

MWP

**Environmental Impact Assessment
Report VOLUME 2: Main EIAR**

Carrownagowan 110kV Grid Connection

FuturEnergy Carrownagowan DAC

November 2023

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Table of Acronyms

Acronym	Explanation
AA	Appropriate Assessment
AADT	Annual Average Daily Traffic
ABP	An Bord Pleanála
AE	Actual Evaporation
AOD	Above Ordnance Datum
AQIH	Air Quality Index for Health
BCI	Bat Conservation Ireland
BS	British Standard publication: technical documents specifying practices used as guidance.
CAFE	Clean Air for Europe
CAP	Climate Action Plan
CBGM	Cement Bound Granular Mixture
CEMP	Construction Environmental Management Plan
CIEEM/IEEM	Chartered Institute for Ecology and Environmental Management
CIRIA	Control of Water Pollution from Construction Sites
CLO	Community Liaison Officer
CSO	Central Statistics Office
CSR	Cunnane Stratton Reynolds
dB	Decibel
DBYD	Dial Before You Dig
DoHLGH	Department of Housing, Local Government and Heritage
EC	European Communities
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
EMP	Environmental Management Plan
EPA	Environmental Protection Agency
ESB	Electricity Supply Board
EU	European Union
GIS	Gas Insulated Substation
GIS	Geographical Information Systems
GNI	Gas Networks Ireland
GSI	Geological Survey Ireland
GW	Gigawatt
GWB	Ground Water Body
GWS	Group Water Scheme
HDD	Horizontal Directional Drill
HES	Hydro-Environmental Services
HV	Heavy Vehicle
IAS	Invasive Alien Species

Acronym	Explanation
IASMP	Invasive Alien Species Management Plan
IEMA	Institute of Environmental Management
IFI	Inland Fisheries Ireland
KER	Key Ecological Receptor
Km	Kilometre
kV	Kilovolt
LULUCF	Land Use, Land Use Change and Forestry
M	Meters
MAD	Major Accident and Disaster
mm	Millimetre
MW	Megawatt
NBDC	National Biodiversity Data Centre
NHA/pNHA	Natural Heritage Area/proposed Natural Heritage Area
NIAH	National Inventory of Architectural Heritage
NMI	National Museum of Ireland
NPWS	National Parks and Wildlife Service
NRA	National Roads Authority
OD	Ordnance Datum - vertical datum used by an ordnance survey as the basis for deriving altitudes on maps.
OHL	Overhead Line
OPR	Office of the Planning Regulator
OPW	Office of Public Works
OSI	Ordnance Survey Ireland
PDA	Planning and Development Act
PDR	Planning and Development Regulations
PE	Potential evapotranspiration
QI	Qualifying Interest
RAMSAR	Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat – international treaty for the sustainable use and conservation of wetlands
RMP	Record of Monuments and Places
RPS	Record of Protected Structures
SAC	Special Area of Conservation
SAPS	Small Area Population Statistics
SCI	Special Conservation Interest, species of
SI	Statutory Instrument
SID	Strategic Infrastructure Development
SMR	Sites and Monuments Record
SPA	Special Protection Area
TII	Transport Infrastructure Ireland
TMP	Traffic Management Plan
UGC	Underground Cable

Acronym	Explanation
WFD	Water Framework Directive
WHO	World Health Organisation
WMO	World Meteorological Organisation
ZON	Zones of Notification

Glossary of Terms

Term	Explanation
Alternatives	A description of other options that may have been considered during the conception of a project, these include alternative locations, alternative designs and alternative processes.
Amenity	The benefits of enjoyment and wellbeing which are gained from a resource in line with its intended function. Amenity may be affected by a combination of factors such as: sound, noise and vibration, dust/air quality, traffic/congestion and visual impacts.
Appropriate Assessment	An appropriate assessment is an assessment of the potential adverse effects of a plan or project (in combination with other plans or projects) on Special Areas of Conservation and Special Protection Areas. These sites are protected by national and European law.
Aquifer	A body of permeable soil or rock which can contain, store or transmit groundwater.
Archaeology	The study of past societies of any period through the material remains and the evidence of their environment. The material things (objects, monuments, sites, features, deposits) which archaeology uses to study past societies are referred to as 'archaeological heritage'.
Architectural Conservation Area (ACA)	An ACA is a place, area, group of structures or townscape which is either of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest in its own right or which contributes to the appreciation of protected structures. ACAs are identified in the relevant County / City Development Plan(s) and / or Local Area Plan(s) and could include, for example, any group of buildings which together give special character to an area or a group of structures.
Architectural Heritage	Structures and buildings which are of architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest.
Automatic Traffic Counts	Traffic counts undertaken using automatic traffic counters to record the speed and volume of traffic at a specific location
Average Annual Daily Traffic	An estimate of the mean daily traffic volume over the course of a year.
A-Weighting	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. All sound levels in this report are expressed in terms of decibels (dB).
Baseline (environment)	A description of the relevant aspects of the current state of the environment. An outline of the likely evolution thereof without implementation of the project as far as natural changes from the baseline can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge.
Baseline (survey)	A survey to establish the current state of environmental characteristics.
Bedrock	Rock that underlies loose soil deposits.
Biodiversity	The variability among living organisms from all sources, including, inter alia, terrestrial, marine, and other aquatic ecosystems, and the ecological complexes of which they are part: this includes diversity within species, between species and of ecosystems.
Church	A building used for public Christian worship. These can be of any date from c. 500 AD onwards.
Climate change	This refers to a change in the state of the climate, which can be identified by changes in average climate characteristics which persist for an extended period, typically decades or longer

Term	Explanation
Cultural Heritage	Cultural heritage is a broad and open term which has now come to include a wide range of tangible and intangible cultural considerations that are linked to and bound up in cultural memory and associations, belief, traditions, past knowledge, traditional and arcane practices, craft and building skills, and oral tradition of local populations. It encompasses aspects of archaeology, architecture, history, landscape and garden design, folklore and tradition and topography. Cultural heritage is expressed in the physical landscape in numerous often interrelated ways.
Cultural Heritage Assets	Cultural heritage, which comprises the many facets of archaeological heritage, architectural heritage and cultural heritage are collectively described as cultural heritage assets.
dB	Decibel - The scale in which sound pressure level is expressed. It is defined as 20 times the logarithm of the ratio between the RMS pressure of the sound field and the reference pressure of 20 micropascals (20 μ Pa).
Effect	Used throughout this environmental impact assessment report to refer to the consequence of an impact to the receiving environment.
Enclosure	An area defined by an enclosing element (e.g. bank, wall, fosse, scarp), or indicated as such cartographically, and occurring in a variety of shapes and sizes, possessing no diagnostic features which would allow classification within another monument category. These may date to any period from prehistory onwards. Enclosures with a diameter greater than 70m should be classed as Large Enclosure.
Environmental Impact Assessment	A process to systematically assess the potential environmental effects of proposed development. An environmental impact assessment is a legal requirement for certain public and private projects in European Union countries.
Frequency (of effects)	How often the effect will occur. (once, rarely, occasionally, frequently, constantly – or hourly, daily, weekly, monthly, annually)
Graveyard	The burial area around a church. These date from the medieval period (5th-16th centuries) onwards.
Greenhouse gases	Atmospheric gases such as carbon dioxide, methane, chlorofluorocarbons, nitrous oxide, ozone, and water vapour that absorb and emit infrared radiation emitted by the Earth's surface, the atmosphere and clouds.
Groundwater	The water which flows underground through naturally porous parts of the soil or rock.
Groundwater vulnerability	A term used to represent the natural ground characteristics that determine the ease with which groundwater may be contaminated by human activities
Habitat	A habitat is described as the area in which an organism or group of organisms lives and is defined by the living (biotic) and non-living (abiotic) components of the environment. The latter includes physical, chemical and geographical factors, in addition to human impact or management.
Hertz	The unit of sound frequency in cycles per second.
House - 16th/17th century	A building for human habitation which dates to the 16th/early 17th century AD and which is not a tower house or a fortified house.
House - 18th/19th century	A building for human habitation which dates to the 18th/19th century and which is not classifiable as either a country house or a vernacular house.
Hydrogeology	The nature, distribution and movement of groundwater in soils and rocks, including in aquifers.
Impact	
Imperceptible (effect significance)	An impact capable of measurement but without significant consequences
Invasive species	Any non-native species that significantly modifies or disrupts the ecosystem it colonizes
LAeq,T	This is the equivalent continuous sound level. It is a type of average and is used to describe a fluctuating noise in terms of a single noise level over the sample period (T).

Term	Explanation
Land use	The human activities which take place within a given area of space
Likely (effects)	The effects that are specifically predicted to take place – based on an understanding of the interaction of the proposed project and the receiving environment.
Megalithic Tomb-wedge tomb	A long burial gallery, sometimes with an antechamber or small closed end-chamber. They are generally broader and higher at the front, which invariably faces in a westerly direction. They are roofed by slabs laid directly on the side-walls which often have one or more rows of outer- walling. Evidence from the small number of excavated examples suggests that they were being built between 2,500 and 2,000 BC representing the last phase of megalithic tomb building.
Noise Sensitive Receptor	Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other facility or other area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels.
Pathway	The route by which an effect is conveyed between a source and a receptor.
Potential Effect	The effect / impact that would occur without mitigation.
Preservation By Record	Preservation by record requires that appropriate archaeological excavation and recording is carried out which ensures that, as a minimum, a complete and meaningful record is preserved of all archaeological deposits, features and information likely to be damaged as a result of the development. Such archaeological excavation to mitigate the impact of development is known as rescue excavation.
Preservation In Situ	Preservation in-situ is the actual physical preservation of archaeological sites and monuments, including archaeological deposits, features and structures. There should always be a presumption in favour of avoiding developmental impacts on the archaeological heritage. ‘Preservation in-situ must always be the first option to be considered rather than preservation by record in order to allow development to proceed and, preservation in-situ must also be presumed to be the preferred option.’ (Framework and Principles for the Protection of the Archaeological Heritage, 1999).
Preservation Order	Where it appears to the Minister that a monument, considered to be a national monument, is in danger or is actually being destroyed or falling into decay the minister may by preservation order or temporary preservation order, undertake the preservation of the monument. A temporary preservation order will remain in force for six months and then expire; however it is an indication of additional sites that are considered as being national monuments.
Protected Structure	A protected structure is a structure that a Planning Authority considers to be of special interest from an architectural, historical, archaeological, artistic, cultural, scientific, social, or technical point of view and is included in its Record of Protected Structures (RPS) in the County Development Plans.
Receptor	Any element in the environment which is subject to impacts.
Recorded Monuments	Recorded monuments are sites, structures and features of archaeological significance that are protected by National Monuments legislation. Examples include ringforts, passage tombs and cairns. Recorded monuments are listed in the Record of Monuments and Places (RMP).
Residual Effect	The final predicted effect / impact remaining after mitigation
Scoping	The process of identifying the significant issues which should be addressed by a particular Impact Assessment, as well as the means or methods of carrying out the assessment.
Screening	The process of assessing the requirement for a project to be subject to Impact Assessment based on project type and scale, as well as the significance or environmental sensitivity of the receiving environment.
Sensitivity	The potential of a receptor to be significantly affected

Term	Explanation
Services	The conduits, pipes and lines that carry water, phones, electricity, sewage etc. Sometimes referred to as built services.
Significance (Effects)	The importance of the outcome of the impact (or the consequence of change) for the receiving environment.
Site Walkover	A visual inspection of a survey area to identify and locate any archaeological sites and monuments that survives as upstanding earthworks or historic structures. The survey gathers information to establish the extent, nature, character, condition, quality and date of the surviving archaeological, historical and cultural heritage features within the survey area (as far as is possible). It assists in establishing the functional relationships between any identified archaeological and historical features and the impact of a proposed development on it. It also provides information for appropriate further work to mitigate any potential impact.
Slight (Effect significance)	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
Sound Pressure Level	Sound pressure refers to the fluctuations in air pressure caused by the passage of a sound wave. It may be expressed in terms of sound pressure level at a point.
Source	The activity or place from which an effect originates.
Source	The activity or place from which an effect originates.
Special Protection Area	Areas of special interest for the conservation of wild bird habitats, especially listed, rare or vulnerable species and migratory species. Established under the Birds Directive (Council Directive 79/409/EEC).
Statutory consultee	An organisation or authority stipulated by legislation to be notified by a CA or developer if an application is made which might give that organisation a cause for concern.
Surface water	Natural water bodies such as streams, lakes and rivers and artificial features, such as canals and impoundments, that are visible on the surface of the earth.
Traffic Management Plan	A plan that provides a means of planning and implementing how all likely road users will be safely and efficiently guided through/to/from a site.
Type or nature of effect	Whether an effect is direct, indirect, temporary or permanent, positive (beneficial), neutral or negative (adverse) or cumulative
Unlikely (effects)	The effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented.
Waste	Any substance or object which the holder discards or intends or is required to discard (Waste Framework Directive 2008/98/EC).
Water quality	The degree to which water is clean, and whether it is suitable for drinking, for making plants grow, or for fish to live in, etc.
Zone of Influence	The zone of influence (ZoI) for a project (or “spatial extent of the impact” as described in Annex III(3) of EIA Directive 2014/52/EU) is the area whereby ecological features may be subject to impacts as a result of a Proposed Road Development and associated activities
Zone of Notification	The area around each monument that is intended to be used for the purposes of notification under Section 12 of the National Monuments Acts 1930 to 2004.

