air Quality Guidelines
AR5	Fifth Assessment Report
ASI	Archaeological Survey of Ireland
ATC	Automatic Traffic Count
BAP	Biodiversity Action Plan
BNL	Basic Noise Level
BMV	Best and most versatile
BPO	Best Performing Option
BPTO	Best Performing Technical Option
BS	British Standards
BSI	British Standards Institute
Cable Trench	An approximately 1.5m in width, 1.3m in depth in the public road and 1.8m in depth in private lands in which the underground cable is laid
CAP	Climate Action Plan
CAP	Common Agricultural Policy
Carbon budgets	Ireland's first carbon budget programme, comprising three 5-year economy-wide carbon budgets, was approved by the Government on 22 February 2022. The budgets were laid before the Houses of the Oireachtas on 24 February. The carbon budgets were approved by both Houses of the Oireachtas (the Dáil and Seanad) in April 2022.

Term, Abbreviation or Acronym	Description
Carbon dioxide equivalent (CO ₂ e)	Carbon dioxide equivalent (abbreviated as CO ₂ e) is a metric used to compare the emissions of various greenhouse gases, based on their global-warming potential (GWP), by converting amounts of other gases to the equivalent amount of CO ₂ with the same GWP. For example, the GWP for methane (CH ₄) is 25, and for nitrous oxide (N ₂ O) it is 298. This means that an emission of 1 tonne of CH ₄ is equivalent to an emission of 25 tonnes of CO ₂ and an emission of 1 tonne of N ₂ O is equivalent to 298 tonnes of CO ₂ .
Carbon emissions	Shorthand for emissions of any of the seven GHGs that contribute to climate change under the Kyoto Protocol, namely carbon dioxide (CO ₂), methane (CH ₄), nitrous oxide (N ₂ O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF ₆) and nitrogen trifluoride (NF ₃)
CARO	Climate Action Regional Office
Catchment	The area of land bounded by watersheds draining into a river, basin or reservoir
CEMP	Construction Environmental Management Plan
CGS	County Geological Sites
CH ₄	Methane
Ch	Chainage
CHP	Combined heat and power
C&D	Construction and Demolition
CIRIA	Construction Industry Research and Industry Association
Climate	Long-term weather conditions prevailing over a region
CMIP6	Coupled Model Inter-Comparison Projects
CO	Carbon monoxide
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
Construction Phase	The processes and activities on or off site that contribute or are instrumental to the construction of the Proposed Scheme towards, and finally to, the Operational Phase
COMAH	Control of Major Accidents and Hazards
CTMP	Construction Traffic Management Plan
CRTN	Calculation of Road Traffic Noise
CRWMP	Construction Resource and Waste Management Plan
CSO	Central Statistics Office
CSM	Conceptual Site Model
CWSC	Controlled Waters Screening Criteria
DAHG	Departments of Arts Heritage and Gaeltacht
DAHGI	Department of Arts, Heritage, Gaeltacht and Islands
DB	decibel
DBEC	Dublin to Belfast Economic Corridor
DC	Direct Current
DCCAE	Department of the Environment, Climate and Communications
DECLG	Department of the Environmental, Community and Local Government
DEHLG	Department of the Environmental, Heritage and Local Government
DHPLG	Department of Housing, Planning and Local Government
Disaster	A natural hazard (e.g., earthquake) or a man-made / external hazard (e.g., act of terrorism) with the potential to cause an event or situation that meets the definition of major accident.
DLRCC	Dún Laoghaire Rathdown County Council
DMRB	Design Manual for Roads and Bridges
DMP	Dust Mitigation Plan

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Term, Abbreviation or Acronym	Description
DoT	Department of Transport
E	East
EA	Environmental Agency
EBPO	Emerging Best Performing Option
EC	European Commission
EGD	European Green Deal
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
EMFs	Electromagnetic Fields
Embodied Carbon	Carbon (GHG) emissions associated with energy consumption and chemical processes during the extraction, transport and/or manufacture of construction materials or products
EMRA	Eastern and Midlands Regional Assembly
EMWR	Eastern Midlands Waste Region
EnCoW	Environmental Clerk of Works
EPA	Environmental Protection Agency
ESB	Electricity Supply Board
ESR	Effort Sharing Regulation
e.g.	example
EU	European Union
EUPHA	European Public Health Association
FC	Football Club
FCC	Fingal County Council
FDP	Fingal Development Plan
FRA	Flood Risk Assessment
FRM	Flood Risk Management
G=0	Acoustically hard areas (e.g., roads and water bodies)
G=0.5	Mixed areas
G=1	Greenfield areas
GAA	Gaelic Athletic Association
GDA	Greater Dublin Area
GE	Google Earth
GHG	Greenhouse gas emission
GI	Ground Investigation
GIS	Gas Insulated Switchgear
GLVIA	Guidelines for Landscape and Visual Impact Assessment
GM	Google Maps
GNI	Gas Network Ireland
GPR	Ground Penetrating Radar
Greenhouse Gases	A gaseous compound that absorbs infrared radiation and traps heat in the atmosphere. Greenhouse gases are usually expressed in terms of carbon dioxide equivalent (CO ₂ e)
GTV	Groundwater Threshold Values
GWDTEs	Groundwater Dependent Terrestrial Ecosystems
GWP	Global Warming Potential
GWP	Global warming potential for a 100-year period

Term, Abbreviation or Acronym	Description
HA	Hydrometric Area
ha	hectare
HDD	Horizontal Directional Drilling
HDPE	High Density Polyethylene
HDV	Heavy Duty Vehicle
HEFS	High-End Future Scenario
HGV	Heavy Goods Vehicle
HHAC	Human Health Assessment Criteria
HLC	Historic Landscape Characterisation
HSA	Health and Safety Authority
HSE	Health Service Executive
IAIA	International Association for Impact Assessment
IAQM	Institute of Air Quality Management
IBN	Irish Brownfield Network
ICNIRP	International Council on Non-Ionising Radiation Protection
ICT	Information and Communications Technology
IDA	Irish Development Authority
IEMA	Institute of Environmental Management and Assessment
IFI	Inland Fisheries Ireland
IGI	Institute of Geologists in Ireland
IGV	Groundwater in Ireland
IHD	Ischaemic heart disease
Invasive Species	An invasive species is a plant, fungus, or animal species that is not native to a specific location.
IPC	Integrated Pollution Control
IPCC	International
IPH	Institute of Public Health Ireland
IPPC	Integrated Pollution Prevention Control
JB	Joint Bay
Joint Bay	Joint Bays which are underground chambers located at various points on the route. Joint Bays are used as locations to pull the cables into the pre-installed ducts and to connect ('joint') together the individual cables and create a single, overall continuous circuit.
JTC	Junction Turning Count
km	kilometre
kV	kilovolt
ktCO ₂ e	kilotonnes carbon dioxide equivalent
L _{den}	Day, evening and night
L _{night}	Night
LCA	Life Cycle Assessment
LED	Light-emitting diodes
LGS	Local Geological Site
LGV	Light Goods Vehicle
Life Cycle Stage	PAS 2080:2023 proposes a modular approach for the quantification of infrastructure related GHG emissions over a number of stages over the 'life cycle' of a project, namely 'before use (A)', 'use (B)' and 'end of life (C)'. These stages are further disaggregated into modules (e.g. product stage (A1–A3) and construction process stage (A4–A5)).

Term, Abbreviation or Acronym	Description
LNR	Local Nature Reserve
LoS	Level of Service
LoW	List of Waste
LP	Land Parcels
LVAC	Low Voltage Alternating Current
LVIA	Landscape and Visual Impact Assessment
Major Accident	Events that threaten immediate or delayed serious environmental effects to human health, welfare and / or environment and require the use of resources beyond those accidental, the outcome (e.g., train derailment) may be the same and therefore many mitigation measures will apply to both deliberate and accidental events.
MCA	Multi-criteria analysis
MCC	Meath County Council
MCDP	Meath County Development Plan
Mm/s	millimeters per second
MRFS	Mid-Range Future Scenario
Mt CO ₂ e	megatonnes carbon dioxide equivalent
N	North
N ₂ O	Nitrogen oxide
Natura Impact Statement	Statement for the purposes of Article 6 of the Habitats Directive, of the implications of a proposed development, on its own or in combination with other plans or projects, for one or more than one European site, in view of the conservation objectives of the site or sites prepared to enable the carrying out by the competent authority of an Appropriate Assessment as required under the Habitats Directive.
NAP	Noise Action Plan
NBDC	National Biodiversity Data Centre
NCD	Non-communicable diseases
NDC	Nationwide Data Collection
NDP	National Development Plan
NE	North-East
NECP	National Energy and Climate Plan
Net Zero	Net zero means any emissions would be balanced by schemes to offset an equivalent amount of greenhouse gases from the atmosphere, such as planting trees or using technology like carbon capture and storage
NFGWS	National Federation of Group Water Schemes
NHA	Natura Heritage Area
NHBC	National House Building Control
NIAH	National Inventory of Architectural Heritage
NIS	Natura Impact Statement
NMS	National Monument Service
NO ₂	Nitrogen dioxide
NPF	National Planning Framework
NPWS	National Parks and Wildlife Service
NRA	National Roads Authority
NRMM	Non-Road Mobile Machinery
NSO	National Strategic Outcome
NTA	National Transport Authority

Term, Abbreviation or Acronym	Description
NTpM	National Transport Model
NTS	Non-Technical Summary
NW	North-West
NWCPO	National Waste Collection Permit Office
O ₃	Ozone
OBJ	Objective
Operational Phase	This phrase refers to the processes and activities implemented following the Construction Phase to ensure the appropriate environmental management of the Proposed Development over time.
OPW	Office of Public Works
OREDP	Offshore Renewable Energy Development Plan
OS	Ordnance Survey
OSI	Ordnance Survey Ireland
PAB	Planning Application Boundary
PAG	Project Appraisal Guidelines for National Roads
PAH	Polycyclic aromatic hydrocarbons
PAS	PAS 2080:2023 'Carbon Management in Buildings and Infrastructure' specifies requirements for the management of whole-life carbon in buildings and infrastructure.
Passing Bay	A temporary traffic lane to allow traffic flow around Joint Bays while construction works are ongoing.
PB	Passing Bay
PCB	Polychlorinated biphenyls
PRA	Property Registration Authority
PFAS	Polyfluoroalkyl
PL	Pollutant Linkage
PM	Particulate matter
PM _{2.5}	Particulate matter of less than 2.5 microns
PM ₁₀	Particulate matter of less than 10 microns
POM	Programme of Measures
PPV	Peak Particle Velocity
PSCS	Project Supervisor Construction Stage
PSDP	Project Supervisor Design Process
RAMS	Risk Assessment Method Statements
RBD	River Basin District
RBMP	River Basin Management Plan
RED	Renewable Energy Directive
RC	Reinforced Concrete
RHM	Register of Historic Monuments
Risk	The likelihood of an impact occurring, combined with the effect or consequence(s) of the impact on a receptor if it does occur.
Risk event	An identified, unplanned event, which is considered relevant to the Proposed Scheme and has the potential to result in a major accident and / or disaster, subject to assessment of its potential to result in a significant adverse effect on an environmental receptor.
RMP	Record of Monuments and Places
RPE	Respiratory Protective Equipment
RPII	Radiological Protection Institute of Ireland

Term, Abbreviation or Acronym	Description
RPS	Record of Protected Structures
RRSES	Regional Spatial and Economic Strategy
RSA	Road Safety Authority
RTC	Road Traffic Collision
S	South
SAC	Special Area of Conservation
SAPS	Small Area Population Statistics
SAMs	Scheduled Ancient Monument
SC	Sub-catchment
SDCC	South Dublin County Council
SE	South-East
SEA	Strategic Environmental Assessment
SEO	Strategic Environmental Objective
SF ₆	Sulphur hexafluoride
S.I.	Statutory Instrument
SID	Strategic Infrastructure Development
Significant environmental effect	Includes the loss of life, permanent injury and temporary or permanent destruction of an environmental receptor which cannot be restored through minor clean-up and restoration. In addition, a 'Significant' impact resulting from major accidents and / or disasters is identified if it meets the criteria for 'Significant', 'Very Significant' or 'Profound' under the EPA Guidelines.
SMR	Standardised Mortality Ratio
SMR	Site and Monument Records
SNCI	Sites of Nature Conservation Importance
SO ₂	Sulphur dioxide
SO	Outer Protection Zone
SPA	Special Protection Area
SSP	Socio-Economic Pathway
SSSI	Sites of special scientific interest
SVOC	Sem-Volatile Organic Compounds
SW	South-West
SWMP	Surface Water Management Plan
TCC	Temporary Construction Compound
TDP	Transmission Development Plan
The Birds Directive	The Birds Directive (formally known as Council Directive 2009/147/EC on the conservation of wild birds) is a European Union directive adopted in 2009. It replaces Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds. It aims to protect all European wild birds and the habitats of listed species, in particular through the designation of Special Protection Areas.
The Habitats Directive	EU Directive on the Conservation of Habitats, Flora and Fauna (92/43/EEC), commonly known as "the Habitats Directive", was adopted in 1992, came into force in 1994 and was transposed into Irish law in 1997.
TII	Transport Infrastructure Ireland
TOC	Total Organic Carbon
TPH	Total petroleum hydrocarbons
TPO	Tree Preservation Order
TTM	Temporary Traffic Management

Term, Abbreviation or Acronym	Description
TSO	Transmission System Owner
TSSPS	Transmission System Security Planning Standards
TTA	Traffic and Transport Assessment
UCD	University College Dublin
UGC	Underground Cable
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNFCCC	United Nations Framework Convention on Climate Change
UK	United Kingdom
UKHA	United Kingdom Highways Agency
uPVC	Unplasticized polyvinyl chloride
VOC	Volatile Organic Compounds
Vulnerability	Describes the potential for harm as a result of an event, for example due to sensitivity or value of receptors. In the context of the EIA Directive, the term refers to 'exposure and resilience' of the Proposed Development to the risk of a major accident and / or disaster. Vulnerability is influenced by sensitivity, adaptive capacity and magnitude of impact
WAC	Waste acceptance criteria
WFD	Water Framework Directive
WHO	World Health Organisation
WHS	World Heritage Sites
WLC	Whole life cycle
WwTP	Wastewater Treatment Plant
ZoI	Zone of Influence