

SLOUGH MULTIFUEL EXTENSION PROJECT

[PINS Ref: EN010129]

Environmental Statement Volume 1 – Environmental Statement

Environmental Statement Volume 1: Table of Contents

Application Document Reference: [6.2.0]

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Planning Act 2008
Infrastructure Planning (Applications: Prescribed
Forms and Procedure) Regulations 2009

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ENVIRONMENTAL IMPACT ASSESSMENT

ENVIRONMENTAL STATEMENT – MAIN TEXT SEPTEMBER 2022

[Application Document Reference 6.2]

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Glossary

Abbreviation	Description
µm	Micrometre. SI unit of length equalling 1×10^{-6} metres.
The 2008 Act	The Planning Act 2008
ADMS	Atmospheric Dispersion Monitoring System – a proprietary model for the assessment of effects of emissions to air from point sources and road sources.
AEP	Annual Exceedance Probability. The probability of a flood event occurring in any year. Expressed as a percentage.
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.
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.
The Application	Development Consent Order Application
The Applicant	Means a person who either proposes to make an application for an order granting development consent or has made such an application, in this case SSE Slough Multifuel Limited (SMF)
AQAL	Air Quality Assessment Level.
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 Area – an area designated by the local authority to be managed, to ensure that the area meets national air quality objectives.
As	Arsenic – a metalloid.

Abbreviation

Description

AURN	Automatic Urban and Rural Network and is the main network used for compliance reporting against the Ambient Air Quality Directives.
AWI	Ancient Woodland Inventory identifies woodland sites in England.
BaP	Benzo[a]pyrene – a polycyclic aromatic hydrocarbon (PAH).
BAP	Biodiversity Action Plan – an internationally recognised programme addressing threatened species and habitats, designed to protect and restore biological systems.
BAT	Best Available Technique – the available techniques which are the best for preventing or minimising emissions and impacts on the environment. BAT is required to be demonstrated for industrial operations or processes requiring environmental permits.
BAT-AELs	BAT-Achievable Emission Values. Achievable emissions values following the implementation of the best available techniques for preventing or minimising emissions and impacts on the environment.
BBOWT	Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust
BEIS	The Department for Business, Energy and Industrial Strategy – the UK government department responsible for issues regarding energy supply.
Benzene	An organic chemical compound, containing only carbon and hydrogen atoms (and hence a hydrocarbon). It is a natural constituent of crude oil and is one of the elementary petrochemicals.
bgl	Below ground level.
BGS	British Geological Survey – provider of objective and authoritative geoscientific data, information and knowledge for the UK.
BNG	Biodiversity Net Gain is an approach used to improve a sites biodiversity value.
BNL	Basic Noise Level
BOA	Biodiversity Opportunity Area

Abbreviation

Description

Abbreviation	Description
BoCC	Birds of Conservation Concern
BPM	Best Practicable Means – actions undertaken and mitigation measures implemented to ensure that nuisance levels are minimised to be as low as practicable.
BREF	EU BAT reference documents covering industrial processes, their respective operating conditions and emission rates.
BSI	British Standards Institute.
CAA	The Civil Aviation Authority – the UK’s specialist aviation regulator.
CC	Climate change, long-term shifts in temperatures and weather patterns.
CCC	Climate Change Committee is an independent, statutory body established under the Climate Change Act 2008.
CCR	Carbon Capture Readiness – demonstrating that a thermal power station of greater than 300MW output is capable of having carbon capture technology installed or retrofitted to it
CCW	Countryside Council for Wales
Cd	Cadmium – a metal.
CDC	Consented Development Contribution
CDM	Construction, Design and Management
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.
CFMP	Catchment Flood Management Plan. CFMPs aim to establish flood risk management policies which will deliver sustainable flood risk management for the long term across a catchment. They typically consider all types of inland flooding.
CH ₄	Methane – a colourless, odourless, flammable gas which is the main constituent of natural gas.
CHP	Combined Heat and Power – a technology that puts to use the residual heat of the

Abbreviation

Description

Abbreviation	Description
	combustion process after generation of electricity that would otherwise be lost to the environment.
CIEEM	Chartered Institute of Ecology and Environmental Management – professional body for ecologists and environmental managers in the United Kingdom.
CIP	Copenhagen Infrastructure Partners
CO	Carbon monoxide – a colourless, odourless and tasteless gas.
Co	Cobalt – a metal.
CO ₂	Carbon dioxide – an inorganic chemical compound with a wide range of commercial uses. Also, a greenhouse gas.
Consented Development	2017 TCPA Consented Slough Multifuel Project
CoP	Conference of the Parties
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 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.
Cr	Chromium – a transition metal.
CRoW	Countryside and Rights of Way Act 2000 – a United Kingdom Act of Parliament in England and Wales regarding public access to land.
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.
cSAC	Candidate SAC

Abbreviation

Description

CT	Cooling Tower is a device that rejects waste heat to the atmosphere through the cooling of a collant stream, usually a water stream to a lower temperature.
CTMP	Construction Traffic Management Plan – a plan for implementing measures to control and manage construction HGV traffic.
Cu	Copper – a metal.
dB	Decibel – a unit of measurement which is used to indicate how loud a sound is.
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 NSIP. A DCO can incorporate or remove the need for a range of consents which would otherwise be required for such a development. A DCO can also include rights of compulsory acquisition.
DECC	Department of Energy and Climate Change. This was replaced by BEIS in July 2016.
DEFRA	Department for Environment, Food and Rural Affairs – government department responsible for environmental protection, food production and standards, agriculture, fisheries and rural communities in the United Kingdom.
Dioxins and furans	Polychlorinated dibenzo-para-dioxins and polychlorinated dibenzo furans. Toxic, persistent environmental pollutants.
DMRB	Design Manual for Roads and Bridges – a series of 15 volumes that provide standards,

Abbreviation

Description

Abbreviation	Description
	advice notes and other documents relating to the design, assessment and operation of trunk roads in the United Kingdom.
EA	Environment Agency – a non-departmental public body sponsored by the United Kingdom government’s DEFRA, with responsibilities relating to the protection and enhancement of the environment in England.
EC	European Commission is the executive of the European Union (EU).
EcIA	Ecological Impact Assessment.
EEA	European Economic Area.
EfW	Energy from Waste.
EHO	Environmental Health Officer – practitioners responsible for carrying out measures for protecting public health, including administering and enforcing legislation related to environmental health.
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 based on BAT.
EPA	The Environmental Protection Act (1990).
EPC	Engineering, Procurement and Construction contractor.
EPR	Environmental Permitting (England and Wales) Regulations 2016 – Regulations that came into force in 2008 combining Pollution Prevention and Control and Waste Management Licensing regulations.
ES	Environmental Statement – a report in which the process and results of an EIA are documented.
ESD	Effort Sharing Decision
EU	European Union.

Abbreviation

Description

Abbreviation	Description
ExA	Examining Authority.
FGT	Flue Gas Treatment – treatment of flue gases to reduce or eliminate toxic and noxious emissions from all combustion-related processes.
Flood Zone 1	Area defined by the EA according to the annual probability of river or sea flooding, based on modelling. FZ 1 has a low probability (less than 1 in 1,000 annual probability)).
FMfP	Flood Map for Planning
FRA	Flood Risk Assessment – The formal assessment of flood risk issues relating to the Proposed Development. The findings are presented in an appendix to the ES.
FZ	Flood Zone.
GHGs	Greenhouse gas emissions.
ha	Hectare – equal to 10,000 m ² .
HA	Highways Agency (now known as Highways England) – government owned company responsible for managing the road network in England.
HAP	Habitat Action Plan.
HC	Hydrocarbons – an organic compound consisting entirely of hydrogen and carbon.
HCA	Home and Communities Agency.
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.
HF	Hydrogen fluoride – a highly dangerous chemical compound composed of hydrogen and fluorine. It dissolves readily in water to produce hydrofluoric acid.
HFCs	Hydrofluorocarbons – organic compounds that contain fluorine and hydrogen atoms.
Hg	Mercury – a heavy metal.

Abbreviation

Description

Abbreviation	Description
HGV	Heavy Goods Vehicle – vehicles with a gross weight in excess of 3.5 tonnes.
HHRA	Human Health Risk Assessment – process to estimate the nature and probability of adverse health effects in humans who may be exposed to chemicals.
HMG	Her Majesty's Government.
HRA	Habitats Regulations Assessment, any plan or project which could be considered to have a 'likely significant effect' on a Natura 2000 site (or potential or candidate site) requires a Habitats Regulations Assessment (HRA).
HSE	Health, Safety and Environmental
HSWA	Health and Safety at Work etc Act 1974
HZI	Hitachi Zosen Inova- EPC Contractor
IAQM	The Institute of Air Quality Management – the professional body for air quality experts in the UK.
ICCI	In-combination Climate Change Impact
ICE	Bath University Inventory of Carbon and Energy
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.
IEA	Institute of Environmental Assessment.
IED	Industrial Emissions Directive, EU Directive 2010/75/EU.
IEMA	Institute of Environmental Management and Assessment – professional body for environmental practitioners in the United Kingdom.
IPC	Infrastructure Planning Commission
ISO	International Standards Organisation – an international standard setting body

Abbreviation

Description

Abbreviation	Description
	composed of representatives for various national standards organisations.
JNCC	Joint Nature Conservancy Council.
km	Kilometre – SI unit equal to one thousand metres.
LA90,T	Background sound level – the A-weighted sound pressure level that is exceeded by the residual sound for 90% of a given time interval, T, measured using time weighting F and quoted to the nearest whole number of decibels.
LAeq,Tr	Specific sound level – the equivalent continuous A- weighted sound pressure level produced by the specific sound source at the assessment location over a given reference time interval, Tr.
LAr,Tr	Rating level – the specific sound level plus any adjustment made for the characteristic features of the sound.
Land Plans	The plans produced in accordance with regulation 5(2)(i)
LAQM	Local Air Quality Management – the review and assessment of air quality by local authorities in the UK.
LCA	Landscape Character Assessment.
LFRMS	Local Flood Risk Management Strategy.
LLFA	Lead Local Flood Authority – authorities responsible for maintaining a register of structures and features likely to have a significant effect on flood risk in their area.
LNR	Local Nature Reserve
LOAEL	Lowest Observable Adverse Effect Level. This is the level of noise exposure above which adverse effects on health and quality of life can be detected.
LPA	Local Planning Authority.
LTP	Local Transport Plan

Abbreviation

Description

Abbreviation	Description
Lw	Unit for sound power level.
LWS	Local Wildlife Site – non-statutory sites of nature conservation value that have been designated ‘locally’. These sites are referred to differently between counties with common terms including site of importance for nature conservation, county wildlife site, site of biological importance, site of local importance and sites of metropolitan importance.
m	Metre – unit of length, equal to 100 centimetres.
MAD	Major Accidents and Disasters
MAGIC	Multi-Agency Geographic Information for the Countryside – Defra Mapping tool.
Main Development Area	The part of the Site that is defined by Work No. 1 in the DCO, within which the Proposed Project will be constructed.
MJ/kg	Megajoules per kilogram – a measure of energy density by weight.
MMP	Materials Management Plan – a clear and auditable plan for bulk soil movements.
Mn	Manganese – a transition metal.
MW	Megawatts – unit of energy equal to one million watts.
Mwe	Megawatts electric – a measures of electrical energy.
NAQS	National Air Quality Strategy – national air quality objectives and policy options to further improve air quality in the UK.
NCA	National Character Area – England’s major landscape areas. A natural subdivision of England based on a combination of landscape, biodiversity, geodiversity and economic activity.
NCV	Net Calorific Value – the heat energy produced by combustion of a unit quantity of fuel, under controlled conditions.

Abbreviation

Description

Abbreviation	Description
NERC	Natural Environment and Rural Communities act 2006.
NF3	Nitrogen trifluoride.
NH ₃	Ammonia – a colourless gas.
Ni	Nickel – a transition metal.
NNR	National Nature Reserve
NO2	Nitrogen dioxide – one of several nitrogen oxides.
NOEL	No Observed Effect Level.
NOX	Nitrogen Oxides.
NPPF	National Planning Policy Framework. The NPPF came into effect on 27 March 2012 (with some transitional arrangements), and was updated in February 2019, 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 NSIPs but its policies may be taken into account in decisions on DCOs if the SoS considers them to be both important and relevant.
NPS	National Policy Statement – Statements produced by Government under the Planning Act 2008 providing the policy framework for NSIPs. They include the Government's view of the need for and objectives for the development of NSIPs in a particular sector such as energy and are used to determine applications for such development.
NPS – EM1	National Policy Statement for Energy
NRMM	Non-Road Mobile Machinery – machinery typically used off the road, such as construction machinery.
NSIP	Nationally Significant Infrastructure Project – a type and scale of infrastructure project that must be authorised by the grant of a DCO under The Planning Act 2008.

Abbreviation

Description

NSRs	Noise Sensitive Receptors – locations or areas where dwelling units or other fixed, developed sites of frequent human use occur.
NTS	Non-Technical Summary – a summary of the Environmental Statement written in non-technical language for ease of understanding.
N ₂ O	Nitrous oxide.
ODPM	Office of the Deputy Prime Minister.
Order Limits	means the limits shown on the works plan within which the authorised development may be carried out
OS	Ordnance Survey – the national mapping agency for Great Britain.
PAH	Polycyclic Aromatic Hydrocarbons – hydrocarbons that are organic compounds containing only carbon and hydrogen.
Pb	Lead – a heavy metal.
PC	Process Contribution – represents the change caused by the Proposed Development.
PCBs	Polychlorinated biphenyls – organic chlorine compounds.
PEA	Preliminary Ecological Appraisal – report establishing baseline conditions and evaluating the importance of any ecological features present.
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.
PFCs	Perfluorocarbons – a group of chemicals closely related to polyfluoroalkyl substances (PFASs).
PFRA	Preliminary Flood Risk Assessment – a high level screening exercise to identify potential flood risk locations.

Abbreviation

Description

Abbreviation	Description
PINS	The 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.
PM10	Particulate matter 10 micrometres or less in diameter.
PM2.5	Particulate matter 2.5 micrometres or less in diameter.
PPE	Personal Protective Equipment.
PPG	Planning Practice Guidance – guidance expanding upon and supporting the NPPF.
PPGN	Planning Practice Guidance Noise
Proposed Project	The Proposed Project encompasses everything that the DCO would consent. The Proposed Project is an extension to the Slough Multifuel Facility to increase the gross electrical out of up to 60MW.
ProW	Public Right of Way.
pSPA	Provisional SPAs classified under the Birds Directive.
Ramsar	A wetland site designated as of international importance under the Ramsar Convention.
RBMP	River Basin Management Plans – sets out how organisations, stakeholders and communities will work together to improve the water environment.
RoFSW	Risk of Flooding from Surface Water
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.
Sb	Antimony – a grey metalloid.
SBC	Slough Borough Council
SFRA	Strategic Flood Risk Assessment.

Abbreviation

Description

Abbreviation	Description
SF6	Sulphur Hexafluoride.
SHP	Slough Heat and Power site
Site	The area defined by the DCO Application Site boundary, also known as the Order Limits.
SMF	Slough Multifuel- a joint venture between SSE Thermal and Copenhagen Infrastructure Partners.
SO2	Sulphur dioxide – a toxic gas.
SOAEL	Significant Observed Adverse Effect Level.
SoCC	Statement of Community Consultation.
SoS	Secretary of State – The decision maker for DCO applications and head of Government department. In this case the SoS for BEIS.
SPA	Special Protection Area – strictly protected sites classified in accordance with Article 4 of the EC Birds Directive. Special Protection Areas are Natura 2000 sites which are internationally important sites for the protection of threatened habitats and species.
SPZ	Source Protection Zone – a protected area, usually in relation to groundwater abstraction.
SPZ	Simplified Planning Zone
SRN	Strategic Road Network.
SSSI	Site of Special Scientific Interest – nationally designated Sites of Special Scientific Interest, an area designated for protection under the WCA, due to its value as a wildlife and/ or geological site.
St	Short term.
Study Area	An area defined for each technical aspect of the EIA that is relevant for the assessment of effects, following consideration of the baseline environmental conditions and potential impacts of the development. Also known as the Zol.

Abbreviation

Description

Abbreviation	Description
SuDS	Sustainable Urban Drainage Systems.
TA	Transport Assessment.
TCPA	Town and Country Planning Act
TI	Thallium – a metal (not found free in nature).
tpa	Tonnes per annum.
TS	Transport Statement.
TVERC	Thames Valley Environmental Record Centre
UK	United Kingdom
UKCP18	UK Climate Projections 2018
UNFCCC	United Nations Framework Convention on Climate Change
V	Vanadium – a transition metal.
VOCs	Volatile Organic Compounds – chemicals that have a high vapour pressure at ordinary room temperature.
WCA	Wildlife and Countryside Act – legislation for the protection of animals, plants and certain habitats in the UK.
WDF	Waste Derived Fuel
WID	Waste Incineration Directive – came into force in 2000. It repealed former directives on the incineration of hazardous waste and household waste and replaced them with a single text. The aim of the WI Directive is to prevent or to reduce as far as possible negative effects on the environment caused by the incineration and co- incineration of waste.
Work No.	An area within the Order Limits that is defined in the DCO for specific aspects of development.
Zol	Zone of Influence.
ZTV	Zone of Theoretical Visibility – a computer generated tool to identify the likely (or theoretical) extent of visibility of a development.