



Net Zero Teesside – Environmental Statement

Planning Inspectorate Reference: [EN010103](#)

Document Ref. 6.2 ES Volume I – Main Text

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (as amended)

The Infrastructure Planning (Applications: Prescribed Forms and Procedure Regulations 2009 - Regulation 5(2)(a))



Prepared by: **AECOM**

DOCUMENT HISTORY

Document Ref	6.2 ES Volume I – Main Text		
Revision	1.0 (updated for changes to ES Chapters 3, 4, 5, 9, 11,16,17 and 21)		
Author	Various		
Signed	I. Campbell	Date	July 2021
Approved By			
Signed	R. Lowe	Date	July 2021
Document Owner	AECOM		

Contents

Glossary of Abbreviations and Definitions of Frequently Used Terms

Chapter 1	Introduction
Chapter 2	Assessment Methodology
Chapter 3	Description of the Existing Environment
Chapter 4	Proposed Development
Chapter 5	Construction Programme and Management
Chapter 6	Alternatives and Design Evolution
Chapter 7	Legislative and Planning Policy Context
Chapter 8	Air Quality
Chapter 9	Surface Water, Flood Risk and Water Resources
Chapter 10	Geology, Hydrogeology and Contaminated Land
Chapter 11	Noise and Vibration
Chapter 12	Terrestrial Ecology and Nature Conservation
Chapter 13	Aquatic Ecology
Chapter 14	Marine Ecology and Nature Conservation
Chapter 15	Ornithology
Chapter 16	Traffic and Transportation
Chapter 17	Landscape and Visual Amenity
Chapter 18	Cultural Heritage
Chapter 19	Marine Heritage
Chapter 20	Socio-economics and Tourism
Chapter 21	Climate Change
Chapter 22	Major Accidents and Natural Disasters
Chapter 23	Population and Human Health
Chapter 24	Cumulative and Combined Effects
Chapter 25	Summary of Significant Effects

Glossary of Abbreviations and Definitions of Frequently Used Terms

Definitions of Development Areas, as shown on Figure 3-2: Development Areas and Figure 4-1: PCC Site Layout (ES Volume II, Document Ref. 6.3)

Project Elements	Definition/Notes
<p>CO₂ Export Pipeline</p> <p>Refer to Figure 3-2A (ES Volume II, Document Ref. 6.3)</p>	<p>High pressure CO₂ Export Pipeline. CO₂ export is expected to include an on-shore high pressure Compressor Station located adjacent to the Power and Capture plant, and the commencement of an export pipeline to the off-shore elements of the NZT development. The offshore elements will be separately consented and do not form part of the Proposed Development – including the off-shore portion of the CO₂ Export Pipeline, the CO₂ store itself and CO₂ injection wells into the store and the associated off-shore infrastructure (either platform or subsea or combination thereof).</p>
<p>CO₂ Gathering Network</p> <p>Refer to Figure 3-2E (ES Volume II, Document Ref. 6.3)</p>	<p>Gaseous Phase CO₂ Gathering Network connecting various industrial installations across the Tees Valley. The CO₂ Gathering Network will predominantly use an existing above ground pipe network route running along existing pipe racks and using existing culverts and overbridges, however it may be necessary to install the pipe below ground if pipe racks are not available.</p>
<p>Electrical Connection Corridor</p> <p>Refer to Figure 3-2C (ES Volume II, Document Ref. 6.3)</p>	<p>Power export lines from the power station to the national transmission system to support the Proposed Development. The existing electrical infrastructure in the area comprises 275 kilovolt (kV) and 400 kV overhead lines as well as lower voltage underground cables that serve, amongst others, three substations. The size, timing and location of the connection to the national electricity transmissions system will be determined in consultation with National Grid.</p>
<p>Natural Gas Connection Corridor</p> <p>Refer to Figure 3-2B (ES Volume II)</p>	<p>Natural gas pipeline to supply the power station to support the Proposed Development. Natural gas will be used as the fuel for the operation of the Combined Cycle Gas Turbine (CCGT) power station. Subject to agreement with National Gas Grid (NGG), natural gas will be supplied via a tie-in to the high pressure gas transmission network in the area.</p>
<p>Power, Capture and Compression (PCC) Site</p> <p>Refer to Figure 3-2A and Figure 4-1 (ES Volume II, Document Ref. 6.3)</p>	<p>The site for the new-build low carbon gas-fired power station with integrated carbon capture unit, compression and associated utilities and buildings.</p>

Proposed Development

Refer to Figure 3-2(A-D) and 4-1 (ES Volume II, Document Ref. 6.3)

The Proposed Development comprises the construction (including site clearance and remediation), operation (including maintenance) and decommissioning of a Carbon Capture Usage and Storage (CCUS) facility comprising a gas-fired power station with a net (abated) electrical output of up to 2.1 GW together with equipment required for the capture and compression of carbon dioxide (CO₂) emissions from the generating station. In addition, there is a need for the provision of supporting infrastructure and connections to facilitate the Proposed Development and to integrate it to a wider industrial carbon capture network in Teesside, the construction of which also forms part of the project. The project also includes high-pressure compression of CO₂ and export for off-shore storage.

The Site

Refer to Figure 3-1 (ES Volume II, Document Ref. 6.3)

The proposed DCO application site, which encompasses all of the land within the Proposed Development Site boundary (the Site) covers a wide area located within the administrative boundaries of Redcar and Cleveland Borough Council (RCBC) to the south of the River Tees (South Bank and Dormanstown Wards) and in Stockton-on-Tees Borough Council (STBC) to the north of the River Tees (Billingham South Ward).

Water Supply Corridor

Refer to Figure 3-2D (ES Volume II)

Includes the raw water and potable water connections

Water Discharge Corridor

Refer to Figure 3-2D (ES Volume II, Document Ref. 6.3)

Disposal of treated effluent to Tees Bay subject to Environment Agency Permitting requirements.

Abbreviations and Terms

Abbreviation/ Frequently used term

Definition/Notes

AADT	Annual Average Daily Traffic - a measure of the total volume of vehicle traffic of a highway or road for a year divided by 365 days.
AAWT	Annual Average Weekly Traffic Flow – the average 24-hour traffic volume occurring on weekdays throughout a full year.
ABC method	BS 5228 ABC method – A British Standard methodology used to measure construction noise.
Abated	With the application of carbon capture.
ACCOBAMS	The Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic area
ADMS	Atmospheric Dispersion Model - a proprietary model for the assessment of effect of emissions to air from point sources and road sources.
AEL	Associated Emissions Levels – see BAT-AELs.
AECOM	AECOM Limited
AEP	Annual Exceedance Probability – in relation to flooding, the 100-year flood (a flood likely to occur once every 100 years) can be expressed as the 1% AEP flood, which has a 1% chance of being exceeded in any year.
AGI	Above Ground Installation - installations used to support the safe and efficient operation of a pipeline; above ground installations are needed at the start and end of a cross-country pipeline and at intervals along the route.
AGL	Above Ground Level – a height above ground level is a height measured with respect to the underlying ground surface.
AIL	Abnormal Indivisible Load - a load that cannot be broken down into smaller loads for transport without undue expense or risk of damage. It may also be a load that exceeds certain parameters for weight, length and width.
AIS	Automatic Identification System – an automatic tracking system that can be used to provide an insight into the average vessel density in the area surrounding the Proposed Development.
AL	Action Level(s) – non-statutory threshold values used to inform the assessment of suitability of material for disposal to sea; there are two levels – AL1 and AL2.
ALARP	As Low As is Reasonably Practicable - a term often used in the regulation and management of safety-critical and safety-involved systems. The ALARP principle is that the residual risk shall be reduced as far as reasonably practicable.
ALC	Agricultural Land Classification - part of the planning system in England and Wales which classifies agricultural land into five categories according to versatility and suitability for growing crops.

**Abbreviation/
Frequently used
term** **Definition/Notes**

AMAP	Areas of Maritime Archaeological Potential - areas where there was a high potential for ship losses and high potential for the preservation of archaeological remains.
AMBI	AZTI Marine Biotic Index - software developed to assess the quality of benthic macro-invertebrates assemblages.
AMP	Asbestos Management Plan – used to register and plan how asbestos will be managed within a development.
ANOSIM	Analysis of similarities – statistical test to see whether there is a significant difference between two or more groups
AOD	Above Ordnance Datum - a spot height (an exact point on a map) with an elevation recorded beside it that represents its height above a given datum.
AON	Apparently Occupied Nest
APIS	Air Pollution Information System - provides a comprehensive source of information on air pollution and the effects on habitats and species. It supports the assessment of potential effects of air pollutants on habitats and species.
AQALs	Air Quality Assessment Levels - the baseline level of each pollutant species used during air quality assessments. The results of modelling undertaken to predict concentrations of pollutants are compared against these AQALs.
AQAP	Air Quality Action Plan - a comprehensive series of measures that will help improve air quality and work towards achieving the national objectives for nitrogen dioxide and particles.
AQMA	Air Quality Management Areas - an area designated by the local authority to be managed, through the implementation of a Local Air Quality Management Area, to ensure that it meets national air quality objectives.
AQMAU	Air Quality Modelling & Assessment Unit – a unit of the Environment Agency
ARN	Affected Road Network - road networks affected by the Proposed Development.
ARS	Active Roost Site - found in any place where the owl may stop to feed or to rest.
ARS	Artificial Refuge Survey (Reptiles)
ASCOBANS	Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas
ATC	Automated Traffic Counts - a count of vehicular or pedestrian traffic conducted along a particular road, path or intersection.
AU	Assessment Units – International Council for the Exploration of the Sea Assessment Units
A-weighting	The A-weighting is an electronic filter that matches the response of a sound level meter to that of the human ear. A-weighting matches the response of a sound level meter to human hearing at low levels (~ 40-90 dB).

**Abbreviation/
Frequently used
term** **Definition/Notes**

BAP	Biodiversity Action Plan – an internationally recognised program addressing threatened species and habitats, designed to protect and restore biological systems.
Baseline Conditions	The environment as it appears (or would appear) immediately prior to the implementation of a project development together with any known or foreseeable future changes that will take place before completion of the proposed development.
BAT	Best Available Technique - the available techniques which are the best for preventing or minimising emissions and impacts on the environment. BAT is required for operations involving the installation of a facility that carries out industrial processes. Techniques can include both the technology used and the way an installation is designed, built, maintained, operated and decommissioned.
BAT-AELs	Best Available Technique (BAT) Associated Emission Levels - Achievable emissions values following the implementation of the best available techniques for preventing or minimising emissions and impacts on the environment.
BDMLR	British Divers Marine Life Rescue - a voluntary marine animal rescue organisation based in the UK.
BEEMS	British Energy Estuarine and Marine Studies
BEIS	Business, Energy and Industrial Strategy - department of the UK Government.
BECCS	Bioenergy with Carbon Capture and Storage (CCS)
BGS	British Geological Survey - provider of objective and authoritative geoscientific data, information and knowledge for the UK.
Biodiversity	The variety of life in the world or in a particular habitat or ecosystem.
BLiCL	Bat Low-Impact Class Licence - a mitigation class licence that allows a registered ecological consultant to interfere with certain bats and their roosts.
BMV	Best and Most Versatile - the best and most versatile land is defined as Grades 1 (excellent quality), 2 (very good quality) and 3a (good quality) agricultural land.
BNL	Basic Noise Level - a measure of source noise at a reference distance from the nearside carriageway edge.
BOA	Biodiversity Opportunity Areas - regional priority areas of opportunity for restoration and creation of habitats.
BoCC	Birds of Conservation Concern – criteria used to assess population statuses of bird species which include global conservation status, recent decline, historical decline, European conservation status, rare breeders, localised species and international importance.
BOD	Biochemical Oxygen Demand - the amount of oxygen consumed by bacteria and other microorganisms while they decompose organic matter under aerobic conditions at a specified temperature.
Borehole	A hole bored into the ground, usually as part of investigations, typically to test the depth and quality of soil, rock and groundwater.

**Abbreviation/
Frequently used
term** **Definition/Notes**

BPM	Best Practicable Means - actions undertaken and mitigation measures implemented to ensure that noise levels are minimised to be as low as practicable.
BRC	Biological Records Centre – established in 1964, with a focus on terrestrial and freshwater species recording.
BRE	Building Research Establishment
BRef	Best Available Technique (BAT) reference document – this is a series of reference documents covering industrial processes, their respective operating conditions and emission rates.
British Standard	Standard produced by the British Standards Institution based upon the principles of standardisation recognised inter alia in European Policy.
BSAC	British Sub Aqua Club – national governing body of recreational diving.
BSI	British Standards Institute - business standards based upon the principles of standardisation recognised inter alia in European Policy.
BTEX	Benzene, Toluene, Ethylbenzene and Xylene
BTO	British Trust for Ornithology – a bird research organisation founded in 1932
CAMS	Catchment Abstraction Management Strategy – assess the amount of water available in each river catchment.
Catchment	An area of land from which water flows into a watercourse or waterbody.
CATS	North Everest platform to Teesside Central Area Transmission System
CBC	Common Birds Census - ran from 1962 to 2000 and was the first of the British Trust for Ornithology's schemes for monitoring population trends among widespread breeding birds.
CBD	Convention on Biological Diversity
CBR	California Bearing Ratio
CCA	Civil Contingencies Act 2004
CCC	The Committee on Climate Change - independent advice to government on building a low-carbon economy and preparing for climate change.
CCGT	Combined Cycle Gas Turbine - a highly efficient form of energy generation technology. An assembly of heat engines work in tandem using the same source of heat to convert it into mechanical energy which drives electrical generators and consequently generates electricity.
CCP	Climate Change Predictions – predictions as to how the climate may change within a certain period of time.
CCR	Climate Change Resilience - the resilience of a development to climate change including how a development would be adapted to take account of the projected impacts of climate change.
CCR	Carbon Capture Ready - space to be set aside to accommodate future carbon capture equipment.

**Abbreviation/
Frequently used
term** **Definition/Notes**

CCS	Carbon Capture and Storage - technology that can capture carbon dioxide (CO ₂) emissions produced from the use of fossil fuels in electricity generation and industrial processes.
CCS	Carbon Capture and Sequestration – see Carbon Capture and Storage above.
CCG	Clinical Commissioning Group - clinically-led statutory NHS bodies responsible for the planning and commissioning of health care services for their local area.
CCTV	Closed-circuit Television
CCUS	Carbon Capture Usage and Storage – is group of technologies designed to reduce the amount of carbon dioxide (CO ₂) released into the atmosphere from coal and gas power stations as well as heavy industry including cement and steel production. Once captured, the CO ₂ can be either re-used in various products, such as cement or plastics (usage), or stored in geological formations deep underground (storage).
CD	Chart Datum - approximately the lowest level due to astronomical effects and excluding meteorological effects
CDM	Construction (Design and Management) Regulations 2007 – legal duties for safe operation of UK construction sites, including health and safety plans.
CEFAS	Centre for Environment, Fisheries and Aquaculture Science - the UK government's marine and freshwater science experts.
CEH	Centre for Ecology and Hydrology
CEMP	Construction Environmental Management Plan - a plan to outline how a construction project will avoid, minimise or mitigate effects on the environment and surrounding area.
CEMS	Continuous Emissions Monitoring System - a facility to measure flow, dust, concentration of air pollutants.
CEPU	Cleveland Emergency Planning Unit - an emergency planning service to ensure the local authorities are prepared to respond to emergencies and to support the emergency services and the community.
CERC	Cambridge Environmental Research Consultants Limited
CFMP	Catchment Flood Management Plan - consider all types of inland flooding, from rivers, groundwater, surface water and tidal flooding.
CGS	Clean Growth Strategy - sets out the aims of the UK Government to deliver increased economic growth while reducing carbon emissions.
CH ₄	Methane – a chemical compound consisting of one carbon atom and four hydrogen atoms.
Chartered Environmentalist	A professional qualification (CEnv) obtained by knowledgeable, experienced, competent and committed environmental professionals.
CHP	Combined Heat and Power - a process that captures and utilises the heat that is a by-product of the electricity generation process.
CIEEM	Chartered Institute of Ecology and Environmental Management
CIfA	Chartered Institute for Archaeologists

**Abbreviation/
Frequently used
term** **Definition/Notes**

CIHT	Chartered Institution of Highways and Transportation
CIRIA	Construction Industry Research and Information Association
CL	Conservation Limits
CL	Critical Levels
CL:AIRE	A UK charity committed to providing a valuable service for all those involved in sustainable land reuse
CO	Carbon Monoxide - a colourless, odourless and tasteless gas slightly less dense than air.
CO ₂	Carbon Dioxide - an inorganic chemical compound with a wide range of commercial uses.
CO _{2e}	Carbon dioxide equivalent – a metric measure used to compare the emissions from various greenhouse gases on the basis of their global-warming potential, by converting amounts of other gases to the equivalent amount of carbon dioxide with the same global warming potential.
COD	Chemical Oxygen Demand - a measure of the capacity of water to consume oxygen during the decomposition of organic matter and the oxidation of inorganic chemicals.
COLREGS	Convention on the International Regulations for Preventing Collisions at Sea 1972 – regulations set by the International Maritime Organisation.
COMAH	Control of Major Accident Hazards – Regulations to ensure that businesses take all necessary measures to prevent major accidents involving dangerous substances.
Combined Effect	A type of cumulative effect which occurs when different types of activity combine to have an effect on a specific receptor or resource.
Committed Development	A development that has full or outline planning permission or other relevant development consent or is allocated in an adopted development plan.
Conservation Area	An area designated under section 69 of the Planning (Listed Buildings and Conservation Areas) Act 1990 as being of special architectural or historic interest and with a character or appearance which is desirable to preserve or enhance.
CoPA	Control of Pollution Act 1974 – an act to deal with a variety of environmental issues including waste on land, water pollution, abandoned mines, noise pollution and the prevention of atmospheric pollution.
CORMIX	Proprietary software developed by MixZon Inc. which can be used to predict the nearfield behaviour of effluent on release into a waterbody
COSHH	Control of Substances Hazardous to Health - a United Kingdom Statutory Instrument stating general requirements on employers to protect employees and other persons from the hazards of substances used at work by risk assessment.
CRoW	Countryside and Rights of Way Act 2000 - gives a public right of access to land mapped as 'open country' (mountain, moor, heath and down) or registered common land.

**Abbreviation/
Frequently used
term** **Definition/Notes**

CRTN	Calculation of Road Traffic Noise – The statutory method for determining entitlement to sound insulation. Eligible schemes are put forward for consideration in accordance with set criteria.
CSM	Conceptual Site Model - a tool used to represent the physical, chemical and biological processes that control the transport, migration and actual/potential impacts of contamination (in soil, air, ground water, surface water and/or sediments) to human and/or ecological receptors.
COVID - 19	Coronavirus
CTMP	Construction Traffic Management Plan - a plan outlining measures to organise and control vehicular movement on a construction site so that vehicles and pedestrians using site routes can move around safely.
Cumulative effect	A cumulative impact or effect may arise as the result of the combined impact of a number of different projects within the vicinity (in combination with the Proposed Development) on a single receptor/resource.
CWS	Cooling Water System - used to remove heat from a process or piece of equipment.
CWTP	Construction Worker Travel Plan - a plan managing and promoting how construction workers travel to a particular area or organisation. It aims at promoting greener, cleaner travel choices and reducing reliance on the private car.
dB (A)	A-weighted decibels. The human ear system does not respond uniformly to sound across the detectable frequency range and consequently instrumentation used to measure noise is weighted to represent the performance of the ear. This is known as the 'A weighting' and annotated as dB(A).
DCLG	Department for Communities and Local Government - the UK department for communities and local government in England.
DCO	A Development Consent Order made by the relevant Secretary of State pursuant to The Planning Act 2008 to authorise a Nationally Significant Infrastructure Project. A DCO can incorporate or remove the need for a range of consents which would otherwise be required for a development. A DCO can also include rights of compulsory acquisition.
DDT	Directional Drilling Techniques - drilling technique that aims away from 180 degrees down.
DEA	Diethylamine - belongs to the class of organic compounds known as dialkylamines.
Decibel (dB)	Unit to measure the intensity of sound. The scale used to measure noise is the decibel scale which extends from 0 to 140 decibels, corresponding to the intensity of the sound pressure level.
DECC	Department of Energy and Climate Change
Defra	Department for Environment, Food and Rural Affairs
DEHA	Di-ethyl hydroxyl amine

**Abbreviation/
Frequently used
term** **Definition/Notes**

DEMP	Decommissioning Environmental Management Plan - a plan to outline how a decommissioning project will avoid, minimise or mitigate effects on the environment and surrounding area.
DMA	Dimethylamine - a secondary aliphatic amine.
DML	Deemed Marine Licence – licence provided by the Marine Management Organisation.
DMRB	Design Manual for Roads and Bridges - a series of 15 volumes that provide standards, advice notes and other documents relating to the design, assessment and operation of trunk roads in the United Kingdom.
DoE	Department of Environment - the UK government department responsible for safeguarding the natural environment, supporting food and farming industry, and sustaining the rural economy.
DoS	Degree of Saturation - the maximum traffic flow which can be handled by a junction.
DPDs	Development Plan Documents – planning policy documents.
DQRA	Detailed Quantitative Risk Assessment – a site specific risk assessment.
DrWPAs	Drinking Water Protected Areas – areas where we take (or abstract) raw water from reservoirs, rivers and the ground (known as groundwater).
DTM	Digital Terrain Model - a topographic model of the bare Earth – terrain relief that can be manipulated by computer programs.
DTMP	Decommissioning Traffic Management Plan - a plan outlining measures to organise and control vehicular movements associated with the decommissioning phase to minimise impacts upon local highways.
EA	Environment Agency
EALs	Environmental Assessment Levels - The Environment Agency's guidance "Air emissions risk assessment for your environmental permit" provides methods for quantifying the environmental impacts of emissions to all media. As well as referring to standards detailed above, it also contains long and short-term Environmental Assessment Levels (EALs) for releases to air derived from a number of published UK and international sources.
EAR	Environmental Assessment Report
EBS	Environmental Baseline Survey
EcIA	Ecological Impact Assessment - a process by which the potential ecological impacts of a development proposal are assessed.
ECoW	Ecological Clerk of Works - the preparation of documentation before construction commences and delivery of ecological requirements to meet key development milestones.
eDNA	Environmental DNA - genetic material obtained directly from environmental samples (soil, sediment, water, etc.)
EEZ	UK Exclusive Economic Zone - an area beyond and adjacent to the territorial sea, subject to the specific legal regime, under which the

**Abbreviation/
Frequently used
term** **Definition/Notes**

	rights and jurisdiction of the coastal State and the rights and freedoms of other States are governed by the relevant provisions of Article 55 of the UN.
EIA	Environmental Impact Assessment – a term used for the assessment of environmental consequences (positive or negative) of a plan, policy, program or project prior to the decision to move forward with the proposed action.
ELV	Emission Limit Values - emission limit values based on the Best Available Techniques.
EMF	Electromagnetic Fields - a combination of invisible electric and magnetic fields of force.
EMP	Environmental Management Plans - outline how a project will avoid, minimise or mitigate effects on the environment.
EMS	Environmental Management System - the management of an organization’s environmental programs in a comprehensive, systematic, planned and documented manner.
ENA	Energy Networks Association - represents the transmission and distribution network operators for gas and electricity in the UK and Ireland.
EPA	The Environmental Protection Act 1990 - an Act of the Parliament of the United Kingdom that defines, within England, Wales and Scotland, the fundamental structure and authority for waste management and control of emissions into the environment.
EPC	Engineering, Procurement and Construction
EPC contractors	Engineering, Procurement and Construction contractors – undertake the detailed engineering design of the project, the procurement and deliver the construction of the development.
EPR	Environmental Permitting Regulations (2016)- Regulations that came into force in 2008 combining Pollution Prevention and Control and Waste Management Licensing regulations.
EPS	European Protected Species – species that receive full protection under The Conservation of Species and Habitats Regulations 2010.
EPSML	European Protected Species Mitigation Licence
EQR	Ecological Quality Ratio - a measure of the ecologically quality of infaunal communities.
EQS	Environmental Quality Standards - standards that have been developed with the aim to meet the requirements of the Water Framework Directive (WFD) and other legislation.
ERF	Energy Recovery Facility - a waste treatment facility that uses non-hazardous residual waste as fuel to generate energy.
ERIC	Environmental Records Information Centre North East – organisation that collates environmental data which is used to inform nature conservation.
ES	Environmental Statement – a report in which the process and results of an Environment Impact Assessment are documented.

**Abbreviation/
Frequently used
term** **Definition/Notes**

ESC	Energy Systems Catapult – an organisation set up to accelerate the transformation of the UK’s energy system.
ESIA	Environmental and Social Impact Assessment
ETI	Energy Technologies Institute - a UK based company formed from global industries and the UK Government.
ETS	Emissions Trading Scheme
EU	European Union
EUNIS	European Union Nature Information System - brings together European data from several databases and organisations into three interlinked modules on sites, species and habitat types.
EWP	Energy White Paper - policy paper produced by the Department for Business, Energy and Industrial Services.
FEED	Front End Engineering Design - engineering which comes after the conceptual design or feasibility study focusing on the technical requirements and estimated investment cost for the project.
FLO	Fisheries Liaison Officer – work to minimise impact on fishing activities.
Flood Zones	<p>A system devised by the Environment Agency to aid decision making in spatial planning. Flood zones are areas at potential risk of flooding from rivers or the sea, ignoring the presence of flood defences and the potential impacts of climate change. The zones are:</p> <ul style="list-style-type: none"> • Flood Zone 1: land outside the floodplain. There is little or no risk of flooding in this zone. Land is shown as ‘clear’ on the Flood Map – all land outside Zones 2 and 3). • Flood Zone 2: the area of the floodplain where there is a low to medium flood risk. Land is shown in light blue on the Flood Map; and • Flood Zone 3: the area of the floodplain where there is a high risk of flooding. Land shown in dark blue on the Flood Map.
FTE (job)	Full Time Equivalent
Future Baseline	The situation and conditions that would prevail should a Proposed Development not proceed. Such changes are taken into account in predicting impacts of a proposed development.
GCN	Great Crested Newt - a protected newt species native to Great Britain, northern and central continental Europe and parts of Western Siberia.
GEART	The Guidelines for the Environmental Assessment of Road Traffic - the guidelines provide a basis for a comprehensive and consistent approach to the appraisal of traffic and transport impacts.
GGBS	Ground Granulated Blast-furnace Slag - the slag from iron producing blast furnaces.
GHG	Greenhouse Gas - atmospheric gases such as carbon dioxide, methane, chlorofluorocarbons, nitrous oxide, ozone, and water vapour that absorb and emit infrared radiation emitted by the Earth's surface, the atmosphere and clouds.
GI	Green Infrastructure - a network contributing to solving urban and climatic challenges by building with nature, including storm water

**Abbreviation/
Frequently used
term** **Definition/Notes**

	management, climate adaptation, less heat stress, more biodiversity, food production, better air quality, sustainable energy production, along with clean water and healthy soils.
GI	Ground Investigation - an intrusive investigation undertaken to collect information relating to the ground conditions, normally for geotechnical or land contamination purposes.
GIS	Geographical Information System - a computer system for displaying spatial or geographic data.
GLVIA	Guidelines for Landscape & Visual Impact Assessment – a document published by the Landscape Institute providing detailed advice on the process of assessing the landscape and visual effects of developments and their significance.
GPA	Good Practice Advice - address plan-making and decision-taking, and other issues which are important in good decision-making affecting heritage assets. Produced by Historic England.
GPP	Guidance for Pollution Prevention – good practice guidance documents, currently in production.
GQRA	Generic Quantitative Risk Assessment – a risk assessment utilising generic assumptions to estimate risk.
GVA	Gross Value Added
Groundwater	All water which is below the surface of the ground and within the permanently saturated zone.
GT	Gross Tonnage
GW	Gigawatt
GWDTE	Groundwater Dependent Terrestrial Ecosystems - wetlands which critically depend on groundwater flows or chemistries.
Hazardous Substance Consent	An important mechanism in the overall control of major hazards as it enables the HSA to consider whether the presence of a significant quantity of a hazardous substance is acceptable in a particular location.
HAZID	Hazard Identification study - identify hazards associated with the operation of the Proposed Development and seek to design out these hazards.
HAZOP	Hazard and Operability study - systematically evaluate the potential hazards and how they are prevented, minimised or controlled.
HC	Hydrocarbons - a compound of hydrogen and carbon.
HDD	Horizontal Directional Drill - a trenchless method used to install pipelines below the ground.
HDV	Heavy Duty Vehicles
Hectare (Ha)	A metric unit of measurement, equal to 2.471 acres or 10,000 square metres.
HE	Highways England
HER	Historic Environment Record - information services that provide access to comprehensive and dynamic resources relating to the archaeology and historic built environment of a defined geographic area.

**Abbreviation/
Frequently used
term** **Definition/Notes**

HGV	Heavy Goods Vehicle - vehicles with a gross weight in excess of 3.5 tonnes.
HP	High pressure
HPS	Hartlepool Power Station
HRA	Habitats Regulation Assessment - the assessment of the impacts of implementing a plan or policy on a Natura 2000 site required under the Habitats Directive.
HRO	Harbour Revision Order – local legislation governing a harbour/port.
HRSG	Heat Recovery Steam Generator - an energy recovery heat exchanger that recovers heat from a hot gas stream. It produces steam that can be used in a process (cogeneration) or used to drive a steam turbine (combined cycle).
HSE	Health and Safety Executive - the body responsible for the encouragement, regulation and enforcement of workplace health, safety and welfare.
HSI	Habitat Suitability Index - a means of quantifying the suitability of aquatic habitats for GCN using a set of indices linked to geographical location, habitat types and a variety of biotic and abiotic factors.
HV	High Voltage - defined by the DOE Electrical Safety Guidelines as over 600 volts.
HVO	Hydrotreated Vegetable Oil
IAMMWG	Inter-Agency Marine Mammal Working Group
IAQM	The Institute of Air Quality Management – professional body for air quality air professionals.
ICCI	In-combination Climate Change Impacts - the in-combination effects of a changing climate.
ICES	The International Council for the Exploration of the Sea - an intergovernmental marine science organisation.
ICNIRP	International Commission on Non-Ionizing Radiation Protection - an independent non-profit organization, which provides scientific advice and guidance on the health and environmental effects of non-ionizing radiation (NIR) to protect people and the environment from detrimental NIR exposure.
IDS	Industrialisation Decarbonisation Strategy
IEA	Institute of Environmental Assessment – now merged with The Institute of Environmental Management and the Environmental Auditor's Registration Association to form the Institute of Environmental Management and Assessment.
IED	Industrial Emissions Directive, EU Directive 2010/75/EU – European Union Directive committing member states to control and reduce the impact of industrial emissions on the environment.
IEF	Important Ecological Features – ecological features with high conservation value and importance.
IEMA	Institute of Environmental Management and Assessment.
IFCA	Inshore Fisheries Conservation Authorities - assist and promote the regional IFCAs to help ensure that the authorities develop a leading

**Abbreviation/
Frequently used
term** **Definition/Notes**

	and effective national role in fisheries and conservation management in line with the IFCA vision.
IMD	Index of Multiple Deprivation - measures relative deprivation in small areas in England.
IMO	International Maritime Organisation - the United Nations specialised agency with responsibility for the safety and security of shipping and the prevention of marine and atmospheric pollution by ships.
INCA	The Industry Nature Conservation Association – a membership organisation that works with businesses to meet regulatory requirements.
INNS	Invasive and Non-Native Species – species that have occurred outside of their natural range. Invasive species have the potential to hinder or prevent survival of others within the ecosystem.
IPC	Infrastructure Planning Commission - was a non-departmental public body responsible for the examining and in certain circumstances the decision making body for proposed nationally significant infrastructure projects. The Commission was abolished in 2012 with responsibility being passed to the Planning Inspectorate.
IPPC	Integrated Pollution Prevention and Control - the minimising of pollution from various industrial sources throughout the European Union (EU), as established by the IPPC Directive.
IPCC	Intergovernmental Panel on Climate Change - the United Nations body for assessing the science related to climate change.
IQI	Infaunal Quality Index - developed as part of the Water Framework Directive classification of transitional and coastal water bodies.
IRZ	Impact Risk Zone - a GIS tool established by Natural England to identify potential risks to SSSIs from development.
ISBL	Inside Battery Limits - refers to the area where the plant or the process plant and equipment are located.
ISMP	Invasive Species Management Plan - preventing and managing the spread of invasive species and their potential impacts.
ISO	International Organization for Standardization - an international standard setting body composed of representatives for various national standards organisations.
IUCN	The International Union for Conservation of Nature - global authority on the status of the natural world and the measures needed to safeguard it.
JNCC	Joint Nature Conservation Committee – a public body that advises the UK Government and devolved administrations on UK-wide and international nature conservation.
JSNA	Joint Strategic Needs Assessment
Kph	Kilometres per hour
kV	Kilovolt, unit of electrical potential. There are 1,000 volts in a kilovolt.
LAF90	The A-weighted sound pressure level exceeded for 90% of the time period with a FAST time constant.

**Abbreviation/
Frequently used
term** **Definition/Notes**

LAF10	The A-weighted sound pressure level exceeded for 10% of the time period with a FAST time constant.
LAFmax	Maximum A-weighted sound pressure level measured with FAST time constant.
LAeq	The A-weighted equivalent continuous sound pressure level.
LAeq,Tr	The equivalent continuous 'A'-weighted sound pressure level at the assessment position produced by the specific noise source over a given reference time interval.
LAr,Tr	Rating Level- The specific noise level plus any adjustment for characteristic features of the noise
LAQM	Local Air Quality Management – the review and assessment of air quality by local authorities in the UK.
LBAP	Local Biodiversity Action Plan - partnerships that operate at a local authority level and help conserve and enhance biodiversity. The partnerships deliver a wide range of biodiversity conservation, communication and education work in their local areas.
LCA	Landscape Character Area - areas of homogenous landscape or townscape character. Typical components defining character include landform, land cover, settlement pattern, form and enclosure.
LCP	Large Combustion Plant - a combustion plant with a thermal capacity of 50MW or greater.
LCT	Local Character Type - a form of landscape classification based on characteristics of the land.
LCTr	Landscape Character Tracts - defined by combinations of physical and land cover characteristics and geographical context.
LFU	Lobster Fisheries Units - There are six LFUs that have been defined for England based upon the distribution of the fisheries, hydrographic conditions and what is known of larval distributions and development.
LGS	Local Geological Sites - sites of geological or geomorphological value.
LIDAR	Light Detection and Ranging – a remote sensing technique
LinSig	Software to enable the modelling of traffic signals
Listed Building	A building of special architectural or historic interest. Listed buildings are graded I, II* or II, with Grade I being the highest. Listing includes the interior as well as the exterior of the building.
LLFA	Lead Local Flood Authorities - flood risk management body.
LOAEL	Lowest Observable Adverse Effect Level - the lowest concentration or amount of a substance found by experiment or observation that causes adverse effects. In relation to noise, the level above which adverse effects on health and quality of life can be detected.
LoD	Limit of Detection - the lowest quantity or concentration of a component that can be reliably detected.
LOS	Level of Service - a measure of junction performance, utilising letters A to F.
LNR	Local Nature Reserve - A non-statutory site of local importance for wildlife, geology, education or public enjoyment.

**Abbreviation/
Frequently used
term** **Definition/Notes**

LP	Low pressure
LPA	Local Planning Authority – the planning department within the local authority where a development is situated.
LSE	Likely Significant Effect
LSOA	Local Super Output Areas - part of a set of geographies designed specifically for statistical purposes. They set boundaries to allow data monitoring over time. LSOAs have a smaller population than Middle Super Output Areas.
LTT Gap Analysis	Long Term Trend gap analysis - an approach within the Design Manual for Roads and Bridges to adjust predictions for improvements in vehicle emissions.
LUP	Land Use Planning - a potential solution for sustainable use of land in the long term by optimising the effective use of land resources.
LVIA	Landscape and Visual Impact Assessment – the process of evaluating the effect of a proposal upon the landscape and views of it.
UXOL _w	Sound Power Levels – the measure in decibels of the amount of sound power emitted by a source.
LWS	Local Wildlife Site - defined areas, identified and selected for their nature conservation value, based on important, distinctive and threatened habitats and species with a national, region.
MAGIC	Multi-agency geographical information for the countryside – interactive mapping and information tool provided by Defra.
MAHP	Major Accident Hazard Pipeline - these include high pressure natural gas supply transmission and distribution network. They also cover other pipeline systems transporting oils, chemicals and other gases
MA&ND	Major Accidents and Natural Disasters - potentially significant effects of a development on the environment as a result of its vulnerability to, or introduction of, risks of major accidents and/or disasters.
MAPP	Major Accident Prevention Plan - sets out the major accident prevention policy.
MARESA	Marine Evidence Based Sensitivity Assessment
MarLIN	Marine Life Information Network
MBES	Multibeam Echo-Sounding
MBT	Micro-bored Tunnel - a solution for constructing small diameter tunnels.
MCT	Marine Conservation Team
MCA	Marine Character Area
MCAA	Marine and Coastal Access Act (2009) - the primary legislation relevant to marine development plans.
MCC	Manual Classified Counts (traffic)
MCMS	Marine Case Management System – service provided by the Marine Management Organisation for licencing, regulations and marine activities.

**Abbreviation/
Frequently used
term** **Definition/Notes**

MCZ	Marine Conservation Zones - a type of marine nature reserve in UK waters. They are areas designated with the aim to protect nationally important, rare or threatened habitats and species.
MEA	Monoethanolamine – an organic chemical compound
MGN	Marine Guidance Notes
MHCLG	Ministry of Housing, Communities and Local Government
MHWS	Mean High Water Springs - the height of mean high-water springs is the average throughout the year (when the average maximum declination of the moon is 23.5°) of two successive high waters during those periods of 24 hours when the range of the tide is at its greatest.
MIS	Marine Information System - an interactive tool for marine licensing applicants and decision makers, supporting marine plan implementation.
Mitigation	Measures intended to avoid, reduce and, where possible, remedy significant adverse environmental effects.
ML	Marine Licence – licence required to undertake certain activities in and around the sea.
MLA	Marine Licence Application – an application to the Marine Management Organisation for a marine licence.
MLWS	Mean Low Water Springs - the height of the mean low water springs is the average height obtained by the two successive low waters during those periods of 24 hours when the range of the tide is at its greatest.
MMA	Monomethylamine
MMO	Marine Management Organisation - an executive, non-departmental body in the United Kingdom with the responsibility of licencing, regulating and planning marine activities in the seas around England so that they are carried out in a sustainable way.
MMP	Materials Management Plan - A mechanism by which those who are developing a site can comply with Environment Agency regulations for excavated ground materials.
MNA	Marine Natural Area
MNCR	Marine Nature Conservation Review - commenced in 1987 with the main objectives of extending knowledge of benthic marine habitats, communities and species, and identifying sites and species of nature conservation importance.
MNS	Mid North Sea
MOC	Minimum Offtake Connection from the National Grid.
MPS	Marine Policy Statement - the framework for preparing Marine Plans and taking decisions affecting the marine environment.
MSFD	Marine Strategy Framework Directive - aims to achieve Good Environmental Status (GES) of the EU's marine waters by 2020 and to protect the resource base upon which marine-related economic and social activities depend.
MWe	Megawatts – unit of energy.

**Abbreviation/
Frequently used
term** **Definition/Notes**

n.d	no date (where it relates to a reference within the text of the Environmental Statement)
NAQs	National Air Quality Strategy Objectives – national air quality objectives and policy options to further improve air quality in the UK.
Natural England (NE)	Executive non-departmental public body constituted under the Natural Environment and Rural Communities Act 2006 (section 2(1)) to ensure that the natural environment is conserved, enhanced and managed for the benefit of present and future generations, thereby contributing to sustainable development.
NCA	National Character Area - a natural subdivision of England based on a combination of landscape, biodiversity, geodiversity and economic activity.
NDMA	N-nitrosodimethylamine
NDELA	N-Nitrosodiethanolamine
NE	Natural England - the government's adviser for the natural environment in England.
NECP	National Energy and Climate Plan - the UK's draft National Energy and Climate Plan sets out integrated climate and energy objectives, targets, policies and measures.
NEP	Northern Endurance Partnership
NEIFCA	North Eastern Inshore Fisheries and Conservation Authority – responsible for managing and conserving marine resources between the River Tyne and North East Lincolnshire.
NEMP	North East Marine Plan – includes inshore and offshore marine plans
NERC	Natural Environment and Rural Communities Act 2006 - An Act to make provision about bodies concerned with the natural environment and rural communities; to make provision in connection with wildlife, sites of special scientific interest, National Parks and the Broads; to amend the law relating to rights of way; to make provision as to the Inland Waterways Amenity Advisory Council; to provide for flexible administrative arrangements in connection with functions relating to the environment and rural affairs and certain other functions; and for connected purposes.
NETS	National Electricity Transmission System - the system consisting (wholly or mainly) of high voltage electric lines owned or operated by transmission licensees within Great Britain
NFPD	National Fish Populations Database - information collected from fisheries monitoring work on rivers, lakes and transitional and coastal waters
NGCT	Northern Gateway Container Terminal
NGET	National Grid Electricity Transmission - the owner of the high-voltage electricity transmission network in England and Wales.
NGG	National Gas Grid – the national gas transmission network.
NGR	National Grid Reference – system of geographical grid references.
NH ₃	Ammonia – a compound of nitrogen and hydrogen.

**Abbreviation/
Frequently used
term** **Definition/Notes**

NHLE	National Heritage List for England - a register of all nationally protected historic buildings and sites in England.
NHS	National Health Service
NIA	Noise Important Area - Noise Important Areas (IAs) are based upon the strategic noise maps and have been produced in line with the requirements set out in the noise action plans.
NIA	National Infrastructure Assessment - analyses the UK's long-term economic infrastructure needs, outlining a strategic vision over the next 30 years and setting out recommendations for how identified needs should be met.
NIC	National Infrastructure Commission - established in 2015 to provide independent, impartial advice on the UK's long-term infrastructure needs.
NIDP	National Infrastructure Delivery Plan - outlines how the government will support the delivery of key infrastructure projects and programmes between 2016 and 2021.
NIP	National Infrastructure Plan - shows the government's progress on delivery and sets out its long-term plans for UK infrastructure.
NIS	National Infrastructure Strategy - sets out the Government's plans to deliver an infrastructure revolution in the UK
NMBAQC	North East Atlantic Marine Biological Quality Control
NMUs	Non-Motorised Users – someone who is walking, cycling or a horse rider.
NNR	National Nature Reserves - established to protect important habitats, species and geology.
NO	Nitric oxide - a colourless gas made up of nitrogen and oxygen.
N ₂ O	Nitrous oxide – a gas made up of nitrogen and oxygen.
NO ₂	Nitrogen Dioxide – brownish and odourless gas made up of nitrogen and oxygen. Primarily from the burning of fuel.
NO ₃	Nitrate
NOx	Oxides of Nitrogen - a mixture of gases that are composed of nitrogen and oxygen.
NOEL	No Observed Effect Level - the greatest concentration or amount of a substance, found by experiment or observation, that causes no detectable adverse effects. In relation to noise, this is the level below which there is no detectable effect on health and quality of life due to the noise.
NPPF	National Planning Policy Framework - Policy Framework which came into effect on 27 March 2012 (with some transitional arrangements) replacing the majority of national planning policy other than NPSs. The NPPF is part of the Government's reform of the planning system intended to make it less complex, to protect the environment and to promote sustainable growth. It does not contain any specific policies on Nationally Significant Infrastructure Projects but its policies may be taken into account in decisions on DCOs if the Secretary of State considers them to be both important and relevant.

**Abbreviation/
Frequently used
term** **Definition/Notes**

NPS	National Policy Statements - Statement produced by Government under the Planning Act 2008 providing the policy framework for Nationally Significant Infrastructure Projects. They include the Government's view of the need for and objectives for the development of Nationally Significant Infrastructure Projects in a particular sector such as energy and are used to determine applications for such development.
NPSE	Noise Policy Statement for England - policy setting out the long term vision of government noise policy, to promote good health and a good quality of life through the management of noise.
NRA	Navigational Risk Assessment - assesses the hazards and risks affecting vessel navigation.
NRMM	Non-Road Mobile Machinery - machinery typically used off the road, such as construction machinery.
NSIP	Nationally Significant Infrastructure Projects - defined by the Planning Act 2008 and cover projects relating to energy (including generating stations, electric lines and pipelines); transport (including trunk roads and motorways, airports, harbour facilities, railways and rail freight interchanges); water (dams and reservoirs, and the transfer of water resources); waste water treatment plants and hazardous waste facilities. These projects are only defined as nationally significant if they satisfy a statutory threshold in terms of their scale or effect.
NSR	Noise Sensitive Receptor - locations or areas where dwelling units or other fixed, developed sites of frequent human use occur which may be sensitive to noise impacts.
NTS	Non-Technical Summary – a summary of the Environmental Statement written in non-technical language.
NVC	National Vegetation Classification (NVC) survey - a detailed botanical survey of a site.
NWL	Northumbrian Water Limited
NZT	Net Zero Teesside
NZT Power	Net Zero Teesside Power Limited
NZNS Storage	Net Zero North Sea Storage Limited
OBS	Occupied Breeding Site
OEL	Ocean Ecology Limited
OGA	Oil and Gas Authority - works with the Department for Business, Energy & Industrial Strategy to regulate and promote the UK oil and gas industry.
OH	Hydroxyl Group
OMH	Open Mosaic Habitats on Previously Developed Land - found mainly in urban and formerly industrial areas and have high biodiversity value.
ONS	Office for National Statistics - UK's largest independent producer of official statistics.
Opening Year	The year of opening (post-construction) of a scheme, when it becomes operational.

**Abbreviation/
Frequently used
term** **Definition/Notes**

OR	Operational Receptor
OS	Ordnance Survey - the national mapping agency for Great Britain.
OSBL	Outside Battery Limits - refers to the area which is outside the plant boundary limit. OSBL is away from the equipment and the process plant.
OSPAR	Oslo and Paris Convention for the Protection of the Marine Environment of the North-East Atlantic
OWF	Offshore Wind Farm
PA	Planning Act 2008
PAS	Publicly Available Specification
PAH	Polycyclic Aromatic Hydrocarbons - a class of chemicals that occur naturally in coal, crude oil, and gasoline and are produced through the burning of coal, oil, gas, wood, garbage, and tobacco.
PBDE	Polybrominated diphenyl ethers
PC	Process Contribution - represents the change caused by the Proposed Development.
PCBs	Polychlorinated Biphenyls - an organic chlorine compound.
PCC	Power, Capture and Compression – refer to description from in the Project Elements table at the front of this glossary.
PCSW	Potentially Contaminated Surface Water (PCSW) drainage system
PCU	Passenger Car Units
PDV	Phocine Distemper Virus – a species of morbillivirus
PEA	Preliminary Ecological Appraisal - an ecological assessment method which evaluates the existing ecological value of a site.
PEC	Predicted Environmental Concentration - PC plus background concentration.
PEI	Preliminary Environmental Information
PEI Report	Preliminary Environmental Information Report– an initial statement of the main environmental information available for a study area.
PEL	Probable Effects Level - the level above which adverse effects are expected to occur frequently.
PFCs	Perfluorocarbons - a group of human-made chemicals composed of carbon and fluorine only.
PFRA	Preliminary Flood Risk Assessment – assesses floods that have taken place in the past and floods that could take place in the future
PIA	Personal Injury Accident
PIC	Personal Injury Collision
PIG	Pipeline Inline Gauging - the process of locating and identifying internal defects such as dents, debris or other internal restrictions.
PINs	Planning Inspectorate – executive agency of the Department for Communities and Local Government of the United Kingdom Government. It is responsible for determining final outcomes of town planning.

**Abbreviation/
Frequently used
term** **Definition/Notes**

PHE	Public Health England – governmental department who’s role it is to protect and improve the nation’s health and wellbeing, and reduce health inequalities.
PHEA	Preliminary Hazard and Environmental Assessment – determines the scope of hazards and environmental impacts related to a project.
PLONAR	‘Pose Little or No Risk to the Environment’ [list], a record managed by OSPAR which details substances which do not need to be strongly regulated.
PM	Particulate matter – an air pollutant.
PM _{2.5}	Fine particulate matter – an air pollutant.
PM ₁₀	Particulate matter of 10 micrometres (µm) diameter or less.
PMSC	Port Marine Safety Code
PNS	Potential Nest Site – an area that has characteristics suitable for nesting.
PPE	Personal Protective Equipment
PPG	Planning Practice Guidance - guidance expanding upon and supporting the NPPF.
PPV	Peak Particle Velocity - a way to measure ground vibration. PPV refers to the movement within the ground of molecular particles in metres per second.
PRA	Preliminary Risk Assessment – the initial step in an assessment of land contamination.
Priority Habitats	Natural Environment and Rural Communities Act (2006) Section 41 habitats of principal importance.
PRoW	Public Rights of Way - a highway where the public has the right to walk. It can be a footpath (used for walking), a bridleway (used for walking, riding a horse and cycling), or a byway that is open to all traffic (including motor vehicles).
PRP	Processing Requirement Protocol
PSA	Particle Size Analysis – technique used to measure the mean particle size.
PSD	Particle Size Distribution – the amount of particles present according to size.
pSPA	Provisional Special Protection Area – see SPA for further details.
PSR	Pipelines Safety Regulations
PSSR	Preliminary Sources Study Report - uses the findings of the Desk Study and assesses the viability of the proposed development
PSYM	Predictive SYstem for Multimetrics - method for assessing the biological quality of still waters in England and Wales.
PTS	Permanent Threshold Shift - a permanent, irreversible increase in the threshold of audibility at a specified frequency or portion of an individual’s hearing range above a previously established reference level. This is considered to be auditory injury.
Ramsar	Wetland sites that are of international importance, as designated

**Abbreviation/
Frequently used
term** **Definition/Notes**

	under Article 2(1) of the Convention on Wetlands of International Importance.
RBBP	Rare Breeding Birds Panel – ornithological body that produces a confidential report of rare breeding birds.
RBI	Risk Based Inspection - a risk based approach to planned plant inspection
RBMPs	River Basin Management Plans – plans that set out how organisations, stakeholders and communities will work together to improve the water environment.
RBT	Redcar Bulk Terminal - a deep-water marine terminal situated on the South Bank of the River Tees on the North-East coast of the UK.
RCBC	Redcar and Cleveland Borough Council
RCP	Representative Concentration Pathways - a set of standards used by climate modellers.
RDB	Red Data Book - a public document created for recording endangered and rare species.
REC	Redcar Renewable Energy Centre
REP	Renewable Energy Power Station
Residual Effect	The predicted consequential change on the environment from the impacts of a development after mitigation.
RFC	Ration of Flow to Capacity - this value indicates the extent to which traffic flows on an intersection arm approach capacity. An intersection arm operating at capacity would have an RFC value of 1
RHS	River Habitat Survey - a method designed to characterise and assess the physical structure of freshwater streams and rivers, including recognition of vegetation types and basic geomorphological principles and processes.
RIBs	Rigid Inflatable Boats
RIGS	Regionally Important Geological Sites - sites of regional and local importance for their geology that have not been designated a Site of Special Scientific Interest.
RSPB	The Royal Society for the Protection of Birds – the UK’s largest nature conservation charity.
RYA	Royal Yachting Association - the national body for all forms of boating.
S41	Section 41 of the of the Natural Environment and Rural Communities Act. Section 41 lists species and habitats of principal importance for nature conservation in England.
SACs	Special Areas of Conservation - High quality conservation sites that are protected under the European Union Habitats Directive, due to their contribution to conserving those habitat types that are considered to be most in need of conservation.
SAM	The reference given to the formal process involved in agreeing a sampling plan and scope of physical/chemical analysis with the MMO
SAP	Salmon Action Plan

**Abbreviation/
Frequently used
term** **Definition/Notes**

Scheduled Monument	An historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Digital, Culture, Media and Sport.
SCI	Sites of Community Importance – sites agreed as worthy of designation by the Commission and EU Member States.
Scoping	The process of identifying the issues to be addressed by the Environmental Impact Assessment process. It is a method of ensuring that an assessment focuses on the important issues and avoids those that are considered to be not significant.
Scoping Opinion	The written opinion of the relevant authority, following a request from the applicant, as to the information to be provided in an Environmental Statement/PEI Report.
Scoping Report	A report which records the outcomes of the scoping process and is typically submitted as part of a formal request for a Scoping Opinion.
SCR	Selective Catalytic Reduction - the removal of nitrogen oxides from the flue gas.
SEL	Sound Exposure Levels - the constant sound level that has the same amount of energy in one second as the original noise event.
SEN	Southern North Sea
SFRA	Strategic Flood Risk Assessment - assessment usually showing risk from all sources of flooding, cumulative impact that development or changing land use would have on the risk of flooding and effect of climate change on risk.
Simple Index Approach	Risk-based method for selecting appropriate sustainable (urban) drainages systems (SuDS) for the treatment of surface water runoff.
SIMPER	Similarity Percentage tests can be used to determine the individual taxa that contribute to the differences between groups of samples and the similarities between samples within a group.
SIP	Site Improvement Plan - provide a high level overview of the issues affecting the condition of the site and identify the priority actions to address the issues.
SLA	Sensitive Landscape Area - a Landscape area with particular qualities which make it more sensitive to development.
SLM	Sound Level Meters – instrumentation used during acoustic surveys.
SLP	Stationary Listening Points- Predetermined stops along the route of a bat transect survey.
SLOD	Significant Likelihood of Death
SLOT	Specified Level of Toxicity
SNCI	Sites of Nature Conservation Importance - a designation given to sites that have substantive local nature conservation and geological value.
SO ₂	Sulphur Dioxide - a pungent corrosive gas.
SOAEL	Significant Observed Adverse Effect Level – the noise level above which significant adverse effects on health and quality of life occur.
SoCC	Statement of Community Consultation – agreed with the relevant local authorities. The SoCC must set out the proposed community consultation.

**Abbreviation/
Frequently used
term** **Definition/Notes**

SOCE	Statement of Combined Effects
SoS	Secretary of State - the decision maker for DCO applications and head of Government department.
SPA	Special Protection Area - strictly protected sites classified in accordance with article 4 of the EC birds directive. Special Protection Areas are Natura sites which are internationally important sites for the protection of threatened habitats and species.
SPD	Supplementary Planning Document – adds further details to the policies in the local plan.
SPG	Supplementary Planning Guidance – documents provided by local authorities alongside their plans.
SPZ	Source Protection Zone – Zones which show the level of risk to the groundwater source from contamination. These are split into three main catchments, SPZ1 – inner, SPZ2 – outer, SPZ3 – total catchment.
SPL	Sound Pressure Levels – represents the sound pressure of a sound relative to a reference pressure.
SRN	Strategic Road Network
SSC	Suspended Sediment Concentrations - the total value of both mineral and organic material carried in suspension by a river.
SSI	Sahaviriya Steel Industries UK Limited
SSL	Sound Source Level – the level of sound measured at the source.
SSSI	Site of Special Scientific Interest - nationally designated Sites of Special Scientific Interest, an area designated for protection under the Wildlife and Countryside Act 1981 (as amended), due to its value as a wildlife and/or geological site.
Stakeholder	An organisation or individual with a particular interest in a development project.
STBC	Stockton-on-Tees Borough Council
STDC	South Tees Development Corporation – the area covers 4,500 acres of land south of the River Tees in the borough of Redcar and Cleveland.
Study Area	The area within which environmental effects which may be classed as significant are assessed (i.e. extending a distance from the project footprint).
STW	Sewage Treatment Works
SuDS	Sustainable (urban) Drainage Systems – drainage systems that are designed to efficiently manage surface water drainage within an urban environment
SVOCs	Semi-volatile Organic Compounds
SWMP	Site Waste Management Plan - a plan setting out how resources will be managed and waste controlled at all stages during a construction project.
TA	Transport Assessment - comprehensive and systematic process that sets out various transport issues relating to a development.

**Abbreviation/
Frequently used
term** **Definition/Notes**

TEL	Threshold Effects Level - the concentration below which adverse biological effects are expected to occur rarely.
TEMPRO	Trip End Model Presentation Program - allows users to view the NTEM dataset and provides forecasts of trip ends and associated documentation.
TG	Technical Guidance
TGN	Technical Guidance Note
TGPP	Tees Gas Processing Plant
TL	Transmission Loss - the transmission loss at a distance r from the source.
TNT	Trinitrotoluene, a chemical compound which may be used in the manufacture of explosive ordnance
TOC	Total Organic Carbon - a measure of the total amount of carbon in organic compounds
Tonal sound	Sounds comprising one discrete frequency, with a high proportion of sound energy at a single frequency
Trenchless Technology	Trenchless construction includes such construction methods as tunnelling, microtunnelling (MTM), horizontal directional drilling (HDD) also known as directional boring, horizontal auger boring (HAB) and other methods for the installation of pipelines and cables below the ground with minimal excavation.
TraC	Transitional and Coastal waters – estuarine and coastal waters
TTS	Temporary Threshold Shift - A temporary, reversible increase in the threshold of audibility at a specified frequency or portion of an individual's hearing range above a previously established reference level.
TPA	Tonnes Per Annum
TPH	Total Petroleum Hydrocarbon - a term used to describe several hundred chemical compounds that originally come from crude oil.
TraC	Transitional and Coastal – estuarine and coastal waters.
Trinity House	A charity dedicated to safeguarding shipping and seafarers, providing education, support and welfare to the seafaring community.
TRS	Temporary Rest Site
TS	Transport Statement - comprehensive review of all the potential transport impacts of a proposed development.
TTWA	Travel to Work Area - statistical tool used by UK Government agencies and local authorities to indicate an area where the population would generally commute to a larger town or city for employment purposes.
TVCA	Tees Valley Combined Authority
UAEL	Unacceptable Adverse Effect Level - noticeable and very disruptive noise changes that should be prevented.
UK	United Kingdom

**Abbreviation/
Frequently used
term** **Definition/Notes**

UKBAP	UK Biodiversity Action Plan - the UK Government's response to the Convention on Biological Diversity (CBD).
UKCP18	UK Climate Projections 2018 - provides an up-to-date assessment of how the climate of the UK may change over the 21st century.
UKHO	United Kingdom Hydrographic Office – a centre for hydrography, specialising in marine geospatial data.
Unabated	Without the application of carbon capture.
UNCLOS	United Nations Convention on the Law of the Sea - sets out a range of provisions to help manage and maintain all aspects of the marine environment.
UNESCO	United Nations Educational, Scientific and Cultural Organization is a specialised agency of the United Nations aimed at promoting world peace and security through international cooperation in education, the sciences, and culture.
UNFCCC	United Nations Framework Convention on Climate Change
UV	Ultra-violet
UXB	Unexploded Bombs – explosive weapons that are unexploded.
UXO	Unexploded Ordnance – unexploded bombs/weapons.
VDV	Vibration Dose Values - a cumulative measurement of the vibration level received.
VES	Visual Encounter Survey
Visual Amenity	The enjoyment or benefit that people (individually or as a group) gain from a particular view that may change as a consequence of a proposed development during its construction, operation or decommissioning.
VOC	Volatile Organic Compounds - chemicals that have a high vapour pressure at ordinary room temperature.
VTS	Vessel Tracking System – used to monitor a ships position.
WBM	Water-Based Mud
WCA	Wildlife and Countryside Act 1981 (as amended) - legislation which protects animals, plants and habitats in the UK.
WeBS	Wetland Bird Survey - monitors non-breeding waterbirds in the UK.
WFD	Water Framework Directive - European Union directive which commits member states to achieve good qualitative and quantitative status of all water bodies.
WHO	World Health Organisation – an agency of the United Nations focusing on public health.
WMP	Water Management Plan - provides information about current water uses and water-reduction goals.
WoRMS	World Register of Marine Species – provides a list of marine species.
Worst case assumption (or scenario)	An assumption adopted within an environmental impact assessment which identifies a scenario or parameter that would likely result in the maximum environmental effect (termed the worst-case). This is typically applied where uncertainty exists over the detail of a particular

**Abbreviation/
Frequently used
term** **Definition/Notes**

	development component or approach to project delivery, for which a basis of assessment is needed..
WRZ	Water Resource Zone - the largest practical spatial area within which managing supply and demand for water is largely self-contained (apart from defined bulk transfers of water); where the resource units, supply infrastructure and demand centres are linked such that customers within the zone experience the same risk of supply failure.
WT	Wildlife Trust
WTP	Workplace Travel Plans - a way of encouraging efficient and environmentally friendly methods for travelling to work and at work.
WWT	Wildfowl and Wetlands Trust – a wetland conservation organisation.
WwTP	Wastewater Treatment Plant – location where wastewater is treated.
WwTW	Wastewater Treatment Works – location where wastewater is treated.
Zoi	Zone of Influence – Study Areas identified for the purposes of the Cumulative and Combined Effects assessment.
ZTV	Zone of Theoretical Visibility - a computer generated tool to identify the likely (or theoretical) extent of visibility of a development in the landscape.