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GLOSSARY

Term	Definition
1990 Baseline	As defined by the Climate Change Act 2008 s1, values of specific gases in 1990 against which change is measured in terms of greenhouse gases (GHGs) emissions. This baseline is used for the United Kingdom's (UK) domestic GHG targets for carbon dioxide (CO ₂), methane (CH ₄) and nitrous oxide (N ₂ O) and, since 1995, for fluorinated gases (F-gases).
Abiotic	Physical rather than biological and therefore not derived from living organisms.
Acoustic Deterrent Device (ADD)	A tool deployed to emit high-frequency sounds to deter marine mammals from areas where their presence may pose a risk, such as construction sites or fishing operations.
Adult Type	A seabird that appears to have adult plumage, but has not yet reached sexual maturity. For example, kittiwake show an adult-type plumage in their second or third year, but do not typically breed until four or five years of age.
Air Defence Radar (ADR)	ADR are used as early-warning devices because they can detect approaching enemy aircraft or missiles at great distances. Range and bearing information, provided by ADR, are used to initially position a fire-control tracking radar on a target. ADR is utilised in the direction of aircraft to a position suitable to intercept enemy aircraft. A tactical transportable long-range air surveillance radar TPS-77 ADR is employed at a number of locations to provide detection of a potential airborne threat.
Air Gap	The lowest blade tip point of a wind turbine to sea clearance distance as measured from the Lowest Astronomical Tide (LAT).
Air Traffic Control (ATC)	ATC is a service provided by air traffic controllers who direct aircraft on the ground and in the air through all classes of airspace and can provide flight information/advisory services to aircraft in non-controlled airspace.
Allision	The act of striking or collision of a moving vessel against a stationary object.
Ammodytidae	A family of sandeel species.
Amplitude	The maximum displacement of a point on a wave from equilibrium.
Ampullary Electroreceptors	Organs which can detect weak electric fields produced by other animals.
Anadromous Fish	Fish species that regularly migrate from sea to fresh water to spawn.
Annelida	A large phylum of invertebrate that comprises the segmented worms, which include earthworms, lugworms, ragworms, and leeches.
Annex I Habitat	A natural habitat type of community interest, defined in Annex I of the Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (Habitats Directive). The designation of Special Areas of Conservation (SAC) is required in the United Kingdom (UK) to ensure the conservation of these habitats. The protection afforded to sites designated prior to European Union (EU) Exit persists in UK law.

Term	Definition
Annex II Species	Animal or plant species of community interest, defined in Annex II of the Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (Habitats Directive). The designation of Special Areas of Conservation (SAC) is required in the UK to ensure the conservation of these species. The protection afforded to sites designated prior to EU Exit persists in UK law.
Anthropogenic	Caused by humans or their activities.
Apportioning	A method that assigns unknown entities to known entities based on weighing factors. In this report, it refers to birds of unknown origin within the study area that are assigned to colonies based on distance to colony and colony size.
Appropriate Assessment	An assessment to determine the implications of a plan or project on a European site in view of that site's conservation objectives. An Appropriate Assessment forms part of the Habitats Regulations Appraisal (HRA) and is required when a plan or project (either alone or in combination with other plans or projects) is likely to have a significant effect on a European site.
ArcGIS Pro	A desktop Geographical Information System (GIS) application.
Array	Offshore components of Ossian, including infrastructure such as wind turbines and associated foundations, moorings and anchors, Offshore Substation Platforms (OSPs), and inter-array/interconnector cables.
Array Lifetime Effects	Assessment of effects that may occur throughout more than one phase of the Array, (construction, operation and maintenance and decommissioning) to interact to potentially create a more significant effect on a receptor than if just assessed in isolation in each of the three key phases of the Array (e.g. underwater sound effects from construction piling, operational wind turbines, vessels and decommissioning activities).
Artefact	Object made or used by people, especially of archaeological interest.
Arthropoda	A member of the phylum Arthropoda, the largest phylum in the animal kingdom, which includes such familiar forms as lobsters, crabs, spiders, mites, insects, centipedes, and millipedes.
	Phylum with a wide diversity of animals with hard exoskeletons and jointed appendages.
Asymptote	A theoretical limit or boundary that a variable approaches but never reaches.
Atlas of UK Marine Renewable Energy Resources	Primary resource for waves, winds and tides – maintained by Associated British Ports Marine Environmental Research (ABPmer).
Automatic Identification System (AIS)	A system by which vessels automatically broadcast their identity, key statistics including location, destination, length, speed and current status, e.g. under power. Most commercial vessels and UK/EU fishing vessels over 15 metres length are required to carry AIS.
Availability Bias	An estimator of the probability that an animal is available for detection (i.e. visible) at any randomly chosen time.
Average Mortality	The average estimate of mortality rate for a whole population, taking into account the age structure of the population and age-specific mortality rates.



Term	Definition
A-weighting	A weighting function which is applied to account for the relative loudness of a noise perceived by the human ear.
Azimuth	The azimuth is the angle between North, measured clockwise around the observer's horizon, and a celestial body (i.e. sun, moon). It determines the direction of the celestial body. For example, a celestial body due North has an azimuth of 0°, one due East 90°, one due South 180° and one due West 270°.
B Field	Magnetic field.
Baleen Whales	A group of marine mammals characterised by the presence of baleen plates in their mouths, which they use to filter small organisms such as krill and plankton from the water for feeding.
Barrier Effects	The phenomenon wherein certain physical structures or developments such as roads, fences, or energy installations, act as barriers or obstacles to the movement and dispersal of wildlife populations, potentially fragmenting habitats and impacting ecological connectivity.
Baseline	The existing conditions as represented by the latest available survey and other data which is used as a benchmark for making comparisons to assess the impact of the Array.
Bathymetric	Referring to the measurement and study of the depth of water in oceans, seas, or other bodies of water, typically depicted through contour lines on maps or charts.
Beam Trawl	A method of bottom trawling with a net that where the net is held open by a beam, which is generally a heavy steel tube supported by steel trawl heads at each end. Tickler chains or chain mats, attached between the beam and the ground rope of the net, are used to disturb fish and crustaceans that rise up and fall back into the attached net.
Before Present	A time scale used mainly in archaeology, geology, and other scientific disciplines to specify when events occurred relative to the origin of practical radiocarbon dating in the 1950s.
Benthic Ecology	Benthic ecology encompasses the study of the organisms living in and on the sea floor, the interactions between them and impacts on the surrounding environment.
Benthic Fish	Fish that live on or near the seabed, irrespective of the depth of the sea. Many benthic species have modified fins, enabling them to crawl over the bottom; others have flattened bodies and can lie on the sand; others live among weed beds, rocky outcrops and coral reefs.
Benthopelagic	Species that usually float in the water column just above the seabed and can occupy either shallow coastal waters or deep waters offshore.
Benthopelagic Fish	Benthopelagic fish usually float in the water column just above the seabed and can occupy either shallow coastal waters or deep waters offshore.
Berried	Egg-bearing individual with eggs are attached to its tail or some other exterior part.
Berwick Bank Offshore Wind Farm	The offshore wind farm which is to be located within the Agreement for Lease area for Berwick Bank Offshore Wind Farm (formerly Seagreen 2 Offshore Wind Farm) and the Agreement for Lease area for Marr Bank (formerly Seagreen 3 Offshore Wind Farm) - together now referred to as Berwick Bank Offshore Wind Farm.

Term	Definition
Biologically Defined Minimum Population Scale (BDMPS)	The estimated non-breeding populations of seabirds in UK offshore waters. Populations are split into regions by the smallest geographical range and scale that can be supported by evidence relating to the life history of a species, including seasonal distribution and migratory movements.
Bio-season	Behaviour and abundance is recognised to differ across a calendar year, with particular months recognised as being part of different seasons. Separate bio-seasons are recognised in Array EIA Report in order to establish the level of importance any species has within the study area during any particular period of time. For example, in terms of seabirds, the seasons used are based on those in Furness (2015) (and as agreed with NatureScot for guillemot).
Biotic	Relating to or resulting from living organisms.
Biotope	The combination of physical environment (habitat) and its distinctive assemblage of conspicuous species.
Bivalve	A class of aquatic molluscs that have laterally compressed bodies, enclosed by a shell consisting of two hinged parts.
Blue Carbon	Organic carbon that has been captured and stored through biological processes in the coastal and marine environment.
Bootstrapping	Statistical procedure that resamples a single dataset to create many simulated samples.
Breeding Adults	Adults at breeding age proportion of a population.
Brexit	The withdrawal of the UK from the EU. See also "Eu Exit".
Broadband Noise Level	The noise level which is derived from logarithmically summing the frequency dependant noise levels across all frequency bands.
Bryozoan	Phylum of aquatic invertebrates, often living in sessile colonies.
Bycatch	Fish and seabirds that are caught which are retained and sold but are not the target species for the fishery.
Capital Breeder	A species that primarily relies on stored energy reserves, such as fat, to support reproduction and survival during periods of food scarcity or limited foraging opportunities.
Carapace	The hard upper shell of a crustacean.
Carbon Cost	Carbon emissions associated with products or services during their entire life cycle.
Catadromous Fish	Fish species that live in freshwater and migrate to sea to breed.
Cetacean Porpoise Detector (C-POD)	An acoustic monitoring device designed to detect and record the echolocation clicks of cetaceans, particularly porpoises, for research and conservation purposes.
Cilia	Specialised hairs used by some fish species to detect vibrations in surrounding water.
Circalittoral	The region of the sublittoral zone which extends from the lower limit of the infralittoral to the maximum depth at which photosynthesis is still possible.



Term	Definition
Class G Uncontrolled Airspace	Airspace in which ATC does not exercise any executive authority but may provide basic information services to aircraft in radio contact. In the UK, Class G airspace is uncontrolled.
Click	A short, high frequency sound pulse emitted by certain marine mammals, particularly toothed whales such as dolphins and sperm whales, used for echo location, communication, and navigation underwater.
Climate Change	A change in global or regional climate patterns, in particular a change apparent from the mid to late 20 th century onwards, and attributed largely to the increased levels of atmospheric carbon dioxide produced by the use of fossil fuels.
Cnidarian	Phylum of aquatic invertebrates, which can be sessile or free-swimming depending on the species. They have specialised stinging capsules known as 'nematocysts'.
Coefficient of Variation	A measure of variability, calculated as the ratio of the standard deviation to the mean of a data set.
Collision	The act or process of colliding (crashing) between two moving objects.
Collision Risk	Risk of a bird lethally colliding with a wind turbine within a wind farm.
Collision Risk Model	A model that calculates potential collision risk for a species within a wind farm based on a set of wind farm and bird species specific parameters. Collision risk models can be run deterministically or stochastically.
Competent Authority	The term derives from the Habitats Regulations and relates to the exercise of the functions and duties under those Regulations. Competent authorities are defined in the Habitat Regulations as including "any Minister, government department, public or statutory undertaker, public body of any description or person holding a public office". In the context of a plan or project, the competent authority is the authority with the power or duty to determine whether or not the proposal can proceed (SNH, 2014).
COMPILE Benchmark	Portmanteau combining computation, comparison, and pile: a suite of idealised models created to calibrate underwater noise propagation models for piling noise.
Compression	The act of compressing: bringing elements closer together, increase in density.
Conference Of the Parties (COP)	COP is the main decision-making body of the United Nations Framework Convention on Climate Change (UNFCCC). It includes representatives of all the countries that are signatories (or 'Parties') to the UNFCCC. COP assesses the effects of measures introduced by the Parties to limit climate change against the overall goal of the UNFCCC.
Confidence Interval	Method to display the probability that a parameter will fall between a pair of values around the mean.
Connectivity	The degree to which ecological habitats or populations are interconnected and functionally linked, influencing the exchange of genetic material, movement of organisms, and overall resilience of ecosystems.
Controlled Airspace (CAS)	Airspace in which ATC exercises authority (i.e. where instructions to pilots are mandatory). In the UK, Class A, C, D and E airspace is controlled.

Term	Definition
Controlled Site	A wreck site, designated by location, that contains the remains of an aircraft or a vessel and is protected under the Protection of Military Remains Act 1986.
Convention for the Protection of the Marine Environment of the North-East Atlantic or OSPAR Convention	The current legislative instrument regulating international cooperation on environmental protection in the North-East Atlantic. Work carried out under the convention is managed by the OSPAR Commission, which is made up of representatives of the Governments of the 15 signatory nations, and representatives of the European Commission, representing the EU.
Counterfactual of Growth Rate	The ratio of impacted to unimpacted annual growth rate.
Counterfactual of Population Size	The ratio of impacted to unimpacted population size.
COVID-19 Pandemic	The COVID-19 pandemic was a global outbreak of coronavirus, an infectious disease caused by the severe acute respiratory syndrome coronavirus, first identified in 2019.
Crannog	A partially or entirely artificial island, usually built in lakes and estuarine waters.
Creel	Creel is typically a Scottish term for a pot or trap deployed by an inshore vessel. Pots and traps are generally rigid structures into which fish or shellfish are guided or enticed through funnels that make entry easy but from which escape is difficult. There are many different styles and designs, each one has been designed to suit the behaviour of its target species.
Cumulative Impact	Impacts arising from the Array and cumulatively with other relevant plans, projects and activities.
Cumulative Effect Assessment (CEA)	Assessment of likely significant effects as a result of the incremental change caused by other past, present and reasonably foreseeable activities together with a development
Current Shear	Flow field in which adjacent fluid elements are moving at different velocities.
Cytotoxicity	The degree at which a substance can cause cell damage.
D-glucose	A type of glucose used as a carbohydrate when nutrients are lacking.
Decapod Crustacean	A ten-legged animal typically with a body covered in a shell or hard crust (such as crabs and lobsters).
Deepwater	Refers to areas of the ocean characterised by significant depth, typically beyond the continental shelf, where depths can range from hundreds to thousands of meters.
Deflagration	A rapid chemical reaction characterised by subsonic propagation of flame front through a combustible substance, such as an explosive material or flammable gas, typically resulting in the release of heat and pressure.
Demersal	Species that live close or on the seabed.
Demersal Fish	Fish species that live close to the sea floor and are bottom feeders. There are two types: benthic fish which rest on the sea floor (e.g. flatfish, dragonets, skates and rays) or benthopelagic fish (see above).



Term	Definition
Demersal Seine	An encircling net shot in the open sea using very long ropes to lay out the net, and ropes on the seabed prior to towing the net closed and hauling from a boat under its own power.
Demersal Spawning Species	Species which deposit eggs onto the seabed during spawning.
Demersal Trawl	A trawl net that is towed across the seabed rather than through the mid water column.
Demographic Parameter	A factor that determines the population size.
Deoxyribonucleic Acid (DNA)	Molecules which carry genetic information for the development and functioning of all life forms.
Design-Based Abundance Estimates	An estimated total abundance of birds within a given area. The design- based method is based on the premise that the portion of the study area that is surveyed is representative of the remainder of the study area.
Designed In Measures	Measures included in the design of a proposed development that help to reduce the impact of the development.
Deterministic Model	Model where a single value for each input parameter that goes into the model is used, leading to a single output without variation.
D-glucose	A type of glucose used as a carbohydrate when nutrients are lacking.
Dhan	A marker flag made of very hard wearing material located on a pole or buoy to mark location of fishing gear.
Diadromous Fish	Fish species that regularly migrate between sea marine and freshwater systems.
Diamicton	Poorly sorted mixed sediments.
Direct	This is associated with the direct activities of the Applicant as well as the activities of primary suppliers.
Direct Impact	Occurs as a straightforward consequence of activities undertaken in direct connection to the project (derived from Highways Agency et al., 2020).
Disaster	May be 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 a major accident (IEMA, 2020).
Displacement	The extent to which activity generated by Ossian might displace existing activity elsewhere in the socio-economics study areas.
Displacement Study Area	This comprises the Array plus a 2 km buffer. This is the area used to consider displacement effects on valued ornithological receptors (VORs).
Disposal Site	Disposal sites are used for the disposal of material at sea, typically dredged material. In the UK these are subject to a marine licence from the Marine Management Organisation (MMO).
Doppler Shift	The Doppler shift is the apparent change in frequency of a wave in relation to an observer moving relative to the wave source.
Doppler Threshold	Doppler threshold is the speed threshold set in the radar processing to remove slow moving targets such as birds. Usual set between 40 knots to 55 knots.

Term	Definition
Dose-Response Relationship	The magnitude of the response of an organism, as a function of exposure to a stimulus or stressor after a certain exposure time.
Dredging	A method to catch scallop using steel dredges with a leading bar fitted with a set of spring loaded, downward pointing teeth. Behind this toothed bar, a mat of steel rings is fitted. A heavy net cover is laced to the frame sides and end of the mat to form a bag.
Drop-Down Video (DDV)	A survey method in which imagery of habitat is collected, used predominantly to survey marine environments.
Duration of Impact	The time over which an impact occurs. Duration should be defined in relation to ecological characteristics (such as the lifecycle of a species) as well as human timeframes. An impact may be described as short, medium or long term and permanent or temporary.
Duty cycle	The time period or fraction of one time period in which a signal or system is active.
E Field	An electrical field which physically surrounds electrically charged particles.
Echinoderm	A marine invertebrate of the phylum Echinodermata, such as a starfish, sea urchin, or sea cucumber.
Echolocation	The biological process by which certain animals emit high-frequency sound waves and interpret the returning echoes to perceive their surroundings, typically used for navigation, locating prey, and communicating in aquatic environments.
Ecological Impact Assessment (EcIA)	Assessment of the ecological impacts of a plan, project, or activity.
Effect	Term used to express the consequence of an impact. The significance of an effect is determined by correlating the magnitude of the impact with the importance, or sensitivity, of the receptor or resource in accordance with defined significance criteria.
EIA Regulations	Collectively the term used to refer to The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017; and The Marine Works (Environmental Impact Assessment) Regulations 2007.
EIA Report	Document prepared to provide information on the baseline environment, project description for a proposed development, a systematic assessment of a project's likely significant environmental effects, measures to avoid, prevent, reduce or offset likely significant adverse environmental effects, a description of the reasonable alternatives studied by the developer and a Non-Technical Summary. This EIA Report is then considered by the public, consultees and the relevant regulatory authorities before a decision is made on whether to award a consent or licence.
Elasmobranchs	Elasmobranchs like sharks, rays and skates have a skeleton composed entirely of cartilage.
Electric Haptic Sense	The ability to detect changes in voltage.
Emissions	An amount of a substance that is produced and sent out into the air that is harmful to the environment, especially carbon dioxide.
Employment (Jobs)	A measure of employment which considers the headcount employment in an organisation or industry



Term	Definition
Endocrine Disruption	The interference with the normal function of the endocrine system by external substances, such as pollutants or chemicals, leading to adverse effects on organisms' development, reproduction, metabolism and behaviour.
Ensonification	To fill and area with sound.
Environmental Impact Assessment (EIA)	Assessment of the likely significant effects of a plan, project or activity on the environment, in accordance with the EIA Regulations.
Environmental Impact Assessment (EIA) Directive	EU Directive 2011/92/EU of 13 December 2011 (as amended in 2014 by Directive 2014/52/EU).
Environmental Impact Assessment (EIA) Regulations	The term used to refer to The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 and The Marine Works (Environmental Impact Assessment) Regulations 2007.
Epibenthic	Benthic invertebrates living on the surface of the seabed.
Epifauna	Organisms living on the surface of the seabed.
EU Exit	The withdrawal of the UK from the EU. See also "Brexit".
EU Exit Day	The day in which the UK officially left the EU, which was 31 January 2020.
EU Exit Regulations	The EU (Withdrawal) Act 2018, as amended as by the EU (Withdrawal Agreement) Act 2020, gives Ministers in the UK Government and in the devolved administrations of Northern Ireland, Scotland and Wales, powers to make subordinate legislation amending laws that otherwise would not work appropriately as a result of the UK leaving EU, or to implement the Withdrawal Agreement.
European Centre for Medium-Range Weather Forecasts (ECMWF) operational European wave model	ECMWF's deterministic atmospheric model is coupled with a wave model allowing two-way interaction between wind and waves. Run at a finer resolution over a European domain.
European Site	A Special Area of Conservation (SAC), or candidate SAC, (cSAC), a Special Protection Area (SPA), a site listed as a site of community importance (SCI), or, as per Scottish Planning Policy (SPP), a possible SAC (pSAC) or potential SPA (pSPA). All Ramsar sites are also Natura 2000 sites and are protected under the relevant statutory regimes' (Scottish Government, 2014) as confirmed by Scottish Government (2020). A SAC, or candidate SAC, (cSAC), a Special Protection Area (SPA), a site listed as a Site of Community Importance (SCI), or, as per Scottish Planning Policy (SPP), a possible SAC (pSAC) or potential SPA (pSPA).
EUSeaMap	Broadscale habitat maps produced by the European Marine Observation and Data Network (EMODnet) for Europe.
Evanescent Sound Wave	A wave which does not propagate.
Facies	Physical, chemical, and biological aspects of a sedimentary bed and the lateral change within sequences of beds of the same geologic age.
Fecundity	The potential for reproduction of an organism measured by number of gametes (eggs), seed set or asexual propagules.

Term	Definition
Fill Areas	A type of marine resource where the mud content of the sand is less than 10% and so it is not considered sand and gravel (aggregate); but is of value due to its suitability to be filled in, for example, land reclamation use.
Filter Feeder	Sub-group of suspension feeding animals that feed by straining suspended matter and food particles from water, typically by passing the water over a specialized filtering structure.
Fish Stock	Any natural population of fish which forms an isolated and self- perpetuating group of the same species.
Fishery	A group of vessel voyages which target the same species or use the same gear.
Fishing Ground	An area of water or seabed targeted by fishing activity.
Fishing Mortality	Mortality due to fishing; death or removal of fish from a population due to fishing.
Fleet	A number of vessels having a shared origin, purpose or area of operation. A physical group of vessels sharing similar characteristics (e.g. nationality).
Flight Level (FL)	A standard nominal altitude of an aircraft, in hundreds of feet, based upon a standardized air pressure at sea-level.
Fluking	The behaviour of cetaceans, particularly whales, in which they raise their tail flukes above the water surface before diving, often used for identification and behavioural studies.
Formal Safety Assessment (FSA)	A structured and systematic process for assessing the risks and costs (if applicable) associated with shipping activity.
Fossil Fuel	A hydrocarbon-containing material formed naturally in the earth's crust from the remains of dead plants and animals.
Foundation	The load carrying support structure for the wind turbine generator tower or OSP topside. The foundation is the part of the structure from the interfacing flange with the wind turbine tower or topside-foundation interface, down to/below mudline. This includes any secondary steel items associated with the structure.
Full-time Equivalent (FTE)	Indicates the work-time of an employed person in a way that makes jobs comparable (e.g. an FTE of 1.0 is equivalent to a full-time worker, while an FTE of 0.5 signals half a full-time worker).
Future Case	The assessment of risk based on the predicted growth in future shipping densities and traffic types as well as foreseeable changes in the marine environment.
Future Grid Average	Projection of how clean the future UK Grid electricity is likely to be, based on current policies. It refers to how many grams of carbon dioxide (CO ₂) are released to produce a kilowatt hour (kWh) of electricity.
Gadoids	From the Gadidae family of marine fish, included in the order Gadiformes, known as the cods, codfishes, or true cods, including cod, haddock, whiting, and pollock.
Gazetteer	A geographical index or dictionary.



Term	Definition
Gear Type TR1	A classification of gear type that includes bottom trawls, Danish seines and similar towed gear, excluding beam trawls, of mesh size greater than or equal to 100 mm. Gears of this type are typically used to target whitefish, including cod.
Gear Type TR2	A classification of gear type that includes bottom trawls, Danish seines and similar towed gear, excluding beam trawls, of mesh size greater than or equal to 70 mm and less than 100 mm. Gears of this type are typically used to target <i>Nephrops</i> , but may also catch significant amounts of cod.
General Sailing Areas	Areas in extensive use for general day sailing by all types of recreational craft but particularly smaller craft such as small cruisers, day-boats, dinghies, sailboards and personal watercraft. Such craft will not normally be undertaking point-to-point passages but will be on out and return activities and may appear to be sailing in random directions as they take advantage of wind and tide to make progress (ICC, 2018).
Generalised Additive Models (GAMs)	Statistical models used to explore relationships between variables in complex data sets, allowing for flexible modelling of non-linear relationships and accommodating various types of data distributions.
Genotoxicity	The degree at which a substance can cause damage to Deoxyribonucleic Acid (DNA).
Ghost Fishing	The phenomenon where lost or discarded fishing gear, such as nets or traps, continues to capture and kill marine organisms, contributing to marine debris and ecosystem degradation.
Gillnets	Fishing nets designed to capture fish by entangling them in the mesh, typically suspended vertically in the water to intercept swimming fish.
Geographic Information System (GIS)	A system for storing and manipulating geographical information on a computer.
Glaciolacustrine	Sediments deposited into lakes that have come from glaciers are called glaciolacustrine deposits. These lakes include ice margin lakes or other types formed from glacial erosion or deposition. Sediments in the bedload and suspended load are carried into lakes and deposited.
Glaciomarine	An environment containing both glacial ice and marine water.
Glaciotectonic	Glacially induced deformations in the Earth's crust.
Grab Sample	A technique used to sample benthic flora and fauna.
Gravid	Carrying eggs or young.
Great Britain	The island of England, Scotland. Northern Ireland and Wales.
Greenhouse Gas Emissions	Gases created by human activity which are trapping heat in the atmosphere, raising the temperature and causing global warming or climate change.
Gross Value Added (GVA)	This is a measure of economic output, the economic value added by an organisation or industry. It is typically estimated by subtracting the non-staff costs from the revenues of an organisation
Habitat	The environment that a plant or animal lives in.

Term	Definition
Habitat Specialisation	The habitat specialisation factor represents the range of habitats species are able to use and whether they use these as specialists or generalists. This score classifies species into categories from 1 (tend to forage over large marine areas with little known association with particular marine features) to 5 (tend to feed on very specific habitat features, such as shallow banks with bivalve communities, or kelp beds).
Habitats Directive	The Habitats Directive is the short name for European Union Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora. The Directive led to the establishing of European sites and setting out how they should be protected, it also extends to other topics such as European protected species.
Habitats Regulations Appraisal	A process required by the Habitats Regulations of identifying likely significant effects of a plan or project on a European site and (where likely significant effects are predicted or cannot be discounted) carrying out an appropriate assessment to ascertain whether the plan or project will adversely affect the integrity of the European site. If adverse effects on integrity cannot be ruled out, the latter stages of Regulations the process require consideration of the derogation provisions in the Habitats Regulations.
Hammer Energy	The amount of energy available to be transmitted from the hammer to the pile during piling.
Hanseatic League	A Medieval commercial and defensive confederation of merchant guilds and market towns in Central and Northern Europe.
Haul Out	When seals (or similar marine mammals) come out of the water to spend time on land.
Headroom	The remaining biological capacity to absorb impacts.
High Order	Detonation of unexploded ordnance as a clearance method.
Highest Astronomical Tide	The highest level of the sea surface with respect to the land.
Highly Pathogenic Avian Influenza	A contagious disease in birds caused by influenza type A.
Historic Environment Scotland (HES)	An executive non-departmental public body responsible for investigating, caring for and promoting Scotland's historic environment.
Holocene	Mesolithic, Neolithic, Bronze Age, Iron Age, Roman, Medieval, Post Medieval 19th century and Modern periods. The Holocene is the current epoch within the larger geological time scale known as the Quaternary Period.
Hominin	A taxonomic group consisting of modern humans, extinct human species and all immediate ancestors.
Hydrodynamic Regime	The dominant wave and tidal conditions which influence sediment transport.
Hydrographic	Measurements or descriptions of the physical features of water.
Hydroid	A class of cnidarian invertebrates which are typically branching and form sessile colonies.
iFish Database	MMO fisheries database of commercial fisheries landings statistics for vessels registered in the UK.



Term	Definition
Important Ecological Feature (IEF)	Habitats, species, ecosystems, and their functions/processes that are considered to be important and potentially impacted by the Array.
International Maritime Organisation	The United Nation's specialised agency with responsibility for the safety and security of shipping and the prevention of marine and atmospheric pollution by ships.
Impulsive Noise	Noise which is very brief and with a high rise time and high peak level compared to the energy averaged noise level.
In-combination Effect	The combined effect of the Array in-combination with the effects from a number of different plans or projects on the same feature/receptor as defined by the HRA Regulations.
Income Breeder	A species that relies primarily on current food intake rather than stored energy reserves for reproduction and survival.
Indirect	This is associated with spending in the wider supply chain of primary supplier, e.g. secondary suppliers.
Indirect Impact	Occurs as a consequence of a direct impact and may arise via a complex pathway and be experienced at a point in space or time that is removed from the direct impact (Highways Agency et al., 2020).
Induced	This is associated with staff spending their wages and creating impacts in the wider economy.
Industrial Fishery	Highly mechanised commercial fishing operations whose ultimate products are principally fish meal and fish oil.
Infauna	The animals living in the sediments of the seabed.
Instrument Flight Rules (IFR)	The rules governing procedures for flights conducted with the crew referring to aircraft cockpit instruments for situation awareness and navigation.
Inter-array Cables	Cables connecting wind turbines to each other and to OSPs.
Interconnector Cable	Cable connecting OSPs to each other.
International Convention for the Prevention of Pollution from Ships (MARPOL)	Aims to minimise and prevent accidental and routine pollution from ships into the marine environment.
International Council for the Exploration of the Seas (ICES) Statistical Rectangles	ICES standardise the division of sea areas to enable statistical analysis of data. Each ICES statistical rectangle is '30 minutes latitude by 1 degree longitude' in size (approximately 30 x 30 nautical miles). A number of rectangles are amalgamated to create ICES statistical areas.
Inter-Related Effects	Inter-relationships between EIA topics that may lead to environmental effects.
Interspecifically	Pertaining to interactions or relationships between different species within an ecological community.
Intraspecifically	Pertaining to interactions or relationships occurring within individuals or populations of the same species.
Invasive Species	An organism that is not native to a particular area and causes harm to its new environment.
Isopach	A line on a map or diagram connecting points beneath which a particular stratum or group of strata has the same thickness.

Term	Definition
Kurtosis	A measure of sharpness or impulsiveness of a waveform.
Landing Obligation	A regulation first introduced in 2015 and fully in force since January 2019 meaning that no commercial fishing vessel can return any quota species of any size to the sea once caught. This includes slipping or discarding the catch. Once caught, all quota species must be landed and counted against quota. This applies to all UK vessels of all lengths, unless an exemption has been granted e.g. based on species survivability.
Landings	Quantitative description of amount of fish returned to port for sale, in terms of value or weight.
Large Array Correction	Adjustment to the probability of bird collision to account for the depletion of bird density in later rows of a wind farm with a large array of wind turbines.
Last Glacial Maximum	The most recent time during the last glacial period where ice sheets were at their greatest extent (circa 18,000 years BP)
Lateglacial Interstadial	A relatively warm period that occurred towards the end of the last (Devensian) glaciation in Britain, circa 13,000-11,000 years Before Present (BP)).
Leakage	The proportion of activity that might occur outside the socio-economics study areas.
Leslie Matrix	Discrete, age-structured model of population growth used in population ecology (can be applied to all species, including bird species). This matrix is often used to describe the growth of populations (and their population age distribution) in which a population is closed to migration, growing in an unlimited environment, and where only one sex, usually female, is considered.
Life Cycle Assessment (LCA)	The systematic analysis of the potential environmental impacts of products or services during their entire life cycle.
Likely Significant Effect ¹	With respect to the Electricity Works (EIA (Scotland) Regulations 2017 and The Marine Works (EIA) Regulations 2007, a significant effect that may reasonably be predicted as a consequence of a plan or project, on the receiving environment.
Likely Significant Effect ²	In HRA terms, a LSE is any effect that may reasonably be predicted as a consequence of a plan or project that may affect the conservation objectives of the features for which the European site was designated but excluding trivial or inconsequential effects. An LSE is one that cannot be ruled out on the basis of objective information. A 'significant' effect is a test of whether a plan or project could undermine the site's conservation objectives. With respective to Habitat Regulation Appraisals, any effect that may reasonably be predicted as a consequence of a plan or project that may affect the conservation objectives of the features for which the European site was designated but excluding trivial or inconsequential effects. A likely effect is one that cannot be ruled out on the basis of objective information. A 'significant' effect is a test of whether a plan or project could undermine the site's conservation objectives (SNH, 2014).
Lisbon Treaty	International agreement that amends the two treaties which form the constitutional basis of the EU.
Lithic Technology	Techniques used to produce usable tools from various types of stone.
Lithology	Physical characteristics of rock or sediment.



Term	Definition
Littoral	Residing within the littoral zone which extends from the high water mark, which is rarely inundated, to shoreline areas that are permanently submerged.
L-lactate	A product of energy extraction from glucose in the absence of oxygen.
Loafing	A term used to refer to when a bird is displaying relaxed behaviours not specifically related to feeding, breeding or predator evasion.
Loliginidae	The family of squids which live close to the seabed.
Low Flying Area (LFA)	The UK is divided into 20 separate LFA where military low flying is permitted at or below 2,000 ft.
Low Order	Use of techniques such as deflagration to clear unexploded ordnance (UXOs) without resulting in a high order explosion, leading to lower noise levels.
Lowest Astronomical Tide	The highest level of the sea surface with respect to the land.
Macrobenthos	Organisms that live at the bottom of the water column.
Magnitude	A combination of the extent, duration, frequency and reversibility of an impact.
Main Commercial Route	Defined transit route (mean position) of commercial vessels identified within the shipping and navigation study area.
Major Accident	Events that threaten immediate or delayed serious environmental effects to human health, welfare and/or the environment and require the use of resources beyond those of the client or its appointed representatives to manage. Whilst malicious intent is not accidental, the outcome (e.g. train derailment) may be the same and therefore many mitigation measures will apply to both deliberate and accidental events (IEMA, 2020).
Management Unit	Management units (MUs) for marine mammals in UK waters that provide an indication of the spatial scales at which impacts of plans and projects alone, cumulatively and in combination, need to be assessed for the key cetacean species in UK waters, with consistency across the UK. For cetaceans, these MUs are defined by the Inter-Agency Marine Mammal Working Group (IAMMWG). For seal species (harbour and grey seal), seal MUs are defined by the Special Committee on Seals (SCOS).
Marginal Generation Source	Accounts for sustained changes in energy consumption and generation sources for the purposes of cost-benefit analysis, including policy appraisal.
Marine Aggregate	Sand and/or gravel with geological origin and mineral composition that is the same as land-based sands and gravels and they therefore exhibit the same geological, mechanical, geometrical and chemical properties as their land-based equivalents.
Marine Archaeological Anomaly	A signature that could be visual or digital (e.g. geophysical) that indicates a possible find or site.
Marine Archaeology	A discipline within archaeology that specifically studies human interaction with the sea, lakes and rivers through the study of associated physical remains (e.g. vessels, shore-side facilities, port-related structures, cargoes, human remains and submerged landscapes).
Marine Directorate	Organisation whose purpose is to manage Scotland's seas (formerly known as Marine Scotland).

Term	Definition
Marine Guidance Note (MGN)	A system of guidance notes issued by the Maritime and Coastguard Agency (MCA) which provide significant advice relating to the improvement of the safety of shipping at sea, and to prevent or minimise pollution from shipping.
Marine Licence	Licence granted under either the Marine and Coastal Access Act 2009 or the Marine (Scotland) Act 2010 in Scottish territorial waters.
Marine Protected Area (MPA)	Marine areas established by the government to shield threatened marine ecosystems and other undersea resources from intrusive human activity.
Marine Renewables Strategic Environmental Assessment MRSea	Statistical package to model spatial count data and predict spatial abundances. Package has been developed by the Centre for Research into Ecological and Environmental Modelling (CREEM) specifically for dealing with data collected for offshore wind farm projects.
Marine Strategy Framework Directive	A European legislation that aims to protect the marine environment. It requires the application of an ecosystem-based approach to the management of human activities, and services. The Directive sets out a common EU approach and objectives for the prevention, protection and conservation of marine environment in view of the pressures and impacts of damaging human activities, while allowing for its sustainable use, by means of an ecosystem-based approach.
Masking	Masking occurs when noise emissions interfere with a marine animal's ability to hear a sound of interest.
Material Culture	Objects or architecture made or used by people.
Maximum Design Scenario (MDS)	The maximum design parameters of the Array considered to be a worst case for any given assessment but within the range of the Project Description Envelope (PDE).
Maximum Sustainable Yield (MSY)	Maximum Sustainable Yield (MSY) is the largest yield (catch, in tonnes) that can be taken from a specific fish stock over an indefinite period under constant environmental conditions. Fishing at MSY levels should ensure the capacity of the stock to continue to produce this level in the long term.
Mean High Water Springs (MHWS)	The average height of the sea surface with respect to the land of all high tides that are considered spring tides (tides that occur when the moon's declination is 23.5°, its maximum).
Mean Low Water Springs (MLWS)	The lowest level reached by the sea at low tide during mean low water spring tide. This is defined as the average throughout the year, of two successive low waters, during a 24-hour period in each month when the range of the tide is at its greatest.
Mean Sea Level (MSL)	The average level of the sea surface with respect to the land.
Mesocosm	Living components, such as plants, animals and bacteria.
Métier	A homogenous subdivision, either of a fishery by vessel type or a fleet by voyage type.
Micrositing	Movement of infrastructure (for example, wind turbines and OSPs) by small distances within the overall wind farm layout.
Midden	An archaeological deposit of waste material.



Term	Definition
Migratory	An animal that travels to a different place, usually when the season changes.
Mitigation	Seasonal movement of animals from one region to another.
MIKE	Suite of software by DHI.
Minimum Conservation Reference Size (MCRS)	A technical measure that limits the size of fish or shellfish species that can be legally landed and sold. The MCRS varies per species.
Minor Significance	These beneficial or adverse effects are generally, but not exclusively, raised as local factors. They are unlikely to be critical in the decision-making process, but are important in enhancing the subsequent design of the project.
Mollusca	Phylum of invertebrates which have a soft unsegmented body, commonly protected by a calcareous shell.
Moraine	Accumulation of glacial debris.
Multipliers	This is the wider activity resulting from spending in the supply chain and spending by employees at the Applicant and primary suppliers. This includes both GVA and employment multipliers
M-weighting	A weighting function which is applied to account for the relative loudness perceived by the ear of groups of marine mammals.
Mysticetes	Large whales from the taxonomic group Mysticeti that feed using a filtering mechanism comprised of baleen plates.
Natura 2000 Site	Nature conservation sites in Europe designated under the Habitats or Birds Directives.
NatureScot	Formally called Scottish Natural Heritage (SNH), NatureScot is an executive non-departmental public body of the Scottish Government responsible for the country's natural heritage, especially its natural, genetic and scenic diversity.
Navigational Risk Assessment (NRA)	A document which assesses the hazards to shipping and navigation of a proposed Offshore Renewable Energy Installation (OREI) based upon Formal Safety Assessment (FSA).
Net Economic Impact	The economic impact after taking account of deadweight, leakage, displacement and multipliers.
Net Zero	When anthropogenic emissions of greenhouse gases to the atmosphere are balanced by anthropogenic removals over a specified period.
Neurotoxicity	The degree at which a substance can cause damage to the nervous system.
Nocturnal Activity Factor	The percentage of a bird species that is considered active at night.
Noise	Vibration of molecules in a liquid or gas.
Non-Impulsive (or Continuous) Noise	Noise which is either continuous or intermittent but without the characteristics described for impulsive noise.
Non-Algal Suspended Particulate Matter (SPM)	Non-living particles suspended in the water column.
North East Atlantic Marine Biological Analytical Quality Control Scheme (NMBAQC)	This scheme provides a source of external quality assurance for laboratories engaged in the production of marine biological data.

Term	Definition
Nursery Ground	An area that is particularly suitable for young fish.
Nursery Habitat	A habitat where juveniles of a species regularly occur as a population.
Oarport	Aperture in a ship's hull through which an oar was used.
Obstacle Limitation Surfaces (OLS)	OLS surround an airport and typically extend out to 15 kilometres (km) from the Aerodrome Reference Point (ARP) though this can vary between aerodromes. They are designed to protect aircraft from obstacles when manoeuvring on the ground, taking off, landing or flying in the vicinity of the aerodrome.
Ocean Acidification	A reduction in the pH of the ocean over an extended period of time, caused primarily by uptake of carbon dioxide (CO ₂) from the global atmosphere.
Odontocetes	A marine mammal of the suborder Odontoceti, characterised by an asymmetrical skull, a single blowhole, and rows of teeth, feeding primarily on fish, squid, and crustaceans.
Oestrus	Phase in the mammalian reproductive cycle in which the female animal is sexually receptive, sometimes signalled by visible physiologic and behavioural changes.
Offshore Export Cable	High voltage cables used for exporting power from the OSPs to an onshore landfall.
Offshore Renewable Energy Installation (OREI)	As defined by MGN 654 (Merchant and Fishing) Safety of Navigation: Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response (MCA, 2021). For the purposes of this report and in keeping with the consistency of the EIA, OREI can mean offshore wind turbines and the associated electrical infrastructure such as offshore substations.
Report to Inform Appropriate Assessment	Report to Inform the Appropriate Assessment of the offshore aspects of the Ossian Project being all works from MHWS seawards.
Offshore Substation Platform (OSP)	Offshore substation platform used to convert and transfer the energy collected by the wind turbines to landfall.
Ommastrephidae	The family of squids which live in the water column.
Omni-directional	Involving all directions.
Ontogenetic Variation	Variability that occurs during the development of an organism, from the time of fertilisation to birth or hatching and afterward.
Ornithology	Branch of zoology that concerns the study of birds.
Ossian	All components of the offshore wind farm, including the Array, the Proposed offshore export cable corridor(s), Proposed onshore transmission infrastructure (comprising the Proposed onshore export cable corridor(s) and Proposed onshore converter station) and Proposed landfall location(s).
Ossian Offshore Wind Farm Limited (OWFL)	Joint venture between SSE Renewables (SSER), Copenhagen Infrastructure Partners (CIP) and Marubeni Corporation (Marubeni).



Term	Definition
Otter Trawl	A net with large rectangular boards (otter boards) which are used to keep the mouth of the trawl net open. Otter boards are made of timber or steel and are positioned in such a way that the hydrodynamic forces, acting on them when the net is towed along the seabed, pushes them outwards and prevents the mouth of the net from closing.
Oviparous	A mode of reproduction in which eggs laid with little or no other embryonic development within the mother. This is the reproductive method of most fish, amphibians, reptiles and birds.
Oxidative Stress	A state that occurs when there is an excess of free radicals in cells. This can result in cellular damage, and damage to DNA and proteins.
Palaeoenvironmental	An environment of a past geological age.
Palaeolandscape	Terrestrial landscape that existed in the geologic past.
Palaeoshoreline	A shoreline that existed in the geologic past.
Particle Motion	Movement of particles within the water or sediment.
Parvorder	A specific taxonomic category above superfamily and below infraorder; a taxon.
Pelagic	Of or relating to the open sea.
Pelagic Fish	Pelagic fish are species which live and feed within the water column.
Pelagic Trawl	A net used to target fish species in the mid water column.
Perception Bias	The result of an animal being available for detection, but the detection is missed during data collection.
Permanent Threshold Shift (PTS)	Change (deterioration) in hearing of an animal which does not recover with time.
Persistent Organic Pollutants (POPs)	Organic compounds that resist degradation, persist in the environment for long periods, bioaccumulate in living organisms, and have the potential to cause adverse effects on human health and the environment.
Phenology	The study of cyclic and seasonal natural phenomena, especially in relation to climate and plant and animal life.
Phocid	Seals of the Family Phocidae, represented in the UK by two species: grey seal and harbour seal.
Phototaxis	The response of birds to nocturnal lighting resulting in disorientation and attraction.
Physio-chemistry	The physical and chemical analytical parameters collectively, typically including PCA, Total Organic Carbon, Heavy and Trace Metals and Hydrocarbons and others, where applicable.
Phytoplankton Bloom	A rapid increase in the population density of microscopic algae in aquatic ecosystems, often resulting in visible patches or discoloration on the water's surface, influencing ecosystem dynamics and potentially impacting water quality and marine life.
Pingers	Acoustic devices emitting high-frequency sounds designed to deter marine mammals from areas of potential harm, such as fishing nets or underwater construction sites, reducing the risk of bycatch or disturbance.

Term	Definition
Pinniped	Marine mammals that have front and rear flippers, and live in the ocean but can come to land for long periods of time. This group includes seals, sea lions and walruses.
Piscivorous Fish	Carnivorous fish that primarily feed on other fish.
Pleistocene	The geologic epoch from 2.58 million to 10,000 years BP.
Population Viability Analysis (PVA)	The process of determining the probability that a population will persist over a specified time period.
Polychaete	A class of segmented worms often known as bristleworms.
Primary Mitigation	Modification to the location or design of the development made during the pre-application phase that are an inherent part of the project, and do not require additional action to be taken. Come under the umbrella of designed in measures.
Primary suppliers	The main contract suppliers, e.g. wind turbine, balance of plant.
Primary Surveillance Radar (PSR)	A conventional radar sensor that illuminates a large portion of space with an electromagnetic wave and receives back the reflected waves from targets within that space. The term thus refers to a radar system used to detect and localise potentially non-cooperative targets. It is specific to the field of ATC.
Productivity	The annual population estimate of number of chicks fledged per pair.
Project Design Envelope (PDE)	A description of the range of possible elements that make up the Proposed Development design options under consideration when the exact engineering parameters are not yet known.
Propagation Model	Computer model to predict how noise spreads away from a source of noise.
Proposed Landfall Location(s)	Where the Proposed offshore export cable(s) carrying power from the Array are brought ashore at MHWS to connect the offshore and onshore infrastructure.
Proposed Offshore Export Cable Corridor(s)	Area within which the offshore export cable(s) will be located between the Array and MHWS.
Proposed Onshore Converter Station(s)	The onshore electricity transmission buildings encompassing a high voltage direct current (HVDC) converter substation comprising of converter buildings, HV internal and/or external equipment.
Proposed Onshore Export Cable Corridor(s)	Area within which the Proposed onshore export cable(s) will be located between the Proposed landfall location(s) at MLWS and the Proposed onshore converter substation(s).
Proposed Onshore Transmission Infrastructure	Term used to refer collectively to the Proposed onshore export cable corridor(s) and Proposed onshore converter station(s).
Protected Place	A wreck site, designated by name, under the Protection of Military Remains Act 1986.
Pulse Train	A method of communication observed in larger cetaceans, characterised by repetitive series of pulses, separated in time by intervals of varying length. In some species the nature of the pulse train varies according to geographic region.



Term	Definition
Quaternary	The geological period encompassing the Pleistocene and Holocene Epochs, circa 2.58 million years BP to the present.
Quota	A proportion of the Total Allowable Catch for a fish stock.
Radar Cross Section (RCS)	RCS is a measure of how detectable an object is by radar. A larger RCS indicates that an object is more easily detectable than a lower RCS. While important in detecting targets, strength of emitter and distance are not factors that affect the calculation of an RCS because RCS is a property of the target's reflectivity.
Radio Detection and Ranging (Radar)	An object-detection system which uses radio waves to determine the range, altitude, direction or speed of objects.
Ramsar Site	Wetlands of international importance designated under the Ramsar Convention.
Rarefaction	Opposite of compression: moving elements further apart: decrease in density.
RBS Legislation	Registration of Buyers and Sellers of First-Sale Fish Scheme.
Received Level	The noise level of the acoustic signal recorded (or modelled) at a given location.
Receptor	A component of the natural or man-made environment that is potentially affected by an impact.
Receptor-led Effects	Assessment of multiple effects to interact to create inter-related effects on a receptor. As an example, multiple effects on a given receptor such as benthic habitats (e.g. direct habitat loss or disturbance, sediment plumes, scour, jack-up vessel use etc.) may interact to produce a different or greater effect on this receptor than when the effects are considered in isolation. Receptor-led effects might be short term, temporary or transient effects, or incorporate longer term effects.
Recognised Air Picture (RAP)	A complete listing of all aircraft in flight within a particular airspace, with each aircraft being identified as friendly or hostile, and ideally containing additional information such as type of aircraft, flight number, and flight plan.
Recorded Loss	Dataset entry of a maritime or aviation record that has no specific location attached to them, but are given often arbitrary spatial attribution.
Recruitment	Recruitment can be defined as the number of fish surviving to enter the fishery or to some life history stage such as settlement or maturity.
Rectilinear	Tidal currents that ebb and flood in opposite directions are rectilinear.
Renewable Energy	Energy from a source that is not depleted when used, such as wind or solar power.
Report to Inform Appropriate Assessment (RIAA)	The information that the Competent Authority needs to inform an Appropriate Assessment at Stage 2 of the HRA process.
Representative Concentration Pathway (RCP)	RCPs specify concentrations of greenhouse gases that will result in total radiative forcing increasing by a target amount by 2100, relative to pre-industrial levels. Total radiative forcing is the difference between the incoming and outgoing radiation at the top of the atmosphere. Each pathway results in a different range of global mean temperature increases over the 21st century.

Term	Definition
Response Bias	An effect upon the accuracy of data collection in which the subject (e.g. an animal) has made itself unavailable for detection in response to the presence of the observer.
Risk	The likelihood of an impact occurring, combined with the effect or consequence(s) of the impact on a receptor if it does occur (IEMA, 2020).
RPS	RPS Energy Consultants Ltd.
SACFOR Classification	A measure of abundance which records species in terms of percentage cover or counts and categorises in to superabundant, abundant, common, frequent, occasional and rare.
Safety Zone	A statutory marine zone demarcated for the purposes of safety around an installation.
Sand Wave	Sand waves are a low ridge of sand formed through the action of the wind or water (through waves or tidal currents).
Scallop Dredge	A method to catch scallop using steel dredges with a leading bar fitted with a set of spring loaded, downward pointing teeth. Behind this toothed bar (sword), a mat of steel rings is fitted. A heavy net cover (back) is laced to the frame, sides and after end of the mat to form a bag.
Scare Charges	Small explosive charges used as a soft-start to high-order disposal of UXO, incrementally increased in size (and subsequent sound level) to provide an auditory deterrent and reduce the risk of injury to marine mammals (and other marine megafauna). Often used following deployment of Acoustic Deterrent Device (ADD) to provide an initial, lower-sound energy deterrent.
Scheduled Monument	Monuments that are of national importance within the UK protected by being added to the schedule of monuments protected under the Ancient Monuments and Archaeological Areas Act 1979.
Scoping Opinion	A report presenting the written opinion of the Scottish Ministers as to the scope and level of detail of information to be provided in the Environmental Impact Assessment (EIA) for a development.
Scottish Government	The devolved government of Scotland.
Scottish Ministers	The Scottish Government consists of Scottish Ministers.
Scottish Shelf Model	Suite of hydrodynamic models of Scottish continental shelf waters, with development led by MD-LOT and MD-SEDD.
Scottish Shelf Waters Reanalysis Service	25 year physical reanalysis of the wider domain Scottish Shelf Model.
ScotWind	Programme which will lease areas of the seabed around Scotland for wind farm developments.
ScotWind Leasing Round	Leasing round for commercial scale offshore wind energy projects within Scottish waters, allowing developers to apply for the rights to build offshore wind farms within specified lease areas. The first ScotWind Leasing Round was launched in 2020 by Crown Estate Scotland (CES).
Scrombridae	A family of fish including mackerel, tuna and bonito.
Sea Level Anomaly	The difference between sea surface height, as derived from satellite altimetry, and mean sea surface height, calculated from 20 years of these data.



Term	Definition
Sea State	Categories as defined by the Douglas sea scale, used to give an approximate but concise description of sea condition. Sea states used within this Technical Report are as follows: 0 = Calm (Glassy), 1 = Calm (Rippled), 2 = Smooth, 3 = Slightly Moderate and 4 = Moderate.
Seabird	Bird species that depend on the marine environment for survival at some point in their life cycle. In this Technical Report, in addition to the true seabirds; seaducks and divers and grebes are also included because of their additional reliance on marine areas, especially in the non-breeding season.
SeabORD	A tool that estimates the cost to individual seabirds, in terms of changes in adult survival and productivity, of displacement and barrier effects resulting from offshore renewable developments.
SEAPOP (SEAbird POPulations)	A long-term monitoring and mapping programme for Norwegian seabirds that was established in 2005.
Season	Bird behaviour and abundance is recognised to differ across a calendar year, with particular months recognised as being part of different seasons. The biologically defined minimum population scales (BDMPS) seasons used in this report are based on those in Furness (2015), hereafter referred to as seasons. Separate seasons are recognised in this chapter in order to establish the level of importance any seabird species has within the study area during any particular period of time.
Seasonal Stratification	Distinct density layers form within the vertical water column, due to warming of the surface waters by the sun.
Secondary Mitigation	Actions that will require further activity in order to achieve the anticipated outcome. These may be imposed as part of the planning consent, or through inclusion in the EIA Report.
Secondary suppliers	Suppliers who have been sub-contracted by the primary supplier.
Secondary Surveillance Radar (SSR)	A radar system used in ATC. Unlike PSR, SSR measures the bearing and distance of targets using the detected reflections of radio signals and relies on targets equipped with a radar transponder, that reply to each interrogation signal by transmitting encoded data such as an identity code, the aircraft's altitude and further information depending on its chosen mode.
Semidiurnal	A semidiurnal tide exhibits two high and two low tides each day, with both highs and both lows of roughly equal height.
Service Operation Vessel (SOV)	Field-based vessel to ensure that offshore wind turbines operate safely and to accommodate personnel.
Several Species (Spp)	Used when there is more than one unknown species within a known genus.
Shear	Flow field in which adjacent fluid elements are moving at different velocities.
Shellfish	For the purposes of this assessment, shellfish is considered a generic term to define molluscs and crustaceans.
Signal Attenuation	Attenuation is the loss of radar energy due to absorption and/or scattering as it passes through the atmosphere. Energy is attenuated from the radar pulse through scattering and absorption.

Term	Definition
Signal Diffraction	A radio wave that meets an obstacle has a natural tendency to bend around the obstacle. The bending, called diffraction, results in a change of direction of part of the wave energy from the normal line-of-sight path.
Significant Effect	The significance of an effect is determined by considering the overall importance of the receptor and the magnitude of the effect using a matrix-based approach and applying professional judgement.
Significant Wave Height	Average of the highest one-third of waves.
Sine Wave	A waveform that represents periodic oscillations in which the amplitude of displacement at each point is proportional to the sine of the phase angle of the displacement and that is visualised as a sine curve.
Sp	Used when there is a singular unknown species within a known genus.
Site Boundary	The offshore area in which the Array will be constructed.
Site Fidelity	The tendency of animals to return to previously visited locations.
Site of Community Importance (SCI)	Defined in the Habitats Directive as a site which, in the biogeographical region or regions to which it belongs, contributes significantly to the maintenance or restoration at a favourable conservation status of a natural habitat type in Annex I, or of a species in Annex II, of the Habitats Directive and may also contribute significantly to the coherence of the Natura 2000 network. The site may also contribute significantly to the maintenance of biological diversity within the biogeographic region or regions concerned. For animal species ranging over wide areas, SCIs shall correspond to the places within the natural range of such species which represent the physical or biological factors essential to their life and reproduction.
Snagging	When part of a vessel or gear gets stuck on a feature beneath the surface of the water.
Soft Start and Ramp Up (Piling)	The gradual increase in hammer energy and strike rate from approximately 15% of the maximum hammer energy at the beginning of the piling sequence, before energy input is 'ramped up' (increased) at predefined intervals to required higher levels.
Soft Start (Geophysical Surveys)	The gradual build up in airgun power in uniform stages from a low energy start up to the required higher energy levels. This is specific to the survey and/or equipment type.
Soft Start (UXO Clearance)	A sequence of small charges deployed prior to the detonation of the UXO.
Sound Exposure Level	Metric used to measure the cumulative noise energy to which a receiver receptor is exposed.
Sound Pressure	Measure of the resultant change in pressure due to vibration of particles in a fluid or gas.
Source	The original cause of the hazard, which has the potential to cause harm (IEMA, 2020).
Source Level	The source level is the sound pressure level of an equivalent and infinitesimally small version of the source (known as point source) at a hypothetical distance of 1 m from it.
Spar-Buoys	Floating structures typically anchored to the seafloor, used to support marine equipment or infrastructure such as sensors, navigation aid, or offshore platforms.



Term	Definition
Spawning	The act of releasing or depositing eggs (fish).
Spawning Grounds	Spawning grounds are the areas of water or seabed where fish/shellfish spawn or produce their eggs.
Spawning Stock Biomass	The combined weight (in tonnes) of all the fish of one specific stock that are old enough to spawn. It provides an indication of the status of the stock and the reproductive capacity of the stock.
Special Area of Conservation (SAC)	A site designation specified in the Habitats Directive (Council Directive 92/43/EEC). Each site is designated for one or more of the habitats and species listed in the Directive. The Directive requires that a management plan be prepared and implemented for each SAC to ensure the favourable conservation status of the habitats or species for which it was designated. In combination with SPAs, these sites contribute to the 'Natura 2000' or 'European' Sites network.
Special Protected Area (SPA)	A site designation under the European Union Directive on the Conservation of Wild Birds. Under the Directive, Member States of the European Union (EU) have a duty to safeguard the habitats of migratory birds and certain particularly threatened species.
Species	A group of living organisms consisting of similar individuals capable of exchanging genes or interbreeding.
Spectral Significant Wave Height	Statistical estimate using power spectrum of average of the highest one-third of waves.
Spring Tide	Tide that occurs when the sun and moon are directly in line with the Earth and their gravitational pulls on the ocean reinforce each other.
Standard Deviation	A measure of the amount of variation or dispersion of a set of values. A low standard deviation indicates that the values tend to be close to the mean (also called the expected value) of the set, while a high standard deviation indicates that the values are spread out over a wider range.
Static Gear	Any form of fishing gear that operates without being towed or moved through the water (i.e. crustaceans pots, long lines, set nets, traps).
Stochastic Model	Model in which the input parameters are allowed to vary, leading to a range of outputs.
Stock Assessment	An assessment of the biological stock of a species and its status in relation to defined references points for biomass and fishing mortality.
Strategic Ornithological Support Services Migration Assessment Tool (SOSSMAT)	A tool to assist with identifying migratory flight paths through an offshore wind farm array.
Stratigraphy	Study of layers between sediment or geologic units.
Sublittoral	Area extending seaward of low tide to the edge of the continental shelf.
Subtidal	Area extending from below low tide to the edge of the continental shelf.
Supervisory Control and Data Acquisition	Supervisory Control and Data Acquisition (SCADA) system is a collection of both software and hardware components that allow supervision and control of plant and systems, both locally and remotely.
Supply Chain Development Statement (SCDS)	Ossian OWFL's plan to expand the local supply chain in Scotland and the UK.

Term	Definition
Survival Rate	The probability of an individual to survive from one breeding season to the next.
Swept Area Ratio (SAR)	Swept Area Ratio (SAR) (derived from Vessel Monitoring System (VMS) data) indicates the number of times in an annual period that a fishing gear makes contact with (or sweeps) the seabed surface. Surface SAR provides a proxy for fishing intensity.
Taxonomy	Classification scheme for organisms, based on physical identification.
Technical Report	Report which will form part of the Array EIA Report and provide statutory and non-statutory consultees with technical information for the various receptor areas to facilitate understanding. Information included in Technical Reports may include baseline characterisation, analysis of site-specific data, and further modelling studies, as appropriate to the specific topic.
Telemetry	The use of animal-borne sensors to collect and record information on the animals or the environment. In the case of marine mammals this may include data on the location, movement, behaviour or physiological state of the individual, and information on water temperature, salinity, or light levels.
Teleost Fish	A large and diverse group of ray-finned fishes.
Temporary Threshold Shift (TTS)	Change (deterioration) in hearing of an animal which recovers after some time.
Tertiary Mitigation	Actions that would occur with or without input from the EIA feeding into the design process. These include actions that will be undertaken to meet other existing legislative requirements, or actions that are considered to be standard practices used to manage commonly occurring environmental effects. Come under the umbrella of designed in measures.
The Applicant	Ossian Offshore Wind Farm Limited (Ossian OWFL).
Thermal Noise	The effects from the thermal agitation of a medium.
Thermocline	The transition layer between warmer ocean surface waters and the cooler waters below, when stratification occurs.
Third-octave Band	An octave band refers to the interval between one frequency and its double or its half. When using a third-octave band the frequency is further split into a third of this value.
Thole	Pin on which an oar pivots while rowing.
Tidal Diamonds	Tidal data presented on the UK Hydrographic Office Admiralty Charts providing current speed and direction for spring and neap tides.
Tidal Excursion	The distance suspended sediment is transported prior to being carried back on the returning tide.
Tonnes	Non-International System of Units metric unit of mass equal to 1,000 kilograms.
Total Allowable Catch (TAC)	TACs are catch limits, expressed in tonnes or numbers, that are set for some commercial fish stocks.
Towed Passive Acoustic Monitoring Device (T-POD)	A tool used to passively detect and record the vocalisations of marine mammals, aiding in research and conservation efforts.



Term	Definition
Trackline	The track directly ahead of a survey vessel.
Transmission Loss	The loss of acoustic energy as the signal propagates from a hypothetical (point) source location to the chosen receiver location.
Treasure Trove	An artefact or assemblage of artefacts claimed as Treasure Trove by the Crown (applies to Scotland only).
Trophic Levels	The hierarchical levels in a food chain or food web, representing the position of organisms based on their feeding relationships and energy transfer within an ecosystem.
U-boat	A German submarine from either World War. In English using the contracted form of German <i>Unterseeboot</i> (Undersea boat, U-boat).
UK Grid Carbon Intensity	Carbon intensity is a measure of how clean UK Grid electricity is. It refers to how many grams of carbon dioxide (CO ₂) are released to produce a kilowatt hour (kWh) of electricity.
Umbrella Species	Umbrella species are species selected for making conservation-related decisions, typically because protecting these species indirectly protects the many other species that make up the ecological community of its habitat.
Unexploded Ordnance (UXO)	Explosive weapons that did not explode when they were employed and still pose a risk of detonation.
Unique Vessel	An individual vessel identified on any particular calendar day, irrespective of how many tracks were recorded for that vessel on that day. This prevents vessels being over counted. Individual vessels are identified using their Maritime Mobile Service Identity (MMSI).
United Kingdom (UK)	Political unit consisting of England, Northern Ireland, Scotland and Wales.
Valued Ornithological Receptors (VORs)	Offshore ornithology bird populations of significance for their conservation status and/or population size that are likely interact with the Array.
Vessel Monitoring System (VMS)	A system used in commercial fishing to allow environmental and fisheries regulatory organizations to monitor, minimally, the position, time at a position, and course and speed of fishing vessels.
Vessel Traffic Service (VTS)	A service implemented by a Competent Authority designed to improve the safety and efficiency of vessel traffic and to protect the environment. The service should have the capability to interact with the traffic and to respond to traffic situations developing in the VTS area.
Vibrissae	Specialised tactile hairs found on the faces of many marine mammals, including seals and manatees, used for sensing and detecting objects underwater.
Vibrissal Crypts	Electrosensory structures observed in the rostrum of two dolphin species, believed to be associated with the detection of weak electric fields, previously assumed to be vestigial, non-functional remnants of vibrissae, but subsequently observed to be well supplied with blood and highly innervated, and may be used in detection of prey.
Visual Flight Rules (VFR)	A set of regulations under which a pilot operates the aircraft in weather conditions which generally allow the pilot to maintain visual separation from obstacles, terrain and other aircraft.

Term	Definition
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 the 'exposure of resilience' of the development to the risk of a major accident and/or disaster. Vulnerability is influenced by sensitivity, adaptive capacity and magnitude of impact (IEMA, 2020).
Wakes	Disturbances or patterns in the water's surface created by the passage of a vessel or other objects through the water, characterised by ripples or waves spreading outward from the source.
Waveform	A graphical representation of a signal that depicts its amplitude (strength) over time, commonly used in the analysis of acoustic data to characterise sound patterns emitted by marine animals or anthropogenic sources.
Wave Height	The distance from trough to crest of a wave.
Well-to-tank	All greenhouse gas emissions from the production, transportation, transformation and distribution of the fuel used to power the equipment or vehicle.
Wentworth Scale	Grain size classification, for classifying the diameters of sediments into a range of categories.
Wind Turbine	A machine that converts kinetic energy from the wind into electricity comprising the following main parts: nacelle, hub, blades, tower and drivetrain.
Wreck	All craft, parts thereof, cargo or equipment for the purposes of the Merchant Shipping Act 1995.
Years of Employment	This is a measure of employment which is equivalent to one person being employed for an entire year and is typically used when considering short-term employment impact, such as construction employment. This is full-time equivalent, unless stated otherwise.
Zone of Influence	The area around the site that may be affected by the proposed changes within the site.



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ACRONYMS

Acronym	Description
2D	Two-Dimensional
2D-UHRS	Two-Dimensional Ultra-High Resolution Seismic
3D	Three-Dimensional
AA	Appropriate Assessment
AAI	Area of Archaeological Importance
AAIB	Air Accidents Investigation Branch
ABPmer	Associated British Ports Marine Environmental Research
AC	Alternating Current
AC	Archaeological Curator
ACAP	Agreement on the Conservation of Albatrosses and Petrels
ACC	Area Control Centre
AD ¹	Air Defence
AD ²	Anno Domini
ADD	Acoustic Deterrent Device
ADR	Air Defence Radar
ADS	Archaeology Data Service
AEOI	Adverse Effect on Integrity
AEP	Annual Exceedance Probability
AEZ	Archaeological Exclusion Zone
AfL	Agreement for Lease
agl	Above Ground Level
AIDU	Aeronautical Information Distribution Unit
AIP	Aeronautical Information Publication
AIS	Automatic Identification System

Acronym	Description
ALARP	As Low As Reasonably Practicable
ALB	All-Weather Lifeboat
AMSL	Above Mean Sea Level
ANMP	Aid to Navigation Management Plan
ANO	Air Navigation Order
ANS	Air Navigation Service
AOB	Apparently Occupied Burrows
AOD	Above Ordnance Datum
AON	Apparently Occupied Nests
AoR	Area of Responsibility
AOS	Apparently Occupied Sites
AoS	Area of Search
AOT	Apparently Occupied Territories
ARP	Airfield Reference Point
ASA	Acoustical Society of America
ASACS	Air Surveillance and Control System
ASL	Above Sea Level
ASR	Airport Surveillance Radar
ASYC	Aberdeen and Stonehaven Yacht Club
ATC	Air Traffic Control
ATDI	Advanced Topographic Development and Imaging
AtoN	Aids to Navigation
ATS	Air Traffic Service
BABAO	British Association for Biological Anthropology and Osteoarchaeology
BACI	Before-After-Control-Impact
BAP	Biodiversity Action Plan



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Acronym	Description
BAT	Best Available Technique
BBC	British Broadcasting Corporation
BC	Before Christ
BCA	Bird Collision Avoidance
BDMPS	Biologically Defined Minimum Population Scale
BECCS	Bioenergy with Carbon Capture Storage
BEIS	Department for Business, Energy and Industrial Strategy (now DESNZ)
BEST	Biota-Environment Matching and Stepwise Test
BGS	British Geological Survey
ВОЕМ	Bureau of Ocean Energy Management
BOWL	Beatrice Offshore Wind Farm Ltd
ВР	Before Present
BSI	British Standards Institute
ВТ	British Telecom
ВТО	British Trust for Ornithology
BULSI	Build, Use, Loss, Survival, and Investigation
BWEA	British Wind Energy Association
C14	Radiocarbon
CA	Cruising Association
CAA	Civil Aviation Authority
CaCO ₃	Calcium Carbonate
CAP	Civil Aviation Publication
CaP	Cable Plan
CAS	Controlled Airspace
CAT	Commercial Air Transport
СВА	Cost Benefit Analysis

Acronym	Description
CBD	Convention on Biological Diversity
CBRA	Cable Burial Risk Assessment
CBUK	Charter Boats UK
ccc	Climate Change Committee
CCGT	Combined Cycle Gas Turbine
CCME	Canadian Council of Ministers of the Environment
CD	Chart Datum
CDM	Construction (Design and Management) 2015 Regulations
CDP	Carbon Disclosure Project
CEA	Cumulative Effects Assessment
CEF	Cumulative Effects Framework
Cefas	Centre for Environment, Fisheries and Aquaculture Science
CEQG	Canadian Environmental Quality Guidelines
CES	Crown Estate Scotland
CES ²	Coastal East Scotland
CfD	Contracts for Difference
CFLO	Company Fisheries Liaison Officer
CFSR	Climate Forecast System Reanalysis
CFWG	Commercial Fisheries Working Group
CGNS	Celtic and Greater North Seas
CH ₄	Methane
CHIRP	UK Confidential Human Factors Incident Reporting Programme
CI	Confidence Interval
CIEEM	Chartered Institute of Ecology and Environmental Management
CIfA	Chartered Institute for Archaeologists
CIP	Copenhagen Infrastructure Partners



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Acronym	Description
CIRIA	Construction Industry Research and Information Association
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CJEU	Court of Justice of the European Union
CL	Confidence Limit
CMA	Conservation and Management Advice
CMACS	Centre for Marine and Coastal Studies
CNS	Communication, Navigation and Surveillance
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
COENI	Department of the Environment Northern Ireland
CoCP	Code of Construction Practice
COLREGs	International Regulations for Preventing Collisions at Sea
COP	Conference of the Parties
COPFS	Crown Office and Procurator Fiscal Service
CoS	Chamber of Shipping
COWRIE	Collaborative Offshore Wind Research into the Environment
СРА	Closest Point of Approach
CPGR	Counterfactual of the Population Growth Rate
C-POD	Cetacean Porpoise Detector
CPS	Cable Protection System
СРТ	Cone Penetration Test
CREEM	Centre for Research into Ecological and Environmental Modelling
CReSS	Complex Region Spatial Smoother
CRH	Collision Risk Height
CRM	Collision Risk Modelling
cSAC	Candidate Special Area of Conservation

Acronym	Description
CSIP	Cetacean Strandings Investigation Programme
CSV	Construction Support Vessel
CTD	Conductivity, Temperature, and Depth
CTV	Crew Transfer Vessel
CV	Coefficient of Variation
DAERA	Department of Agriculture, Environment and Rural Affairs
DAS	Digital Aerial Surveys
DASA	UK Defence and Security Accelerator
DBT	Dibutyltin
DC	Direct Current
DCF	Data Collection Framework
DCO	Development Consent Order
DDT	Dichlorodiphenyltrichloroethane
DDV	Drop Down Video
DEA	Drag Embedment Anchor
DECC	Department of Energy and Climate Change
DEFRA	Department for Environment, Food and Rural Affairs
DESNZ	Department for Energy Security and Net Zero (formerly Department for Business, Energy and Industrial Strategy (BEIS))
DF	Direction Finding
DfT	Department for Transport
DGC	Defence Geographic Centre
DHI	Danish Hydraulic Institute
DIO	Defence Infrastructure Organisation
DMRB	Design Manual for Roads and Bridges
DNA	Deoxyribonucleic Acid
DND	Detailed Network Design



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Acronym	Description
DOENI	Department of the Environment Northern Ireland
DOSITS	Discovery of Sound in the Sea
DP ¹	Dynamic Positioning
DP ²	Decommissioning Programme
DPO	Draft Plan Option
DSC	Digital Selective Calling
dSEP	Draft Stakeholder Engagement Plan
DSLP	Development Specification and Layout Plan
DSV	Dive Support Vessel
DTM	Digital Terrain Model
DVOF	Digital Vertical Obstruction File
EBA	European Boating Association
EC	European Commission
EcIA	Ecological Impact Assessment
ECMWF	European Centre for Medium-Range Weather Forecasts
ECOMMAS	East Coast Marine Mammal Acoustic Study
ECoW	Environmental Clerk of Work
ECOWind	Ecological Consequences of Offshore Wind
eDNA	Environmental Deoxyribonucleic Acid
EDP	Energias de Portugal
EDR	Effective Deterrence Range
EEA	European Economic Area
EEZ	Exclusive Economic Zone
EGL	Eastern Green Link
EIA	Environmental Impact Assessment
EMF	Electromagnetic Field

Acronym	Description
EMODNet	European Marine Observation and Data Network
EMP	Environmental Management Plan
EMR	Electricity Market Reform
EMSA	European Maritime Safety Agency
EOD	Explosive Ordinance Disposal
EOWDC	European Offshore Wind Deployment Centre
EPA	Environmental Protection Agency
EPD	Environmental Product Declaration
EPRA	European Public Real Estate Association
EPS	European Protected Species
ERCoP	Emergency Response Cooperation Plans
ESCA	European Subsea Cables Association
ESO	Electricity System Operator
ESRI	Environmental Systems Research Institute
EU	European Union
EUNIS	European Nature Information System
EVA	Extreme Value Analysis
FAME	Future of the Atlantic Marine Environment
FeAST	Feature Activity Sensitivity Tool
FES	Future Energy Scenario
FIR ¹	Fisheries Industry Representatives
FIR ²	Flight Information Region
FL	Flight Level
FLiDAR	Floating Light Detection and Ranging
FLO	Fisheries Liaison Officer
FLOW	Floating Offshore Wind



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Acronym	Description
FLOWW	Fishing Liaison with Offshore Wind and Wet Renewables Group
FMMS	Fisheries Management and Mitigation Strategy
FOW	Floating Offshore Wind
FPSO	Floating, Production, Storage and Offloading unit
FRB	Fast Rescue Boat
FSA	Formal Safety Assessment
FTE	Full Time Equivalent
FTOWDG	Forth and Tay Offshore Wind Developers Group
FTSE	Financial Times Stock Exchange
FU	Functional Unit
GAM	Generalised Additive Model
GBS	Gravity Based Structure
GDP	Gross Domestic Product
GEBCO	General Bathymetric Chart of the Oceans
GES	Good Environmental Status
GHG	Greenhouse Gas
GIS	Geographic Information Systems
GMDSS	Global Maritime Distress and Safety System
GP	General Practitioner
GP2	Generalised Pareto distribution
GPS	Global Positioning System
GRP	Glass Reinforced Plastic
GSD	Ground Sampling Distance
GT	Gross Tonnage
GVA	Gross Value Added
GWP	Global Warming Potential

Acronym	Description
НАТ	Highest Astronomical Tide
HD	High Definition
HE	Historic England
HER	Historic Environment Record
HES	Historic Environment Scotland
HESS	High Energy Seismic Survey
HF	High Frequency
HFC	Hydrofluorocarbon
HMCG	His Majesty's Coastguard
HM Government	His Majesty's Government
НМРА	Historic Marine Protected Area
HMR	Helicopter Main Route
HMRI	Helicopter Main Route Indicator
HMSO	His Majesty's Stationery Office
HND	Holistic Network Design
HNDFUE	National Grid Holistic Network Design Follow Up Exercise
HPAI	Highly Pathogenic Avian Influenza
HRA	Habitats Regulations Appraisal
Hs	Significant Wave Height
HSE	Health and Safety Executive
HSE MS	Health, Safety and Environmental Management Systems
HSEQ	Health, Safety and Environment Quality
HSWA	Health and Safety at Work Act 1974
HTV	Heavy Transport Vessel
HV	High Voltage
HVAC	High Voltage Alternating Current



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Acronym	Description
HVDC	High Voltage Direct Current
HW	High Water
IAIP	Integrated Aeronautical Information Package
IALA	International Association of Marine Aids to Navigation and Lighthouse Authorities
IAMMWG	Inter-Agency Marine Mammal Working Group
IBMs	Individual-Based Models
IBTS	International Bottom Trawl Survey
ICAO	International Civil Aviation Organisation
ICCI	In-Combination Climate Impacts
ICE	Inventory of Carbon and Energy
ICES	International Council for the Exploration of the Sea
ICOMOS	International Council of Monuments and Sites
ICPC	International Cable Protection Committee
ID	Identification
IEC	International Electrotechnical Commission
IEF	Important Ecological Feature
iE-Field	Induced Electrical Field
IEMA	Institute of Environmental Management and Assessment
IFCA	Inshore Fisheries and Conservation Authority
IFP	Instrument Flight Procedure
IFR	Instrument Flight Rules
IHLS	International Herring Larvae Surveys
ILB	Inshore Lifeboat
IMC	Instrument Meteorological Conditions
IMCA	International Marine Contractors Association
IMO	International Maritime Organisation

Acronym	Description
IND	Individuals Counted at the Colony
INNS	Invasive Non-Native Species
INNSMP	Invasive Non-Native Species Management Plan
INTOG	Innovation and Targeted Oil and Gas
IPCC	Intergovernmental Panel on Climate Change
iPCoD	Interim Population Consequences of Disturbance Model
IR	Infra-red
IRC	Intermediate Reactive Compensation
ISAR	Integrated Search and Rescue
ISQG	Interim Sediment Quality Guidelines
IUCN	International Union for the Conservation of Nature
IWC	International Whaling Commission
JCP	Joint Cetacean Protocol
JNAPC	Joint Nautical Archaeology Policy Committee
JNCC	Joint Nature Conservation Committee
JRCC	Joint Rescue Coordination Centre
JTF	Joint Task Force
KISORCA	Kingfisher Information Service - Offshore Renewable & Cable Awareness project
KPAL	Kenneth Pye Associates Limited
LAT	Lowest Astronomical Tide
LCA	Life Cycle Assessment
LCCC	Low Carbon Contracts Company
LCL	Lower Confidence Limit
LCoE	Levelised Cost of Energy
LF	Low Frequency
LFA	Low Flying Area



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Acronym	Description
LGM	Last Glacial Maximum
LGR	Local Government Review
LLC	Limited Liability Company
LMP	Lighting and Marking Plan
LOA	Length Overall
LoS	Line of Sight
LSE ¹	Likely Significant Effects (as defined by the EIA Regulations)
LSE ²	Likely Significant Effects (as defined by the Habitat Regulations)
LTM	Long Term Mooring
M/V	Motor Vessel
MAA	Military Aviation Authority
MAG	Magnetometer
MAIB	Maritime Accident Investigation Branch
MAMC	Military Airspace Management Cell
MarESA	Marine Evidence Based Sensitivity Assessment
MARIN	Maritime Institute Netherlands
MarLIN	The Marine Life Information Network
MARPOL	International Convention for the Prevention of Pollution from Ships
MAT	Mitigation Assessment Tool
MAU	Marine Analytical Unit
MBA	Marine Biological Association
MBES	Multibeam Echosounder
MCA	Maritime and Coastguard Agency
MCAA	Marine and Coastal Access Act
MCC	Marine Coordination Centre
MCCIP	Marine Climate Change Impacts Partnership

Acronym	Description
мсо	Marine Conservation Order
MCRS	Minimum Conservation Reference Size
MCZ	Marine Conservation Zone
MDA	Managed Danger Area
MD-LOT	Marine Directorate – Licensing Operations Team
MDS	Maximum Design Scenario
MD-SEDD	Marine Directorate Science, Evidence, Data and Digital
MEDIN	Marine Environmental Data Information Network
MGN	Marine Guidance Note
MHWN	Mean High Water Neaps
MHWS	Mean High Water Springs
MIDAS	Monument Inventory Data Standard
Mil AIP	Military Aeronautical Information Publication
MIS	Marine Isotopic Stage
ML	Marine Licence
MLRS	Minimum Landing Reference Size
MLWN	Mean Low Water Neaps
MLWS	Mean Low Water Springs
MMMP	Marine Mammal Mitigation Plan
MMO ¹	Marine Management Organisation
MMO ²	Marine Mammal Observer
MNCR	Marine Nature Conservation Review
MOD	Ministry of Defence
МОМ	Method of Moments
MORL	Moray Offshore Renewables Ltd
MOW	MetOcean Works



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Acronym	Description
MPA	Marine Protected Area
MPCP	Marine Pollution Contingency Plan
MPS	Marine Policy Statement
MRCC	Maritime Rescue Coordination Centre
MRE	Marine Renewable Energy
MRF	Marine Recovery Funds
MRSea	Marine Renewables Strategic Environmental Assessment
MSA	Minimum Sector Altitude
MSFD	Marine Strategy Framework Directive
MSI	Maritime Safety Information
MSL	Mean Sea Level
MSO	Marine Survey Office
MSS	Marine Scotland Science
MU	Management Unit
MV	Marine Vibriosis
MV	Merchant Vessel
MvOWFL	Morven Offshore Wind Farm Limited
N	North (Sectoral Marine Plan Region)
N/A	Not Applicable
N ₂ O	Nitrous Oxide
NAF	Nocturnal Activity Factor
NAIZ	Non-Auto Initiation Zones
NAS	Noise Abatement System
NATS	National Air Traffic Services
NAVTEX	Navigational Telex
NBN	National Biodiversity Network

Acronym	Description
NC	Nature Conservation
NCP	National Contingency Plan
NCEP	National Centre for Environmental Prediction
ncMPA	Nature Conservation MPA
NDC	Nationally Determined Contribution
NE	North East (Sectoral Marine Plan Region)
NEA	Norwegian Environmental Agency
NECP	North East Cetacean Project
NECRIFG	North and East Coast Regional Inshore Fisheries Group
nepva	Natural England Population Viability Analysis
NEQ	Net Explosive Quantity
NERC	Natural Environment Research Council
NERL	NATS En-Route Limited
NF ₃	Nitrogen Trifluoride
NG	National Grid
NGO	Non-Governmental Organisation
NLB	Northern Lighthouse Board
NMBAQC	North-east Atlantic Marine Biological Analytical Quality Control
NMDS	Non-Metric Multi-Dimensional Scaling
NMFS	National Marine Fisheries Service
NMP	Scottish National Marine Plan
NMPi	Scottish National Marine Plan Interactive
NMS	Noise Mitigation System
NnG	Neart na Gaoithe
NO AEOI	Adverse Effect on Integrity
NOAA	National Oceanic Atmospheric Administration



Acronym	Description
NPF	National Planning Framework
NPS	National Policy Statement
NPS EN-1	National Policy Statement for Energy (Department for Energy Security and Net Zero
NPS EN-3	National Policy Statement for Renewable Energy Infrastructure
NRA	Navigational Risk Assessment
NRHE	National Record of the Historic Environment
NRW	Natural Resources Wales
NS	North Sea
NSIP	Nationally Significant Infrastructure Projects
NSN	National Site Network
NSNR	North Sea Natural Resources
NSP	Navigational Safety Plan
NSTA	North Sea Transition Authority
NSVMP	Navigational Safety and Vessel Management Plan
NtM	Notice to Mariners
NTS	Non-Technical Summary
NZTAP	Net Zero Transition Action Plan
OASIS	Online Access to the Index of Archaeological Investigations
OBIS	Ocean Biodiversity Information System
OCA	Other Marine Carnivores in Air
OCIMP	Ossian Compensation Implementation and Monitoring Plan
ocs	Offshore Convertor Station
ocw	Other Marine Carnivores in Water
OD	Ordnance Datum
OFLO	Offshore Fisheries Liaison Officer
OGA	Oil and Gas Authority

Acronym	Description
OLS	Obstacle Limitation Surface
OMP	Operation and Maintenance Programme
OMR	Offshore Marine Region
OPERA	Operational Programme for the Exchange of Weather Radar
OREI	Offshore Renewable Energy Installations
ORJIP	Offshore Renewables Joint Industry Programme
OSL	Optically Stimulated Luminescence
OSP	Offshore Substation Platform
OSPAR	Convention for the Protection of the Marine Environment of the North-East Atlantic or OSPAR Convention
Ossian OWFL	Ossian Offshore Wind Farm Limited
OTNR	Offshore Transmission Network Review
OWEIP	Offshore Wind Environmental Improvement Package
OWEPS	Offshore Wind Energy Policy Statement
OWIC	Offshore Wind Industry Council
OWIG	Offshore Wind Industry Group
OWPS	Offshore Wind Policy Statement
PAC	Pre-Application Consultation (as defined by the Marine Licencing (Pre-application Consultation) (Scotland) Regulations 2013)
PAD	Protocol for Archaeological Discoveries
PAH	Polycyclic Aromatic Hydrocarbon
PAM	Passive Acoustic Monitoring
PAN	Planning Advice Note
PANS-Ops	Procedures for Air Navigation Services–Aircraft Operations
PCA	Principal Component Analysis
PCB	Polychlorinated Biphenyl
PCH	Proportion of Birds at Collision Height
PCR	Polymerase Chain Reaction



Acronym	Description
PCW	Phocid Carnivores in Water
PDE	Project Design Envelope
PEIR	Preliminary Environmental Impact Report
PEMP	Project Environmental Monitoring Plan
PEXA	Practice and Exercise Area
PFC	Perfluorocarbon
PGCE	Postgraduate Certificate in Education
PIANC	World Association for Waterborne Transport Infrastructure
PINS	Planning Inspectorate
PKARF	Perth and Kinross Archaeology Research Framework
PLA	Port of London Authority
PLGR	Pre-Lay Grapnel Run
PLL	Potential Loss of Life
PLN	Port letters and numbers
PM	Particle Motion
PMF	Priority Marine Feature
PMO	Prime Minister's Office
PO	Plan Option
РОВ	People on Board
POP	Persistent Organic Pollutant
PPC	Preferred Project Concept
PPCC	Probability Plot Correlation Coefficient
PrePARED	Predators and Prey Around Renewable Energy Developments
PRIMER	Plymouth Routines in Multivariate Ecological Research
PS	Piling Strategy
PSA	Particle Size Analysis

Acronym	Description
pSAC	Proposed Special Area of Conservation
PSD	Power Spectral Density
pSPA	Proposed Special Protection Area
PSR	Primary Surveillance Radar
PSU	Practical Salinity Units
PTS	Permanent Threshold Shift
PVA	Population Viability Analysis
QA	Quality Assurance
QAIC	Quasi-Akaike
RA	Retained Archaeologist
Radar	Radio Detection and Ranging
RAF	Royal Air Force
RAG	Red-Amber-Green
RAM	Restricted in Ability to Manoeuvre
RAP	Recognised Air Picture
RBS	Register of Buyers and Sellers
RBS legislation	Registration of Buyers and Sellers of First-Sale Fish Scheme
RCG	Renewables Consulting Group
RCP	Representative Concentration Pathway
RCS	Radar Cross Section
RDP	Radar Data Processor
REZ	Scottish Renewable Energy Zone
RIAA	Report to Inform Appropriate Assessment
RIVM	Rijksinstituut voor Volksgezondheid en Milieu
RL	Received Level
RLoS	Radar Line of Sight



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Acronym	Description
RMP	Regional Marine Plan
rms	Root Mean Square
RNLI	Royal National Lifeboat Institution
ROC	Renewables Obligation Certificates
Ro-Ro	Roll-on/Roll-off
ROV	Remotely Operated Vehicle
RoW	Receiver of Wreck
RPS	RPS Energy Consultants Ltd
RRH	Remote Radar Head
RSMP	Regional Seabed Monitoring Programme
RSPB	Royal Society for the Protection of Birds
rUK	Rest of the UK
rWorld	Elsewhere in the World
RYA	Royal Yachting Association
(s)CRM	(stochastic) Collision Risk Model
SAC	Special Area of Conservation
SACFOR	Super-Abundant, Abundant, Common, Frequent, Occasional, Rare
SALSA	Spatially Adaptive Local Smoothing Algorithm
SALSA2D	2-Dimensional SALSA
SAR	Search and Rescue
SARPs	Standards and Recommended Procedures
SAS	Surfers Against Sewage
SBES	Singlebeam Echosounder
SBL	Scottish Biodiversity List
SBP	Sub-bottom Profiler
SCANS	Small Cetaceans in European Atlantic waters and the North Sea survey

Acronym	Description
ScARF	Scottish Archaeological Research Framework
SCDS	Supply Chain Development Statement
SCI	Sites of Community Importance
scos	Special Committee on Seals
ScotMER	Scottish Marine Energy Research
SCPT	Seismic Cone Penetration Testing
sCRM	Stochastic Collision Risk Model
SD	Standard Deviation
SDM	Species Distribution Models
SEA	Strategic Environmental Assessment
SEER	Synthesis of Environmental Effects Research
SEG-Y	Society of Exploration Geophysicists Y (data format)
SEIA	Social and Economic Impact Assessment
SEL	Sound Exposure Level
SELcum	Cumulative Sound Exposure Level
SELss	Single Strike Sound Exposure Level
SEP	Stakeholder Engagement Plan
SEPA	Scottish Environmental Protection Agency
SEPLA	Suction Embedded Plate Anchor
SF ₆	Sulphur Hexafluoride
SFF	Scottish Fishermen's Federation
SI	Site Investigations
SIMPER	Similarity Percentage
SIMPROF	Similarity Proofing Algorithm
SISI	Scottish Invasive Species Initiative
SL	Source Level



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Acronym	Description
SLSC	Standardised Least Squares Criterion
SMP	Sectoral Marine Plan
SMR	Scottish Marine Region
SMRU	Sea Mammal Research Unit
SMS	Safety Management System
SMU	Seal Management Unit
SNCB	Statutory Nature Conservation Body
SNH	Scottish Natural Heritage
SNP	Scottish National Party
SNU	Seoul National University
SOI	Scottish Oceans Institute
SOLAS	International Convention for the Safety of Life at Sea
SONAR	Sound Navigation Ranging
SOSSMAT	Strategic Ornithological Support Services Migration Assessment Tool
sov	Service Operation Vessel
SoW	Scope of Work
SPA	Special Protection Area
SPEA	Portuguese Society for the Study of Birds (Sociedade Portuguesa para o Estudo das Aves)
SPFA	Scottish Pelagic Fishermen's Association
SPL	Sound Pressure Level
SPLpk	Peak Sound Pressure Level
SPM	Suspended Particulate Matter
SPMP	Scour Protection Management Plan
SPP	Scottish Planning Policy
Spp	Several Species
SPVA	Service Personnel and Veterans Agency

Acronym	Description
SSC	Suspended Sediment Concentrations
SSEN	Scottish and Southern Electricity Network
SSER	SSE Renewables
SSR	Secondary Surveillance Radar
SSS	Side-Scan Sonar
SSSI	Site of Special Scientific Interest
SST	Sea Surface Temperature
SSW-RS	Scottish Shelf Waters Reanalysis Service
STAR	Seabird Tracking and Research
STW	Scottish Territorial Waters
SWFPA	Scottish White Fish Producers Association
SWMP	Site Waste Management Plan
TAC	Total Allowable Catch
TADS	Thermal Animal Detection System
TAEZ	Temporary Archaeological Exclusion Zone
ТВТ	Tributyltin
TCA	Trade and Cooperation Agreement
TCE	The Crown Estate
TCFD	Task force on Climate related Financial Disclosures
TCSNP	Transitional Centralised Strategic Network Plan
THC	Total Hydrocarbon Content
TL	Transmission Loss
TLP	Tension Leg Platform
TMZ	Transponder Mandatory Zone
TNO	Netherlands Organisation for Applied Scientific Research
TNT	Trinitrotoluene



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Acronym	Description
TNUoS	Transmission Network Use of System
TOC	Total Organic Carbon
ТОМ	Total Organic Matter
TOPA	Technical and Operational Assessment
Тр	Peak Wave Period
T-POD	Towed Passive Acoustic Monitoring Device
TPV	Third Party Verification
TSS	Traffic Separation Scheme
TSS	Total Suspended Sediment
TTS	Temporary Threshold Shift
TVG	Transverse Gradiometer
TWP	Thistle Wind Partners
UCL	Upper Confidence Limit
UHF	Ultra High Frequency
UHRS	2D Ultra-high Resolution Seismic
UK	United Kingdom
UK CoS	UK Chamber of Shipping
UKCEH	UK Centre for Ecology and Hydrology
UKCS	United Kingdom Continental Shelf
UKFEN	United Kingdom Fisheries Economic Network
UKHO	United Kingdom Hydrographic Office
UKLFS	UK Low Flying System
UNCLOS	United Nations Convention on the Law of the Sea
UNECE	United Nations Economic Commission for Europe
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNFCCC	United Nations Framework Convention on Climate Change

Acronym	Description
US	United States
USA	United States of America
USV	Uncrewed Surface Vessel
UV	Ultraviolet
UWN	Underwater Noise
UXO	Unexploded Ordnance
VFR	Visual Flight Rules
VHF	Very High Frequency
VIF	Variance Inflation Factor
VLA	Vertical Loading Anchor
VMC	Visual Meteorological Conditions
VMP	Vessel Management Plan
VMS	Vessel Monitoring System
VOR	Valued Ornithological Receptor
VTS	Vessel Traffic Survey
W	West (Sectoral Marine Plan Region)
WBCSD	World Resources Institute and the World Business Council for Sustainable Development
WeBS	Wetland Bird Survey
WFD	Water Framework Directive
WGS84	World Geodetic System 1984
WNoO	Weekly Notice of Operations
WODC	World Ocean Data Centre
WoRMS	World Register of Marine Species
WSDOT	Washington State Department of Transport
WSI	Written Scheme of Investigation
WW2	World War Two



Acronym	Description
WWT	Wildfowl and Wetlands Trust
Zol	Zone of Influence



UNITS

Unit	Description
α	Attenuation Coefficient
%	Percentage
и	Minutes
£	Pound Sterling
£m	Million Pound Sterling
€	Euros
o	Degrees
°C	Degrees Celsius
μg/kg	Micrograms per kilogram
μm	Micrometres or microns
μТ	Microtesla (magnetic flux density)
bar	bar (pressure)
bn	Billion
cd	Candela (light brightness)
cm	Centimetre
dB	Decibel
dBA	A-weighted decibel
ft	Feet
g	Grams
gCO ₂ e/kWh	Grams of carbon dioxide equivalent per kilowatt hour
GW	Gigawatt (power)
ha	hectare
hp	Horsepower
hrs	Hours

Unit	Description
Hz	Hertz
kg	Kilograms
kg/m³	Kilograms per cubic metre
kHz	Kilohertz
kj	kilojoule
kJ	Kilojoules
km	Kilometres (distance)
km ²	Square kilometres
kn	Knot
kVA	Kilovolt amperes
kW	Kilowatts
kW/m	Kilowatt per metre
ky	Thousand years
1	Litres
lb	Pound (mass)
Lw	Lipid weight
m	Metre (distance)
m/s	Metres per second
m ²	Square metres
m ³	Cubic metres
m³/d/m	Cubic metres per day, per metre
mG	Milligauss (magnetic induction)
mg/l	Milligrams per litre
MHz	Megahertz
mm	Millimetres (distance)
ms	Milliseconds



Unit	Description
ms ⁻¹ or m/s	Metres per second
ms ⁻²	Metres per second squared
mT	Millitesla (magnetic flux density)
mV	Millivolt
MVA	Megavolt amperes
MW	Megawatt
nm	Nautical mile (distance)
nm/s	Nano metres per second (10 ⁻⁹)
nm²	Square nautical mile
nT	Nanotesla
Pa	Pascal
ppm	Pixels Per Metre
PSU	Practical Salinity Units
rms	Root Mean Square
rpm	Revolutions Per Minute
s	Second
s ⁻¹	Rate
SELcum	Cumulative Sound Exposure Level
SELss	Single strike Sound Exposure Level
SPL	Sound Pressure Level
SPLpk	Peak Sound Pressure Level
t	Tonne
tC/ha	Tonnes of Carbon Per Hectare
tCO ₂	Tonnes of Carbon Dioxide
tCO ₂ e	Tonnes of Carbon Dioxide Equivalent
V/m	Volts per metre (electric field strength)

Unit	Description
W/m²	Watts per square metre
λ	Wavelength
μРа	Micro Pascal (10 ⁻⁶)
μPa²s	Micro Pascal Squared Second
μV/m	Microvolts per metre (electric field strength)
μТ	Microtesla



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