

Addendum to the
Environmental Impact
Assessment Report

NISA
North Irish Sea Array

Volume 6

Preface



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Glossary of Terminology, Abbreviations and Acronyms

| Term, Abbreviation or Acronym | Description |
|-------------------------------|---|
| $\mu\text{g} / \text{m}^3$ | Micrograms per cubic metre |
| AA | Appropriate Assessment |
| AADT | Annual Average Daily Traffic |
| AAPs | Areas of Archaeological Potential |
| ABP | An Bord Pleanála |
| AC | Alternating current |
| ACA | Architectural Conservation Areas |
| AcEsk | Eskers comprised of gravels of acidic reaction |
| ACP | An Coimisiún Pleanála |
| An Coimisiún Pleanála | The competent authority under the Planning Acts to determine the planning application and carry out the EIA and AA of the proposed development. |
| AD | Anno Domini |
| ADD | Acoustic Deterrent Devices |
| ADCP | Acoustic Doppler Current Profiler; a device that uses sound waves to determine the speed and direction of currents throughout the water column |
| AEP | Annual Exceedance Probability |
| AEZ | Archaeological Exclusion Zone |
| AH | Archaeological Heritage |
| AHV | Anchor Handling Vessels |
| AIP | Aeronautical Information Publication |
| AIS | Automatic Identification System |
| ALAN | Artificial Light at Night |
| ALARP | As Low As Reasonably Practicable |
| ALM | Aerodrome Licensing Memorandum |
| AlluvMin | Alluvial (min) |
| AminDW | Deep well drained mineral soil (mainly acidic) |
| AminPD | Mineral poorly drained (mainly acidic) |
| AminPDPT | Peaty gleys acidic |
| AminSP | Surface water gleys / Ground water gleys shallow |

| Term, Abbreviation or Acronym | Description |
|-------------------------------|---|
| AminSRPT | Shallow rocky peaty, non-peaty mineral complexes (mainly acidic) |
| AminSW | Shallow well drained mineral soil (mainly acidic) |
| An Bord Pleanála | The competent authority under the Planning Acts to determine the planning application, and carry out the EIA and AA of the proposed development. |
| Annex I Habitats | Habitat types, listed in Annex 1 of the Habitats Directive (Directive 92/43/EEC), 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 in Annex I. |
| Annex I Species | Annex I of the Birds Directive (Directive 2009/147/EC) 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. |
| Annex II Species | Animal and plant species, listed in Annex II of the Habitats Directive, whose conservation requires the designation of Special Areas of Conservation. |
| Annex IV | Animal and plant species, listed in Annex IV of the Habitats Directive, in need of strict protection. |
| Annex V | Animal and plant species, listed in Annex V of the Habitats Directive, whose taking in the wild and exploitation may be subject to management measures. |
| ANSP | Air Navigation Service Provider |
| ANSI | American National Standards Institute |
| Appropriate Assessment (AA) | The statutory process as set out in Article 6 of the Habitats Directive |
| AQS | Air Quality Standards |
| AQG | Air quality guidance |
| ARE | Accelerating Renewable Energy |
| ARPA | Automatic Radar Plotting Aid |
| Arup | Ove Arup & Partners Ireland Ltd |
| Array Area | The area within the offshore development area within which the WTGs, the OSP and inter-array cable(s) will be located |
| As | Alluvium (sandy) |
| ASAM | Aeronautical Services Advisory Memorandum |
| ASR | Air Sensitive Receptor |
| ATC | Air Traffic Control |
| ATCs | Automatic Traffic Counts |
| ATCSMAC | ATC Surveillance Minimum Altitude Chart |

| Term, Abbreviation or Acronym | Description |
|--|---|
| AtoN | Aids to Navigation |
| ATS | Air Traffic Service |
| AWB | Artificial Surface Waterbodies |
| AWQR | Annual Water Quality Rating |
| BAC | Biological Assessment Criteria |
| BAP | Biodiversity Action Plan |
| BC | Benthic Community |
| BCI | Bat Conservation Ireland |
| BCT | Bat Conservation Trust |
| Belcamp substation | The existing operational substation where the 220kV underground onshore cable will connect to the national high voltage electricity transmission system |
| Benthic | Relating to or occurring on the seabed. |
| BH sites | Built Heritage sites |
| 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 aims to protect all European wild birds and the habitats of listed species, in particular through the requirement for member states to designate of Special Protection Areas. |
| Birds of Conservation Concern in Ireland | BirdWatch Ireland and the Royal Society for the Protection of Birds (RSPB) in Northern Ireland provided a list of priority bird species for conservation action on the island of Ireland. These Birds of Conservation Concern in Ireland are published in a list known as the BoCCI List. In this BoCCI List, birds which breed and / or winter in Ireland are classified into three separate lists (Red, Amber and Green), based on the conservation status of the bird and hence conservation priority. |
| BktPt | Blanket peat |
| BminDW | Deep well drained mineral soil (mainly basic) |
| BminPD | Mineral poorly drained (mainly basic) |
| BminPDPT | Peaty gleys basic parent materials basic |
| BminSP | Surface water gleys / groundwater gleys shallow |
| BminSPPT | Peaty gleys shallow |
| BminSRPT | Lithosols peats |
| BminSW | Renzinas / Lithosols |
| BMW | Biodegradable Municipal Waste |
| BoCCI | Birds of Conservation Concern in Ireland |

| Term, Abbreviation or Acronym | Description |
|-------------------------------|---|
| Bony fish | Any species with skeletons primarily composed of bone tissue; comprises fishes of the superclass Osteichthyes. |
| Bq / m ³ | Becquerel per cubic metre |
| BRE | Building Research Establishment Group |
| Bremore Substation | The new 220 kV substation to be constructed as part of the proposed development located adjacent to the compensation substation. Bremore substation will be connected to the compensation 220kV substation and the Belcamp substation by means of the onshore cables. |
| BS | British Standard |
| BSBI | Botanical Society of Britain and Ireland |
| BSI | British Standard Institute |
| BTH | Built Heritage |
| BTO | British Trust for Ornithology |
| BWI | BirdWatch Ireland |
| CA | Conservation Area |
| Cable Contractor Compound | 2 No. cable contractor compounds (referred to as the Bremore cable contractor compound within the landfall site and the Blakes Cross cable contractor compound at Blakes Cross South) will be set up along the onshore cable route which will facilitate the cable laying activities throughout the onshore elements of the proposed development. |
| Cable Duct | The cable ducts will be durable plastic conduits into which the cables will be installed. |
| CaCO ₃ | Calcium carbonate |
| CAFE | Cleaner Air for Europe |
| CAP | Climate Action Plan |
| CARO | Climate Action Regional Office |
| Cartilaginous fish | Any species with skeletons primarily composed of cartilage; comprises chimaeras and all elasmobranchs. |
| Catchment | The area of land bounded by watersheds draining into a river, basin or reservoir. |
| CBA | Cost Benefit Analysis |
| CBD | Convention on Biological Diversity |
| CBF | Community Benefit Fund |
| CBGM | Cement Bound Granular Mixture |
| CBRA | Cable burial risk assessment |
| CCAP | Climate Change Action Plan |

| Term, Abbreviation or Acronym | Description |
|-------------------------------|--|
| CCTV | Close-circuit television |
| CCUS | Carbon capture, utilisation and storage |
| CD | Chart datum |
| C&D | Construction and Demolition |
| CE | Circular Ecology |
| Cefas | Centre for Environment, Fisheries and Aquaculture |
| CEMP | Construction Environmental Management Plan |
| CEN | European Committee for Standardisation |
| CESSM | Civil Engineering Standard Method of Measurement |
| CFE | Controlled Flow Excavation |
| CFP | Common Fisheries Policy |
| CGS | County Geological Sites |
| CH | Cultural heritage |
| CH4 | Methane |
| CHVP | Cultural Heritage Viewpoints |
| CIE | Córas Iompair Éireann |
| CIEEM | Chartered Institute of Ecology and Environmental Management |
| CifA | Chartered Institute for Archaeologists |
| CIL | Commissioners of Irish Lights |
| CIP | Copenhagen Infrastructure Partners P/S (The Developer is a 50/50 joint venture between Statkraft Ireland Ltd and Copenhagen Infrastructure Partners P/S) |
| CIRIA | Construction Industry Research and Information Association |
| CIV | Cable Installation Vessel |
| CLO | Community Liaison Officer |
| CLS | Community Liaison Strategy |
| CNL | Construction Noise Levels |
| CNOSSOS | Common Noise Assessment Methods in Europe |
| CNT | Construction Noise Threshold |
| CMS | The Convention on the Conservation of Migratory Species |
| CO | Carbon monoxide |

| Term, Abbreviation or Acronym | Description |
|-------------------------------|--|
| CO2eq | Carbon dioxide equivalent |
| COMAH | Control of Major Accident Hazards Involving Dangerous Substances |
| Contractor Compounds | <p>The following terms are used to identify the various relevant contractor compounds:</p> <p>HDD contractor compound(s)</p> <p>Substation contractor compound</p> <p>Cable contractor compound(s)</p> |
| Construction Phase | The processes and activities on or off site that contribute or are instrumental to the construction of the proposed development towards, and finally to, the Operational Phase. |
| Compensation substation | The compensation substation is situated within the grid facility and will be connected to the Bremore substation by means of a 220 kV underground cable. This is the substation which will receive the onshore export cables from the landfall site. |
| COP | Conference of Parties |
| CORINE | Co-ordinated Information on the Environment |
| CP | Cathodic Protection |
| CPA | Coastal Planning Authorities. The functional area of the CPA as set out in the MAP Act includes the nearshore area of that CPA. Dublin City Council, Fingal County Council, Meath County Council and Louth County Council are the relevant CPAs for the proposed development |
| CPS | Cable protection system |
| CPUE | Catch per unit effort |
| CPT | Cone Penetration Test. This is a tool used for geotechnical surveys to determine the engineering properties of soil or seabed sediment. |
| CRM | Collision Risk Modelling |
| CRTN | Calculation of road traffic noise |
| CRU | Commission for Regulation of Utilities |
| cSAC | Candidate Special Area of Conservation |
| CSIP | Cable Specification and Installation Plan |
| CSM | Conceptual Site Model |
| CSMMP | Construction Stage Mobility Management Plan |
| cSPA | Candidate Special Protection Area |
| CSO | Central Statistics Office |
| CSTP | Celtic Sea Trout Project |
| CSZ | Core Sustainance Zone |

| Term, Abbreviation or Acronym | Description |
|-------------------------------------|--|
| CTA | Dublin Control Area (air traffic control) |
| CTD profiler | Conductivity, temperature, depth profiler; a device used to detect how the conductivity and temperature of the water column changes relative to depth |
| CTMP | Construction Traffic Management Plan |
| CTV | Crew Transfer Vessels |
| Cumulative Effects Assessment (CEA) | The assessment of potential cumulative effects that may arise from certain impacts from the proposed development acting cumulatively with impacts from other projects considered in the assessment. |
| Cut | Cut over raised peat |
| CWMP | Construction Waste Management Plan |
| DAFM | Department of Agriculture, Food and the Marine |
| DAHG | Department of Arts, Heritage and the Gaeltacht |
| DAHGI | Department of Arts, Heritage, Gaeltacht and the Islands |
| DART | Dublin Area Rapid Transport |
| DAS | Digital Aerial Surveys |
| DAU | Development Applications Unit (of the Department of Housing, Local Government and Heritage) |
| dB | Decibel. Between the quietest audible sound and the loudest tolerable sound there is a million to one ratio in sound pressure (measured in Pascal (Pa)). Because of this wide range, a level scale called the decibel (dB) scale, based on a logarithmic ratio, is used in sound measurement. Audibility of sound covers a range of approximately 0-140dB. |
| dBA | The human ear system does not respond uniformly to sound across the detectable frequency range and consequently instrumentation used to measure sound is weighted to represent the performance of the ear. This is known as the 'A weighting' and is written as 'dBA'. |
| DC | Direct current |
| DCC | Dublin City Council |
| DCCAIE | Department of Communications, Climate Action and Environment |
| DCDP | Dublin City Development Plan 2022-2028 |
| DCENR | Department of Communications, Energy and Natural Resources |
| DCF | Data Collection Framework |
| DCHG | Department of Culture, Heritage and the Gaeltacht |
| DCIHR | Dublin City Industrial Heritage Record |
| DDD | Drive Drill Drive |

| Term, Abbreviation or Acronym | Description |
|---|--|
| DDV | Drop-down Video |
| Decapod crustacean | Crustaceans of the order Decapoda, which includes crabs, lobsters, shrimp and prawns. |
| DECC | Department of the Environment, Climate and Communications |
| DECLG | Department of the Environment, Community and Local Government |
| DEFRA | Department of Environment, Food and Rural Affairs (UK) |
| DEHLG | Department of the Environment, Health and Local Government. |
| Demersal | Living and feeding on or near the seabed. |
| Design Flexibility Opinion (DF Opinion) | The Developer sought an opinion from An Bord Pleanála on design flexibility under section 287A of the Planning Acts. In 2024, An Bord Pleanála issued its opinion on design flexibility, (the “DF Opinion”). Full detail regarding the DF Opinion and how this is reflected in the EIAR is provided in Sections 2.7 and 2.8 of Chapter 2 (EIA and Methodology for the preparation of an EIAR). |
| Designated sites | Selected sites designated with the aim to conserve habitats and species of conservation concern. |
| Developer | North Irish Sea Array Windfarm Limited (Ltd). The Developer is a 50/50 joint venture between Statkraft Ireland Ltd and Copenhagen Infrastructure Partners P/S. |
| Development area | The area within which the proposed development will be located (includes onshore and offshore aspects) and is defined by the planning boundary (shown as “red line” on planning drawings) |
| Development Permission | Development Permission” has the meaning ascribed to it in the Planning Acts, and, where the context requires, means any development permission granted for the Permitted Maritime Usage. |
| DF | Design Flexibility |
| DHLGH | The Department of Housing, Local Government and Heritage |
| Diadromous | Migrating between fresh and saltwater habitats. |
| DMAP | National Designated Maritime Area Plan |
| DMRB | Design Manual for Roads and Bridges |
| DME | Distance measuring equipment |
| DoD | Department of Defence |
| Do Nothing Scenario | The environment as it would be in the future should the proposed development not be developed |
| DoT | Department of Transport |
| DP | Dynamic Positioning |
| DREMP | Dublin Region Energy Master Plan |

| Term, Abbreviation or Acronym | Description |
|-------------------------------|--|
| DS | Do Something |
| DSM | Digital Surface Model |
| DSO | Distribution System Operator – the role fulfilled by ESB to operate the electrical network of overhead lines, cables and substations at distribution voltage levels in the Republic of Ireland. |
| DTM | Digital Terrain Model |
| DTTAS | Department of Transport, Tourism and Sport |
| EAP | Environmental Action Programme |
| ECMG | East Coast Monitoring Group |
| EC | European Commission |
| ECC | Offshore export cable corridor which is the area within which the offshore export cables will travel from the offshore substation platform (OSP) to the landfall. |
| EcoServe | Ecological Consultancy Services Limited |
| EcIA | Ecological Impact Assessment |
| ECoW | Ecological Clerk of Works |
| ED | Electoral District |
| EEA States | Countries within the European Economic Area |
| EEZ | Exclusive Economic Zone |
| EFLA | European Foundation of Landscape Architecture |
| EFT | Emission Factor Toolkit |
| EIA | Environmental impact assessment – refers to the assessment process and the assessment that An Bord Pleanála will carry out. |
| EIA Directive | Environmental Impact Assessment Directive. This refers to Directive 2011/92/EU as amended by Directive 2014/52/EU on the assessment of the effects of certain public and private projects on the environment |
| EIA Regulations | European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296/2018) |
| EIS | Environmental Impact Statement |
| EirGrid Group | Transmission system operator on the Island of Ireland and transmission asset owner for offshore electrical infrastructure at transmission voltage levels in Ireland. Referred to as EirGrid. |
| EL | Exploration Licence |
| Elasmobranch | Cartilaginous fish of the subclass Elasmobranchii; comprises sharks, rays and skates. |
| Electro-sensitive | Ability to sense electric fields. |

| Term, Abbreviation or Acronym | Description |
|--|--|
| EMC | Electromagnetic Compatibility |
| EMF | Electromagnetic Field |
| EMP | Environmental Management Plan |
| EMRA | Eastern and Midlands Regional Assembly |
| EMSA | European Maritime Safety Agency |
| EMWR | Eastern-Midlands Waste Region |
| Environmental Impact Assessment Report (EIAR) | A report of the effects, if any, which proposed development, if carried out, would have on the environment and shall include the information specified in Annex IV of the Environmental Impact Assessment Directive |
| EPA | Environmental Protection Agency |
| Epibenthic | Living on the seafloor. |
| Equivalent continuous sound pressure level of LAeq,T | An index used internationally for the assessment of environmental sound impacts. It is defined as the notional unchanging level that would, over a given period of time (T), deliver the same sound energy as the actual time-varying sound over the same period. Hence fluctuating sound levels can be described in terms of an equivalent single figure value. |
| EQS | Environmental Quality Standard |
| ERBD | Eastern River Basin District |
| ERCoP | Emergency Response Cooperation Plan |
| ERM | East Regional Model |
| ERP | Economic Recovery Plan |
| ESB | Electricity Supply Board (Ireland's DSO) |
| ESBN | Electricity Supply Board Network |
| ETS | Emission Trading Scheme |
| EU | European Union |
| EUPHA | European Public Health Association |
| EUROBATS | The Agreement on the Conservation of Populations of European Bats |
| EVMP | Environmental Vessel Management Plan (Volume 9, Appendix 14.5 of EIAR) |
| EWIC | East West Interconnector (HVDC electricity interconnector) |
| FCC | Fingal County Council |
| FenPT | Fenpeat |
| Flatfishes | Bony fish of the order Pleuronectiformes; includes plaice, soles, flounders, turbot and their relatives. |

| Term, Abbreviation or Acronym | Description |
|-------------------------------|--|
| Flat formation | A method of arranging electrical cable ducts |
| FLiDAR | Floating Light Detecting and Ranging |
| FLO | Fisheries Liaison Officer |
| FLOWW | Fisheries Disruption Settlements and Community Funds |
| FMMS | Fisheries Management and Mitigation Strategy (Volume 9, Appendix 16.2 of EIAR) |
| FPV | Fall Pipe Vessels |
| FRA | Flood Risk Assessment |
| FRM | Flood Risk Management |
| FSA | Formal Safety Assessment |
| FTE | Full Time Equivalent |
| GAA | Gaelic Athletic Association |
| GACP | Galvanic Anode Cathodic Protection |
| Gadoid | Bony fish of the order Gadiformes; includes cod, haddock, hake and their relatives. |
| GCA | Grid Connection Assessment |
| GCh | Gravels derived from chert |
| GDA | Greater Dublin Area |
| GDRCoP | Greater Dublin Regional Code of Practice |
| GSDSDS | Greater Dublin Strategic Drainage Study |
| GEIA | Guidelines for planning authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (published by Department of Housing, Local Government and Heritage in 2018) |
| GEP | Good Ecological Potential |
| GES | Good Ecological Status |
| GGBFS | Ground Granulated Blast-Furnace Slag |
| GGBS | Ground Granulated Blast-Furnace Slag |
| GGr | Gravels derived from granite |
| GHG | Greenhouse Gas |
| GI | Ground Investigation |
| GIS | Geographic Information System |
| GIS | Gas insulated switchgear |

| Term, Abbreviation or Acronym | Description |
|-------------------------------|--|
| GIS building(s) | Gas Insulated Switchgear (GIS) buildings will be located in each substation compound in the grid facility. The purpose of these buildings is to house electrical infrastructure used to switch, separate, transform, measure and distribute electricity. |
| GLC | Ground Level Concentrations |
| GLPSsS | Gravels derived from Lower Palaeozoic sandstones and shales |
| GLs | Gravel derived from limestone |
| GLVIA | Guidelines for Landscape and Visual Impact Assessment |
| GLVIA3 | Guidelines for Landscape and Visual Impact Assessment: Third Edition |
| Gmp | Gravels derived from metamorphic rocks |
| GNI | Gas Networks Ireland |
| GPR | Ground Penetrating Radar |
| GPS | Global Positioning System |
| Grid Connection Point | The point where the onshore 220kV underground cable connects to the existing transmission system – at the existing Belcamp substation and the consented Belcamp extension project (F23A/0040) |
| Grid Facility | The grid facility comprises of the compensation substation and the Bremore substation together with ancillary infrastructure. |
| GSI | Geological Survey Ireland |
| GT | Gross Tonnage |
| GVA | Gross Value Added |
| GW | Gigawatt. 1GW is equivalent to 1,000MW |
| GWB | Groundwater Bodies |
| GWP | Global Warming Potential |
| ha | Hectares |
| HA | Hydrometric Area |
| Habitats Directive | EU Directive on the conservation of natural habitats, wild fauna and flora (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. |
| HAT | Highest Astronomical Tide |
| HCA | UK Homes and Communities Agency |
| HDD | Horizontal Directional Drilling |
| HDD Contractor Compound | HDD contractor compounds will be required at various locations to facilitate HDD activities including the landfall site, railway crossing, M1 |

| Term, Abbreviation or Acronym | Description |
|-------------------------------|--|
| | crossing and various watercourse crossings where either an offline or inline HDD option is selected. |
| HDPE | High Density Polyethylene |
| HDV | Heavy Duty Vehicle |
| HEV | Historic Environment Viewer |
| HF | High Frequency |
| HGV | Heavy Goods Vehicle |
| HIA | Health Impact Assessment |
| HLC | Historic Landscape Character |
| HLV | Heavy Lift Vessel |
| HMWB | Highly Modified Water Bodies |
| HP | High Pressure Gas Pipeline |
| hPa | Hectopascals |
| HSA | Health and Safety Authority |
| HSE | Health Service Executive |
| HTV | Heavy Transport Vehicle |
| HV | High Voltage |
| HVAC | High Voltage Alternating Current |
| HVDC | High Voltage Direct Current |
| HWM | High water mark as shown on the Ordnance Survey Ireland Historic 1888 -1913 25-inch mapping |
| Hydromorphology | Hydromorphology is a term used in river basin management to describe the hydrological (water flow, energy etc.) and geomorphological (surface features) processes and attributes of rivers, lakes, estuaries and coastal waters. |
| Hz | Hertz |
| IAA | Irish Aviation Authority |
| IAIA | International Association for Impact Assessment |
| IALA | International Association of Marine Aids to Navigation and Lighthouse Authorities |
| IAQM | Institute of Air Quality Management |
| IC | Impressed Current |
| ICAO | International Civil Aviation Organization |

| Term, Abbreviation or Acronym | Description |
|-------------------------------|---|
| ICE | Inventory of Carbon and Energy Database |
| ICES | International Council for the Exploration of the Sea |
| ICCP | Impressed Current Cathodic Protection |
| ICF | Irish Concrete Federation |
| ICOMOS | International Council of Monuments and Sites |
| IC1 | Interconnector 1 Scotland to Ireland (natural gas) |
| IC2 | Interconnector 2 Scotland to Ireland (natural gas) |
| IEL | Industrial Emissions Licence |
| IEMA | Institute of Environmental Management and Assessment |
| IES | Institute of Environmental Sciences |
| IFI | Inland Fisheries Ireland |
| IFP | Instrument Flight Procedure |
| IFR | Instrument Flight Rules |
| IGI | Institute of Geologists of Ireland |
| INDCs | Intended Nationally Determined Contributions |
| Indirect Effect | Indirect Effects (a.k.a. Secondary or Off-site Effects) are effects on the environment, which are not a direct result of the project, often produced away from the project site or because of a complex pathway (EPA 2022). |
| Inter-array cables (IAC) | These are the subsea electrical cables that will link the wind turbine generators to each other and link the wind turbine generators to the offshore substation platform. |
| Invasive species | An invasive species is a plant, fungus, or animal species that is not native to a specific location. |
| IMO | International Maritime Organization |
| INDCs | Intended Nationally Determined Contributions |
| INFOMAR | INFOMAR is a DECC funded joint programme between the Geological Survey Ireland and the Marine Institute, which surveys Irish marine territory and creates a range of integrated mapping products of the physical, chemical and biological features of the seabed. |
| IOA | Institute of Acoustics |
| IOF | Ornithological features |
| IOM | Isle of Man |
| IPC | Integrated Pollution Control |
| IPCC | Intergovernmental Panel on Climate Change |

| Term, Abbreviation or Acronym | Description |
|-------------------------------|---|
| IPHI | Institute of Public Health in Ireland |
| IPI | Irish Planning Institute |
| IRCG | Irish Coast Guard |
| IrSTCSsS | Irish sea till derived from Cambrian sandstones and shales |
| IrSTLPSsS | Irish Sea Till derived from Lower Palaeozoic sandstones and shales |
| IrSTLs | Irish sea till derived from limestones |
| ISMA | Irish Sea Marine Assessment |
| ISMP | Invasive Species Management Plan |
| ISO | International Organization for Standardization |
| ITM | Irish Transverse Mercator |
| I&OU | Infrastructure and Other Users |
| IWeBS | Irish Wetland Bird Survey |
| Joint Bay | A joint bay is an underground chamber which facilitates the pulling-through of cables through pre-installed cable ducts. These chambers will “joint” consecutive lengths of cables into one continuous overall circuit within a controlled environment. |
| JTCs | Junction Turning Counts |
| JUV | Jack-up Vessels |
| KER | Key ecological receptors – Ecological receptors include any living organisms (other than humans), the habitat which supports such organisms, or natural resources which could be adversely affected by the proposed development |
| kg | Kilogram |
| kHz | Kilohertz |
| KIS-ORCA | Offshore Renewable & Cable Awareness |
| km | Kilometre |
| kt | Kilotonnes |
| kV | Kilovolt |
| kJ | Kilojoules |
| KPI | Key Performance Indicator |
| kW | Kilowatt (equivalent to 1,000 watts) |
| kWhr | Kilowatt-hour |
| LA10 | LA10 is the A-weighted sound pressure level obtained by using the fast time-weighting (F) that is exceeded for 10% of the time interval |

| Term, Abbreviation or Acronym | Description |
|-------------------------------|--|
| | considered (denoted by T). It is generally used to describe road traffic noise. |
| LA90 | LA90 is a parameter that is widely used to quantify background noise and generally reflects the soundscape in the lulls between individual events. It is the A-weighted sound pressure level that is exceeded for 90% of a given time interval. |
| Lac | Lacustrine sediments |
| LAeq | A-weighted equivalent continuous sound level |
| LAM | Local Area Model |
| Land Use | The use and management of the natural, semi-natural and built environment. |
| Landfall site | The landfall site includes all infrastructure from where the offshore export cable comes onshore to where it connects to the compensation substation. This includes the area from where the offshore export cables are brought onshore, the relevant construction compound(s), TJB, HDD under the Irish Rail line, and where the onshore export cable connects to the compensation substation. |
| Landscape Character Area | Distinct types of landscape which are generic in character in that they may occur in different parts of the country, but wherever they are they share broadly similar combinations of geology, topography, drainage patterns, vegetation and historical land use and settlement pattern. |
| LAP | Local Area Plan |
| LAT | Lowest Astronomical Tide |
| LCC | Louth County Council |
| LEBM | Low energy bound mix |
| LED | Light Emitting Diode |
| LEVs | Low Emission Vehicles |
| LF | Low Frequency |
| LGV | Light Goods Vehicle |
| LIDAR | A remote sensing technology that measures distance by illuminating a target with a laser and analysing the reflected light |
| LP | Low Pressure Gas Pipeline |
| LNG | Liquified Natural Gas |
| LMP | Lighting and Marking Plan (Volume 9, Appendix 17.3 of EIAR) |
| LOA | Length Overall |
| LoD | Limits of Deviation |
| LoLo | Lift-on/Lift-off |
| LoW | List of Waste |

| Term, Abbreviation or Acronym | Description |
|--------------------------------|---|
| LV | Low Voltage |
| LVIA | Landscape and Visual Impact Assessment |
| LWM | Low Water Mark |
| m | Metres |
| m ³ | Cubic Meter |
| MAC | Maritime Area Consent, the right to occupy a part of the maritime area for the permitted maritime use. |
| made | Made ground |
| Mag | Magnetometer which is an instrument used to measure magnetic fields at a particular location. |
| Magneto-sensitive | Ability to sense magnetic fields. |
| Magnitude | The size, extent and duration of an impact |
| MAP | Maritime Area Planning |
| MAP Act | Maritime Area Planning Act |
| MARA | Maritime Area Regulatory Authority |
| MarESA | Marine Evidence Based Sensitivity Assessment |
| Marine Processes | Relates to the EIA topic of Marine Geology, Oceanography and Physical Processes |
| Maritime Area Consent Boundary | The MAC boundary is the boundary of the offshore area which the holder of the MAC has the right to occupy |
| MarLIN | The Marine Life Information Network |
| MarSands | Marine sands and gravels |
| MarSed | Marine / estuarine sediments |
| MASP | Metropolitan Area Strategic Plan |
| MBBS | Multibeam Backscatter |
| MBES | Multi-beam echo sounder, an acoustic marine survey tool used to map the seabed. |
| mBGL | Metres Below Ground Level |
| Mbs | Marine Beach Sands |
| MCA | Multi-Criteria Analysis |
| MCIB | Marine Casualty Investigation Board |
| MDS | Maximum Design Scenario |
| MCC | Meath County Council |

| Term, Abbreviation or Acronym | Description |
|-------------------------------|---|
| Mesc | Estuarine silts and clays |
| MFE | Mass Flow Excavation |
| mg / m ³ | Milligrams per cubic metre |
| MGN | Marine Guidance Note |
| MHWN | Mean High Water Neap (tides) |
| MHWS | Mean High Water Spring (tides) |
| MI | Marine Institute |
| MINNS | Marine Invasive Non-Native Species |
| Mitigation Measure | Measure which would avoid, reduce, or remediate an impact. |
| MLWN | Mean Low Water Neap (tides) |
| MLWS | Mean Low Water Spring (tides) |
| MMMP | Marine Mammal Mitigation Protocol (Appendix 14.4 of Volume 9 of EIAR) |
| MMO | Marine Management Organisation |
| MMO | Marine Mammal Observer |
| MMO/PAM operator | Marine Mammal Observer/Passive Acoustic Monitoring operator |
| MNR | Mean Neap (tide) Range |
| mOD | Metres Above Ordnance Datum Malin Head |
| MP | Medium Pressure Gas Pipeline |
| MPA | Marine Protected Areas |
| MPCP | Marine Pollution Contingency Procedure |
| MPDM | Maritime Planning and Development Management Act. |
| MRF | Materials Recovery Facility |
| m/s | Meters per Second |
| MSA | Million Standard Axles |
| MSFD | Marine Strategy Framework Directive (Directive 2008/56/EC) |
| MSL | Mean Sea Level |
| MSO | Marine Survey Office |
| MSR | Mean Spring (tide) Range |
| MSW | Municipal Solid Waste |
| Mt | Megatonnes |

| Term, Abbreviation or Acronym | Description |
|-------------------------------------|---|
| Multi-beam echo sounder (MBES) | MBES is an acoustic marine survey tool used to map the seabed. |
| MV | Medium Voltage |
| MVA | Megavolt-Ampere |
| MW | Megawatt (equivalent to 1,000KW) |
| N2O | Nitrous Oxide |
| NAF | National Adaptation Framework |
| NAS | Noise Abatement System |
| Natura 2000 sites or European Sites | Sites designated under the Habitats and Birds Directives (includes SACs and SPAs) |
| Natura Impact Statement (NIS) | A 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 |
| NBAP | National Biodiversity Action Plan |
| NBDC | National Biodiversity Data Centre |
| NDB | Non-Directional Beacon |
| NDC | National Determined Contributions |
| NDP | National Development Plan |
| NECP | National Energy and Climate Plan |
| NEDS | National Energy Demand Strategy |
| NETN | National Electricity Transmission Network |
| NFGWS | National Federation of Group Water Schemes |
| NG4 | Noise Guidance Note |
| NH3 | Ammonia |
| NHA | Natural Heritage Area |
| NI | Northern Ireland |
| NIAH | National Inventory of Architectural Heritage |
| NIEA | Northern Ireland Environment Agency |
| NISA | North Irish Sea Array |
| nm | Nautical Mile |
| NM | Noise Measurement |
| NM | Noise Monitoring |

| Term, Abbreviation or Acronym | Description |
|---|--|
| NMI | National Museum of Ireland |
| NMPF | National Marine Planning Framework |
| NMS | National Monuments Service |
| NMVOG | Non-methane volatile organic compounds |
| NO | Nitric Oxide |
| NO2 | Nitrogen Dioxide |
| North Irish Sea Array (NISA) Offshore Wind Farm | The North Irish Sea Array (NISA) Offshore Wind Farm is an offshore wind farm located off the east coast of Ireland, off counties Dublin, Meath, and Louth. The proposed development is comprised of onshore and offshore infrastructure. |
| North Irish Sea Array Windfarm Limited (Ltd) | North Irish Sea Array Windfarm Limited (Ltd) is the Developer. The Developer is a 50/50 joint venture between Statkraft Ireland Ltd and Copenhagen Infrastructure Partners P/S. |
| north, south, east, west, etc. | Lower case. Compound directions take hyphens, e.g. north-west. |
| NOx | Nitrogen Oxides |
| NOAA | National Oceanic and Atmospheric Administration |
| NOTAM | Notice to Airmen |
| NPF | National Planning Framework |
| NPO | National Policy Objective |
| NPWS | National Parks and Wildlife Services |
| NRA | Navigational Risk Assessment |
| NRW | Natural Resources Wales |
| NSIP | Nationally Significant Infrastructure Projects |
| NSLs | Noise sensitive locations |
| NSO | National Strategic Outcomes |
| NSR | Noise Sensitive Receptors |
| NSTA | North Sea Transition Authority |
| NTA | National Transport Authority |
| NtMs | Notice to Mariners |
| NUC | Not Under Command |
| Nursery grounds | Areas important for the development of juvenile fish and shellfish. |
| NWIS cSPA | North-west Irish Sea candidate Special Protection Area |
| O3 | Ozone |

| Term, Abbreviation or Acronym | Description |
|--|--|
| OD | Outside Diameter |
| Offshore EMP | Offshore Environmental Management Plan (EMP) (Appendix 9.1 of Volume 9) |
| Offshore export cable corridor | The specific corridor of seabed (seaward of high water mark) from the array area to the landfall site, in which the offshore export cable route will be located. Referred to as the ECC. |
| Offshore export cable(s) | Comprises of 2 No. subsea 220kV HVAC cables linking the offshore substation platform to the transition joint bay (TJB) within the landfall site. |
| Offshore infrastructure | This relates to the aspects of the proposed development located seaward of the HWM |
| Offshore development area | That area within the proposed development boundary located seaward of the HWM |
| Offshore substation platform (OSP) | The OSP is the offshore electrical structure which contains the equipment needed to connect the WTGs to the offshore export cables. |
| Onshore CEMP | Onshore construction environment management plan (Appendix 9.1 of Volume 9) |
| Onshore cable route | This is the route taken by the onshore cable(s) which links the Bremore 220kV substation to the existing Belcamp 220kV substation. |
| Onshore cable(s) | The onshore underground 220kV HVAC cables will connect Bremore substation to the existing Belcamp substation. This will comprise of up to 6 No. power cables and 2 No. fibre optic cables. |
| Onshore export cable(s) | Comprises onshore underground 220kV HVAC cables which will be routed from the transition joint bay at the landfall site connecting to the grid facility. |
| Onshore development area | That area within the proposed development boundary located landward of the HWM |
| Onshore infrastructure | This relates to the aspects of the proposed development located landward of the HWM |
| OPC | Ordinary Portland Cement |
| OPERA | Operational Programme for the Exchange of Weather Radar Information |
| Operation and Maintenance Facility (OMF) | The location from where the daily operations and normal repairs, replacement of parts and structural components, and other activities needed to operate and maintain the proposed development will be performed during its lifetime. |
| Operational Phase | This phase refers to the processes and activities implemented following the Construction Phase |
| OPW | Office of Public Works |
| ORE | Offshore Renewable Energy |
| ORESS 1 | ORESS 1 Offshore Renewable Energy Support Scheme - the first Offshore Auction run under the Government of Ireland's Renewable |

| Term, Abbreviation or Acronym | Description |
|--|--|
| | Electricity Support Scheme and is a pivotal component of the Programme for Government and the Climate Action Plan 2024. |
| OREDP | Offshore Renewable Energy Development Plan |
| OREDP II | Offshore Renewable Energy Development Plan II |
| OREI | Offshore Renewable Energy Installations |
| OS | Ordnance Survey |
| OSI | Ordnance Survey Ireland |
| OSPAR | Oslo/Paris Convention (for the Protection of the Marine Environment of the North-East Atlantic) |
| OSV | Offshore Supply Vessels |
| OUV | Outstanding Universal Value |
| OWF | Offshore Wind Farm |
| O&M | Operation and Maintenance |
| Ovigerous | Carrying or bearing eggs. |
| PAM | Passive Acoustic Monitoring |
| Pb | Lead |
| PC | Process Contribution |
| PCBs | Polychlorinated Biphenyls |
| PEC | Predicted Environmental Concentration |
| PEIR | Preliminary Environmental Information Report |
| PEL | Probable Effects Level |
| Pelagic | Living and feeding in the water column. |
| PfG | Programme for Government |
| Phase One Projects | The Phase One Projects refer to the five east coast offshore wind projects that participated in the ORESS 1 auction in 2023. These projects are: Dublin Array, Codling Wind Park, Oriel Windfarm, Arklow Bank, and the North Irish Sea Array (the proposed development). |
| Physical connection to transmission system | Construction of the cable run-in and tie-in to the existing Belcamp substation. |
| PIANC | World Association for Waterborne Transport Infrastructure |
| Planning Acts | Planning and Development Act 2000, as amended |
| Planning boundary | The boundary for planning purposes of the proposed development, i.e. the red line boundary – shown on the planning drawings. All of the proposed development is located within the planning boundary |
| PLL | Potential Loss of Life |

| Term, Abbreviation or Acronym | Description |
|-------------------------------|--|
| PLONOR | Pose Little or No Risk to Environment |
| PM | Particulate <atter |
| PM10 | Particulate matter of less than 10 microns |
| PM2.5 | Particulate matter of less than 2.5 microns |
| pNHA | Proposed Natural Heritage Area |
| PPV | Peak Particle Velocity |
| Pre-lay grapnel run (PLGR) | A PLGR is a pre-construction operation for the offshore components of the proposed development. PLGR will remove any obstacles that could obstruct the cable plough during offshore export cable installation. |
| PRFs | Potential Roost Features |
| Project Option 1 | Project Option 1 consists of 49 WTGs with 250m rotor diameter |
| Project Option 2 | Project Option 2 consists of 35 WTGs with 276m rotor diameter |
| ProPG | Professional Practice Guidance on Planning and Noise |
| Proposed development | This refers to the overall Offshore Wind Farm project, which is the subject of the planning application, and which includes all offshore and onshore infrastructure |
| Proposed development boundary | This is the development or red line boundary within which all of the proposed development is located. |
| PSA | Particle Size Analysis |
| PSAC | Portmarnock Sub Aqua Club |
| PSO | Public Service Obligation |
| PSR | Primary Surveillance Radar |
| PSZ | Public Safety Zone |
| PTS | Permanent Threshold Shift |
| PV | Solar Photo Voltaic |
| PVA | Population Viability Analysis |
| PVC | Polyvinyl Chloride |
| PWMS | Precautionary Working Method Statement |
| QI | Qualifying Interest |
| QoS | Quality of Service |
| RA | Residential area |
| RAF | Royal Air Force (UK) |
| RAM | Restricted in Ability to Manoeuvre |

| Term, Abbreviation or Acronym | Description |
|--------------------------------|---|
| RBD | River Basin District |
| RBMP | River Basin Management Plan |
| rBWD | Revised Bathing Water Directive (Directive 2006/7/EC) |
| Rck | Bedrock outcrop or subcrop |
| Receiving/Baseline Environment | This is the term used for the baseline environment against which the impacts from the project are assessed. |
| Receptor | Something that could be affected by the proposed development, such as people, an ecological system, property, or a water body. Receptors should be identified and illustrated in a map/figure where discussed in your assessment. |
| RED III | Renewable Energy Directive (EU) 2023/2413 |
| REI | Renewable Energy Infrastructure |
| RES-E | Electricity Generated from Renewable Energy Sources |
| RESS | Renewable Electricity Support Scheme |
| RFC | Royal Flying Corps (UK) |
| RFI | Request for Further Information |
| RLB | Red Line Boundary |
| RLoS | Radar Line of Sight |
| RNAS | Royal Navy Air Service (UK) |
| RNLI | Royal National Lifeboat Institution (UK) |
| RMP | Record of Monuments and Places |
| RoRo | Roll-on/Roll-off |
| ROV | Remotely Operated Vehicles |
| RPA | Root Protection Area |
| RPO | Regional Policy Objectives |
| RPS | Record of Protected Structures |
| RSA | Road Safety Authority |
| RSES | Regional Spatial and Economic Strategy |
| RSL | Relative Sea Level |
| RWMPO | Regional Waste Management Planning Offices |
| SAC | Special Area of Conservation |

| Term, Abbreviation or Acronym | Description |
|-------------------------------|--|
| Salmonid | Any species of the family (Salmonidae) of elongate bony fishes (such as a salmon or trout) that have the last three vertebrae upturned (i.e. ray-finned fish). |
| SAR | Search and Rescue |
| SBJ | Suction Bucket Jackets |
| SBP | Acoustic sub-bottom profilers (SBP) are marine survey tools used to determine physical properties of the sea floor and gather geological information a few metres below the sea floor. |
| SCADA | Supervisory Control and Data Acquisition |
| SC-DMAP | South Coast Designated Maritime Area Plan |
| SCI | Special Conservation Interest |
| SDG | Sustainable Development Goal |
| SDR | Standardised Death Rate |
| SDZ | Strategic Development Zone |
| SEA | Strategic Environmental Assessment |
| SEAI | Sustainable Energy Authority of Ireland |
| SEL | Sound Exposure Level |
| SELcum | Cumulative Sound Exposure Level |
| Sensitive Receptor | Physical or natural resource, special interest or viewer group that may experience an impact |
| Sensitivity | Vulnerability of a sensitive receptor to change |
| SFC | Sustainable Fisheries Community |
| SFPA | Sea Fisheries Protection Authority |
| SHD | Strategic Housing Development |
| Shellfish | Shell-bearing aquatic invertebrates used as food; includes various species of crustaceans, bivalves, and gastropods. |
| SI | Statutory Instruments |
| Side Scan Sonar (SSS) | This is a marine survey method used to create an image of large areas of the sea floor. |
| SISAA | Supporting Information for Screening for Appropriate Assessment |
| SLoO | Single Line of Orientation |
| SLVIA | Seascape, Landscape and Visual Impact Assessment |
| SMR | Sites and Monuments Record |
| SNCB | Statutory Nature Conservation Body |

| Term, Abbreviation or Acronym | Description |
|---|--|
| SNH | Scottish Natural Heritage |
| SO ₂ | Sulphur Dioxide |
| SO _x | Sulphur Oxides |
| SOLAS | Safety of Life at Sea |
| Sound power level | The sound power level (L _w) of a source is a measurement of the total acoustic power it radiates. The sound power level is an intrinsic characteristic of a source (analogous to its volume or mass), which is not affected by the environment within which the source is located. |
| SOV | Service Operation Vessels |
| SPA | Special Protection Area |
| Spawning grounds | Areas where fish and shellfish aggregate to release their gametes for fertilisation or locations where egg cases are deposited. |
| SPL | Sound Pressure Level |
| SPL _{peak} | Peak Sound Pressure Level |
| SPM | Suspended Particulate Matter |
| SPS | Subsea Protection Systems |
| SPZ | Source Protection Zone |
| Study area | The area which is characterised and assessed for individual receptors in each EIAR chapter |
| Substation construction compound | One substation construction compound will be established in the grid facility site and will facilitate the construction of the compensation substation and the Bremore substation. |
| SSC | Suspended Sediment Concentration |
| SSCV | Semi-Submersible Crane Vessel |
| SSR | Secondary Surveillance Radar |
| STECF | Scientific, Technical and Economic Committee for Fisheries |
| SUA | Special Use Airspace |
| SuDS | Sustainable Drainage Systems |
| Sulphur Hexafluoride (SF ₆) | SF ₆ is used as an electrical insulating material within electrical infrastructure such as breakers and transformers. |
| SVC | Static VAR compensator |
| Swim bladder | Gas-filled organ of many bony fish; used to control buoyancy. |
| SWO | Storm Water Overflow |
| TAC | Total Allowable Catch |

| Term, Abbreviation or Acronym | Description |
|-------------------------------|--|
| Tailte Éireann | Ordnance Survey Ireland Geohive (OSI) (now called Tailte Éireann) |
| TCA | Townscape Character Assessment |
| TCSsS | Till derived from Cambrian sandstones and shales |
| TdlMr | Tidal Marsh |
| TDP | Transmission Development Plan |
| TEL | Threshold Effect Level |
| TGr | Till derived from granites |
| TICCIH | The International Committee for the Conservation of the Industrial Heritage |
| TII | Transport Infrastructure Ireland |
| Transition Joint Bay (TJB) | Infrastructure to facilitate the transition from offshore export cables to onshore export cables at the landfall site |
| TLPSsS | Till derived from Lower Palaeozoic sandstones and shales |
| TLs | Till derived from limestones |
| TMp | Till derived from metamorphic rock |
| Transmission System | The electrical network of overhead lines, cables and substations operated by EirGrid Group at transmission voltage levels on the Island of Ireland |
| Trefoil formation | A method of arranging electrical cable ducts |
| TP | Transition Piece |
| TPO | Tree Preservation Order |
| TQz | Till derived from quartzites |
| TSHD | Trailer Suction Hopper Dredger |
| TSS | Traffic Separation Scheme |
| TTS | Temporary Threshold Shift |
| UCC | University College Cork |
| Uisce Éireann | Irish Water |
| UKEA | United Kingdom Environment Agency |
| UKHA | United Kingdom Highways Agency |
| UKHO | United Kingdom Hydrographic Office |
| UKFEN | United Kingdom Fisheries Economic Network |
| UKCS | United Kingdom Continental Shelf |
| UNCLOS | United Nations Convention on the Law of the Sea |

| Term, Abbreviation or Acronym | Description |
|-------------------------------|--|
| UNECE | United Nations Economic Commission for Europe |
| UNEP | United Nations Environment Program |
| UNESCO | United Nations Educational, Scientific and Cultural Organization |
| UNFCCC | United Nations Framework Convention on Climate Change |
| UPS | Uninterruptible Power Supply |
| Urban | Urban (ground made) |
| UV | Ultraviolet |
| UWWT | Urban Waste-Water Treatment |
| UXO | Unexploded ordinance. Typically, shells or bombs from World War I or World War II, which did not explode when deployed. |
| VDV | Vibration Dose Value |
| VER | Valuable Ecological Receptor |
| VFR | Visual Flight Rules |
| VHF | Very High Frequency |
| VOCs | Volatile Organic Compound |
| VMP | Vessel Management Plan |
| VMS | Vessel Monitoring System |
| VP | Viewpoint |
| VRDP | Visual Representation of Development Proposals |
| VSLs | Vibration Sensitive Locations |
| WADT | Weekly Average Daily Traffic |
| Water Body | A surface water body as defined under the Water Framework Directive (WFD) i.e. a river/stream, lake, transitional, coastal, or groundwater body. |
| WCP | Waste Collection Permit |
| WEEE | Waste Electrical and Electronic Equipment |
| WEI | Wind Energy Ireland |
| WFD | Water Framework Directive (Directive 2000/60/EC) |
| WHO | World Health Organization |
| WHS | World Heritage Site |
| WSN | Water Supply Network |
| WTG | Wind Turbine Generator |

| Term, Abbreviation or Acronym | Description |
|-------------------------------|--|
| WWTS | Wastewater Treatment System |
| Wx | Abbreviation used throughout the EIAR to identify watercourse crossings within the proposed development. |
| ZAP | Zone of Archaeological Potential |
| Zone of Influence (ZoI) | An area within which environmental impact arising from a certain activity may occur. |
| ZTV | Zone of Theoretical Visibility |