

Glossary of Terms

Term	Definition
0-Hz	Zero hertz or static magnetic fields are constant fields, which do not change in intensity or direction over time, in contrast to low and high frequency alternating fields.
AC	Alternating Current, an electric current that reverses its direction many times a second at regular intervals.
Adaptive Management	A systematic approach to environmental management that allows for adjustments based on ongoing monitoring and evaluation.
ADLS	Radar-Based Aircraft Detection Lighting System, technology that uses radar to control the lighting of wind turbines.
Air Pollutants	Substances released during construction or operation that may have environmental impacts, including carbon monoxide, lead, nitrogen dioxide, sulfur dioxide, and particulate matter.
Air Pollution	The presence of harmful or excessive quantities of substances like particulate matter or gases in the air, often caused by human activities like burning fossil fuels.
Air Temperatures	The temperature of the air in the Earth's atmosphere, which can be affected by changes in greenhouse gas concentrations.
Ampere	Often shortened to "amp", is the unit of electric current in SI.
Aquaculture Integration	The potential synergies and conflicts between offshore wind farms and marine aquaculture operations, including considerations for fish farming, shellfish cultivation, and algae production.
Artificial Light	Human-made illumination, which can impact marine life behavior.
Artificial Reefs	Structures deployed underwater to mimic natural reef habitats, which can enhance fish

	and invertebrate populations by providing shelter, food sources, and breeding sites.
Atmospheric CO2 Levels	The concentration of carbon dioxide in the Earth's atmosphere, measured in parts per million (ppm).
Atmospheric Concentrations	The amount or level of a substance present in the Earth's atmosphere, measured in terms of concentration units like ppm.
Atmospheric Data	Information related to the Earth's atmosphere, including temperature, pressure, humidity, and composition of gases.
Atmospheric Temperatures	Refers to temperatures in the Earth's atmosphere, which can be influenced by greenhouse gases and other factors.
Auditory Injuries	Physical harm or damage to hearing organs or systems caused by exposure to loud or intense sounds.
Avoidance Behavior	Actions taken by birds or bats to avoid collisions with offshore wind turbines.
BACT	Best Available Control Technologies, technologies and methods identified as the most effective for controlling emissions from specific sources, as required by environmental regulations.
Behavioral Disturbance	Changes in behavior exhibited by animals due to external factors, such as noise or environmental changes, impacting their natural patterns of activity.
Benthic Communities	Ecological communities living on or near the ocean floor.
Benthic Habitats	Habitats on the seafloor, including soft-bottom and hard-bottom areas where various marine organisms live and interact.
Benthic Organisms	Organisms that live on or near the seabed, including benthic fish species, shellfish, and bottom-dwelling invertebrates.
Biodiversity	The variety and abundance of living organisms in a particular ecosystem or region.
BIWF	Block Island Wind Farm

BOEM	Bureau of Ocean Energy Management
Bottom-Dwelling Species	Benthic and demersal organisms that live on or near the ocean floor.
Bubble Curtains	Air bubble systems used to reduce underwater noise during construction activities.
Bycatch	The unintentional capture of non-target species in fishing gear such as trawls, nets, and longlines.
Calcifying Organisms	Organisms that build skeletons or shells from calcium carbonate.
Capacity Factor	The ratio of actual energy output to the maximum possible output over a specific period, indicating efficiency.
Carbon Emissions	The release of carbon dioxide and other greenhouse gases into the atmosphere, primarily from human activities like burning fossil fuels.
Carbon Footprint	The total amount of greenhouse gases emitted directly or indirectly by human activities, often measured in units of carbon dioxide equivalents.
CEQ	Council on Environmental Quality
Clean Air Act	A U.S. federal law that regulates air emissions and aims to protect air quality and public health.
Climate	Consistent and typical weather patterns observed in a specific place over an extended period, typically 30 years or more.
Climate Change	Refers to long-term changes in the Earth's climate, including warming oceans, rising sea levels, changes in temperature, precipitation, and weather patterns, often attributed to human activities such as the release of greenhouse gases.
Climate Warming	The increase in global temperatures over time, often attributed to the enhanced greenhouse effect caused by increased greenhouse gas concentrations in the atmosphere.
CO2	Abbreviation for carbon dioxide, a colorless, odorless gas that is a major greenhouse gas

	responsible for trapping heat in the Earth's atmosphere, contributing to global warming and ocean acidification.
CO ₂ eq	CO ₂ Equivalent, a measure used to compare the emissions from various greenhouse gases based on their global warming potential relative to carbon dioxide.
Coastal Areas	Areas along the coast that are important for supporting various species and protecting coastlines.
Coastal Communities	Populated areas located near coastlines, often vulnerable to climate-related risks like sea-level rise and storms.
Coastal Erosion	The loss of beach and dune habitats due to natural processes or human-induced changes.
Coastal Resilience	The ability of coastal communities and ecosystems to withstand and recover from environmental challenges and hazards.
Coastal Zone Management Act	U.S. legislation governing coastal development and protection.
Collision Mortality	Refers to the death of birds or bats due to colliding with wind turbine blades or other structures.
Collision Risk	The likelihood of birds or bats colliding with wind turbines, influenced by factors such as flight behavior, avoidance strategies, migratory routes, and turbine design.
Combustion Reaction	A chemical reaction that occurs when fossil fuels are burned, producing heat, water vapor, and carbon dioxide as by-products.
Community Benefit Agreements	Agreements between developers and local communities that outline benefits such as investments, job creation, or infrastructure improvements in exchange for project-related permissions or support.
Community Investments	Financial contributions or initiatives aimed at benefiting local communities, such as funding education, training, infrastructure, or environmental projects.
Compensation Plans	Programs or mechanisms designed to provide financial support or compensation to

	individuals or communities affected by a particular activity or project.
COP	Construction and operation plan
Coral Reefs	Structures formed by coral polyps that support diverse marine life.
Critical Habitat Designation	Designation of specific areas crucial for the survival and recovery of endangered or threatened species as per the Endangered Species Act (ESA).
CRM	Collision Risk Model, tool/s used to estimate the potential risk of bird or bat collisions with wind turbines based on various input parameters and environmental data.
CRS	Congressional Research Service
Cumulative Impact Assessment	An assessment that considers the combined effects of multiple human activities, such as offshore wind farms, shipping, fishing, and pollution, on marine ecosystems over time.
CVOW	Coastal Virginia Offshore Wind
CWIS	Cooling water intake systems, systems used to cool machinery or processes by drawing in water from the environment.
Data Collection and Sharing	Protocols for collecting and sharing data related impacts and environmental monitoring.
dB	Decibel, a logarithmic unit used to express the ratio of acoustic or electric power intensity.
dBA	A-weighted decibel, an expression of the relative loudness of sounds as perceived by the human ear.
DC	Direct Current, an electrical current which flows consistently in one direction.
Decarbonization	The process of reducing or eliminating carbon dioxide emissions, often related to transitioning from fossil fuel-based energy to renewable energy sources.
Decarbonization Goals	Strategies aimed at reducing carbon dioxide and other greenhouse gas emissions to combat climate change.

Decommissioning	The process of removing offshore wind turbines and associated infrastructure at the end of their operational life, including environmental remediation of the site.
Demersal Organisms	Bottom dwelling species that exist and consume in the open water column at the ocean floor.
Displacement	The movement of birds or bats from their original habitat due to the presence of offshore wind structures, which can impact their foraging and roosting behaviors.
DOE	U.S. Department of Energy
Domestic Content	The proportion of materials, components, or labor sourced domestically within a country rather than imported.
E-TWG	Environmental Technical Working Group
EA	Environmental Assessment
Economic Development	Activities aimed at improving the economic well-being and quality of life in a specific area, including job creation, infrastructure development, and investment promotion.
Economic Impact	Effects on financial aspects such as costs, prices, investments, and employment.
Ecosystem Impacts	Effects on the overall biological community and interactions between organisms and their environment.
Ecosystem-Based Approach	An approach to natural resource management that considers the interconnectedness of species, habitats, and human activities, promoting holistic conservation and sustainable development.
EFH	Essential Fish Habitat, areas critical for the growth and survival of fish species.
EFs	Static Electric Fields, electric fields that remain constant over time, typically associated with high-voltage power transmission.
EIA	Environmental Impact Assessment, a study conducted to evaluate the potential environmental effects of an offshore wind project, including its impact on marine ecosystems, wildlife, and habitats.

EIS	Environmental Impact Statement
EMFs	Electromagnetic Fields, areas of electrical and magnetic energy associated with electrical power and various sources of lighting, including both natural and human-made sources.
Energy Efficiency	Using less energy to perform the same tasks or achieve the same level of output, reducing overall energy consumption and associated emissions.
Energy Generation Diversification	The strategy of using a mix of energy sources, such as wind, solar, and hydroelectric power, to reduce reliance on fossil fuels and decrease carbon emissions.
Entanglement	When marine mammals or sea turtles become entangled in fishing gear or marine debris.
Environmental Monitoring	The process of gathering data about the environment to assess its health and potential impacts on wildlife and ecosystems.
EPA	The U.S. Environmental Protection Agency,
ESA	Endangered Species Act, U.S. legislation aimed at protecting endangered and threatened species and their habitats.
Estuarine Habitats	Habitats where freshwater from rivers and streams meets and mixes with saltwater from the ocean.
Export Cable	A cable that connects the offshore substation to an onshore substation, transmitting the electricity generated by the wind farm to the electrical grid on land.
FAA	Federal Aviation Administration
Fish Aggregations	Concentrations of fish species in specific areas, including spawning grounds, feeding areas, and migration routes, which may intersect with offshore wind energy zones.
Fish Migration	The movement of fish from one area to another, often related to seasonal changes, feeding habits, or reproduction.
Fisheries Displacement	The movement of fishing activities from one area to another.

Fisheries Impact	Effects on commercial and recreational fishing activities, including changes in fish behavior, migration patterns, and habitat use.
Fisheries Management	The science-based regulation and oversight of fishing activities to ensure sustainability and conservation of fish stocks and marine ecosystems.
FLO	Fisheries Liaison Officer, individual/s responsible for facilitating communication and addressing concerns between offshore wind developers and fishing communities.
Floating Wind Turbine	A type of offshore wind turbine that is not fixed to the seabed but instead floats on the water's surface, anchored in place by mooring lines.
Food Insecurity	The lack of consistent access to enough food for an active and healthy life, which can be exacerbated by climate-related factors like droughts and water scarcity.
Food Web Dynamics	Interactions between fish, invertebrates, plankton, and other organisms in marine food webs.
Foraging Grounds	Areas in the ocean where sea turtles feed on seagrass, algae, jellyfish, and other prey species.
Fossil Fuels	Non-renewable energy sources such as coal, oil, natural gas, and propane that are formed from ancient organic matter and used for energy production.
Foundation	The structure that supports a wind turbine in the seabed, providing stability and anchoring the turbine.
G	Gaussmeter, the strength or intensity of magnetic fields.
GDP	Gross Domestic Product, the total value of goods and services produced within a country, indicating economic performance.
Geophysical Exploration	Surveying and mapping of the Earth's natural features using physical methods such as seismic surveys or high-resolution geographic (HRG) surveys.

GHG	Greenhouse Gases, gases such as carbon dioxide (CO ₂), methane (CH ₄), and nitrous oxide (N ₂ O) that trap heat in the Earth's atmosphere, contributing to the greenhouse effect and global warming.
Global Average Temperatures	The average temperature across the entire Earth, calculated by combining temperatures from various locations and times.
Global North	Refers to the northern hemisphere of the Earth, which contains the majority of land and vegetation.
Global Sea-Surface Temperatures	The average temperature of the Earth's oceans at the surface level, influenced by various factors including greenhouse gas emissions.
Greenhouse Effect	The process by which greenhouse gases trap heat in the Earth's atmosphere, leading to warming of the planet's surface.
Greenhouse Periods	Intervals of geological time characterized by warmer global temperatures and less extensive ice cover.
Grid Connection	The connection between the offshore wind farm and the onshore electrical grid, including the infrastructure and systems needed to transmit electricity reliably and efficiently.
GW	Gigawatt, a measure of electricity equal to 1 billion watts.
GWh	Gigawatt Hour, a measure of electricity generation of 1 GW produced over one hour.
Habitability	The suitability of a planet or environment to support life, including factors such as temperature, atmosphere, water, and resources.
Habitat Disturbance	Disruption or alteration of natural habitats, which can impact ecosystems and species living in those habitats.
Habitat Fragmentation	The division of continuous habitats into smaller, isolated patches, which can occur due to coastal development and infrastructure projects.

Habitat Loss	The reduction or degradation of natural habitats, including seagrass beds, coral reefs, and rocky substrates.
Habitat Modification	Alterations to underwater habitats which can impact fish and invertebrate communities.
Habitat Suitability	The degree to which an area provides conditions necessary for the survival and reproduction of a particular species.
HAPC	Habitat Areas of Particular Concern, subsets of EFH that are rare, especially vulnerable, stressed by development, or provide important ecological functions for federally managed species.
HDD	Horizontal directional drilling, a method of installing cables underground without disturbing sensitive habitats.
Heat Trapping Capacity	The ability of a greenhouse gas to absorb and retain heat in the Earth's atmosphere.
Heatwaves	Extended periods of excessively hot weather, which can pose health risks and strain infrastructure like power grids.
Helmholtz Resonators	Devices used to dampen sound waves.
Historic Resources	Sites, buildings, or areas with cultural or historical significance that require protection and consideration in development projects.
HRG	High-resolution geographic surveys, conducted in siting evaluations for offshore wind development, use a suite of active sound sources that are reflected off subsea structures to obtain images of the seafloor and shallow geophysical features.
HVDC Lines	High-voltage direct current lines used to transmit large amounts of energy over long distances, often employed in offshore wind energy transmission.
Hydrodynamic Changes	Alterations to water flow patterns, currents, and sediment transport.
Hydrodynamic Wakes	Wakes created by wind turbines offshore that interact with water and oceanographic processes.
Hydrothermal Vents	Openings in the seafloor that emit hot, mineral-rich water.

Hz	Hertz, SI unit of frequency, equivalent to one event (or cycle) per second.
Ice Ages	Periods of geological time characterized by widespread glaciation and lower global temperatures.
Ice Cores	Cylindrical samples of ice drilled from glaciers or polar ice caps, used to study past climate conditions by analyzing trapped air bubbles and isotopic composition.
ICES	International Committee on Electromagnetic Safety
ICNIRP	International Commission on Non-Ionizing Radiation Protection
Impact Pile Driving	A method of installing structures by driving piles into the seabed, creating intense low-frequency impulsive noise.
Impingement and Entrainment	The trapping and drawing in of organisms by intake structures.
Infrared Radiation	Electromagnetic radiation with longer wavelengths than visible light, associated with heat and thermal energy.
Infrared Reflection	The bouncing back of infrared radiation from surfaces or atmospheric particles, contributing to the greenhouse effect.
Interarray Cables	Cables that connect individual wind turbines within a wind farm to the offshore substation, allowing for the collection and transmission of electricity.
Invasive Species	An organism that is not indigenous, or native, to a particular area.
Invertebrates	Animals lacking a backbone or internal skeleton, such as crustaceans, mollusks, and worms.
IPCC	Intergovernmental Panel on Climate Change
IRA	Inflation Reduction Act, legislation or policy initiatives aimed at reducing the impact of inflation on economic activities, including measures related to workforce development and job creation.
Isolation Casings	Protective casings designed to minimize noise emissions during pile driving.

ITC	Investment Tax Credit, a tax credit that offsets a portion of the capital costs incurred in constructing renewable energy projects.
Jacket Foundation	A type of offshore wind turbine foundation that consists of steel lattice structures resembling a jacket, providing stability in deeper waters.
KOP	Key Observation Point, a specific location identified for observing and evaluating visual impacts.
kV	Kilovolt, a unit of electromotive force equal to 1000 volts.
kV/m	Kilovolt per metre or 1000 volts per metre.
Landscape Impact Assessment	Evaluation of how a development project affects the physical and aesthetic aspects of the land.
Larval Stages	Early developmental stages of marine organisms.
LCOE	Levelized Cost of Energy, a measure of the average cost of generating electricity from a particular energy source over its lifetime, often used to compare the economic viability of different energy technologies.
Life Cycle Assessment	Evaluation of the environmental impact of a product or process throughout its entire life cycle, from raw material extraction to disposal.
Light Pollution	Artificial light from coastal developments or offshore installations.
Localized Changes	Changes that occur within a specific area or region.
Macro-Avoidance	A type of avoidance behavior where birds or bats fly around the entire set of wind turbines, avoiding the farm as a whole.
Marine Ecosystem	The interconnected system of living organisms and their environment within marine or saltwater habitats, including oceans, seas, and estuaries.
Marine Resources	Living and non-living components of marine ecosystems, including fish, habitats, and minerals.

Marine Spatial Planning	The systematic process of allocating and managing marine resources and activities to achieve ecological, economic, and social objectives, while minimizing conflicts.
Meso-Avoidance	A type of avoidance behavior where birds or bats use flight maneuvers to dodge individual turbines within a wind farm.
Methane	A greenhouse gas that is even more potent than CO ₂ in terms of heat trapping capacity, with about 80 times the potency of CO ₂ over a 20-year period.
MFs	Magnetic Fields, areas of magnetic energy generated by electrical currents or moving electric charges, such as those associated with power cables.
mG	Milligauss, a thousandth of a gauss (equal to 0.1 microtesla).
Micro-Avoidance	A type of avoidance behavior where birds or bats make last-minute flight adjustments to avoid colliding with turbine rotor blades.
Migration Route	The path a species follows during their seasonal migrations, which may intersect with offshore wind energy zones.
Migratory Corridors	Pathways used by migratory species during seasonal movements which may overlap with offshore wind farm locations.
Mitigation Innovations	New technologies or practices aimed at reducing impacts.
Mitigation Measures	Strategies and actions implemented to minimize or offset negative impacts of offshore wind energy, often required by regulatory agencies during development projects.
MMC	Marine Mammal Commission
MMPA	Marine Mammal Protection Act, U.S. legislation aimed at protecting marine mammals from harm due to human activities such as hunting, harassment, or capture.
Monopile	A type of foundation for offshore wind turbines that consists of a single large steel pile driven into the seabed.

Mortality Assessment	Methods and studies used to evaluate the impact of wind turbines on bird and bat mortality rates.
MPA	Marine Protected Area, designated zone/s where human activities are regulated to conserve marine biodiversity, including areas important for fish spawning, nursery habitats, and invertebrate communities.
MSA	Magnuson-Stevens Fishery Conservation and Management Act, a U.S. law governing marine fisheries management in U.S. federal waters.
MW	Megawatt, a measure of electricity equal to 1 million watts.
MWh	Megawatt Hour, a measure of electricity generation of 1 MW produced over one hour.
NABTU	North America's Building Trades Unions
NARW	North Atlantic right whale
NASA	National Aeronautics and Space Administration
NASEM	The National Academies of Sciences, Engineering, and Medicine
Nature-Inclusive Designs	Designs that promote habitat creation and species support within infrastructure.
Navigational Safety	Concerns related to the safe navigation of vessels, including potential hazards or obstacles such as offshore wind structures.
NCCOS	National Centers for Coastal Ocean Science
NCEI	National Centers for Environmental Information
NEPA	National Environmental Policy Act, U.S. legislation that requires federal agencies to assess the environmental effects of their proposed actions prior to making decisions.
Neritic Zone	The shallow part of the ocean extending to about 660 feet deep.
Nesting Habitat	The beach or coastal area where female sea turtles lay their eggs during nesting season, which can be impacted by coastal development and human activities.
NGO	Non-governmental organization

NHPA	National Historic Preservation Act, U.S. legislation aimed at preserving historic and cultural resources.
NIEHS	National Institute of Environmental Health Sciences
NIOSH	National Institute for Occupational Safety and Health
NOAA	National Oceanic and Atmospheric Administration
NOAA Fisheries	National Oceanic and Atmospheric Administration Fisheries
Noise Pollution	Noise generated by offshore construction activities, vessel traffic, and operational machinery.
NOWRDC	National Offshore Wind Research and Development Consortium
NPDES	National Pollutant Discharge Elimination System
NRDC	Natural Resources Defense Council
NREL	National Renewable Energy Lab
O&M	Operations and Maintenance, activities involved in the ongoing operation, upkeep, and servicing of offshore wind turbines and associated infrastructure.
Ocean Acidification	The process by which CO ₂ dissolves in seawater, lowering its pH and making it more acidic, which can harm marine life, especially those that build calcium carbonate shells.
Ocean Hydrodynamics	The movement and circulation of ocean water.
Oceanic Zone	The deeper part of the ocean beyond the neritic zone.
OCS	Outer Continental Shelf
OCSLA	Outer Continental Shelf Lands Act, defines the OCS as all submerged lands lying seaward of state coastal waters (3 miles offshore) which are under U.S. jurisdiction.
Offshore Substation	A facility located on the offshore wind farm that collects electricity from multiple turbines and transforms it to a higher voltage for transmission to shore.

Offshore Wind Activities	Operations related to the development, construction, and operation of offshore wind energy projects.
Offshore Wind Careers	Employment opportunities within the offshore wind industry, including roles in engineering, construction, operations, and maintenance.
Offshore Wind Development	The process of planning, constructing, and operating wind farms in offshore locations to generate electricity.
Offshore Wind Energy	Electricity generated from wind turbines located in offshore areas, harnessing wind power to produce renewable energy.
Offshore Wind Farm	A collection of wind turbines located offshore, designed to generate electricity from wind energy.
Offshore Wind Resource Assessment	Studies and analyses conducted to assess the potential wind energy production at a specific offshore location, considering factors such as wind speeds, wave conditions, and seabed characteristics.
Offshore Wind Turbines	Equipment used to capture wind energy offshore, consisting of components like blades, nacelles, towers, and foundations.
Offshore Wind Workforce	The collective group of individuals involved in offshore wind projects, including developers, engineers, technicians, and other professionals.
Onshore Converter Station	A specialized type of substation which converts electricity before passing through main substations on to the grid.
OSHA	Occupational Safety and Health Administration
OSW	Offshore Wind
PAM	Passive Acoustic Monitoring, monitoring technique using underwater sound to detect marine mammals and sea turtles.
Paris Climate Accord	An international agreement within the United Nations Framework Convention on Climate Change (UNFCCC) aimed at reducing greenhouse gas emissions and limiting global

	temperature rise to well below 2°C above pre-industrial levels.
Peaker Plants	Power plants designed to meet peak electricity demand, often using fossil fuels and operating intermittently.
Pelagic Species	Fish and invertebrates found in the open water away from the seafloor.
Pelagic Zone	Also known as the open ocean or open water column, is the area of the ocean outside of coastal areas and above the seafloor.
Phytoplankton	Microscopic drifting algae that form the base of the marine food chain and absorb carbon dioxide.
Pitch System	The mechanism that adjusts the angle of the rotor blades to optimize energy production based on wind conditions.
PLA	Project Labor Agreement, collective bargaining agreement/s between a union and an employer that outline the terms of employment for workers involved in construction and other project-related activities.
Plankton	Tiny drifting organisms, including phytoplankton and zooplankton, that are incredibly important to the ocean ecosystem, and very sensitive to changes in their environment, including in the temperature, salinity, pH level, and nutrient concentration of the water.
PM2.5	Particular Matter 2.5, fine inhalable particles with diameters that are generally 2.5 micrometers and smaller.
PNNL	Pacific Northwest National Laboratory
Ports and Staging	Facilities and activities related to the handling, storage, and transportation of goods and equipment, often associated with maritime operations.
PPA	Power Purchase Agreement, contract/s between energy buyers and sellers specifying terms for purchasing electricity.
PPM	Parts per Million, a unit of measurement used to express the concentration of a

	substance in the atmosphere, indicating the number of molecules of that substance per million molecules of air.
Pre-Industrial Levels	Refers to the global climate conditions before the widespread use of fossil fuels, often used as a baseline for measuring climate change impacts and setting targets for emissions reductions.
Project WOW	Project Wildlife and Offshore Wind, Duke University
PSO	Protected Species Observer, trained individuals tasked with monitoring and mitigating risks to marine protected species during offshore wind activities to ensure compliance with regulations.
PTC	Production Tax Credit, a tax credit provided to renewable energy producers based on the amount of electricity generated.
PTS	Permanent Threshold Shift, long-term or permanent changes in hearing sensitivity due to prolonged exposure to loud sounds.
Ratepayers	Customers who pay utility bills for electricity or other services.
Real-Time Monitoring	Continuous monitoring in real-time to detect and respond to environmental changes or risks.
Recolonization	The process of organisms returning to an area after disturbance.
Reef Effect	The phenomenon where man-made structures in water create habitats that attract marine life, leading to increased biodiversity and productivity.
Regional Effects	Effects on a larger scale, such as alterations in ocean circulation patterns.
Renewable Energy Resources	Energy sources that are naturally replenished and have a lower environmental impact compared to fossil fuels, such as wind, solar, hydroelectric, and geothermal energy.
RISEE Act	The Reinvesting in the Shoreline Economies and Ecosystems Act, legislative proposal aimed at funding coastal infrastructure and

	resilience projects to mitigate climate change impacts.
RODA	Responsible Offshore Development Alliance
ROSA	Responsible Offshore Science Alliance
Rotor Blades	The large blades attached to the rotor of a wind turbine that capture the wind's energy and convert it into rotational motion.
Rotor Sweep Zone	The area swept by the rotating blades of a wind turbine, where collision risks are highest for birds or bats flying within this zone.
RWSC	Regional Wildlife Science Collaborative for Offshore Wind
Scour Protection	Measures taken to prevent erosion of the seabed around offshore wind turbine foundations, often using rock or concrete armor.
Sea Turtle Monitoring	The systematic observation and data collection on sea turtle populations, behaviors, and threats, often conducted by researchers, conservation organizations, and government agencies.
Sea-level Rise	Increase in global sea levels due to thermal expansion and melting ice from glaciers and polar ice caps.
Seabed Disturbance	Disruption or alteration of the seafloor caused by human activities, such as dredging, which can impact benthic habitats and species.
Seabirds	Birds that rely on marine environments for their habitat.
Seagrass Beds	Areas with dense underwater grasses that serve as habitat for many marine species.
Seascape	The visible features of a coastal or marine area, including the ocean surface and shoreline.
Sediment Transport	The movement of sediment particles (such as sand, silt, and clay) by water currents, waves, and tides within marine environments.
SEER	Synthesis of Environmental Effects Research
SI	International System of Units

Skilled Labor	Workers who have specialized training, expertise, or experience in specific fields or trades, often requiring technical or practical knowledge.
Solar Absorption	The process by which dark surfaces absorb solar radiation, converting it into heat.
Solar Radiation	Energy from the sun in the form of electromagnetic radiation, including visible light and ultraviolet (UV) radiation.
Stakeholder Engagement	Involving individuals, organizations, or communities with vested interests or concerns in a project to gather feedback, address concerns, and foster collaboration.
Storm Intensity	The strength and severity of storms, such as hurricanes, which can increase due to climate change.
Stranding Events	Instances where marine mammals or sea turtles become stranded or injured along coastlines, often due to entanglement, pollution, or other human-related factors.
Submarine/Subsea Power Cables	Cables used to transmit electricity underwater, used for intra-turbine, array-to-transformer, and transformer-to-shore transmissions in offshore wind farms.
Subtidal Zone	The area below the low tide mark, typically submerged underwater, where marine life and habitats are influenced by tidal movements and currents.
Supply Chain	The network of entities involved in producing and delivering goods or services, affecting project costs and timelines.
T	Tesla, the SI unit used to measure the strength of magnetic fields.
Tax Credits	Financial incentives provided by governments to encourage specific activities, such as renewable energy production.
Thermal Habitat Modeling	Predictive models of how temperature changes affect habitats.
Thermohaline Circulation	Deep ocean currents driven by temperature and salinity differences.

Tidal Energy	Energy generated from the movement of tidal waters, which can be harnessed using turbines similar to those used in wind energy.
TSO	Transmission System Operator, entity responsible for managing the flow of electricity within a power grid.
TTS	Temporary Threshold Shift, short-term changes in hearing sensitivity that recover after exposure to loud sounds ceases.
Turbidity	Cloudiness of water due to suspended particles.
Turbine Nacelle	The housing at the top of a wind turbine tower that contains the generator, gearbox, and other key components.
Turbine Scale	Effects related to individual wind turbines, such as turbulent mixing.
TWG	Technical Working Group
Underwater Noise	Sound produced underwater, including from construction activities, vessel traffic, and operational machinery.
UNFCCC	United Nations Framework Convention on Climate Change
USCG	U.S. Coast Guard
USGS	U.S. Geological Survey
V	Volt, the unit of electric potential, electric potential difference (voltage), and electromotive force in SI.
Vessel Strikes	Collisions between marine animals such as whales or sea turtles and vessels, which can cause injury or mortality.
Viewshed	The visible area or landscape that can be seen from a specific vantage point.
Visual Impact	The effect that a structure or development has on the appearance or aesthetics of its surroundings.
Visual Simulation	Creation of digital representations or models to predict and assess visual impacts.
Vulnerable Species	Species that are at risk of extinction or significant population decline due to various factors such as habitat loss, pollution, or climate change.

Water Column	The water column extends from the ocean surface to the seafloor.
WEA	Wind Energy Area
Weather	Day-to-day atmospheric conditions such as temperature, humidity, precipitation, and wind speed in a specific location.
WHO	World Health Organization
Wind Farm Scale	Cumulative effects of multiple turbines, such as changes in ocean currents.
Workforce Training	Programs or initiatives designed to equip individuals with the skills, knowledge, and certifications necessary for specific jobs or industries.
WREN	Working Together to Resolve Environmental Effects of Wind Energy
WTG	Wind Turbine Generator
Yaw System	The mechanism that allows a wind turbine to turn and face the wind for optimal energy capture.
Zooplankton	tiny animals and larvae that drift in the ocean and are an important part of the marine food web.
μT	Microtesla, a SI unit of magnetic flux density equal a millionth of a tesla.