

# The Keadby 3 Low Carbon Gas Power Station Project

**PINS Ref: EN010114**

## The Keadby 3 Low-Carbon Gas Power Station Order



## Preliminary Environmental Information (PEI) Report - Volume I (Main Text)

**The Planning Act 2008**

**The Infrastructure Planning (Environmental Impact Assessment)  
Regulations 2017**

**Applicant: SSE Generation Limited**

**Date: November 2020**






## PEI Report Volume I (Main Text) - Contents










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# Glossary of Abbreviations and Definitions of Frequently Used Terms

Definitions of Development Areas referred to in this PEI Report and shown on **Figure 3.2: Areas of the Site Described in PEI Report (PEI Report Volume III)**

Project Elements	Definition/Notes
Proposed Power and Carbon Capture (PCC) Site 	This approximately 'L-shaped' area which covers approximately 18.7ha of the Proposed Development Site would encompass the proposed generating station comprising the CCGT including turbine, boiler, exhaust gas treatment, stack(s) and ancillary plant as well as cooling infrastructure, electricity export infrastructure and the equipment needed for the Proposed Development for a post combustion CO <sub>2</sub> capture plant to be installed. The area is located on Keadby Common (rectangular area) and bisected by 400kV overhead lines.
Main Site 	An area of approximately 13.5ha of the Keadby Power Station site that is located within the Proposed PCC Site on Keadby Common on which the power generation (CCGT), carbon capture and compression (CCP) and associated stacks will be developed.
Water Connection Corridors 	This area comprises a series of corridors following the routes of the intake (south) and outfall (north) pipework from the River Trent that are currently associated with the cooling operations for the Keadby 1 Power Station; and which are proposed to also be utilised for Keadby 2 Power Station. Furthermore, additional land associated with the cooling water intake from the Stainforth and Keadby Canal is included to facilitate the option to use this infrastructure for the Proposed Development.
Canal Water Abstraction Option 	A water intake within the Stainforth and Keadby Canal, which could be utilised for cooling water and make-up water subject to ongoing engagement with the Canal and Rivers Trust and Environment Agency.
River Water Abstraction Option 	In the event that water from the Stainforth and Keadby Canal is not available or there is insufficient capacity for provision of water for the Proposed Development, an intake to provide cooling and make-up water from the River Trent will be developed.
Water Discharge Corridor 	Comprises the easement of the existing cooling water corridor north-east from Keadby 1 Power Station connecting with the River Trent. Interconnecting pipework would extend from Proposed PCC Site to connect to this infrastructure.

Project Elements	Definition/Notes
Electrical Connection Area to National Grid 400kV Substation 	Electrical connection area to National Grid 400 kilovolt (kV) substation located directly adjacent, to the east of, the Proposed PCC Site.
K2/ K3 Turnaround Area 	An area that would be used for maintenance of the Proposed Development and Keadby 2 Power Station, once constructed and operational.
K2 Operational Laydown/ Carbon Capture Readiness Area 	Areas of the Proposed Development Site that fall within the future operational control of Keadby 2 Power Station and which may be available for temporary laydown for the Proposed Development. No permanent structures associated with the Proposed Development are proposed on this land. High voltage overhead lines cross this area.
Potential Electrical Connection to 132kV Substation 	Potential route under consideration to connect to existing 132kV Northern Powergrid Substation on Chapel Lane to provide an auxiliary power supply to the Proposed Development.
Potential Keadby 3 Laydown Option 	It is anticipated that up to approximately 17ha of land will be required for construction laydown which may be provided in different parts of the Proposed Development Site.
Waterborne Transport Off-loading area 	An existing Wharf used by Keadby 2 Power Station for delivery of abnormal loads and which may be required for the deliveries of components during the construction of the Proposed Development.
Emergency Vehicle Access Road and Electrical Connection to 132kV Substation 	Route for emergency vehicles to access the Proposed Development and potential location to connect to existing 132kV Northern Powergrid Substation to provide an auxiliary power supply to the Proposed Development.
Keadby 1 and Keadby 2 Power Stations 	Land associated with Keadby 2 Power Station (under construction) and Keadby 1 Power Station is also included for the purposes of facilitating connections to the Proposed Development for gas, electricity, water and other necessary infrastructure.
Additional Abnormal Indivisible Load (AIL) Route 	An existing construction haul road used for Keadby 2 Power Station construction that connects the Waterborne Transport Offloading Area into the Keadby Power Station site for the purposes of transporting AIL to the Proposed Development Site.

Project Elements	Definition/Notes
Construction and Operational Access Route 	The preferred and proposed access to the Proposed Development Site during construction and operation via the existing access road from the A18. Perpendicular and skewed construction access points off the A18 would be used by all construction vehicles to access the Proposed Development Site. Following construction, this would be the permanent access for operational staff. A small permanent security gatehouse and parking would be provided on this access road.
A18 Junction Improvement Option 	Land within the carriageway of the existing A18 junction. The Applicant is currently assessing the feasibility of upgrading the junction by undertaking carriageway improvements.

### Abbreviations and Terms

Abbreviation/ Frequently used term	Definition/Notes
AADT	Annual Average Daily Traffic - 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 Weekday Traffic - the average 24-hour traffic volume occurring on weekdays throughout a full year.
ACoP	Approved Code of Practice - laid down by the CDM Regulations 2015.
ACM	Asbestos Containing Materials
ADMS	Atmospheric Dispersion Modelling System - a proprietary model for the assessment of effect of emissions to air from point sources and road sources.
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.
AFFF	Aqueous Film Forming Foams – able to form a dense and stable foam layer that acts a physical barrier.
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.

Abbreviation/ Frequently used term	Definition/Notes
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.
ALARP	As Low as Reasonably Practicable – the level to which the risk is expected to be controlled.
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.
ANNWLMB	North Nottinghamshire Water Level Management Board
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.
AONB	Area of Outstanding Natural Beauty - land protected by the Countryside and Rights of Way Act 2000.
AOSF	Ancient Open Strip Fields – an ancient field system.
APFP	Applications: Prescribed Forms and Procedure
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.
AQAL	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 - the measures that will be put in place to assist in achieving air quality objectives.
AQMA	Air Quality Management Area - 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	Environment Agency's Air Quality Modelling Assessment Unit – routinely audits air quality modelling assessments.
AQS	Air Quality Objectives - the target date on which exceedances of an air quality standard must not exceed a specified number.
ASPT	Average Score Per Taxon - the average of the pressure sensitivity scores of all macroinvertebrate families or taxa found in a biological sample
AST	Above Ground Storage Tanks

Abbreviation/ Frequently used term	Definition/Notes
BAT	Best Available Techniques - 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 Techniques – Associated Emission Levels - Achievable emissions values following the implementation of the best available techniques for preventing or minimising emissions and impacts on the environment.
BEIS	Department for Business, Energy and Industrial Strategy – department of the UK Government.
BFS	Blast Furnace Slag - a non-metallic coproduct.
BGL	Below Ground Level – groundwater level.
BGS	British Geological Survey - provider of objective and authoritative geoscientific data, information and knowledge for the UK.
BNL	Basic Noise Level - a measure of source noise at a reference distance from the nearside carriageway edge.
BS	British Standard - business standards based upon the principles of standardisation recognised inter alia in European Policy.
CAA	Civil Aviation Association - responsible for the regulation of aviation safety in the UK.
CAMS	Catchment Abstraction Management Strategy - assess the amount of water available in each river catchment.
CCC	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.
CCI	Community Conservation Index – accounts for community richness of a species and its relative rarity.
CCP	Carbon Capture Plant – plant used to capture carbon dioxide (CO <sub>2</sub> ) emissions produced from the use of fossil fuels in electricity generation and industrial processes.
CCR	Carbon Capture Ready - space to be set aside to accommodate future carbon capture equipment.

Abbreviation/ Frequently used term	Definition/Notes
CCUS	Carbon Capture, Utilisation and Storage - group of technologies designed to reduce the amount of carbon dioxide (CO <sub>2</sub> ) released into the atmosphere from coal and gas power stations as well as heavy industry including cement and steel production. Once captured, the CO <sub>2</sub> can be either re-used in various products, such as cement or plastics (utilisation), or stored in geological formations deep underground (storage).
CDM	Construction Design and Management Regulations 2015 - legal duties for safe operation of UK construction sites, including health and safety plans.
CDOIF	Chemical and Downstream Oil Industries Forum - established in 1997 to bring together regulators and organisations within the sector.
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.
CIBSE	Chartered Institution Building Services Engineers – an international association within the building services industry.
CifA	Chartered Institute for Archaeologists - a professional organisation for archaeologists working in the United Kingdom.
CO	Carbon Monoxide - a colourless, odourless and tasteless gas slightly less dense than air.
COMAH	Control of Major Accident Hazards - Regulations to ensure that businesses take all necessary measures to prevent major accidents involving dangerous substances.
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.
COSHH	Control of Substances Hazardous to Human Health Regulations - 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.
CO <sub>2</sub>	Carbon Dioxide - an inorganic chemical compound with a wide range of commercial uses.
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
CRT	Canal and River Trust - organisation responsible for canals, rivers, docks and reservoirs in England and Wales.
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.
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.
CWS	Cooling Water System - used to remove heat from a process or piece of equipment.
CWTP	Framework Construction Workers' Travel Plan – outlines travel plans for construction workers for example public transport, cycling and car sharing.
DAS	Design and Access Statement - a short report accompanying and supporting a planning application explaining the design.
DC	Doncaster Council
DCC	Direct Contact Cooler
DCO	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.
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.
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.
DTL	Dangerous Toxic Load – used to describe a substance's airborne concentration and duration of exposure which would produce a particular level of toxicity in the general population
DTM	Digital Terrain Model - a topographic model of the bare Earth – terrain relief that can be manipulated by computer programs.

Abbreviation/ Frequently used term	Definition/Notes
DTMP	Decommissioning Traffic Management Plan - implemented during the decommissioning phase to control the impact and routing of HGVs.
DWS	Drinking Water Standards - defined in law by standards for a wide range of substances, organisms and properties of water in regulations.
EA	Environment Agency - a non-departmental public body sponsored by the United Kingdom government's Department for Environment, Food and Rural Affairs (DEFRA), with responsibilities relating to the protection and enhancement of the environment in England.
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.
EEL	Early Enclosed Land - buffers the AOSF and comprises areas of piece-meal enclosure of blocks of former strips into small irregular fields
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 Value - emission limit values based on the Best Available Techniques.
EMF	Electromagnetic Fields - a combination of invisible electric and magnetic fields of force.
EMP	Eastern Marine Plan - provide guidance for sustainable development from Flamborough Head to Felixstowe.
EMS	Environment 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.
EPR	The Environmental Permitting (England and Wales) Regulations 2016 - Regulations that came into force in 2008 combining Pollution Prevention and Control and Waste Management Licensing regulations.
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.

Abbreviation/ Frequently used term	Definition/Notes
ERA	Environmental Risk Assessment - assess the likelihood of causing harm to the environment.
ERL	Effects Range Low - the threshold below which toxic effects are not likely to be observed or predicted.
ERM	Effects Range Median - the threshold at which are generally or always observed.
ERYC	East Riding of Yorkshire Council
ES	Environmental Statement - a report in which the process and results of an Environment Impact Assessment are documented.
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.
FRA	Flood Risk Assessment - an assessment of the flood risk from all sources of flooding for a development
FRAP	Flood Risk Activity Permit – permit to work in, under and over a main river or if work could affect flooding from a main river or sea.
FWA	Flood Warning Area - geographical areas where the Environment Agency expect flooding to occur and where they provide a Flood Warning Service.
GAC	Generic Assessment Criteria - derived using widely applicable assumptions about the characteristics and behaviour of contaminant sources, pathways and receptors.
GEART	Guidelines for Environmental Assessment of Road Traffic - the guidelines provide a basis for a comprehensive and consistent approach to the appraisal of traffic and transport impacts.
GHG	Greenhouse Gases - atmospheric gases such as carbon dioxide, methane, chlorofluorocarbons, nitrous oxide, ozone, and water vapour that absorb and emit infrared radiation emitted by the Earth's surface, the atmosphere and clouds.
GPA	Good Practice Advice – guidance documents produced by Historic England
GPP	Guidance for Pollution Prevention - provides updated good practice guidance to the UK.
GQRA	Generic Quantitative Risk Assessment - a risk assessment utilising generic assumptions to estimate risk.
GW	Gigawatts - unit of power.
Ha	Hectare
HAZID	Hazard Identification - risk analysis tool.
HAZOP	Hazard and Operability study – risk analysis tool.

Abbreviation/ Frequently used term	Definition/Notes
HCA	Homes and Communities Agency - non-departmental public body that funds new affordable housing in England.
HE	Historic England - an executive non-departmental body of the British Government tasked with protecting the historical environment of England.
HEPS	Humber Emergency Planning Service - provides emergency planning provision for North Lincolnshire Council
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.
HGV	Heavy Goods Vehicle - vehicles with a gross weight in excess of 3.5 tonnes.
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).
HRA	Habitats Regulations Assessment - the assessment of the impacts of implementing a plan or policy on a Natura 2000 site required under the Habitats Directive.
HSC	Hazardous Substances Consent - enables the HSA to consider whether the presence of a significant quantity of a hazardous substance is acceptable in a particular location.
HSE	Health and Safety Executive - the body responsible for the encouragement, regulation and enforcement of workplace health, safety and welfare.
IAQM	Institute of Air Quality Management - professional body for air quality air professionals.
ICCI	In-Combination Climate Change Impact - the in-combination effects of a changing climate.
IDB	Internal Drainage Board - a type of operating authority with permissive powers to undertake work to secure clean water drainage and water level management within drainage districts.
IEMA	Institute of Environmental Management and Assessment
IED	Industrial Emissions Directive – European Union Directive committing member states to control and reduce the impact of industrial emissions on the environment.
INNS	Invasive 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.

Abbreviation/ Frequently used term	Definition/Notes
IOS	International Organisation for Standardisation - an international standard setting body composed of representatives for various national standards organisations.
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.
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.
ISMP	Invasive Species Management Plan - preventing and managing the spread of invasive species and their potential impacts.
ISO	International Organization for Standardization – produce international standards for a range of markets.
kV	Kilovolt - unit of power.
kW	Kilowatt - unit of power.
LBMEP	Landscaping and Biodiversity Management and Enhancement Plan
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.
LCRM	Land Contamination Risk Management – guidance provided by the UK Government for managing the risks from land contamination.
LCT	Landscape Character Types - a form of landscape classification based on characteristics of the land.
LDV	Light Duty Vehicles - vehicle with a gross weight of less than 3.5 tonnes.
LFRMS	Local Flood Risk Management Strategy - sets out a clear plan for future flood risk management in a region.
LIDAR	Light Detection and Ranging - a remote sensing method that uses light in the form of a pulsed laser to measure ranges.
LLFA	Lead Local Flood Authority - flood risk management body.
LNR	Local Nature Reserve - a non-statutory site of local importance for wildlife, geology, education or public enjoyment.
LOAEL	Lowest Observable Adverse Effect Level - the level above which adverse effects on health and quality of life can be detected.

Abbreviation/ Frequently used term	Definition/Notes
LSEP	Lincolnshire Strategic Economic Plan - sets out the areas plans and objectives.
LUP	Land Use Planning - a potential solution for sustainable use of land in the long term by optimising the effective use of land resources.
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.
MA&D	Major Accidents and Disasters - events, including natural and manmade hazards/external hazards, that may cause immediate or delayed serious environmental effects to human health, welfare and/ or the environment.
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
MAPD	Major Accident Prevention Document - used to assess the risks associated with major accident hazard pipelines.
MAPP	Major Accident Prevention Policy - sets out the major accident prevention policy.
MCAA	Marine and Coastal Access Act (2009) - the primary legislation relevant to marine development plans.
MHWST	Mean High Water Spring Tide - 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.
MLA	Marine Licence Application - an application to the Marine Management Organisation for a marine licence.
MMO	Marine Management Organisation - an executive, non-departmental body in the United Kingdom with the responsibility of licensing, regulating and planning marine activities in the seas around England so that they are carried out in a sustainable way.
MPS	Marine Policy Statements - the framework for preparing Marine Plans and taking decisions affecting the marine environment.
MW	Megawatt - unit of energy.
NAQS	National Air Quality Strategy – produced by the UK Government in accordance with The Environment Act 1995.

Abbreviation/ Frequently used term	Definition/Notes
NCA	National Character Area - a natural subdivision of England based on a combination of landscape, biodiversity, geodiversity and economic activity.
NDMA	N-nitrosodimethylamine
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.
NERC	Natural Environment and Rural Communities - 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.
NGET	National Grid Electricity Transmission - build and maintain the electricity transmission network.
NGG	National Gas Grid - the national gas transmission network.
NGR	National Grid Reference - system of geographical grid references.
NHLE	National Heritage List for England - a register of all nationally protected historic buildings and sites in England.
NIA	Nature Improvement Area - established to create joined up and resilient ecological networks at a landscape scale.
NIC	National Infrastructure Commission - provides the government with advice on major long-term infrastructure challenges
NIP	National Infrastructure Plan - sets out a vision for the development of infrastructure within the UK.
NHBC	National House Building Council - home construction warranty and insurance provider for new and newly converted homes in the UK
NLC	North Lincolnshire Council
NLCH	North Lincolnshire Council Historic
NNR	National Nature Reserve - established to protect important habitats, species and geology.
NOEL	No Observed Effect Level - the level below which no effect can be detected. Below this level no detectable effect on health and quality of life due to noise can be established

Abbreviation/ Frequently used term	Definition/Notes
NPPF	National Planning Policy Framework - 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.
NPPG	National Planning Practice Guidance - provides guidance for local planning authorities.
NPS	National Policy Statement - 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.
NRMM	Non-Road Mobile Machinery - machinery typically used off the road, such as construction machinery.
NSIP	Nationally Significant Infrastructure Project - 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 for ease of understanding.
NVC	National Vegetation Classification - state-funded survey of the vegetation types of all natural, semi-natural and major artificial habitats in England, Scotland and Wales.
O&M	Operations and Maintenance - team with responsibility for daily operations, including troubleshooting and effecting minor repairs
OMH	Open Mosaic Habitats - found mainly in urban and formerly industrial areas and have high biodiversity value.
OS	Ordnance Survey - the national mapping agency for Great Britain.



Abbreviation/ Frequently used term	Definition/Notes
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.
PC	Process Contribution - represents the change caused by the Proposed Development.
PCB	Polychlorinated Biphenyls - an organic chlorine compound.
PCL	Potential Contaminant Linkages - a linkage between a contaminant and a receptor by means of a pathway.
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 - an initial statement of the main environmental information available for a study area.
PFA	Pulverised Fuel Ash - a by-product of pulverised fuel fired power stations.
PFRA	Preliminary Flood Risk Assessment - assesses floods that have taken place in the past and floods that could take place in the future
PHE	Potentially Harmful Elements – for example arsenic (As), cadmium (Cd) and copper (Cu).
PHEA	Preliminary Hazard and Environmental Assessments - determines the scope of hazards and environmental impacts related to a project.
PIA	Personal Injury Accident
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.
PPG	Planning Practice Guidance - guidance expanding upon and supporting the NPPF.
PPG	Pollution Prevention Guidance - provide advice on the management of construction to avoid, minimise and reduce environmental impacts.
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.
PRoW	Public Right 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).

Abbreviation/ Frequently used term	Definition/Notes
PSI	Proportion of Sediment-sensitive Invertebrates - biomonitoring tool designed to identify the degree of sedimentation in rivers and streams
PWS	Private Water Supply – a water supply which is supplied to a property that is not provided by a water company
RBI	Risk Based Inspection – maintenance strategy technique.
RBMP	River Basin Management Plan - plans that set out how organisations, stakeholders and communities will work together to improve the water environment.
RCM	Reliability Centred Maintenance – maintenance strategy technique.
REL	Recent Enclosed Land - generally surrounds low-lying lands drained and enclosed for farmland from the seventeenth century.
RFC	Ratio of Flow to Capacity – used to measure the performance of a junction.
SAC	Special Area 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.
SCR	Selective Catalytic Reduction - the removal of nitrogen oxides from the flue gas.
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.
SHE	Safety, Health and Environmental management system - method of reducing risk, maintaining a culture of safety and improving productivity.
SINC	Site of Importance for Nature Conservation - sites of substantive nature conservation value.
SLOD	Significant Likelihood of Death - defined as the dose to typically result in 50% fatality of an exposed population
SLOT	Specified Level of Toxicity – defined by HSE as being severe distress to almost everyone in the area, substantial fraction of exposed population requiring medical attention, some people seriously injured, requiring prolonged treatment and highly susceptible people possibly being killed.
SOAEL	Significant Observed Adverse Effect Level - the 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
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.
SPZ	Source Protection Zone - zones defined by the Environment Agency to protect groundwater sources such as wells, boreholes and springs from potential contamination.
SRN	Strategic Road Network - Highways England manages the strategic road network in England, comprising motorways and some A roads.
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.
SVOC	Semi Volatile Organic Compounds - a subgroup of VOCs.
SWMP	Site Waste Management Plan - controls construction activities through relevant regulations, industry good practice and specific measures.
TA	Transport Assessment - comprehensive and systematic process that sets out various transport issues relating to a development.
TCPA	Town and Country Planning Application - the requirements for applications for planning permission under the Town and Country Planning Act 1971.
TDS	Total Dissolved Solid - comprises inorganic salts (principally calcium, magnesium, potassium, sodium, bicarbonates, chlorides, and sulfates) and some small amounts of organic matter that are dissolved in water.
TEMPRO	Trip End Model Presentation Program - national standard programme used to derive traffic growth factors.
TPH	Total Petroleum Hydrocarbons - chemical compounds originating from crude oil.
TraC	Transitional and Coastal - estuarine and coastal waters.
TTRO	Temporary Traffic Regulation Order – allows a local authority to regulate traffic for temporary periods by order or notice.
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.
TWh	Terawatt hours – unit of energy.

Abbreviation/ Frequently used term	Definition/Notes
VFS	Vortex Flow Separator - treatment for surface water runoff from process areas.
VOC	Volatile Organic Compounds - chemicals that have a high vapour pressure at ordinary room temperature.
WAC	Waste Acceptance Criteria - guidance on acceptance procedures and criteria for wastes destined for disposal in landfills.
WCA	Wildlife and Countryside Act 1981 - the primary legislation which protects animals, plants and habitats in the UK.
WEEE	Waste Electrical and Electronic Equipment
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.
WTW	Water Treatment Works – facility to clean water.
ZCH	Zero Carbon Humber Partnership - SSE Thermal is part of the Zero Carbon Humber Partnership, working with other leading companies in the Humber area to decarbonise industry and power generation in the region.
ZTV	Zone of Theoretical Visibility - a computer generated tool to identify the likely (or theoretical) extent of visibility of a development.