



GALETECH
ENERGY SERVICES

Islandmore Wind Farm

Environmental Impact Assessment
Report

Glossary of Terms

Islandmore Wind Farm Limited

ABBREVIATIONS AND ACRONYMS

Abbreviation	Meaning
A1–A5, B1–B7, C1–C4	Life-cycle stages defined in BS EN 15978: product and construction (A), use (B) and end of life (C)
AA	Appropriate Assessment
AADT	Annual Average Daily Traffic
AANE	Airport Air Navigation Equipment
AAR	Annual Average Rainfall
ABP (ACP)	An Bord Pleanála (now An Coimisiún Pleanála); used as the prefix of planning case references
ACA	Architectural Conservation Area
ACoW	Archaeological Clerk of Works
AE	Actual Evaporation (actual evapotranspiration)
AH	Amenity and Heritage features (a visual receptor group)
ALAN	Artificial Lighting at Night
AM	Amplitude Modulation
AMOC	Atlantic Meridional Overturning Circulation
AMWG	Amplitude Modulation Working Group (Institute of Acoustics)
AOD / mAOD	Above Ordnance Datum / metres Above Ordnance Datum
AR5 / AR6	Fifth / Sixth Assessment Report of the IPCC
ARG UK	Amphibian and Reptile Groups of the UK
BAP	Biodiversity Action Plan
BCI	Bat Conservation Ireland
BERR	Department for Business, Enterprise and Regulatory Reform (UK)
BoCCI	Birds of Conservation Concern in Ireland (red, amber and green lists)
BOD	Biochemical (Biological) Oxygen Demand
BPF	Blade Passing Frequency
BS / BS EN / IS EN	British Standard / European Standard adopted in the UK / European Standard adopted in Ireland
CAP (CAP24, CAP25)	Climate Action Plan (2024, 2025 editions)
CCRA	Climate Change Risk Assessment
CDP	County Development Plan
CEBR	Centre for Economics and Business Research
CEMP	Construction Environmental Management Plan
CESSM	Civil Engineering Standard Method of Measurement
CFRAM	Catchment Flood Risk Assessment and Management
CGS	County Geological Site
CIEEM	Chartered Institute of Ecology and Environmental Management
CIRIA	Construction Industry Research and Information Association
CLG	Department for Communities and Local Government (UK)
CMIP6 / CMIP7	Coupled Model Intercomparison Project, Phases 6 and 7
COD	Chemical Oxygen Demand
COFORD	National Council for Forest Research and Development
CP	Centres of Population (a visual receptor group)
CRM	Collision Risk Modelling (birds and turbines)
cSAC / cSPA	candidate Special Area of Conservation / candidate Special Protection Area
CSO	Central Statistics Office

Abbreviation	Meaning
DAERA	Department of Agriculture, Environment and Rural Affairs (Northern Ireland)
DAF	Department of Agriculture and Food
DAFOR	Plant abundance scale: Dominant, Abundant, Frequent, Occasional, Rare
DAU	Development Applications Unit (Department of Housing, Local Government and Heritage)
DECLG	Department of the Environment, Community and Local Government
DEFRA	Department for Environment, Food and Rural Affairs (UK)
DEHLG / DoEHLG	Department of the Environment, Heritage and Local Government
DESNZ	Department for Energy Security and Net Zero (UK)
DHLGH / DoHLGH	Department of Housing, Local Government and Heritage
DHPCLG	Department of Housing, Planning, Community and Local Government
DO / DOC	Dissolved Oxygen / Dissolved Organic Carbon
DOMIN	Domin scale of vegetation cover and abundance
DSR	Designated Scenic Routes and Views (a visual receptor group)
EC	European Commission; also European Community in directive numbers
EC (water quality)	Electrical Conductivity
EC7	Eurocode 7 (IS EN 1997-1), geotechnical design
EcIA	Ecological Impact Assessment
ECMWF	European Centre for Medium-Range Weather Forecasts
ECoW	Ecological Clerk of Works
EEC	European Economic Community (in directive numbers)
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
EIS	Environmental Impact Statement (former name for an EIAR)
ELF	Extremely Low Frequency
EM	Environmental Manager
EMF	Electromagnetic Fields
EMS	Environmental Management System
EPA	Environmental Protection Agency
EQS	Environmental Quality Standards
ER	Effective Rainfall
ERA5	ECMWF Reanalysis v5 (climate dataset)
ESB	Electricity Supply Board
ESR	Effort Sharing Regulation (EU)
ETS	Emissions Trading Scheme (EU)
ETSU / ETSU-R-97	Energy Technology Support Unit (UK); its 1996 report The Assessment and Rating of Noise from Wind Farms
EU	European Union
EUROBATS	Agreement on the Conservation of Populations of European Bats
FoS	Factor of Safety
FPM	Freshwater Pearl Mussel
FPO	Flora (Protection) Order 2022, listing legally protected plants
FRA	Flood Risk Assessment
GAA	Gaelic Athletic Association
GC	Gouge Core (hand-held peat/subsoil probe)
GCoW	Geotechnical Clerk of Works

Abbreviation	Meaning
GCR	Grid Connection Route
GDG	Guideline Development Group (WHO)
GES	Galetech Energy Services
GFDRR	Global Facility for Disaster Reduction and Recovery (ThinkHazard tool)
GHG	Greenhouse Gas
GHGA	Greenhouse Gas Emissions Assessment
GIS	Geographic Information System
GLVIA3	Guidelines for Landscape and Visual Impact Assessment, Third Edition (2013)
GPG	Good Practice Guide (IOA, 2013) on applying ETSU-R-97
GSI	Geological Survey Ireland
GWB	Groundwater Body
HA	Hydrometric Area
HDD	Horizontal Directional Drilling
HDPE	High-Density Polyethylene
HDV	Heavy Duty Vehicle
HGV	Heavy Goods Vehicle
HMP	Habitat Management Plan
HRA	Habitats Regulations Assessment (UK equivalent of AA)
HSE	Health Service Executive
IAA	Irish Aviation Authority
IAQM	Institute of Air Quality Management (UK)
ICCROM	International Centre for the Study of the Preservation and Restoration of Cultural Property
ICE	Inventory of Carbon and Energy (Circular Ecology database)
ICNIRP	International Commission on Non-Ionizing Radiation Protection
ICOMOS	International Council on Monuments and Sites
IEC	International Electrotechnical Commission
IEF	Important Ecological Feature
IEMA	Institute of Environmental Management & Assessment (now ISEP)
IFI	Inland Fisheries Ireland
INNS	Invasive Non-Native Species
IOA	Institute of Acoustics (UK)
IPCC	Intergovernmental Panel on Climate Change
IPP	Independent Power Producer (the IPP control building at the substation)
ISEP	Institute of Sustainability and Environmental Professionals
ISMP	Invasive Species Management Plan
ISO	International Organization for Standardization
IT3 / IT4	WHO Air Quality Guidelines Interim Targets 3 and 4
ITM	Irish Transverse Mercator (coordinate system)
IUCN	International Union for Conservation of Nature
IVC	Irish Vegetation Classification
IWeBS	Irish Wetland Bird Survey
JNCC	Joint Nature Conservation Committee (UK)
KV	Key Views (a visual receptor group)
LCA (landscape)	Landscape Character Area; also Landscape Character Assessment
LCA (carbon)	Life Cycle Assessment / Lifecycle Carbon Assessment

Abbreviation	Meaning
LCT	Landscape Character Type
LCU	Landscape Character Unit
LCV	Local Community Views (a visual receptor group)
LGV	Light Goods Vehicle
LIA	Landscape Impact Assessment
LIDAR	Light Detection and Ranging (laser topographic survey)
LLV	Lower Limiting Value (noise)
LSA	Local Study Area: 5km from the turbines and 500m from the underground electricity line
LULUCF	Land Use, Land-Use Change and Forestry
LVIA	Landscape and Visual Impact Assessment
MAC	Maximum Acceptable Concentration
MR	Major Routes (a visual receptor group)
NAF	National Adaptation Framework
NBDC	National Biodiversity Data Centre
NCCRA	National Climate Change Risk Assessment
NCMP	Noise Complaint Monitoring Programme
ND	Not Determined
NDCs	Nationally Determined Contributions (Paris Agreement)
NG3 / NG4	EPA Guidance Notes for Noise (wind turbines at licensed sites / licence applications, surveys and assessments)
NHA / pNHA	Natural Heritage Area / proposed Natural Heritage Area
NHMRC	National Health and Medical Research Council (Australia)
NIAH	National Inventory of Architectural Heritage
NIEA	Northern Ireland Environment Agency
NIFM	National Indicative Fluvial Mapping
NIS	Natura Impact Statement
NMI	National Museum of Ireland
NML	Noise Monitoring Location (NML1–NML6)
NMS	National Monuments Service
NMVOC	Non-Methane Volatile Organic Compounds
NPWS	National Parks and Wildlife Service
NRA	National Roads Authority (now TII)
NSR	Noise Sensitive Receptor (NSR01–NSR30)
NWCPO	National Waste Collection Permit Office
OAM	Other (or Excess) Amplitude Modulation
OD	Ordnance Datum (Malin Head reference level for heights)
OFCOM	Office of Communications (UK)
OPW	Office of Public Works
OS / OSI	Ordnance Survey / Ordnance Survey Ireland
OUV	Outstanding Universal Value (UNESCO World Heritage)
PAS 2080	Publicly Available Specification 2080, carbon management in infrastructure
PE	Potential Evapotranspiration
PLHRAG	Peat Landslide Hazard and Risk Assessments: Best Practice Guide (Scottish Government, 2017)
PM10 / PM2.5	Particulate matter less than 10 / 2.5 microns in diameter

Abbreviation	Meaning
PPV	Peak Particle Velocity
PRA	Preliminary Roost Assessment (bats)
PRF (PRF-I / PRF-M)	Potential Roost Feature for bats; PRF-I suits individual bats, PRF-M multiple bats
PSCS	Project Supervisor for the Construction Stage
pSAC / pSPA	proposed Special Area of Conservation / proposed Special Protection Area
PSR	Primary Surveillance Radar
QI	Qualifying Interest (habitat or species for which an SAC or SPA is designated)
R001–R125	Shadow flicker receptor identifiers
RC	Rotary Core (drillhole), e.g. RC-01
RCC	Roscommon County Council
RCDP	Roscommon County Development Plan
RCP	Representative Concentration Pathway (RCP4.5 medium, RCP8.5 high emissions)
RED III	Renewable Energy Directive (EU) 2023/2413
RESS	Renewable Electricity Support Scheme
RHA	Recorded Historic Archaeological dataset
RHAT	River Hydromorphology Assessment Technique
RMP	Record of Monuments and Places
RPA	Root Protection Area (trees)
RPS	Record of Protected Structures
RSA	Road Safety Audit
RSES	Regional Spatial and Economic Strategy
RTE / 2rn	Raidió Teilifís Éireann / its transmission network company
SAC	Special Area of Conservation
SCI	Special Conservation Interest (bird species for which an SPA is designated); also Site of Community Importance
SEA	Strategic Environmental Assessment
SEAI	Sustainable Energy Authority of Ireland
SECs	Sectoral Emissions Ceilings
SEL	Sound Exposure Level (also L _{Ax})
SEPA	Scottish Environment Protection Agency
S.I.	Statutory Instrument
SID	Strategic Infrastructure Development
SM4BAT-FS	Wildlife Acoustics Song Meter 4 BAT Full Spectrum (static bat detector)
SMR	Sites and Monuments Record
SNH	Scottish Natural Heritage (now NatureScot)
SO1 / SO5 / SO11	Vestas noise-reduced (sound-optimised) turbine operating modes
SPA	Special Protection Area
SSNL	Site-Specific Noise Limits
SSR	Secondary Surveillance Radar
SuDS / SUDS	Sustainable Drainage Systems (also Sustainable Urban Drainage Systems)
SW1–SW4	Surface water sampling locations
SWMP	Surface Water Management Plan
TA Luft	German Technical Instructions on Air Quality Control (dust deposition standard)
TDR	Turbine Delivery Route
TGN	Technical Guidance Note (Landscape Institute)
TII	Transport Infrastructure Ireland

Abbreviation	Meaning
TNAC	Total Noise Assessment Criteria
TON	Total Oxidised Nitrogen
TP	Trial Pit (e.g. TP-T01)
TPH	Total Petroleum Hydrocarbons
TSO	Transmission System Operator (EirGrid)
TSS	Total Suspended Solids
TTA	Traffic and Transport Assessment
UAV	Unmanned Aerial Vehicle (drone)
UNESCO	United Nations Educational, Scientific and Cultural Organization
UPS	Uninterruptible Power Supply
UTC	Coordinated Universal Time
V136 / V162	Vestas V136-4.5MW (T4–T10) and V162-7.2MW (T1–T3) turbine models
VDI	Verein Deutscher Ingenieure (Association of German Engineers)
VIA	Visual Impact Assessment
VP	Vantage Point (bird survey watch location, e.g. VP1)
VRP	Viewshed Reference Point
VWT	Vincent Wildlife Trust
WEI	Wind Energy Ireland
WFD	Water Framework Directive
WHO	World Health Organization
WSA	Wider Study Area: County Roscommon
ZoI	Zone of Influence
ZoN	Zone of Archaeological Notification
ZTV	Zone of Theoretical Visibility

TECHNICAL TERMS AND DEFINITIONS

Term	Definition
2000 Act	The Planning and Development Act 2000 (as amended)
2006 Guidelines	Wind Energy Development Guidelines for Planning Authorities (DEHLG, 2006)
Aarhus Convention	International agreement guaranteeing public access to environmental information, participation in decisions and access to justice
Amenity hours (quiet periods)	Times when people expect quiet outdoors: evenings 18:00–23:00, Saturday afternoons 13:00–18:00 and all day Sunday 07:00–18:00
Amplitude modulation	Regular rise and fall in turbine noise level linked to blade rotation; "other" or "excess" AM is the less common, more noticeable form
An Coimisiún Pleanála	The national planning body (formerly An Bord Pleanála) and competent authority for this SID application
Annex	Supporting technical report or drawing contained in Volume II of the EIAR
Appropriate Assessment	Assessment of whether a project could adversely affect the integrity of a European (Natura 2000) site; Stage 1 is screening, Stage 2 is informed by an NIS
Attenuation	Holding back surface water runoff so it is released at controlled, pre-development (greenfield) rates
Background noise	Existing noise at a receptor without the wind farm, measured as LA90 against wind speed
Baseline	The existing condition of the environment against which effects are assessed
Biosecurity	Measures that stop invasive species, pathogens or contaminated material spreading on machinery, footwear and materials

Term	Definition
Capacity factor	Actual annual output as a share of maximum possible output; taken as 35% for this project
Carbon budget	Legally set cap on total national GHG emissions over a five-year period
Carbon payback period	Time a turbine needs to generate enough energy to offset the emissions from its manufacture, installation and decommissioning
Catchment / sub-catchment	Land area draining to a particular river or lake
Clerk of Works	Specialist who supervises works on site (ecological, archaeological or geotechnical)
Climate neutrality / net zero	Balance between GHG emissions and removals; Irish law targets this by 2050
Collision risk	Likelihood of birds or bats being struck by turbine blades, estimated by Collision Risk Modelling from vantage point data
Community benefit fund	Fund paid by the Developer to support local community projects, per Wind Energy Ireland best practice
Competent authority	The body that carries out the EIA and decides the application (here, An Coimisiún Pleanála)
Cumulative effects	Combined effects of the project with other existing, permitted or proposed developments
Cut-in / cut-out wind speed	Wind speed at which a turbine starts generating (3m/s) and shuts down for safety (25m/s)
Decommissioning	Removal of the wind farm at the end of its operational life and reinstatement of the site
Developer	Islandmore Wind Farm Limited, the applicant
Direct / indirect effect	Direct: caused by the project itself. Indirect (secondary): caused through a pathway away from the site or by a knock-on change
Displacement	Birds or other animals avoiding an area because of turbines, people or disturbance, effectively losing that habitat
Do-Nothing scenario	What would happen to the environment if the project did not go ahead
Draft 2019 Guidelines	Draft Revised Wind Energy Development Guidelines (2019), not yet adopted
Drumlin	Low, elongated hill of glacial till; drumlins give the area around the site its undulating landform
Duration of effects	Momentary (seconds–minutes), brief (<1 day), temporary (<1 year), short-term (1–7 years), medium-term (7–15 years), long-term (15–60 years), permanent (>60 years)
Ecological valuation	Rating of a habitat or species' importance on a geographic scale: International, National, County, Local (higher) or Local (lower)
Effect vs impact	An impact is the action causing change (e.g. removing a hedgerow); an effect is the outcome of that change on the environment. The EIAR reports effects
Embedded mitigation (mitigation by design)	Measures built into the project layout and design to avoid effects before assessment
Embodied carbon	Total GHG emissions released to produce a material, good or service
EPA significance descriptors	Imperceptible, Not Significant, Slight, Moderate, Significant, Very Significant and Profound, in increasing order of importance
Flood Zone A / B / C	High, moderate and low probability of flooding; all project infrastructure is in Flood Zone C
Groundwater recharge	Portion of rainfall that infiltrates to replenish groundwater
Habitat Management Plan	Plan setting out habitat restoration and enhancement, including bog restoration, to be delivered with the project
Herpetofauna	Amphibians and reptiles
Hub height	Height from ground to the centre of the rotor: 104m (V162) or 82m (V136)

Term	Definition
Hydrological connectivity	A water pathway (stream, drain or groundwater) linking the site to a downstream habitat or designated site
Important Ecological Feature	Habitat or species valued highly enough, and at risk of significant effect, to need specific assessment (CIEEM, 2024)
Infrasound	Sound at frequencies below 20Hz
Instream works window	Period when works in watercourses are permitted to protect spawning fish: 1 July to 30 September (IFI)
Invasive species	Non-native plants or animals that spread and harm native biodiversity, including those in the Third Schedule of the Birds and Habitats Regulations
Joint bay	Underground chamber where lengths of electricity cable are joined, typically every 650–750m
Landscape character	The distinct pattern of elements (landform, land cover, settlement) that makes one landscape different from another
Landscape sensitivity	Combination of a landscape's value and its susceptibility to the type of change proposed
Likely significant effects	Effects that are both probable and important enough to inform the planning decision; the focus of the EIAR
Low frequency noise	Sound in the range of roughly 20–200Hz
Magnitude of change	Scale, extent and nature of a change, independent of receptor sensitivity
Mitigation	Measures to avoid, prevent, reduce or offset likely significant adverse effects; all are compiled at Annex 1.7
Monitoring	Checks during construction and operation that mitigation is working and limits are met
Most / Less / Not Favoured	Zoning for wind energy in the Roscommon CDP Renewable Energy Strategy; the project is in a "Most Favoured" area
Nacelle	Housing on top of the tower containing the drive train and generator
Natura 2000 / European site	EU network of SACs and SPAs designated under the Habitats and Birds Directives
Non-Technical Summary	Separate plain-language summary of the EIAR for the public
Peat instability (peat slide)	Significant mass movement of a body of peat
Photomontage	Computer-generated image showing the turbines superimposed on a photograph from a viewpoint
Pre-Application Consultation	Mandatory consultation with An Coimisiún Pleanála to decide whether a project is SID (Section 37B of the 2000 Act)
Q-value	EPA biological water quality rating based on river invertebrates, from Q1 (bad) to Q5 (high)
Ramsar site	Wetland of international importance designated under the Ramsar Convention
Receptor	Person, property, place or environmental feature that could be affected
Recorded Monument	Archaeological site listed in the RMP and protected under the National Monuments Acts
Red / amber list	BoCCI conservation status for birds: red is highest concern (e.g. rapid decline), amber is moderate concern
Renewable energy development	A project classed under the 2025 Renewable Energy Regulations (over 150kW), subject to Sections 37JA and 37JB of the 2000 Act
Residual effect	Effect that remains after mitigation is applied
Reversible / irreversible effect	Whether the affected environment can recover once the activity stops
Ringfort	Circular enclosure surrounded by banks and ditches, typically an early medieval farmstead
Roost	Place where bats or birds rest or shelter, e.g. a tree cavity, building or bridge

Term	Definition
Rotor diameter	Diameter of the circle swept by the blades: 162m (V162) or 136m (V136)
Scoping	Early stage deciding which topics and methods the EIAR should cover, informed by consultation
Screening	Stage deciding whether EIA (or Appropriate Assessment) is required
Setback	Separation distance between a turbine and dwellings; the Draft 2019 Guidelines propose 4 times tip height
Setting (heritage)	Surroundings in which a heritage asset is experienced and which contribute to its significance
Shadow flicker	Flickering effect when rotating blades pass between the sun and a window; 2006 Guidelines limit is 30 hours/year or 30 minutes/day within 500m. The Developer commits to eliminating it at dwellings, workplaces and schools by automatic turbine shutdown
Tonality	A noise characteristic with a distinct audible tone, usually from mechanical components
Townland	The smallest traditional land division in Ireland
Transboundary effects	Significant effects crossing a national boundary, which require consultation under the Espoo Convention; none are likely for this project
Transect	Fixed survey route walked or driven to record species, e.g. bat activity transects
Translocation	Moving habitat turves or species to a suitable receptor area, e.g. marsh fritillary larval habitat
Vantage point survey	Timed watches from fixed points to record bird flight activity over the site; 578.25 VP hours were collected over four years
Visual amenity	The overall pleasantness of the views people enjoy
Wildlife Acts	Wildlife Act 1976 (as amended), the main Irish law protecting wild species
Wireframe	Computer-generated line drawing of turbines on terrain, used to check visibility
Worst-case scenario	Assessment assumption giving the greatest likely effect
Zone of Influence	Distance over which ecological features could be significantly affected by the project; varies by feature and pathway



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