# **Annex B**Glossary and Acronyms

Anthracite Within this publication, anthracite is coal classified as such by UK coal

producers and importers of coal. Typically it has a high heat content making it particularly suitable for certain industrial processes and for

use as a domestic fuel.

Associated gas Natural gas found in association with crude oil in a reservoir, either

dissolved in the oil or as a cap above the oil.

**Autogeneration** Generation of electricity by companies whose main business is not

electricity generation, the electricity being produced mainly for that

company's own use.

**Aviation spirit**A light hydrocarbon oil product used to power piston-engined aircraft

power units.

**Aviation turbine fuel** The main aviation fuel used for powering aviation gas-turbine power

units (jet aircraft engine).

Backflows These are finished or semi-finished products, which are returned from

final consumers to refineries for processing, blending or sale. They are

usually by-products of petrochemical manufacturing.

BEIS Department for Business, Energy and Industrial Strategy

Benzole A colourless liquid, flammable, aromatic hydrocarbon by-product of the

iron and steel making process. It is used as a solvent in the manufacture of styrenes and phenols but is also used as a constituent

of motor fuel.

BETTA British Electricity Trading and Transmission Arrangements (BETTA)

refer to changes to electricity generation, distribution and supply licences. On 1 April 2005, the England and Wales trading arrangements were extended to Scotland by the British Electricity Trading and Transmission Arrangements creating a single GB market for trading of wholesale electricity, with common arrangements for access to and use of GB transmission system. From 1 April 2005, NGC has become the System Operator for the whole of GB. BETTA

replaced NETA on 4 April 2005.

Biodiesel (FAME - biodiesel produced to BS EN 14214). Produced from

vegetable oils or animal fats by mixing them with ethanol or methanol to

break them down.

**Bioenergy** Bioenergy is renewable energy made from material of recent biological

origin derived from plant or animal matter.

**Bioethanol** Created from crops rich in starch or sugar by fermentation, distillation

and finally dehydration.

**Biogas** Energy produced from the anaerobic digestion of sewage and industrial

waste.

**Biomass** 

Renewable organic materials, such as wood, agricultural crops or wastes, and municipal wastes. Biomass can be burned directly or processed into biofuels such as ethanol and methane

Bitumen

The residue left after the production of lubricating oil distillates and vacuum gas oil for upgrading plant feedstock. Used mainly for road making and construction purposes.

Blast furnace gas

Mainly produced and consumed within the iron and steel industry. Obtained as a by-product of iron making in a blast furnace, it is recovered on leaving the furnace and used partly within the plant and partly in other steel industry processes or in power plants equipped to burn it. A similar gas is obtained when steel is made in basic oxygen steel converters; this gas is recovered and used in the same way.

Breeze

Breeze can generally be described as coke screened below 19 mm (¾ inch) with no fines removed but the screen size may vary in different areas and to meet the requirements of particular markets.

BG

British Gas

**BOS** 

Basic Oxygen Steel furnace gas

**BNFL** 

British Nuclear Fuels plc.

**BRE** 

**Building Research Establishment** 

**Burning oil** 

A refined petroleum product, with a volatility in between that of motor spirit and gas diesel oil primarily used for heating and lighting.

Butane

Hydrocarbon ( $C_4H_{10}$ ), gaseous at normal temperature but generally stored and transported as a liquid. Used as a component in Motor Spirit to improve combustion, and for cooking and heating (see LPG).

Calorific values (CVs)

The energy content of a fuel can be measured as the heat released on complete combustion. The SI (Système International) derived unit of energy and heat is the Joule. This is the energy in a given quantity of the fuel and is often measured in GJ per tonne. The energy content can be expressed as an upper (or gross) value and a lower (or net) value. The difference between the two values is due to the release of energy from the condensation of water in the products of combustion. Gross calorific values are used throughout this publication.

Carbon Emission Reduction Target (CERT) The Carbon Emissions Reduction Target (CERT) follows on from the Energy Efficiency Commitment (EEC). CERT requires gas and electricity suppliers to achieve targets for a reduction in carbon emissions generated by the domestic sector.

CCA

Climate Change Agreement. Climate Change Agreements allow energy intensive business users to receive a 65 per cent discount from the Climate Change Levy (CCL), in return for meeting energy efficiency or carbon saving targets. The CCL is a tax on the use of energy in industry, commerce and the public sector. The aim of the levy is to encourage users to improve energy efficiency and reduce emissions of greenhouse gases.

CCL

Climate Change Levy. The Climate Change Levy is a tax on the use of energy in industry, commerce and the public sector, with offsetting cuts in employers' National Insurance Contributions and additional support for energy efficiency schemes and renewable sources of energy. The aim of the levy is to encourage users to improve energy efficiency and reduce emissions of greenhouse gases.

CO<sub>2</sub>

Carbon dioxide. Carbon dioxide contributes about 60 per cent of the potential global warming effect of man-made emissions of greenhouse gases. Although this gas is naturally emitted by living organisms, these emissions are offset by the uptake of carbon dioxide by plants during photosynthesis; they therefore tend to have no net effect on atmospheric concentrations. The burning of fossil fuels, however, releases carbon dioxide fixed by plants many millions of years ago, and thus increases its concentration in the atmosphere.

Co-firing

The burning of biomass products in fossil fuel power stations

Coke oven coke

The solid product obtained from carbonisation of coal, principally coking coal, at high temperature. It is low in moisture and volatile matter. Used mainly in iron and steel industry.

Coke oven gas

Gas produced as a by-product of solid fuel carbonisation and gasification in coke ovens, but not from low temperature carbonisation plants. Synthetic coke oven gas is mainly natural gas which is mixed with smaller amounts of blast furnace and basic oxygen steel furnace gas to produce a gas with almost the same qualities as coke oven gas.

Coking coal

Within this publication, coking coal is coal sold by producers for use in coke ovens and similar carbonising processes. The definition is not therefore determined by the calorific value or caking qualities of each batch of coal sold, although calorific values tend to be higher than for steam coal. Not all coals form cokes. For a coal to coke it must exhibit softening and agglomeration properties, ie the end product must be a coherent solid.

**Colliery methane** 

Methane released from coal seams in existing and abandoned deep mines and from coal beds which is piped to the surface and consumed at the colliery or transmitted by pipeline to consumers.

Combined Cycle Gas Turbine (CCGT)

Combined cycle gas turbine power stations combine gas turbines and steam turbines which are connected to one or more electrical generators in the same plant. The gas turbine (usually fuelled by natural gas or oil) produces mechanical power (to drive the generator) and heat in the form of hot exhaust gases. These gases are fed to a boiler, where steam is raised at pressure to drive a conventional steam turbine, which is also connected to an electrical generator.

Combined Heat and Power (CHP)

CHP is the simultaneous generation of usable heat and power (usually electricity) in a single process. The term CHP is synonymous with cogeneration and total energy, which are terms often used in the United States or other Member States of the European Community. The basic elements of a CHP plant comprise one or more prime movers driving electrical generators, where the steam or hot water generated in the process is utilised via suitable heat recovery equipment for use either in industrial processes or in community heating and space heating.

CHPQA

Combined Heat and Power Quality Assurance Scheme

Conventional thermal power stations

These are stations which generate electricity by burning fossil fuels to produce heat to convert water into steam, which then powers steam

turbines.

**Cracking/conversion** A refining process using combinations of temperature, pressure and in

some cases a catalyst to produce petroleum products by changing the composition of a fraction of petroleum, either by splitting existing longer carbon chains or combining shorter carbon chain components of crude oil or other refinery feedstocks. Cracking allows refiners to selectively increase the yield of specific fractions from any given input petroleum mix depending on their requirements in terms of output products.

CRC Carbon Reduction Commitment. The CRC Energy Efficiency scheme is

a mandatory scheme aimed at improving energy efficiency and cutting

emissions in large public and private sector organistaions.

**Crude oil** A mineral oil consisting of a mixture of hydrocarbons of natural origins,

yellow to black in colour, of variable density and viscosity.

**DECC** Department of Energy and Climate Change

**DEFRA**Department for Environment, Food and Rural Affairs

**DERV** Diesel engined road vehicle fuel used in internal combustion engines

that are compression-ignited.

**DFT** Department for Transport

Distillation A process of separation of the various components of crude oil and

refinery feedstocks using the different temperatures of evaporation and condensation of the different components of the mix received at the

refineries.

**DNC** Declared net capacity and capability are used to measure the

maximum power available from generating stations at a point in time.

**DNO** Distribution Network Operator

**Downstream** Used in oil and gas processes to cover the part of the industry after the

production of the oil and gas. For example, it covers refining, supply

and trading, marketing and exporting.

**DUKES** Digest of United Kingdom Energy Statistics, the Digest provides

essential information for everyone, from economists to

environmentalists and from energy suppliers to energy users.

**EHCS** English House Condition Survey

**Embedded Generation** Embedded generation is electricity generation by plant which has been

connected to the distribution networks of the public electricity distributors rather than directly to the National Grid Company's transmission systems. Typically they are either smaller stations located on industrial sites, or combined heat and power plant, or renewable energy plant such as wind farms, or refuse burning generators. The category also includes some domestic generators such as those with

electric solar panels.

**Energy use** Energy use of fuel mainly comprises use for lighting, heating or cooling,

motive power and power for appliances. See also non-energy use.

**ESA** European System of Accounts. An integrated system of economic

accounts which is the European version of the System of National

Accounts (SNA).

**Ethane** A light hydrocarbon gas  $(C_2H_6)$  in natural gas and refinery gas streams

(see LPG).

**EU-ETS** European Union Emissions Trading Scheme. This began on 1<sup>st</sup>

January 2005 and involves the trading of emissions allowances as

means of reducing emissions by a fixed amount.

**EUROSTAT** Statistical Office of the European Commission.

**Exports** For some parts of the energy industry, statistics on trade in energy

related products can be derived from two separate sources. Firstly, figures can be reported by companies as part of systems for collecting data on specific parts of the energy industry (eg as part of the system for recording the production and disposals of oil from the UK continental shelf). Secondly, figures are also available from the general systems that exist for monitoring trade in all types of products operated

by HM Revenue and Customs.

Feed-In Tariffs The Feed-in Tariffs (FITs) scheme was introduced on 1 April 2010 to

encourage deployment of small-scale (less than 5MW) low-carbon electricity generation. People with a qualifying technology receive a guaranteed payment from an electricity supplier of their choice for the electricity they generate and use, as well as a guaranteed payment for

unused surplus electricity they export back to the grid.

Feedstock In the refining industry, a product or a combination of products derived

from crude oil, destined for further processing other than blending. It is

distinguished from use as a chemical feedstock etc.

Final energy consumption

Energy consumption by final user - ie which is not being used for

transformation into other forms of energy.

Fossil fuels Coal, natural gas and fuels derived from crude oil (for example petrol

and diesel) are called fossil fuels because they have been formed over

long periods of time from ancient organic matter.

Fuel oils The heavy oils from the refining process; used as fuel in furnaces and

boilers of power stations, industry, in domestic and industrial heating, ships, locomotives, metallurgic operation, and industrial power plants

etc.

Fuel oil - Light Fuel oil made up of heavier straight-run or cracked distillates and used

in commercial or industrial burner installations not equipped with pre-

heating facilities.

Fuel oil - Medium Other fuel oils, sometimes referred to as bunker fuels, which generally

require pre-heating before being burned, but in certain climatic

conditions do not require pre-heating.

Fuel oil - Heavy Other heavier grade fuel oils which in all situations require some form

of pre-heating before being burned.

**Fuel poverty**A household is said to be in fuel poverty if they have required fuel costs that are above average (the national median level), and were they to

that are above average (the national median level), and were they to spend that amount they would be left with a residual income below the

official poverty line

Gas diesel oil

The medium oil from the refinery process; used as a fuel in diesel engines (ie internal combustion engines that are compression-ignited), burned in central heating systems and used as a feedstock for the chemical industry.

**GDP** 

Gross Domestic Product.

**GDP** deflator

An index of the ratio of GDP at current prices to GDP at constant prices. It provides a measure of general price inflation within the whole economy.

Gigajoule (GJ)

A unit of energy equal to 10<sup>9</sup> joules.

Gigawatt (GW)

A unit of electrical power, equal to 10<sup>9</sup> watts.

**Green Deal** 

A scheme by which energy-saving improvements can be made to a home or business without having to pay all the costs up front; energysaving improvements include:

- insulation eg loft or cavity wall insulation
- heating
- draught-proofing
- double glazing
- renewable energy technologies eg solar panels or wind turbines

**Heat pumps** 

Heat pumps use a heat exchanger (much like that installed in fridges and freezers – although running in reverse) to take heat from the ground or air and convert it into heating in the home (either radiators, underfloor heating or warm air heating systems and hot water). Ground source heat pumps use pipes which are buried in the ground to extract heat. Air source heat pumps absorb heat from the outside air. Heat pumps need electricity to run, but the heat they extract from the ground or air is constantly being renewed naturally.

Heat sold

Heat (or steam) that is produced and sold under the provision of a contract. Heat sold is derived from heat generated by Combined Heat and Power (CHP) plants and from community heating schemes without CHP plants.

**HMRC** 

HM Revenue and Customs.

**Imports** 

Before the 1997 edition of the Digest, the term "arrivals" was used to distinguish figures derived from the former source from those import figures derived from the systems operated by HM Revenue and Customs. To make it clearer for users, a single term is now being used for both these sources of figures (the term imports) as this more clearly states what the figures relate to, which is goods entering the UK.

Indigenous production

The extraction or capture of primary fuels: for oil this includes production from the UK Continental Shelf, both onshore and offshore.

**Industrial spirit** 

Refined petroleum fractions with boiling ranges up to 200°C dependent on the use to which they are put – e.g. seed extraction, rubber solvents, perfume etc.

International Energy Agency (IEA)

The IEA is an autonomous body located in Paris which was established in November 1974 within the framework of the Organisation for Economic Co-operation and Development (OECD) to implement an international energy programme.

**ISSB** International Steel Statistics Bureau

**Joules** A joule is a generic unit of energy in the conventional SI system. It is

> equal to the energy dissipated by an electrical current of 1 ampere driven by 1 volt for 1 second; it is also equal to twice the energy of

motion in a mass of 1 kilogram moving at 1 metre per second.

1,000 watts Kilowatt (kW)

The methane-rich biogas formed from the decomposition of organic Landfill gas

material in landfill.

**LDF** Light distillate feedstock

LDZ Local distribution zone

**Liquefied Natural Gas** 

(LNG)

Natural gas that has been converted to liquid form for ease of storage

or transport.

**Liquefied Petroleum** 

Gas (LPG)

Gas, usually propane or butane, derived from oil and put under pressure so that it is in liquid form. Often used to power portable

cooking stoves or heaters and to fuel some types of vehicle, eg some

specially adapted road vehicles, forklift trucks.

**Lead Replacement** 

Petrol (LRP)

An alternative to Leaded Petrol containing a different additive to lead (in the UK usually potassium based) to perform the lubrication functions of

lead additives in reducing engine wear.

Lubricating oils Refined heavy distillates obtained from the vacuum distillation of

petroleum residues. Includes liquid and solid hydrocarbons sold by the lubricating oil trade, either alone or blended with fixed oils, metallic

soaps and other organic and/or inorganic bodies.

Magnox A type of gas-cooled nuclear fission reactor developed in the UK, so

called because of the magnesium alloy used to clad the uranium fuel.

**Major Power Producers (MPPs)**  Companies whose prime purpose is the generation of electricity.

Megawatt (MW) 1,000 kilowatts. MWe is used to emphasise when electricity is being

measured. MWt is used when heat ("thermal") is being measured.

Micro CHP Micro CHP is a new technology that is expected to make a significant

contribution to domestic energy efficiency in the future.

**Motor spirit** Blended light petroleum product used as a fuel in spark-ignition internal

combustion engines (other than aircraft engines).

NAEI National Atmospheric Emissions Inventory

Naphtha (Light distillate feedstock) - Petroleum distillate boiling predominantly

below 200°C.

**National Allocation** 

Plan (NAP)

Under the EU Emissions Trading Scheme (EU-ETS) Directive each EU country must have a National Allocation Plan which lays down the overall contribution of the EU-ETS participants (the "cap") for the country and the allowances that each sector and each individual

installation covered under the Directive is allocated, effectively stating how much that sector can emit over the trading period of the scheme.

Natural gas

Natural gas is a mixture of naturally occurring gases found either in isolation, or associated with crude oil, in underground reservoirs. The main components are methane, ethane, propane and butane. Hydrogen sulphide and carbon dioxide may also be present, but these are mostly removed at or near the well head in gas processing plants.

Natural gas - compressed

Natural gas that has been compressed to reduce the volume it occupies to make it easier to transport other than in pipelines. Whilst other petroleum gases can be compressed such that they move into liquid form, the volatility of natural gas is such that liquefaction cannot be achieved without very high pressures and low temperatures being used. As such, the compressed form is usually used as a "half-way house".

Natural gas liquids

(NGLs)

A mixture of liquids derived from natural gas and crude oil during the production process, including propane, butane, ethane and gasoline components (pentanes plus).

NDA Nuclear Decommissioning Authority

NETA New Electricity Trading Arrangements - In England and Wales these

arrangements replaced "the pool" from 27 March 2001. The arrangements are based on bi-lateral trading between generators, suppliers, traders and customers and are designed to be more efficient,

and provide more market choice.

NFFO Non Fossil Fuel Obligation. The 1989 Electricity Act empowers the

Secretary of State to make orders requiring the Regional Electricity Companies in England and Wales to secure specified amounts of

electricity from renewable sources.

NFPA Non Fossil Purchasing Agency

**NIE** Northern Ireland Electricity

NI NFFO Northern Ireland Non Fossil Fuel Obligation

Non-energy use Includes fuel used for chemical feedstock, solvents, lubricants, and

road making material.

NO<sub>X</sub> Nitrogen oxides. A number of nitrogen compounds including nitrogen

dioxide are formed in combustion processes when nitrogen in the air or the fuel combines with oxygen. These compounds can add to the

natural acidity of rainfall.

NUTS Nonmenclature of Units for Territorial Statistics

**OFGEM** The regulatory office for gas and electricity markets

**OFT** Office of Fair Trading

**ONS** Office for National Statistics

**Orimulsion** An emulsion of bitumen in water that was used as a fuel in some power

stations until 1997.

OTS Overseas Trade Statistics of the United Kingdom

Patent fuel

A composition fuel manufactured from coal fines by shaping with the addition of a binding agent (typically pitch). The term manufactured

solid fuel is also used.

Petrochemical feedstock

All petroleum products intended for use in the manufacture of petroleum chemicals. This includes middle distillate feedstock of which there are several grades depending on viscosity. The boiling point

ranges between 200°C and 400°C.

Petroleum cokes Carbonaceous material derived from hydrocarbon oils, uses for which

include metallurgical electrode manufacture and in the manufacture of

cement.

The direct conversion of solar radiation into electricity by the interaction **Photovoltaics** 

of light with the electrons in a semiconductor device or cell.

**PILOT** Phase 2 (PILOT) is the successor body to the Oil & Gas Industry Task

> Force (OGITF) and was established on 1 January 2000, to secure the long-term future of the oil and gas industry in the UK. A forum that brings together Government and industry to address the challenges facing the oil and gas industry. One outcome of PILOT's work is the

published Code of Practice on Supply Chain Relationships.

Plant capacity The maximum power available from a power station at a point in time.

Plant loads, demands and efficiency

Measures of how intensively and efficiently power stations are being used.

**PPRS** 

Petroleum production reporting system. Licensees operating in the UK Continental Shelf are required to make monthly returns on their production of hydrocarbons (oil and gas) to BEIS. This information is recorded in the PPRS, which is used to report flows, stocks and uses of hydrocarbon from the well-head through to final disposal from a pipeline or terminal (see DUKES internet annex F on the BEIS energy statistics website for further information).

Primary electricity

Electricity obtained other than from fossil fuel sources, e.g. nuclear, hydro and other non-thermal renewables. Imports of electricity are also included.

**Primary fuels** 

Fuels obtained directly from natural sources, e.g. coal, oil and natural

**Process oils** 

Partially processed feedstocks which require further processing before being classified as a finished product suitable for sale. They can also be used as a reaction medium in the production process.

**Propane** 

Hydrocarbon containing three carbon atoms (C<sub>3</sub>H<sub>8</sub>), gaseous at normal temperature, but generally stored and transported under pressure as a liquid.

RD

Renewables Directive - this proposes that EU Member States adopt national targets that are consistent with the overall EU target of 20 per cent of energy from renewables by 2020.

Refinery fuel

Petroleum products produced by the refining process that are used as fuel at refineries.

### Reforming

Processes by which the molecular structure of different fractions of petroleum can be modified. It usually involves some form of catalyst, most often platinum, and allows the conversion of lower grades of petroleum product into higher grades, improving their octane rating. It is a generic term for processes such as cracking, cyclization, dehydrogenation and isomerisation. These processes generally led to the production of hydrogen as a by-product, which can be used in the refineries in some desulphurization procedures.

# Renewable energy sources

Renewable energy includes solar power, wind, wave and tide, and hydroelectricity. Solid renewable energy sources consist of wood, straw, short rotation coppice, other biomass and the biodegradable fraction of wastes. Gaseous renewables consist of landfill gas and sewage gas. Non-biodegradable wastes are not counted as a renewables source but appear in the Renewable sources of energy chapter of this Digest for completeness.

#### Reserves

With oil and gas these relate to the quantities identified as being present in underground cavities. The actual amounts that can be recovered depend on the level of technology available and existing economic situations. These continually change; hence the level of the UK's reserves can change quite independently of whether or not new reserves have been identified.

#### **RESTATS**

The Renewable Energy Statistics database for the UK.

#### Ricardo-AEA

Formerly known as AEA Energy & Environment.

#### RO

Renewables Obligation – this is an obligation on all electricity suppliers to supply a specific proportion of electricity from eligible renewable sources.

#### **ROCs**

Renewables Obligation Certificates

# Seasonal Performance Factor

The Seasonal Performance Factor (SPF) of a heat pump is the total useful heat delivered during a year divided by the annual electricity consumption of the pump. The SPF gives an indication of the efficiency of the pump, with values greater than 1 implying that more useful heat is produced than the electricity used to power the pump.

## Secondary fuels

Fuels derived from natural primary sources of energy. For example electricity generated from burning coal, gas or oil is a secondary fuel, as are coke and coke oven gas.

## SI (Système International)

Refers to the agreed conventions for the measurement of physical quantities.

#### SIC

The United Kingdom Standard Industrial Classification of Economic Activities (SIC) is used to classify business establishments and other standard units by the type of economic activity in which they are engaged. It provides a framework for the collection, tabulation, presentation and analysis of data and its use promotes uniformity. In addition, it can be used for administrative purposes and by non-government bodies as a convenient way of classifying industrial activities into a common structure.

The system is identical to the EUROSTAT System NACE at the four digit class level and the United Nations system ISIC at the two digit Divisional level.

**SO<sub>2</sub>** Sulphur Dioxide. Sulphur dioxide is a gas produced by the combustion

of sulphur-containing fuels such as coal and oil.

SRO Scottish Renewable Orders

Steam coal Within this publication, steam coal is coal classified as such by UK coal

producers and by importers of coal. It tends to be coal having lower calorific values; the type of coal that is typically used for steam raising.

Synthetic coke oven

qas

Mainly a natural gas, which is mixed with smaller amounts of blast furnace, and BOS (basic oxygen steel furnace) gas to produce a gas

with almost the same quantities as coke oven gas.

Tars Viscous materials usually derived from the destructive distillation of

coal which are by-products of the coke and iron making processes.

Temperature correction

The temperature corrected series of total inland fuel consumption indicates what annual consumption might have been if the average temperature during the year had been the same as the average for the

years 1981 to 2010.

Terawatt (TW) 1,000 gigawatts

Therm A common unit of measurement similar to a tonne of oil equivalent

which enables different fuels to be compared and aggregated.

Thermal efficiency The thermal efficiency of a power station is the efficiency with which

heat energy contained in fuel is converted into electrical energy. It is calculated for fossil fuel burning stations by expressing electricity generated as a percentage of the total energy content of the fuel consumed (based on average gross calorific values). For nuclear stations it is calculated using the quantity of heat released as a result of

fission of the nuclear fuel inside the reactor.

Thermal sources of

electricity

These include coal, oil, natural gas, nuclear, landfill gas, sewage gas, municipal solid waste, farm waste, tyres, poultry litter, short rotation coppice, straw, coke oven gas, blast furnace gas, and waste products

from chemical processes.

Tonne of oil equivalent

(toe)

A common unit of measurement which enables different fuels to be

compared and aggregated

TWh Terawatt hour

UKCS United Kingdom Continental Shelf

UKPIA UK Petroleum Industry Association. The trade association for the UK

petroleum industry.

UKSA UK Statistics Authority

Ultra low sulphur Diesel (ULSD) A grade of diesel fuel which has a much lower sulphur content (less than 0.005 per cent or 50 parts per million) and of a slightly higher volatility than ordinary diesel fuels. As a result it produces fewer emissions when burned, and initially enjoyed a lower rate of hydrocarbon oil duty in the UK than ordinary diesel to promote its use, although duty rates on standard diesel and ULSD have since been equalised. Virtually 100 per cent of sales of DERV fuel in the UK are

ULSD.

Ultra low sulphur Petrol (ULSP)

A grade of motor spirit with a similar level of sulphur to ULSD (less than 0.005 per cent or 50 parts per million). ULSP initially enjoyed a lower rate of hydrocarbon oil duty in the UK than ordinary petrol to promote its use, although duty rates on standard petrol and ULSP have since been equalised. It has quickly replaced ordinary premium grade unleaded petrol in the UK market place.

**Upstream** 

A term to cover the activities related to the exploration, production and delivery to a terminal or other facility of oil or gas for export or onward shipment within the UK.

VAT

Value added tax

Watt (W)

The conventional unit to measure a rate of flow of energy. One watt amounts to 1 joule per second.

White spirit

A highly refined distillate with a boiling range of about 150°C to 200°C used as a paint solvent and for dry cleaning purposes etc.