



Department for
Business, Energy
& Industrial Strategy



UK ENERGY IN BRIEF 2016



July 2016

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UK ENERGY IN BRIEF 2016

This booklet summarises the latest statistics on energy production, consumption, prices and climate change in the United Kingdom. Figures are primarily taken from the 2016 edition of the “Digest of UK Energy Statistics”, published on 28 July 2016. Details of the Digest and other Department for Business, Energy and Industrial Strategy (BEIS) statistical publications on energy and climate change can be found on pages 43 and 44 of this booklet and are available on the Internet at:

www.gov.uk/government/organisations/department-for-business-energy-and-industrial-strategy

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INTRODUCTION TO THE CHARTS AND TABLES

UK Energy in Brief aims to provide a summary of some of the key developments in the UK energy system: how energy is produced and used and the way in which energy use influences greenhouse gas emissions. It takes data from the main Department for Business, Energy and Industrial Strategy (BEIS) energy and climate change statistical publications, the Digest of UK Energy Statistics, Energy Trends, Energy Prices, Energy Consumption in the UK, the annual Fuel Poverty statistics report and statistical releases on emissions, and combines these with data produced by the Office for National Statistics and other Government Departments.

The booklet contains separate sections on the economics of the energy industry, overall energy production and consumption and trends in production and consumption of the major fuel sources, climate change and fuel poverty. Also discussed are developments in combined heat and power, renewable energy and feed in tariffs. Information is also given on energy efficiency, energy prices and energy expenditure.

The detailed background data on energy production and consumption can be found in the Digest of UK Energy Statistics 2016 available on the Internet at:

www.gov.uk/government/collections/digest-of-uk-energy-statistics-dukes

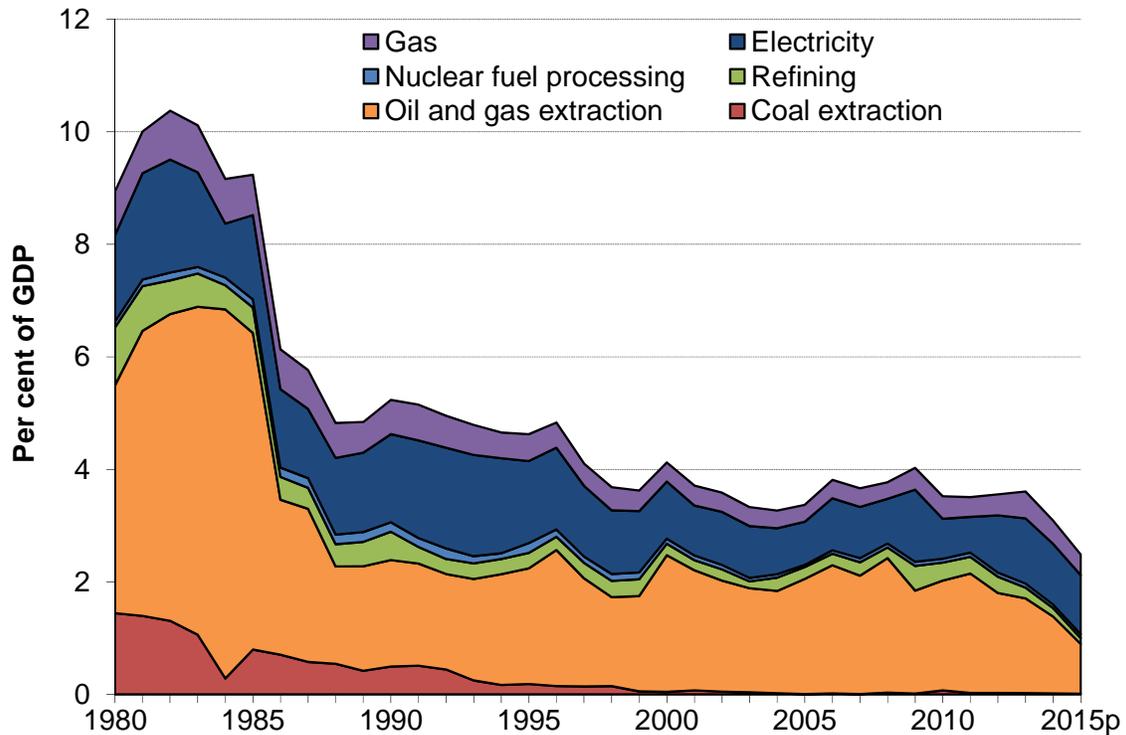
Other statistical outputs produced by BEIS and drawn on in this publication are listed on pages 43 and 44.

ENERGY IN THE ECONOMY

THE ENERGY INDUSTRIES' CONTRIBUTION TO THE UK ECONOMY IN 2015

- 2.5% of GDP
- 11.9% of total investment in 2015
- 35.4% of industrial investment in 2015
- 2.6% of annual business expenditure on research and development in 2014
- 159,000 people directly employed in 2015 (5.6% of industrial employment) and more indirectly e.g. an estimated 160,000 in support of UK Continental Shelf production.

Contribution to GDP by the energy industries, 1980 to 2015

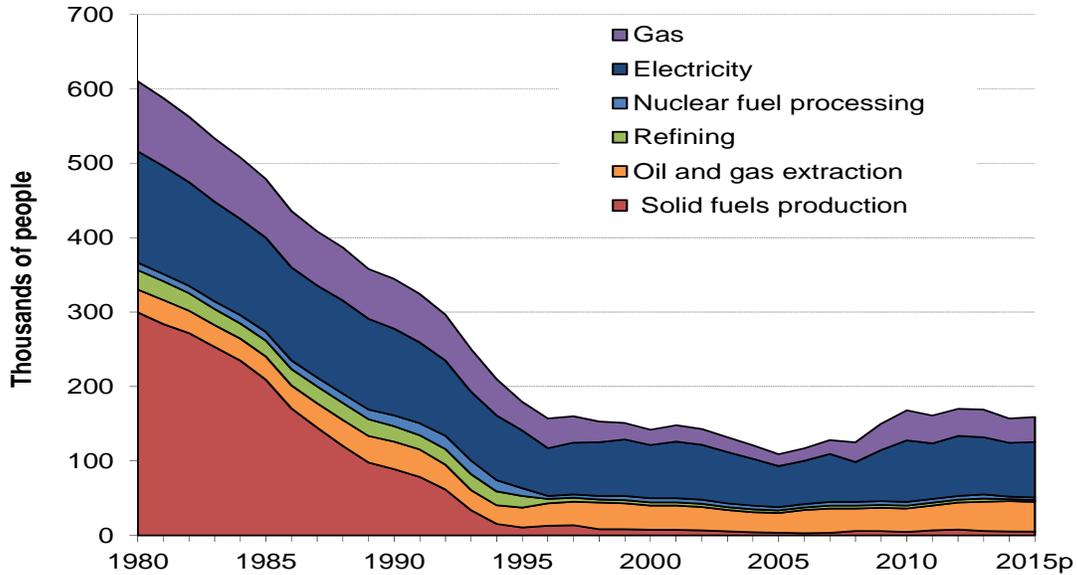


Source: Office for National Statistics

The contribution to the UK economy by the energy industries peaked in 1982 at 10.4%. Despite its significant fall in 1986, oil and gas extraction has been the major energy contributor to the UK economy (with its value dependent both on production and the price of oil and gas). Though oil production increased in 2015, a large fall in prices led to the contribution from the oil and gas sector falling below that of the electricity sector. For 2015, the contribution by the energy industries to the UK economy was 2.5% of GDP (0.6 percentage points lower than in the previous year and the lowest level to date) with oil and gas extraction accounting for 28% (down 10 percentage points), electricity (including renewables) 42% (up 7 percentage points) and gas 15% of the energy total.

ENERGY IN THE ECONOMY

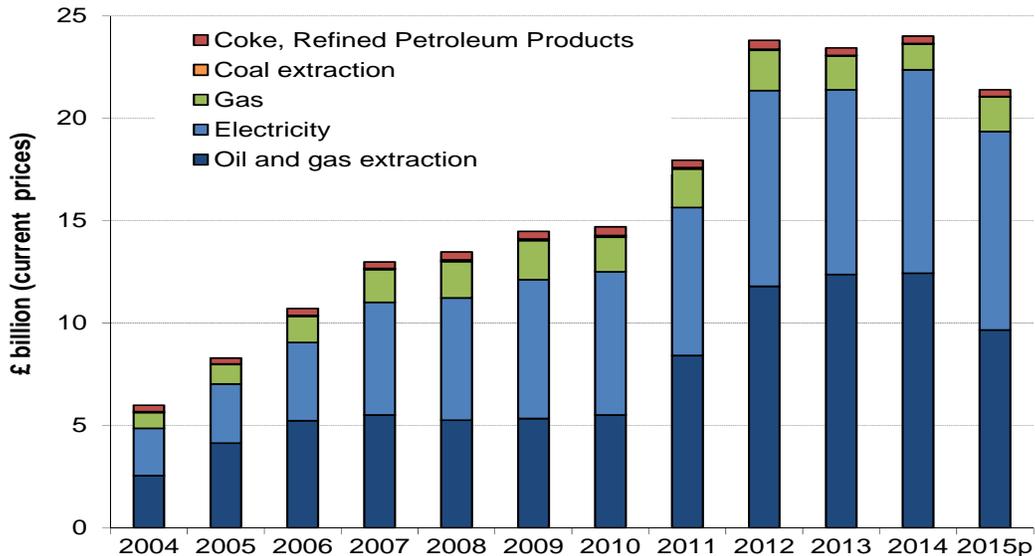
Trends in employment in the energy industries, 1980 to 2015



Source: Office for National Statistics (Data from 1996 onwards based on SIC 2007 classifications)

Employment in the energy production and supply industries fell rapidly throughout the 1980s and mid-1990s largely as a result of closures of coal mines. Between 1995 and mid-2000s employment declined more slowly, but since 2005, it has increased gradually, driven by growth in the electricity sector. In 2015, employment in the energy industries rose by 1.3% to 159,000 (44% above the 2005 level) and accounted for 5.6% of all industrial employment.

Investment in the energy industries, 2004 to 2015

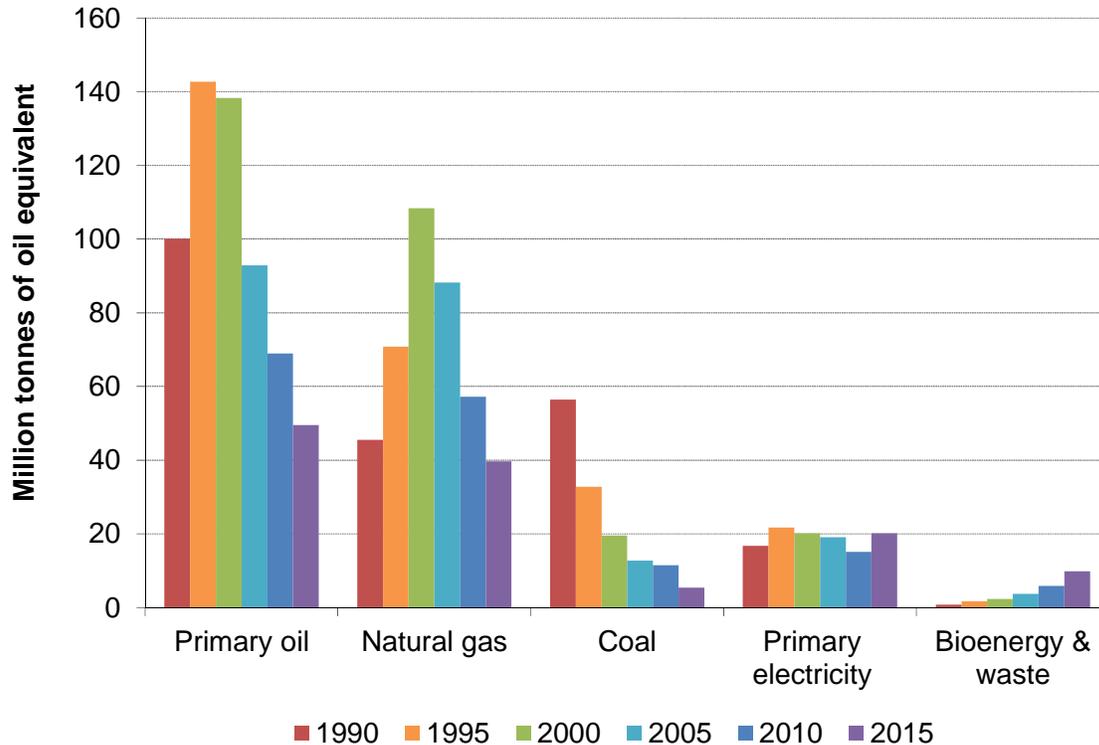


Source: Office for National Statistics

Since 2004, investment in the energy industries has continued to grow, specifically in the electricity sector and over the past few years in the oil and gas sector. However in 2015, investment in the energy industry fell 11% on the previous year to £21.4 billion (at current prices), of which 45% was in oil and gas extraction, 45% in electricity, 8% in gas, with the remaining in coal extraction, and coke & refined petroleum products industries.

OVERALL ENERGY

Production of primary fuels, 1990 to 2015



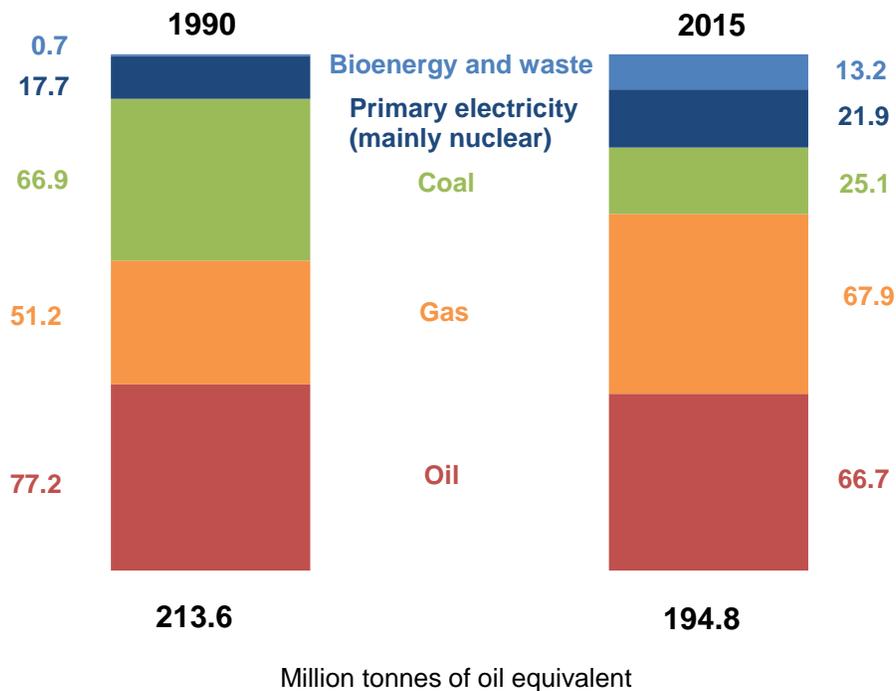
	Million tonnes of oil equivalent				
	1990	2000	2010	2014	2015
Primary oil	100.1	138.3	69.0	43.7	49.5
Natural gas	45.5	108.4	57.2	36.8	39.6
Coal	56.4	19.6	11.4	7.3	5.4
Primary electricity	16.7	20.2	15.1	17.5	20.1
Bioenergy & waste	0.7	2.3	5.9	8.3	9.9
Total	219.4	288.7	158.6	113.6	124.5

Total production of primary fuels, when expressed in terms of their energy content, rose by 9.6% in 2015 compared to 2014. The rise, the first since 1999, was mainly due to increases in oil and gas production, due to the opening of new fields and less maintenance activity. There was also growth from bioenergy and waste, and primary electricity within which both nuclear and wind output grew. Coal production fell to a record low level in 2015 due to a number of mines closing. Primary oil (crude oil and Natural Gas Liquids) accounted for 40% of total production, natural gas 32%, primary electricity (consisting of nuclear, wind and natural flow hydro) 16%, bioenergy and waste 8%, while coal accounted for the remaining 4%.

Total production increased rapidly between 1980 and 2000, mainly due to the growth of oil and gas. Production in 2000 was at record levels for natural gas, whilst in 1999 it was at record levels for overall energy and petroleum. Production has since been on a general decline as a number of oil and gas fields become exhausted and also due to increased maintenance activity. Production is now 58% lower than its peak in 1999. Since 2000, oil and gas production together have fallen by an average of 6.6% per year.

OVERALL ENERGY

Inland energy consumption, 1990 to 2015



	Million tonnes of oil equivalent				
	1990	2000	2010	2014	2015
Total inland primary energy consumption¹:	213.6	234.8	219.4	193.9	194.8
Conversion losses:		53.8	50.2	44.0	41.2
Distribution losses and energy industry use:	66.4	20.7	17.9	15.1	15.6
Total final energy consumption:	147.3	159.4	150.6	135.1	137.4
Final consumption of which:					
Industry	38.7	35.5	26.1	23.7	23.6
Domestic sector	40.8	46.9	49.3	38.2	39.6
Transport	48.6	55.5	54.7	54.1	54.8
Services²	19.2	21.5	20.6	19.1	19.4
Temperature corrected total inland consumption:	221.6	240.2	213.4	199.2	197.6

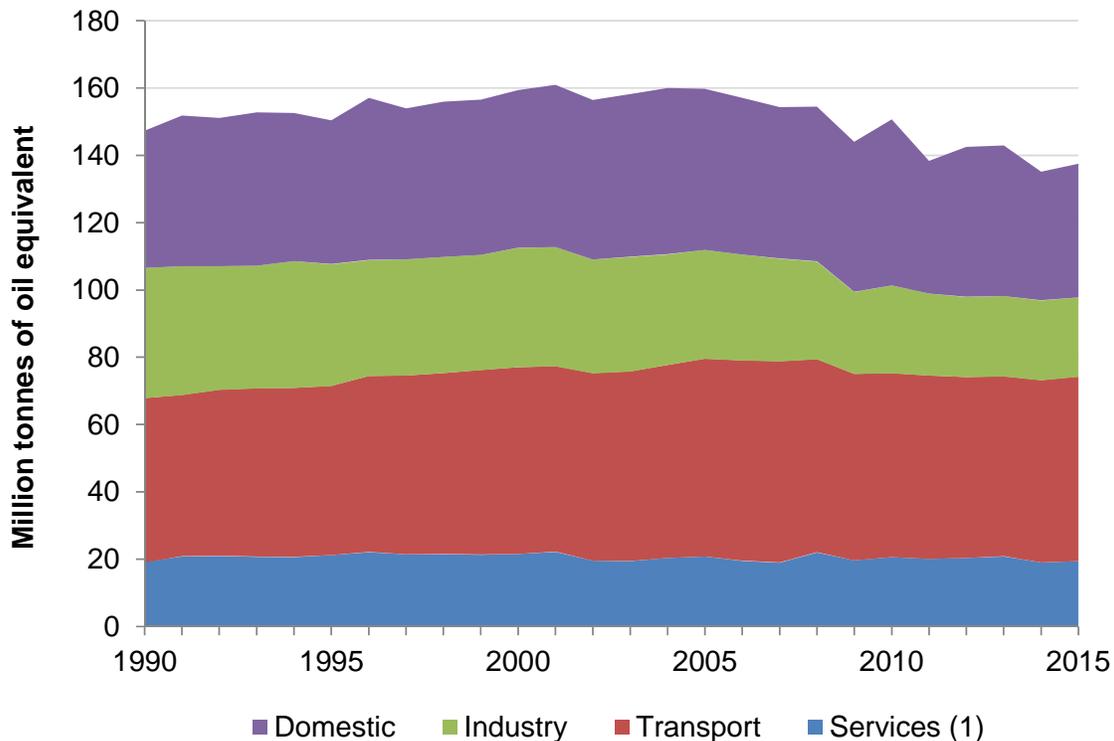
(1) Excludes non-energy use

(2) Includes agriculture

Primary energy consumption was 0.4% higher in 2015 than in 2014. The average temperature was 0.6 degrees Celsius per day cooler in 2015 than 2014. On a temperature corrected basis, primary energy consumption was 0.8% lower than in 2014, continuing the general fall seen since 2005. In the last 30 years or so, consumption of natural gas and primary electricity has risen considerably, whilst consumption of oil and coal have fallen. However over the past decade or so, consumption of bioenergy and waste has also grown.

OVERALL ENERGY

Final energy consumption, 1990 to 2015



2015	Million tonnes of oil equivalent				
	Industry	Domestic	Transport	Services¹	Total
Coal & manufactured fuels	1.8	0.6	0.0	0.0	2.4
Gas	8.1	25.1	-	8.4	41.7
Oil	3.9	2.5	53.4	1.6	61.4
Electricity	7.9	9.3	0.4	8.4	26.0
Bioenergy and heat	1.8	2.1	1.0	0.9	5.8
Total	23.6	39.6	54.8	19.4	137.4

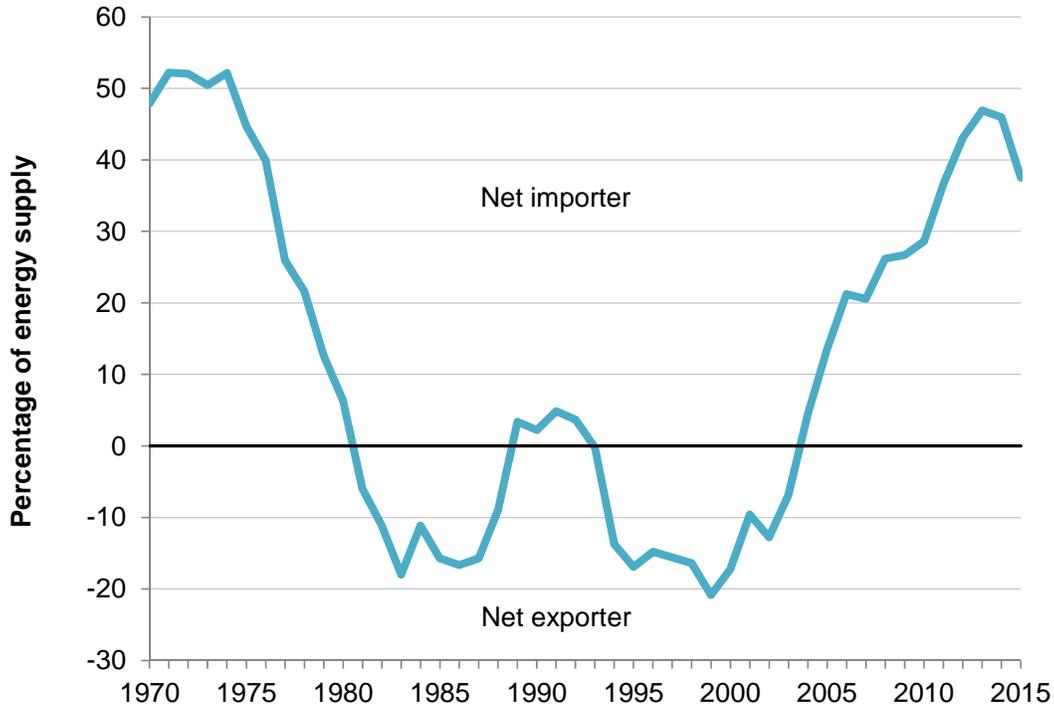
(1) Includes agriculture

Total final energy consumption (excluding non-energy use) was 1.7% higher in 2015 compared to 2014. It rose by 3.6% in the domestic sector, 1.8% in the service sector and 1.3% in the transport sector, but fell by 0.5% in the industry sector. The rises in the domestic and service sectors were due to increased demand for heat reflecting the cooler weather in 2015. Overall final energy consumption, when adjusted for temperature, was up marginally by 0.1%, in 2015.

In terms of fuel types, final consumption of gas, the main fuel used for heating, rose by 4%. Oil use rose slightly, with a small increase in fuel used for transport. Electricity consumption was broadly unchanged, however there was increased use of bioenergy in all sectors except transport.

OVERALL ENERGY

Import dependency, 1970 to 2015



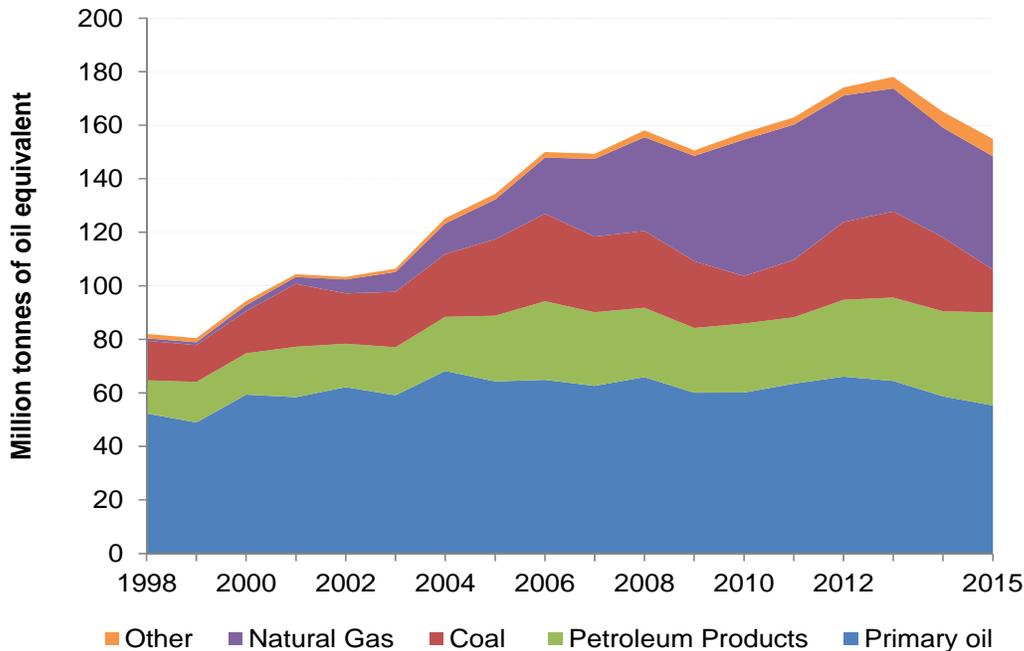
	Percentage					
	2000	2010	2012	2013	2014	2015
Coal	39%	52%	70%	82%	87%	63%
Gas	-11%	38%	47%	50%	45%	42%
Oil	-55%	14%	37%	40%	42%	36%
Total	-17%	29%	43%	47%	46%	38%

In the 1970's the UK was a net importer of energy. Following development of oil and gas production in the North Sea, the UK became a net exporter of energy in 1981. Output fell back in the late 1980's following the Piper Alpha disaster, with the UK regaining a position as a net exporter in the mid 1990's. North Sea production peaked in 1999, and the UK returned to being an energy importer in 2004. In 2013, imports of petroleum products exceeded exports following the closure of the Coryton refinery; the UK is now a net importer of all main fuel types though remains a net exporter of some products such as petrol and fuel oil. In 2015, 38% of energy used in the UK was imported, down sharply from the 2014 level, due to the increase in indigenous oil and gas output.

Latest comparable data from Eurostat, for 2014, show that the UK had the twelfth lowest level of import dependency in the EU. All EU countries are now net importers of energy.

OVERALL ENERGY

Key sources of imports, 1998 to 2015



Since 1999, when UK energy production peaked, there has been a sharp rise in imports. Over this period imports doubled though have since fallen back in the last two years. In 2011 imports exceeded UK production; though as the UK still exports large volumes; net imports still remain below production levels. By fuel type the largest growth in the past 10 years has come from gas imports, though there have been increases from most fuels.

In 2015, imports fell by 6% reflecting the overall reduction in demand. There was an increase in imports of gas and biofuels, which were generally used in generation, and petroleum products to offset the reduction in UK refinery capacity. These though were more than offset with decreases in imports of coal and crude oil.

Imports are sourced from a wide variety of countries.

Coal: Russia remained the leading source accounting for 38% in 2015, followed by Colombia 29% and the USA 22%. The vast majority of coal imported was steam coal which accounted for an 80% share, mainly for electricity generation.

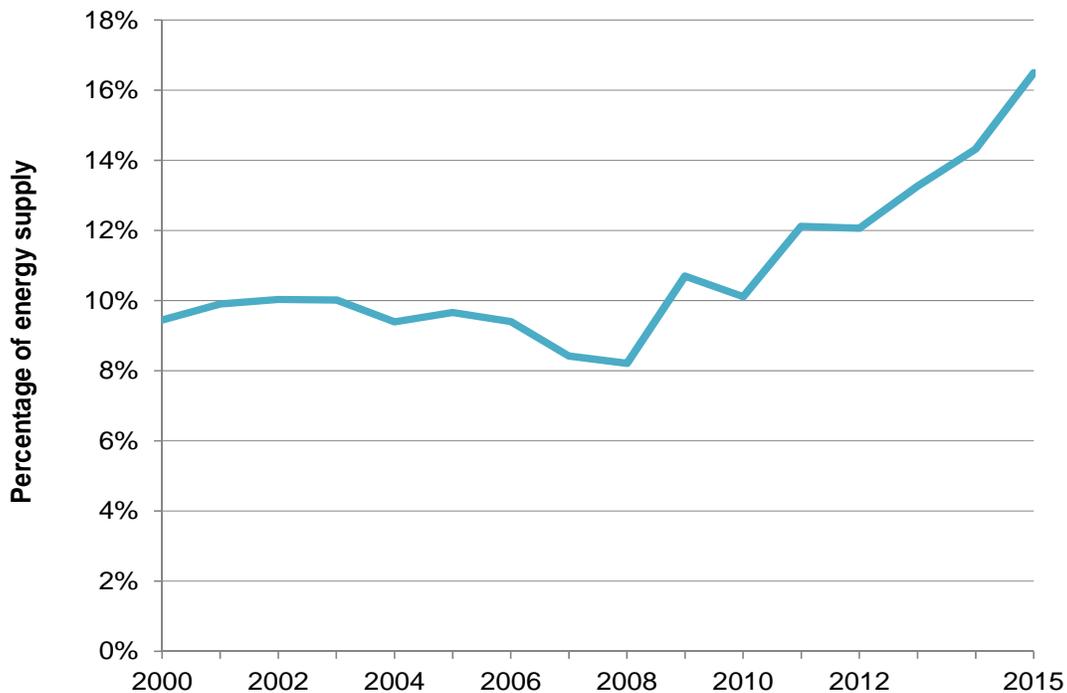
Crude oil: The key source of imports is Norway, which in 2015 accounted for 50%, with OPEC countries supplying a further 39%.

Petroleum products: The UK imports a wide variety of petroleum products, though remains a net exporter of certain fuels including petrol. Traditionally, the Netherlands has been the largest source of imports, which acts as a major trading hub. However, Russia is now the largest supplier of transport fuels, in particular diesel. Aviation Turbine fuel is generally sourced from Asia.

Gas: Norway accounted for 61% of UK gas imports in 2015, with pipelines from Netherlands and Belgium supplying 7% and just under 1/2% respectively. The remaining 31% arrived as Liquefied Natural Gas (LNG), of which 92% was from Qatar.

OVERALL ENERGY

Proportion of UK energy supplied from low carbon sources, 2000 to 2015



	Percentage					
	2000	2010	2012	2013	2014	2015
Nuclear	8.4%	6.3%	7.3%	7.5%	7.1%	7.9%
Wind	0.0%	0.4%	0.8%	1.2%	1.4%	1.8%
Hydro	0.2%	0.1%	0.2%	0.2%	0.3%	0.3%
Bioenergy	0.9%	2.6%	3.1%	3.7%	4.6%	5.5%
Transport fuels	0.0%	0.6%	0.5%	0.5%	0.6%	0.5%
Other	0.0%	0.0%	0.1%	0.2%	0.3%	0.4%
Total	9.4%	10.1%	12.1%	13.3%	14.3%	16.5%

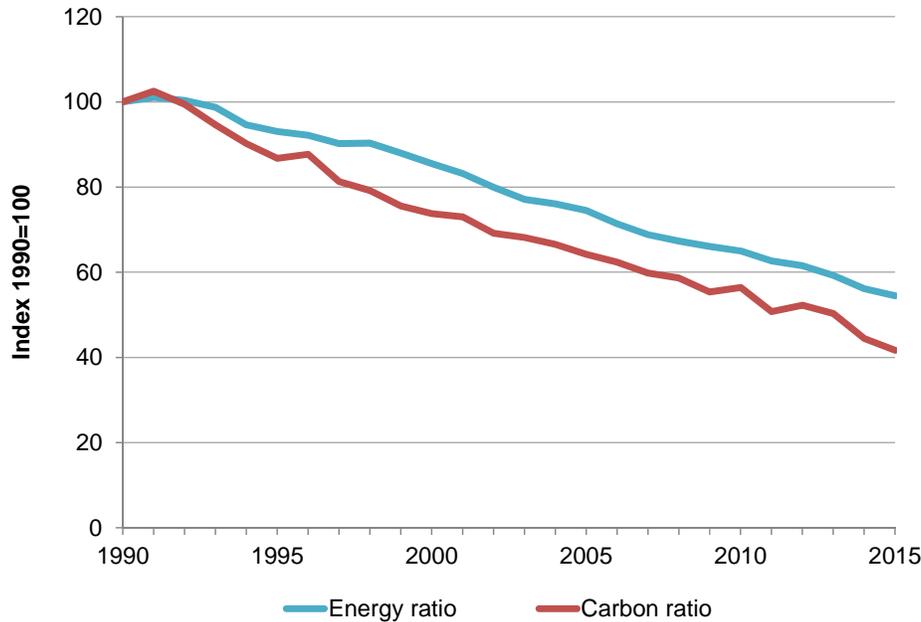
In 2015 the UK obtained 16.5% of its primary energy from low carbon sources, with 48% of this from nuclear power. The second largest component of low carbon was bioenergy, accounting for 34% of the total low carbon energy sources.

The supply of nuclear rose by 11.8% in 2015, due to increased output following outages towards the end of 2014. Energy from biofuels was up by 21% with increased demand from generation.

Energy supply from wind increased by 21% on 2014 with generation up by 30% for offshore and 23% for onshore. These increases were due to increased capacity, which were up by 13% for offshore and 7% for onshore, and average wind speeds of 9.3 knots, being 0.6 knots higher than in 2014.

OVERALL ENERGY

Energy and carbon ratios, 1990 to 2015



	Index 1990=100				
	1990	2000	2010	2014	2015
Primary energy consumption*	100	108.4	96.3	89.7	89.2
Carbon dioxide emissions	100	93.5	83.6	71.2	68.3
GDP	100	126.7	148.2	160.1	163.7
Energy ratio	100	85.6	65.0	56.1	54.4
Carbon ratio	100	73.8	56.4	44.4	41.7

* Temperature corrected primary energy consumption.

The energy ratio is calculated by dividing temperature corrected primary energy consumption by GDP at constant prices, with the carbon ratio similarly calculated by dividing carbon dioxide emissions by GDP. Both ratios have fallen steadily, with the energy ratio declining by around 2½% per year, and the carbon ratio declining at a faster pace of around 3½% per year.

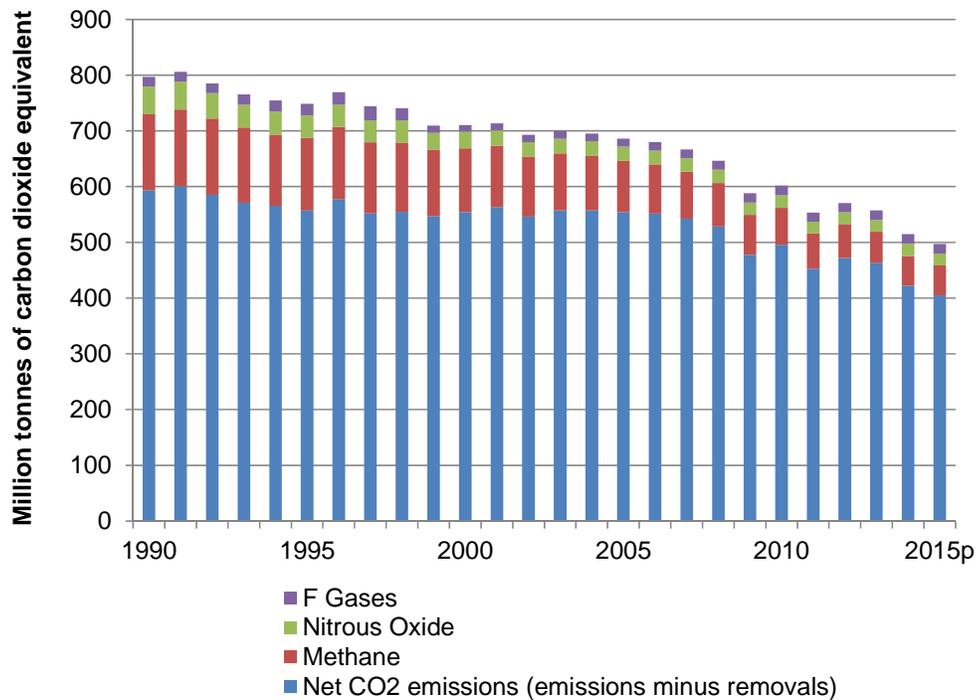
The downward trends are due to a number of factors, with improvements in energy efficiency and the decline in the relative importance of energy intensive industries affecting both ratios. The carbon ratio has been improved further by the increased use of more carbon efficient fuels and renewables.

The sharp downward ticks in the carbon ratio in both 2011 and 2014 are due, in the main, to temperatures, with energy consumption decreasing in response to the warmer weather.

Latest International Energy Agency data shows that the energy ratio is falling in all G8 countries. The UK is estimated to have the lowest energy ratio in the G8 (chart 5.7 of UK Energy Sector Indicators www.gov.uk/government/statistics/uk-energy-sector-indicators-2015).

CLIMATE CHANGE

Greenhouse gas emissions by gas, 1990 to 2015



	Million tonnes of carbon dioxide equivalent					
	1990	1995	2000	2005	2010	2015p
Carbon dioxide (net emissions)	592.8	557.1	554.3	554.1	495.8	404.7
Methane	137.0	130.4	114.4	92.1	66.2	53.5
Nitrous oxide	49.4	40.0	29.6	25.6	22.5	21.9
HFC	14.4	19.1	9.8	13.1	16.6	16.3
PFC	1.7	0.6	0.6	0.4	0.3	0.3
SF ₆	1.3	1.3	1.8	1.1	0.7	0.5
NF ₃	0.0	0.0	0.0	0.0	0.0	0.0
Total Greenhouse gas emissions	796.6	748.5	710.6	686.3	602.1	497.2

Source: Ricardo Energy and Environment, BEIS (2015 provisional figures)

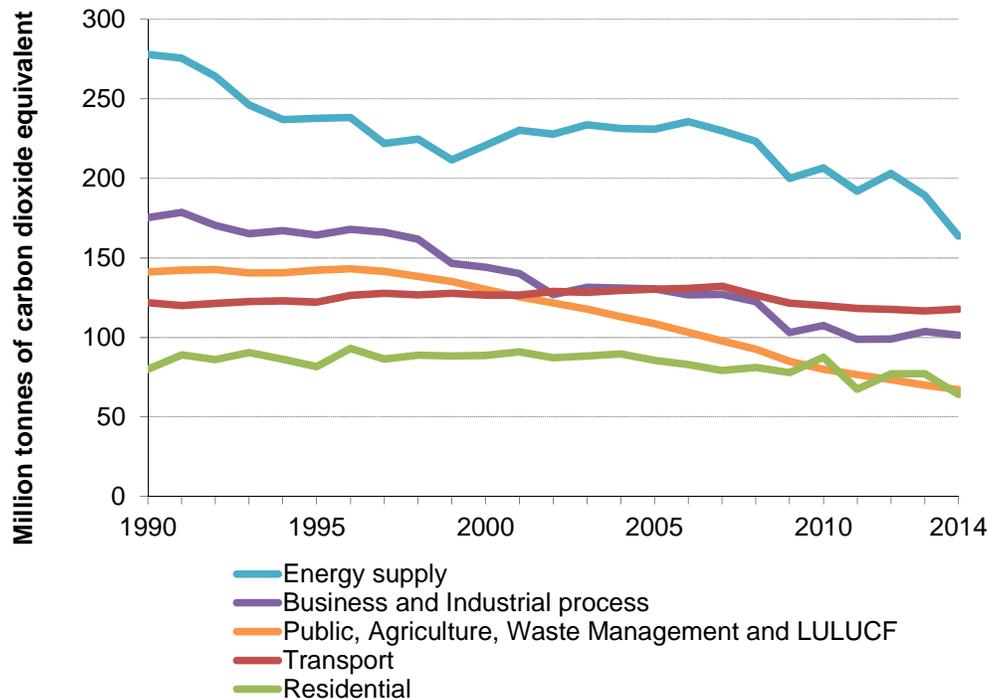
All figures are for the UK only and exclude Crown Dependencies and Overseas Territories

In 2015, UK emissions were provisionally estimated to be 497.2 million tonnes of carbon dioxide equivalent. This was 3.4% lower than the 2014 figure of 514.4 million tonnes and 38% lower than the 1990 figure of 796.6 million tonnes. Carbon dioxide emissions, which are primarily created when fossil fuels are burned, were estimated to account for about 81% of total UK anthropogenic greenhouse gas emissions in 2015. Estimates based on energy production and consumption in 2015 indicate that carbon dioxide emissions were 4.1% lower than the previous year and 32% lower than in 1990.

The decrease in emissions since 2014 can largely be attributed to a change in the fuel mix for electricity generation, with less use of coal and more use of nuclear and renewables.

CLIMATE CHANGE

Greenhouse gas emissions by National Communication sector, 1990 to 2014



Million tonnes of carbon dioxide equivalent

	1990	1995	2000	2005	2010	2014
Energy supply	277.9	237.9	220.9	231.0	206.7	163.8
Residential	80.1	81.7	88.7	85.7	87.6	64.2
Public, Agriculture, Waste Management and LULUCF	141.3	142.3	130.3	108.7	80.1	67.1
Business and Industrial process	175.5	164.4	144.1	130.5	107.6	101.5
Transport	121.9	122.2	126.7	130.4	120.1	117.9
Total greenhouse gas emissions	796.6	748.5	710.6	686.3	602.1	514.4

Source: Ricardo Energy and Environment, BEIS (2014 final figures)

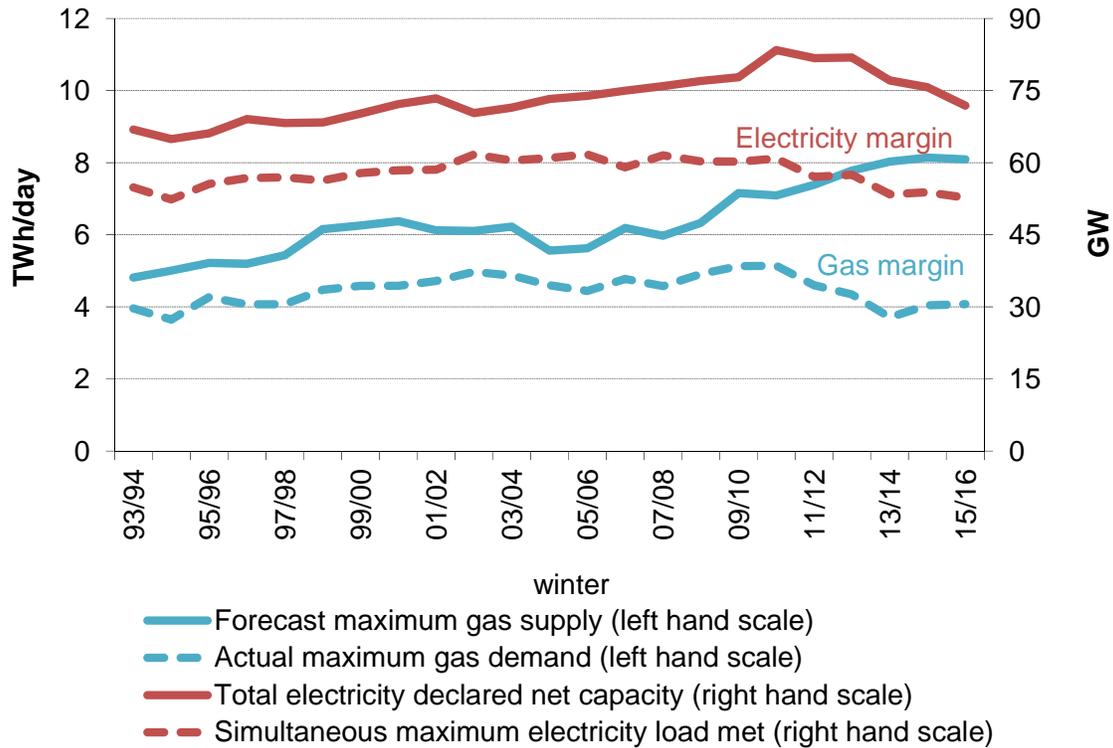
LULUCF – land use, land use change and forestry

All figures are for the UK only and exclude Crown Dependencies and Overseas Territories

In 2014, UK greenhouse gas (GHG) emissions were estimated to be 514.4 million tonnes of carbon dioxide equivalent (MtCO₂e), 35% lower than in 1990. The energy supply sector, was the largest single source of GHG emissions in 2014, accounting for 32% of total emissions. Between 1990 and 2014, emissions from this sector decreased by 41%. In 2014 GHG emissions from the transport sector accounted for 23% of emissions, compared to 15% in 1990. Emissions from the residential sector accounted for around 12% of emissions in 2014; and since 1990 emissions from this sector have decreased by 20%.

SECURITY OF SUPPLY

Reliability – gas and electricity capacity margins – maximum supply and maximum demand 1993/94 to 2015/16



Source: National Grid and BEIS

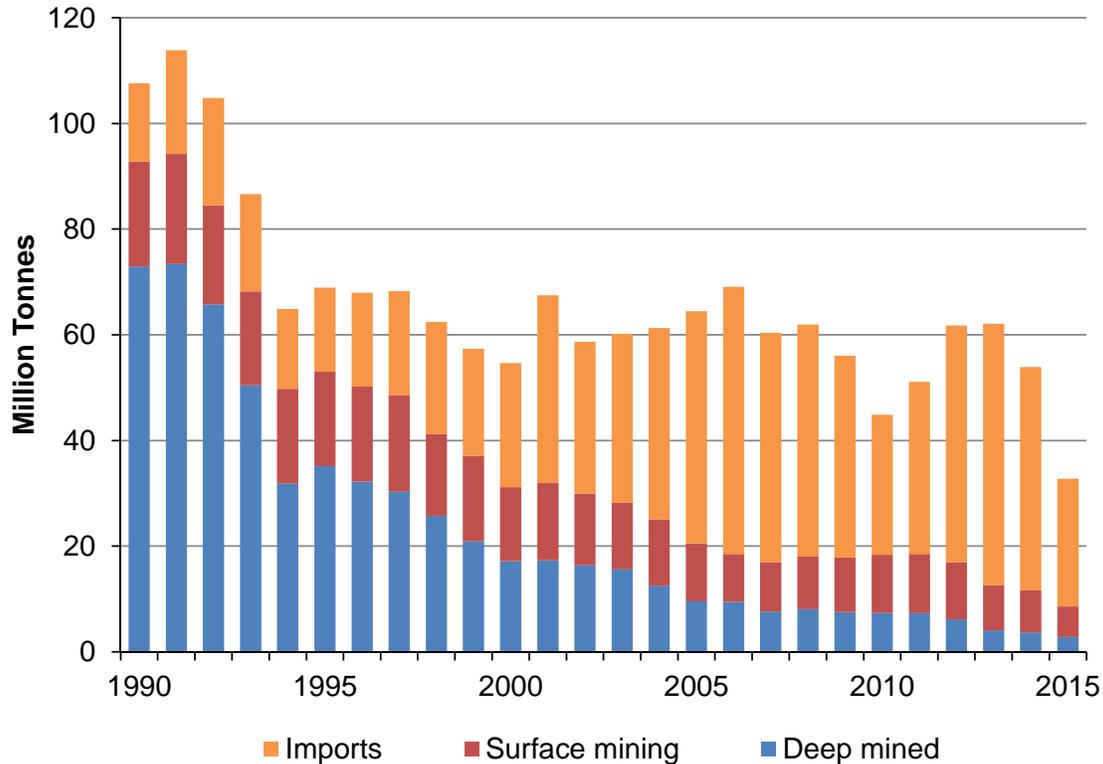
Whilst energy security is complex to measure, and subsequent charts on individual fuels provide fuller insight, this chart aims to provide a view on it, by looking at the difference between maximum supply and demand for gas and electricity.

Since 2007/08, the electricity capacity margin has mainly increased year on year due to both a decrease in peak demand and an increase in capacity. However, in 2014/15, a slight increase in demand and fall in capacity due to plant closures and conversions resulted in the capacity margin falling to 41%. Despite a reduction in demand in 2015/16, further plant closures and conversions led to a drop in capacity margin to 36%, the lowest since 2009/10.

Between 2008/09 and 2014/15, the gas capacity margin increased year on year, with the increases due to both increased supply and reduced demand. However, in 2015/16 the gas capacity margin slightly narrowed with demand rising due to an increase in domestic use throughout 2015, and a switch from coal to gas for power generation in the first quarter of 2016.

COAL

Coal production and imports, 1990 to 2015



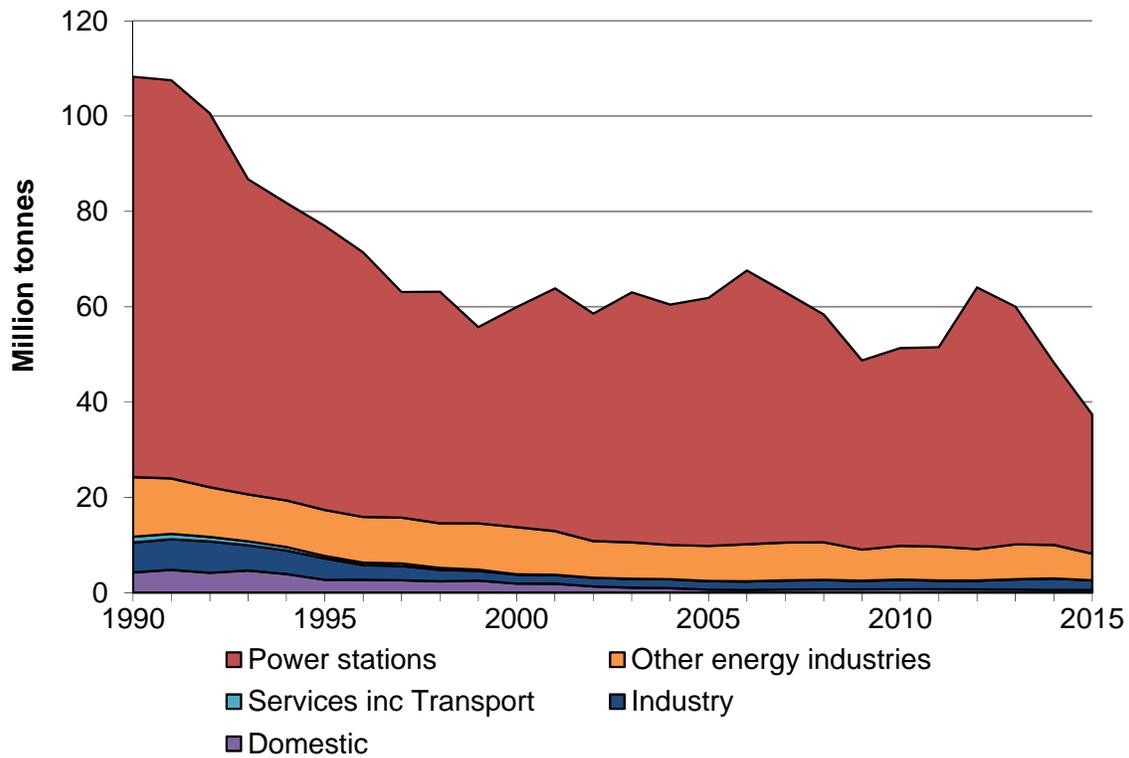
	Million tonnes				
	1990	2000	2010	2014	2015
Deep mined	72.9	17.2	7.4	3.7	2.8
Surface mining (including slurry)	19.9	14.0	11.0	8.0	5.8
Total	92.8	31.2	18.4	11.6	8.6
Coal imports	14.8	23.4	26.5	42.2	24.2

In 2015 UK coal production fell to an all-time low of 9 million tonnes, 26% lower than in 2014. Deep mined production fell by 24%, mainly due to the closure of Hatfield and Thoresby in July 2015. In addition, Kellingley, the largest operational deep mine, closed in mid-December 2015. Surface mine production decreased by 27% mainly due to the closure of a number of mines in 2015 and some other mines producing less coal as they near the end of operation.

Imports started in 1970, and grew steadily. In 2001 imports exceeded the level of UK production for the first time. As annual levels of UK coal production continued to fall, imports continued to grow and in 2006 reached a new record of 51 million tonnes. From this point on, imports fell, mainly as a result of less demand by electricity generators. However, in the three years from 2011, imports rose again due to a greater demand by electricity generators and in 2013 stood at 49 million tonnes, just below the 2006 record. In the last two years imports have fallen again due to lower generation demand and in 2015 were at 24 million tonnes, a fifteen year low.

COAL

Coal consumption, 1990 to 2015

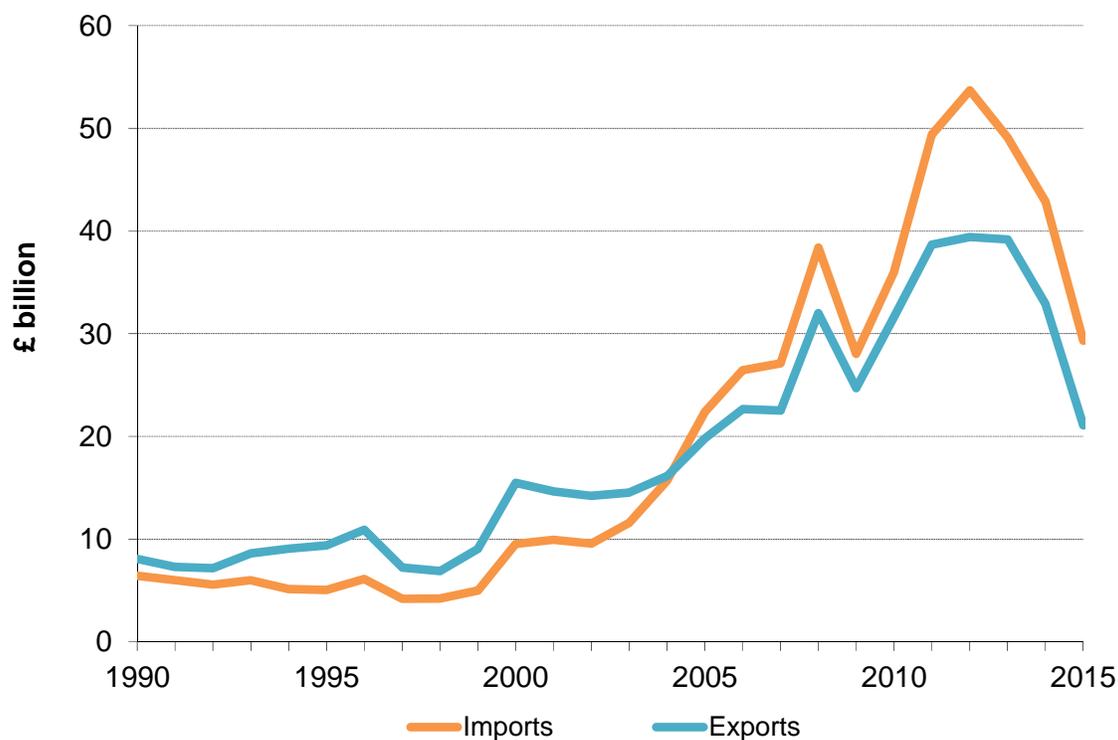


	Million tonnes				
	1990	2000	2010	2014	2015
Power stations	84.0	46.2	41.5	38.2	29.2
Domestic	4.2	1.9	0.7	0.5	0.6
Industry	6.3	1.9	2.0	2.4	2.0
Services	1.2	0.08	0.06	0.05	0.03
Other energy industries	12.5	9.8	7.1	7.0	5.6
Total consumption	108.3	59.9	51.4	48.2	37.4

In 1990 coal generation was 84 million tonnes and fell steadily after 1991 until 1999. After rising to an 11 year high in 2006 (57 million tonnes), coal used by generators gradually fell between 2007 and 2011 before increasing again in 2012 due to high gas prices, which allowed coal fired stations to generate electricity at a lower cost than some gas fired stations. Coal use in electricity generation has fallen since 2012, due to an overall decline in coal power station capacity. In 2015 coal use in electricity generation fell to a record low of 29 million tonnes, notably due to the conversion of a third unit at Drax from coal to high-range co-firing (85% to <100% biomass) in July 2015, and an increase in the carbon price floor (from April 2015). In 2015 coal use in electricity generation accounted for 78% of total coal demand.

PETROLEUM

Foreign trade in crude oil and petroleum products, 1990 to 2015



Crude oil and petroleum products	£ billion				
	1990	2000	2010	2014	2015
Exports	8.1	15.5	31.6	32.9	21.1
Imports	6.4	9.5	36.0	42.9	29.3
Net Imports	-1.6	-5.9	4.4	10.0	8.3

Source: Office for National Statistics

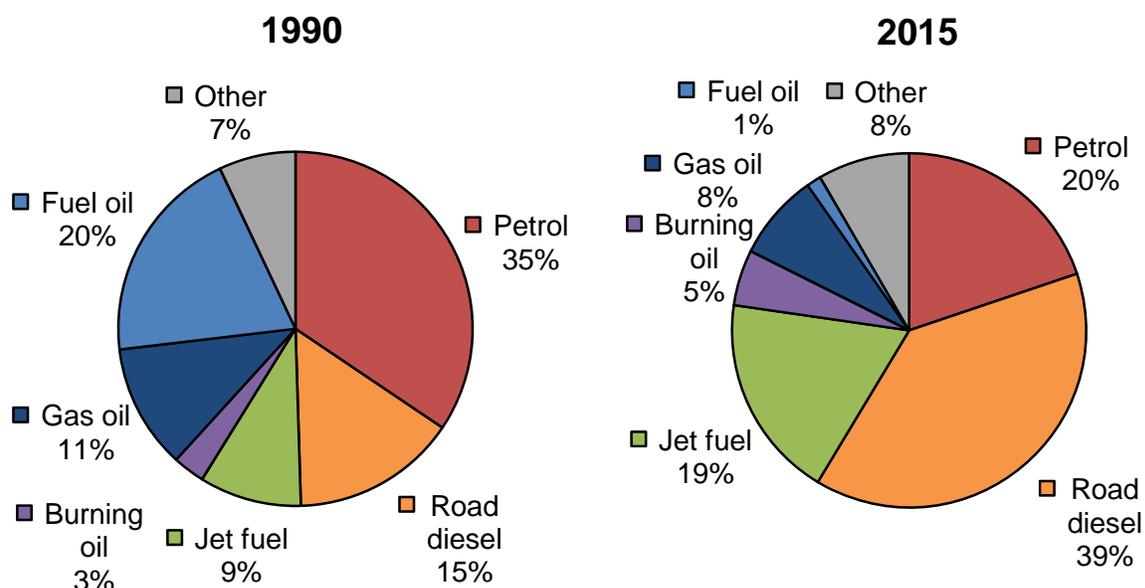
Crude oil and petroleum products	Million tonnes of oil equivalent				
	1990	2000	2010	2014	2015
Exports	80.4	123.9	74.4	58.6	61.9
Imports	69.2	74.8	85.9	90.5	90.1
Net Imports	-11.2	-49.1	11.5	31.9	28.2

Source: BEIS

Between 1980 and 2004, a surplus in trade led to oil contributing more than £90 billion to the UK balance of payments. The largest surplus of £8 billion in 1985 reflected high crude oil production and prices. In 1990 the surplus fell from its peak due to lower prices but managed to peak again in 2000 at £5.9 billion. However in 2005, the UK became a net importer of oil with a deficit of £2.6 billion, though still an exporter of oil products. Between 2005 and 2015 the cumulative deficit amounted to over £78 billion. Following the peak in 2012, the deficit has steadily declined and in 2015 was £8.3 billion, down 17% on a year earlier due to lower crude oil prices.

PETROLEUM

Demand by Product, 1990 to 2015



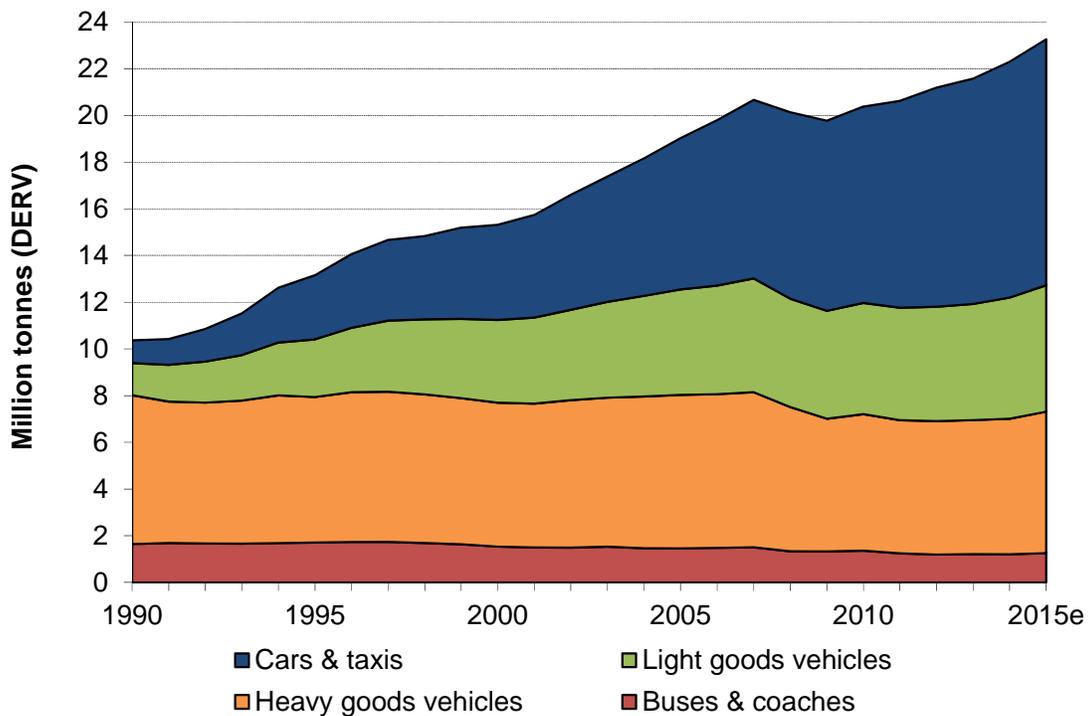
	Million tonnes				
	1990	2000	2010	2014	2015
Energy uses*					
Petrol	24.3	21.4	14.6	12.3	12.1
Road diesel	10.7	15.6	20.7	22.7	23.7
Jet fuel	6.6	10.8	11.1	11.2	11.4
Burning oil	2.1	3.8	4.0	3.2	3.1
Gas oil	8.0	6.8	5.1	4.8	4.8
Fuel oil	14.0	3.3	1.9	0.6	0.8
Other	5.0	5.3	6.1	5.1	5.1
Total energy uses	70.6	67.1	63.6	59.9	61.0
Of which:					
Transport fuels	43.5	49.5	48.1	47.6	48.4
Industry	7.2	5.5	5.1	3.8	3.6
Refinery fuel use	5.1	5.3	4.4	3.2	3.4
Non-energy uses	9.2	10.1	7.1	5.8	6.8
Total demand	79.8	77.2	70.7	65.8	67.8

* Energy uses includes uses for transformation (e.g. electricity generation) and energy industry own use (e.g. refinery fuels)

Demand for oil products has declined since 1990 and the mix of products consumed has changed dramatically. Transport now represents nearly 80% of energy use of oil products, a substantially larger share than in 1990 as the use of fuel oil for electricity generation has declined and air travel has become more common. Although the total of diesel and petrol sales are broadly similar to what they were in 1990, the split between them now has switched sharply away from petrol use to more diesel being consumed.

PETROLEUM

Demand for road fuels, 1990 to 2015



Total deliveries of diesel road fuel (DERV) have more than doubled since the early 1990s and have increased further this year. The long term trend is mainly caused by the increased use of DERV in cars, taxis and light goods vehicles.

Demand for DERV by Vehicle Type	Thousand tonnes				
	1990	2000	2010	2014	2015*
Car & taxi	976	4,076	8,409	10,100	10,537
Light goods vehicles	1,375	3,544	4,763	5,189	5,413
Heavy goods vehicles	6,374	6,161	5,851	5,807	6,057
Buses & coaches	1,642	1,533	1,357	1,202	1,254
Total	10,650	15,632	20,740	22,680	23,660

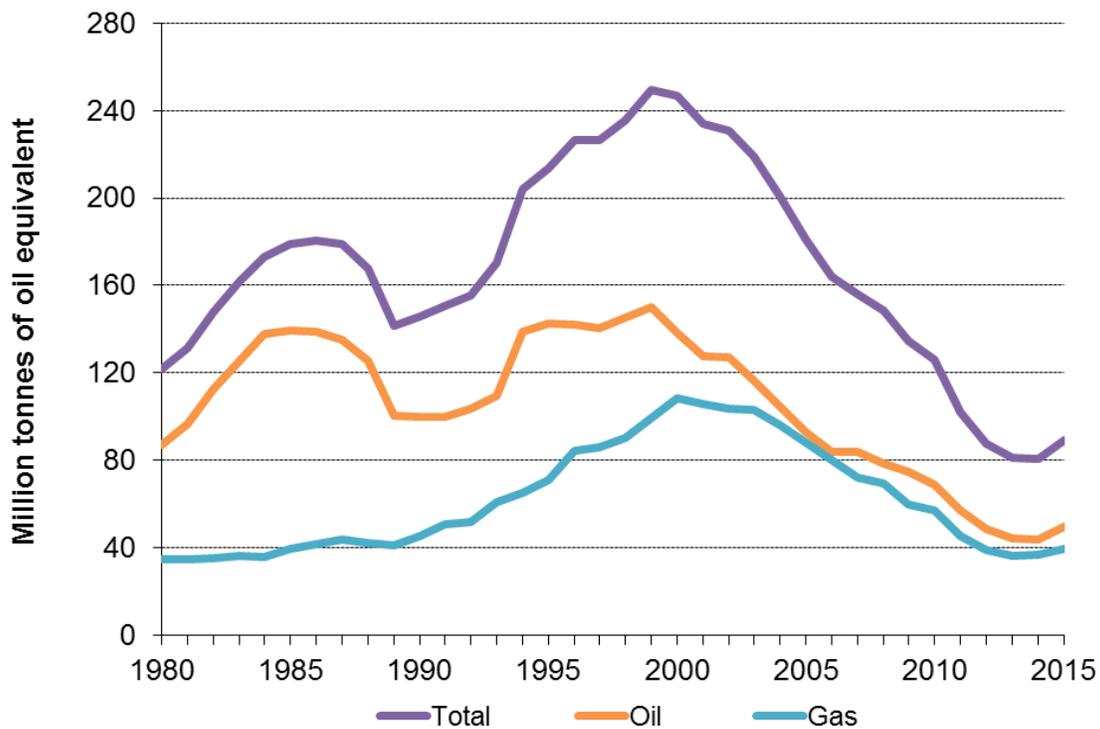
(*2015 estimated. Figures are derived from Ricardo-AEA modelling. Total includes off-road use of DERV and all figures refer to hydrocarbon fuel only.)

Demand for petrol decreased further in 2015 as diesel fuel continued to displace petrol in road transport. Despite the increasing dieselisation of the car fleet, petrol consumption by cars and taxis, at around 12 million tonnes, still outstrips diesel consumption though the gap continues to narrow.

Demand for Petrol	Thousand tonnes				
	1990	2000	2010	2014	2015
Total	24,310	21,400	14,600	12,330	12,080

OIL AND GAS PRODUCTION

UK Continental Shelf production, 1980 to 2015



	Million tonnes of oil equivalent					
	1980	1990	2000	2010	2014	2015
Oil	86.9	100.1	138.3	69.0	43.7	49.5
Gas	34.8	45.5	108.4	57.2	36.8	39.6
Total	121.7	145.6	246.7	126.2	80.3	89.1

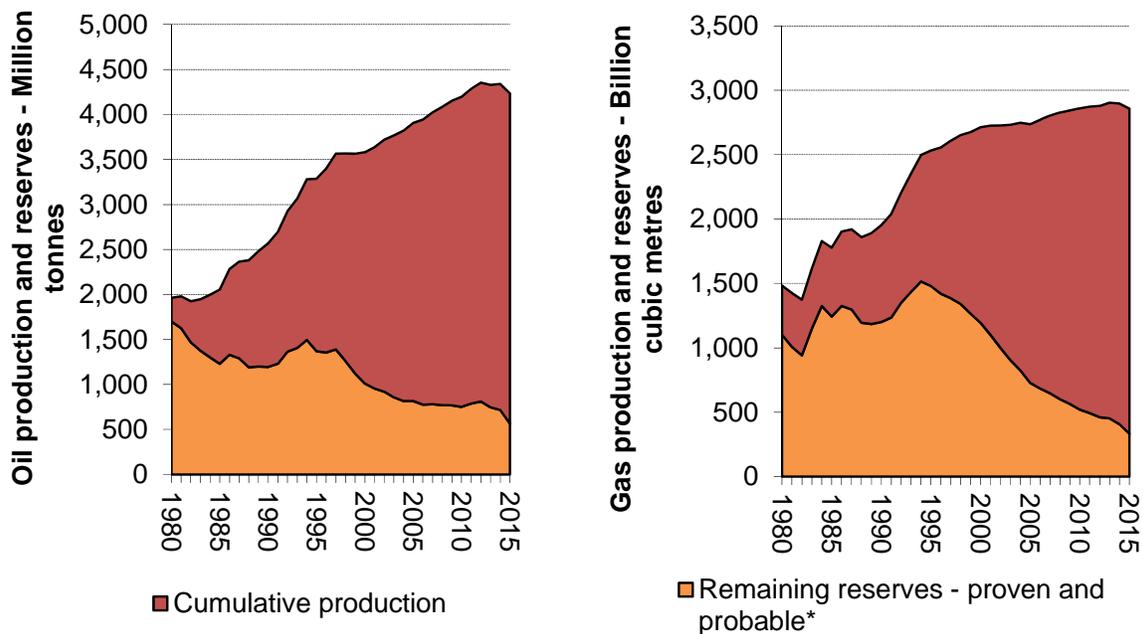
Total indigenous oil and gas production was up 11% on 2014. This increase is in contrast to an average decline rate of 6% since UKCS production peaked in 1999.

Oil production in 2015 was 67% lower than the record 150.2 million tonnes in 1999 but this year it increased by 13% on last year, a stark contrast to the decline rate of around 6% seen since the turn of the century. Production was aided by the commencement of operations at the Golden Eagle field in late 2014, the second largest oil discovery in the North Sea since Buzzard. Also, the Franklin and Buzzard fields returning to normal production following issues in 2013 and 2014 respectively aided production, along with the development of the Balloch field and new fields coming on line.

Gas production in 2015 was 63% lower than the record levels seen in 2000, and since the turn of the century gas production has been decreasing by around 5% per year. 2015 is notable as gas production was up on 2014, by 8%, which is only the second increase since 2000. Production was aided by the Franklin field returning to normal production following problems in 2013, relatively little maintenance on existing fields and new fields coming on line.

OIL AND GAS PRODUCTION

Oil and gas production and reserves, 1980 to 2015



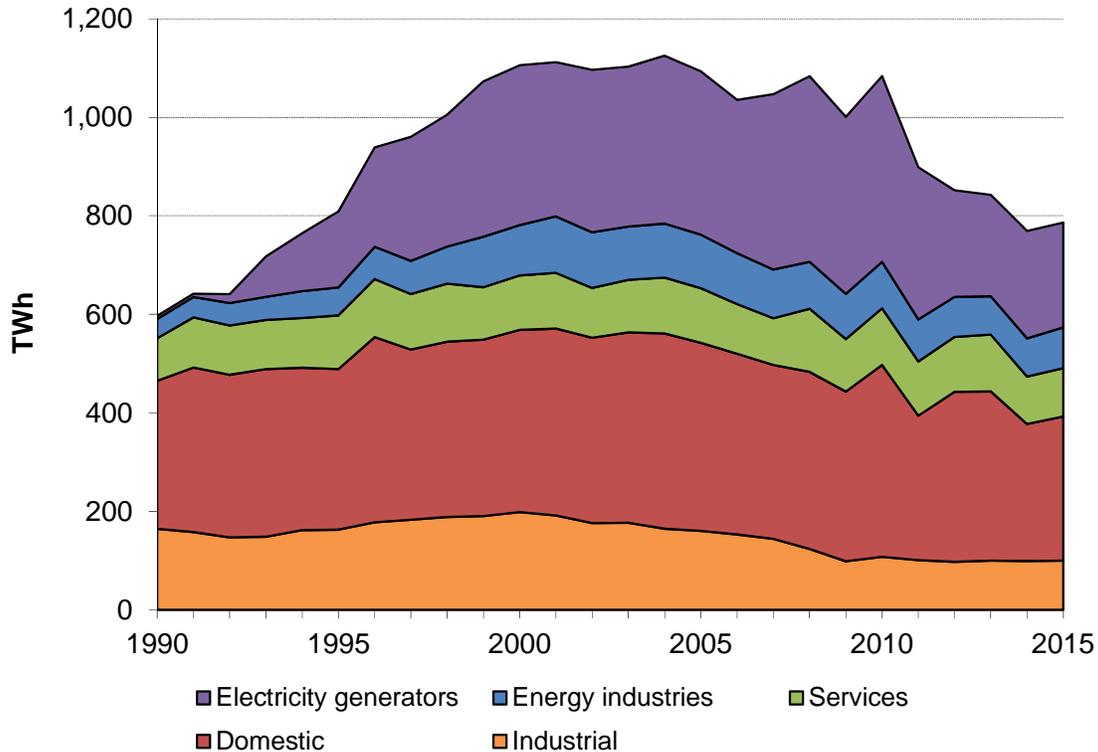
* From 2015, contingent resources have been re-categorised and removed from the probable and proven reserves category.

	1990	2000	2010	2014	2015
Oil					
Million tonnes					
Cumulative production	1,374	2,570	3,446	3,623	3,668
Proven plus probable reserves	1,195	1,010	751	716	566
Estimated Ultimate Recovery	2,569	3,580	4,197	4,339	4,234
Gas					
Billion cubic metres					
Cumulative production	752	1,518	2,337	2,490	2,524
Proven plus probable reserves	1,200	1,195	520	407	333
Estimated Ultimate Recovery	1,952	2,713	2,857	2,897	2,857

The Estimated Ultimate Recovery (EUR) shows the cumulative total of production to the end of the years given and the total of proven plus probable reserves as estimated at the end of those years. For both oil and gas, EUR has grown substantially since 1980, increasing by 116% for oil and by 93% for gas. This reflects increased new discoveries and the effect of new technology allowing exploitation of resources that were previously regarded as uncommercial. Total cumulative production of oil and gas are 87% and 70% respectively greater than the estimated EUR in 1980. The EUR figures shown do not include estimates for Shale Gas. From 2015, contingent resources have been re-categorised and removed from proven and probable reserves. This is part of the reason for the decline in 2015 compared to 2014.

NATURAL GAS

Natural gas consumption, 1990 to 2015



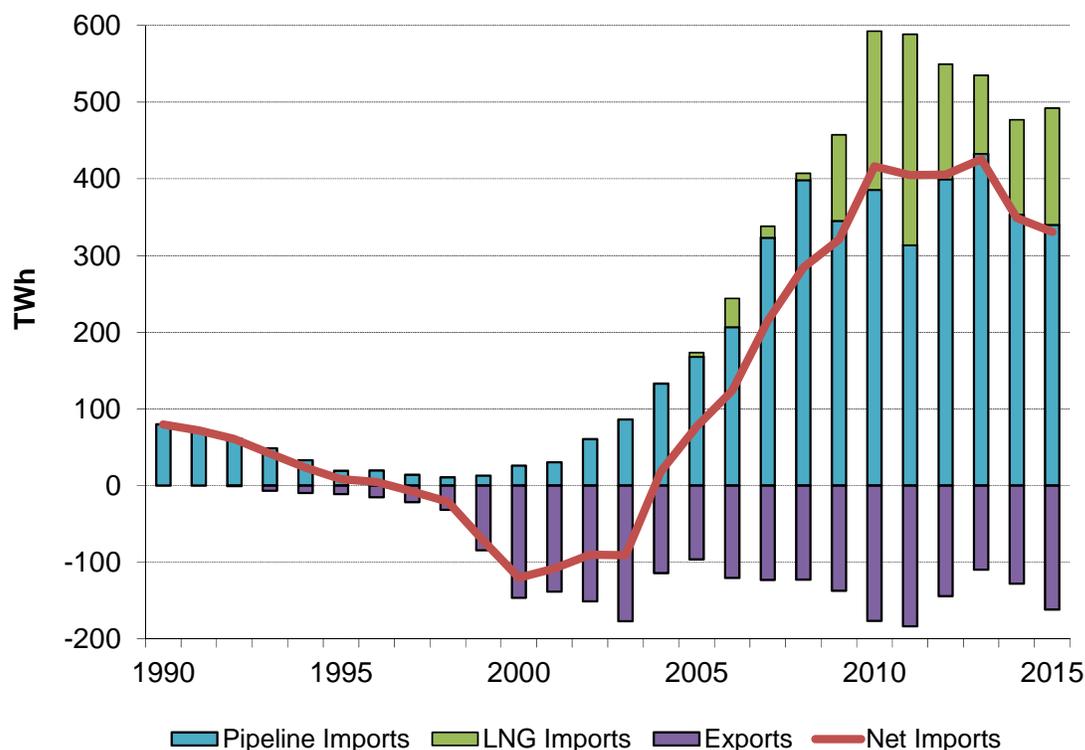
	TWh				
	1990	2000	2010	2014	2015
Electricity generators	6.5	324.6	377.1	217.8	212.9
Energy Industries	39.2	102.1	94.3	77.6	82.7
Industry	164.6	198.5	107.7	99.1	100.1
Domestic	300.4	369.9	389.6	278.1	292.4
Services	86.4	110.5	114.9	96.4	98.2
Total	597.0	1,105.5	1083.6	769.0	786.4

From the early 1970s, following the expansion of UK production of natural gas, gas consumption grew rapidly reaching a record high in 2004 of 1,125 TWh. Since then, consumption has seen an overall decline, and in 2015 total gas consumption was 786.4 TWh, around 30% below its 2004 peak. The longer term trends are driven by commodity prices and changes to energy efficiency whilst the year to year changes are mainly driven by temperature and shorter term fluctuations in prices.

Overall gas demand was up by 2.2% in 2015 versus 2014. This reflects the rises in domestic and services (particularly due to the lower temperatures in 2015), whilst consumption from energy industries and industry remain quite low especially in comparison to 2010. Demand for electricity generators also increased, a result of less coal generation.

NATURAL GAS

UK trade in natural gas, 1990 to 2015



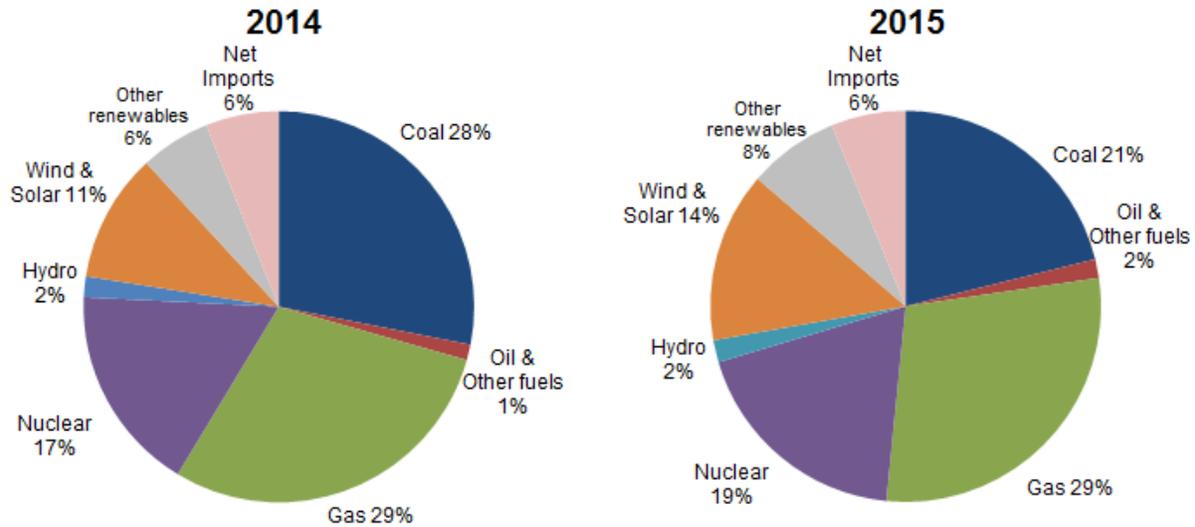
	1990	2000	2010	2014	2015
Natural gas production	528.8	1,260.2	664.4	427.8	460.3
Imports	79.8	26.0	592.6	476.8	492.4
of which					
LNG	-	-	206.8	124.1	152.4
Exports	-	-146.3	-176.4	-128.1	-161.6
Net imports(+) or exports(-)	+79.8	-120.3	+416.2	+348.8	+330.8

UK gas production peaked in 2000 and has since been declining. With declining production the UK has become increasingly reliant on gas imports to meet demand. Between 2000 and 2010 net imports steadily increased. Net imports stabilized before falling back in the last few years. In 2015 net imports accounted for around 45% of gas demand.

Imports of Liquefied Natural Gas (LNG) through the two terminals at Milford Haven (South Hook and Dragon) and via the Isle of Grain remain substantial and their shares of total imports increased from 26% in 2014 to 31% in 2015. Norway remains the UK's key partner for imports and accounted for 61% of imports in 2015. Whilst demand for LNG on the global market remains strong the UK has a diverse pipeline infrastructure (from Norway, the Netherlands and Belgium) and the proportion delivered through each route in the future will depend on global market conditions.

ELECTRICITY

Electricity supplied by fuel type, 2014 and 2015



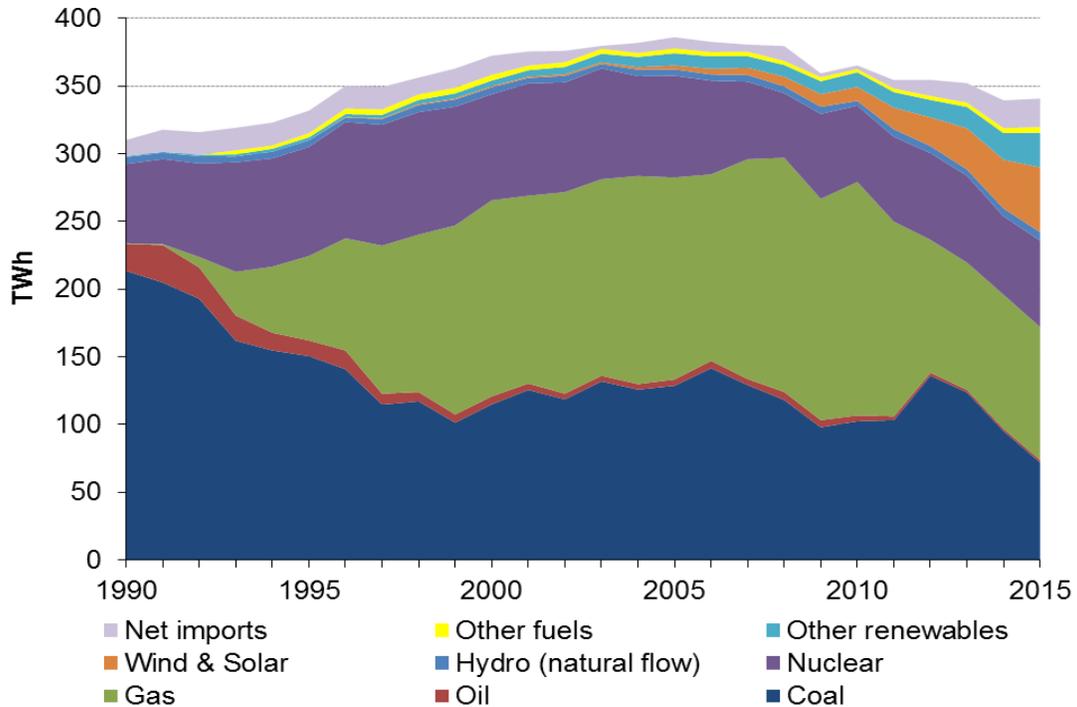
	TWh				
	1990	2000	2010	2014	2015
Coal	213.4	114.7	102.3	95.1	71.7
Oil & other fuels*	19.2	9.2	5.6	4.4	5.3
Gas	0.4	144.9	172.5	99.0	98.2
Nuclear	58.7	78.3	56.4	57.9	63.9
Hydro	5.2	5.1	3.5	5.8	6.2
Wind & Solar	-	0.9	10.3	36.0	47.9
Other renewables	-	4.1	10.8	19.6	25.5
Net Imports	11.9	14.2	2.7	20.5	20.9
Total electricity available for supply	308.7	371.4	364.1	338.3	339.7

*Includes net supply from pumped storage

Between 2014 and 2015, supply of electricity remained broadly unchanged. Electricity supplied from gas remained constant at 29%. Electricity supplied from coal fell from 28% to 21% due to plant closures and conversions, including a conversion of a third unit at Drax from coal to high-range co-firing (85% to <100% biomass). Nuclear's share of supply rose from 17% to 19% after outages at the end of 2014. Wind's share rose from 11% to 14% with much increased capacity. The share of net imports remained unchanged at 6%, despite a 7% fall in net imports from France, due to a 2% increase in net imports from the Netherlands and a 56% reduction in net exports to Ireland. In 2015 electricity supplied from wind and solar was almost 75% of that produced from nuclear compared to just 1.2% in 2000. Further details on renewable electricity generation can be found on page 30.

ELECTRICITY

Electricity supplied by fuel type, 1990 to 2015



The mix of fuels used to generate electricity continues to evolve. Since 1990, the decline of coal and oil and the rise of gas and, in more recent years, renewables, have been the most marked features, but none of these fuels have followed a smooth path.

Coal recorded its highest level for ten years in 2006, making up for the reduced availability of nuclear stations and as a substitute for high priced gas. It fell back again in the next three years before rising in 2010, particularly due to higher winter electricity demand. Again due to high gas prices, supply from coal rose during 2012 but has fallen each year since due to plant closures and conversions. In 2015 supply from coal fell again due to the closure and conversions of several power stations.

Supply from gas rose most markedly over this period from 0.4 TWh in 1990 to a peak of 173 TWh in 2008, and has fluctuated slightly since. In 2015, gas has fallen slightly from 2014.

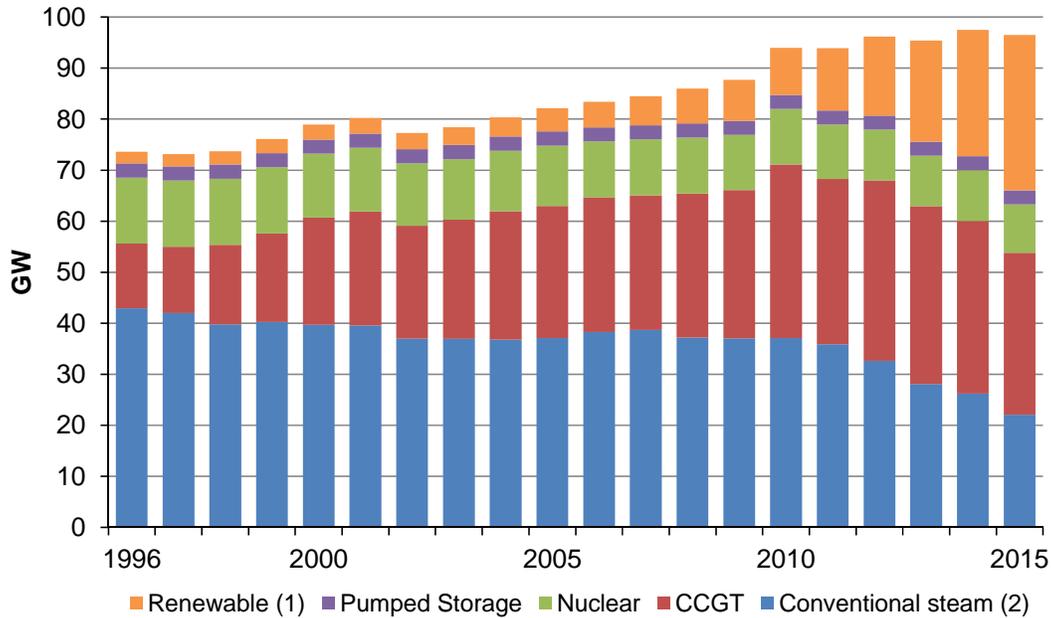
Supply from nuclear grew to a peak in 1998 before falling back, particularly during 2006 to 2008, as station closures and maintenance outages reduced supply, but recovered in 2009, before falling in 2010 due to further outages. In 2011, supply from nuclear began to rise again as stations returned from outages and has been fluctuating since. In 2015 supply rose again after falling in 2014 due to outages at several nuclear power stations at the end of the year.

Supply from wind (including solar) has followed an upward trend since 2000, as capacity levels have increased each year. In 2015, wind supplied a record level of 47.9 TWh, due to this extra capacity along with 15 year high wind speeds.

Total electricity supplied rose continuously from 1997 to reach a peak in 2005. It has subsequently fallen, reflecting lower demand due to energy efficiency, economic and weather factors, with 2015 supply 12% lower than that in 2005.

ELECTRICITY

Electricity capacity, 1996 to 2015



(1) Renewable capacity is on an Installed Capacity basis. Data for other fuels/technologies relates to Declared Net Capacity from 1996 to 2005, data for 2006 onwards is transmission entry capacity (TEC)
 (2) Includes coal, non-CCGT gas, oil and mixed/dual fired. Does not include thermal renewables.

	1996	2000	2005	2010	2013	2014	GW
Conventional Steam	43.0	39.7	37.1	37.1	28.1	26.2	22.1
CCGT	12.7	21.1	25.9	34.0	34.9	33.8	31.7
Nuclear	12.9	12.5	11.9	10.9	9.9	9.9	9.5
Pumped Storage	2.8	2.8	2.8	2.7	2.7	2.7	2.7
Renewable	2.3	3.0	4.5	9.2	19.8	24.7	30.5
Total	73.6	79.0	82.1	94.0	95.4	97.3	96.5

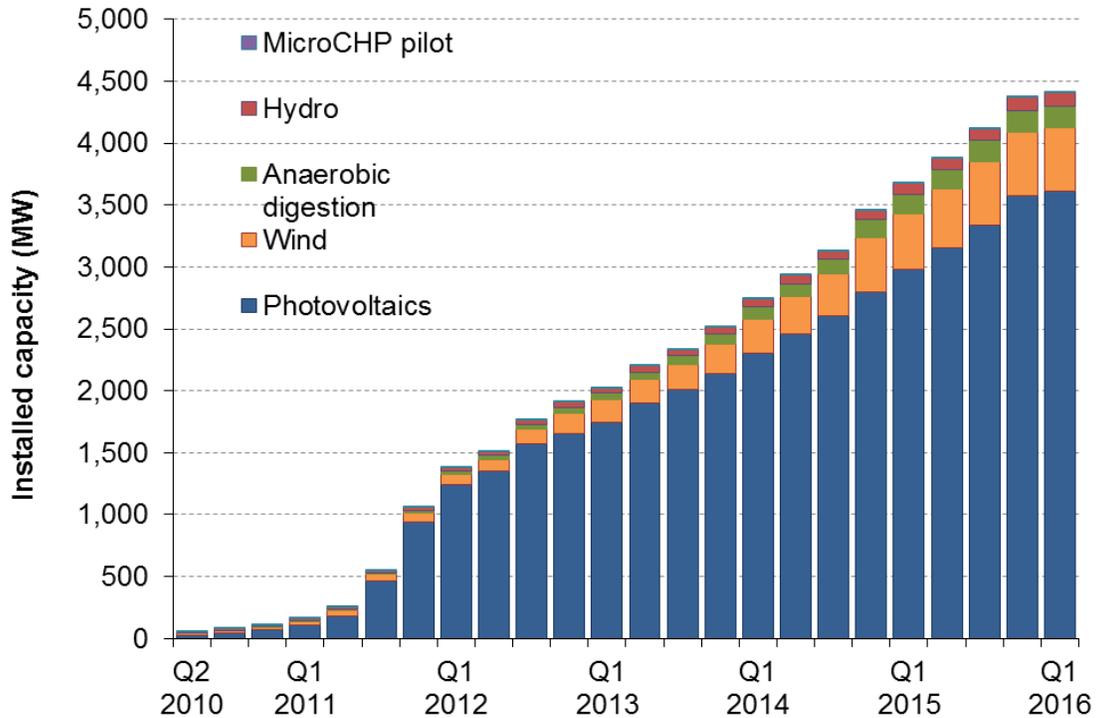
Installed capacity in the UK has increased gradually between 1996 and 2015, from 73.6 GW to 96.5 GW, a 1% fall on the 2014 peak of 97.3 MW. Overall, there has been a decline in conventional steam, outweighed initially by an increase in combined cycle gas turbines (CCGT) and more recently by an increase in renewables.

Conventional steam declined by 13.5% between 2014 and 2015 (to 22.7 GW). This is a result of the conversion of a third unit at Drax power station from coal to a high-range co-firing (85% to <100% biomass) unit. CCGT capacity has increased almost threefold over the period 1996-2013, from 12.7 GW to 34.9 GW but has since fallen to 31.7 GW as sites have been mothballed and closed.

The closure of Wylfa at the end of 2015 reduced nuclear capacity to 9.5 GW. Nuclear capacity has been gradually falling from 12.9 GW in 1996 due to plants reaching the end of their lifetime. Pumped storage capacity has remained constant between 1996 and 2015 as plants remained unchanged. Renewables capacity has seen a significant increase, with the installed capacity of renewables increasing by over 13 times the installed capacity in 1996 to 30.5 GW in 2015. This is mainly as a result of an increase in wind capacity, particularly from 2009, the growth of photovoltaics and as already mentioned the conversion of coal plants to biomass.

FEED IN TARIFFS

Feed in Tariffs, 2010 to 2016



	2011 Q1	2012 Q1	2013 Q1	2014 Q1	2015 Q1	2016 Q1
Cumulative Installed Capacity (MW)						
Micro CHP	0	0.5	0.6	0.6	0.7	0.7
Anaerobic Digestion	15	22	54	99	158	177
Hydro	8	29	42	65	84	105
Wind	27	86	184	278	453	514
Photovoltaics	111	1,239	1,743	2,304	2,978	3,610
Total	162	1,377	2,024	2,747	3,673	4,406

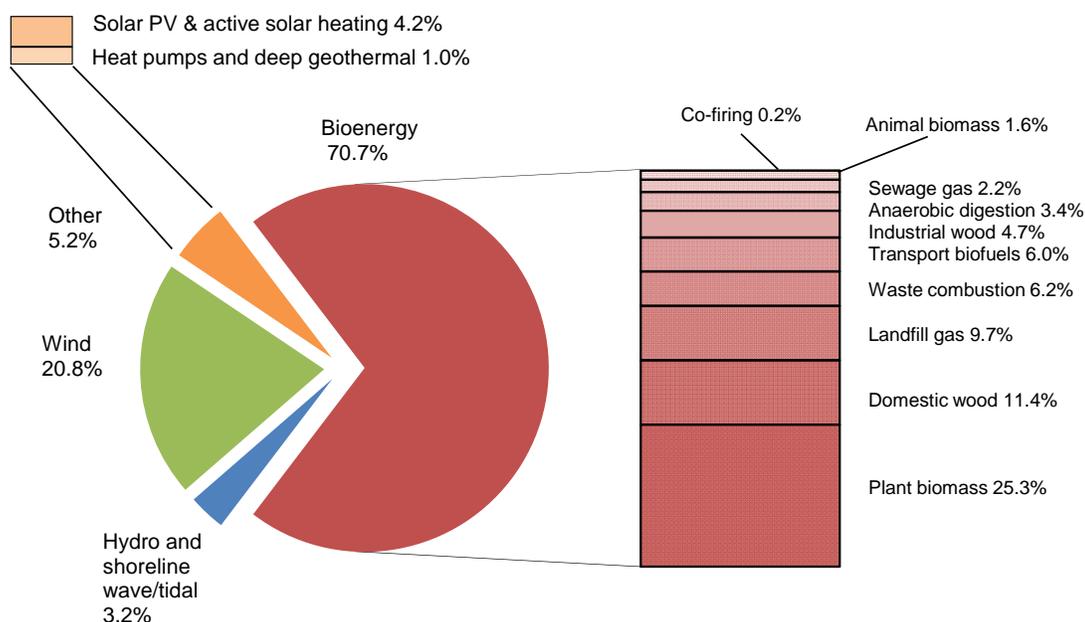
Source: Extracted on 15 April 2016 from the Central Feed-in Tariffs Register (CFR), Ofgem. The register is a live database and is continually being updated and revised, so statistical reports extracted at a later date may not exactly match the totals presented here. Registration on the CFR represents the final stage in the Feed-in Tariff (FiTs) registration process. There will be installations eligible for FiT that have been installed but have not yet been registered onto CFR.

The Feed in Tariff (FiT) scheme was introduced on 1st April 2010 and is a financial support scheme for eligible low-carbon electricity technologies, aimed at small-scale installations up to a maximum capacity of 5 Megawatts (MW).

At the end of year 6 (2015/16) of the Feed in Tariff scheme, 4,406 MW of capacity (756,000 installations) was confirmed on FiTs, around 20% more capacity (and installations) than that installed at the end of the previous years. Of the 732 MW increase (128,162 installations) from the end of year 5 (2014/15), 86% (632 MW, 127,780 installations) were from solar photovoltaics, 8% (61 MW, 293 installations) were from wind installations, with the other technologies (micro-CHP, anaerobic digestion and hydro) contributing to the remaining 5% of this increase. At the end of 2015/16, 58% (2,549 MW) of the total installed capacity was in the domestic sector, 2 percentage points lower than at the end of the previous year, when domestic sector capacity represented 60% (2,001 MW) of total installed capacity.

RENEWABLES

Renewable energy sources, 2015



Total renewables used = 16,656 thousand tonnes of oil equivalent (ktoe)

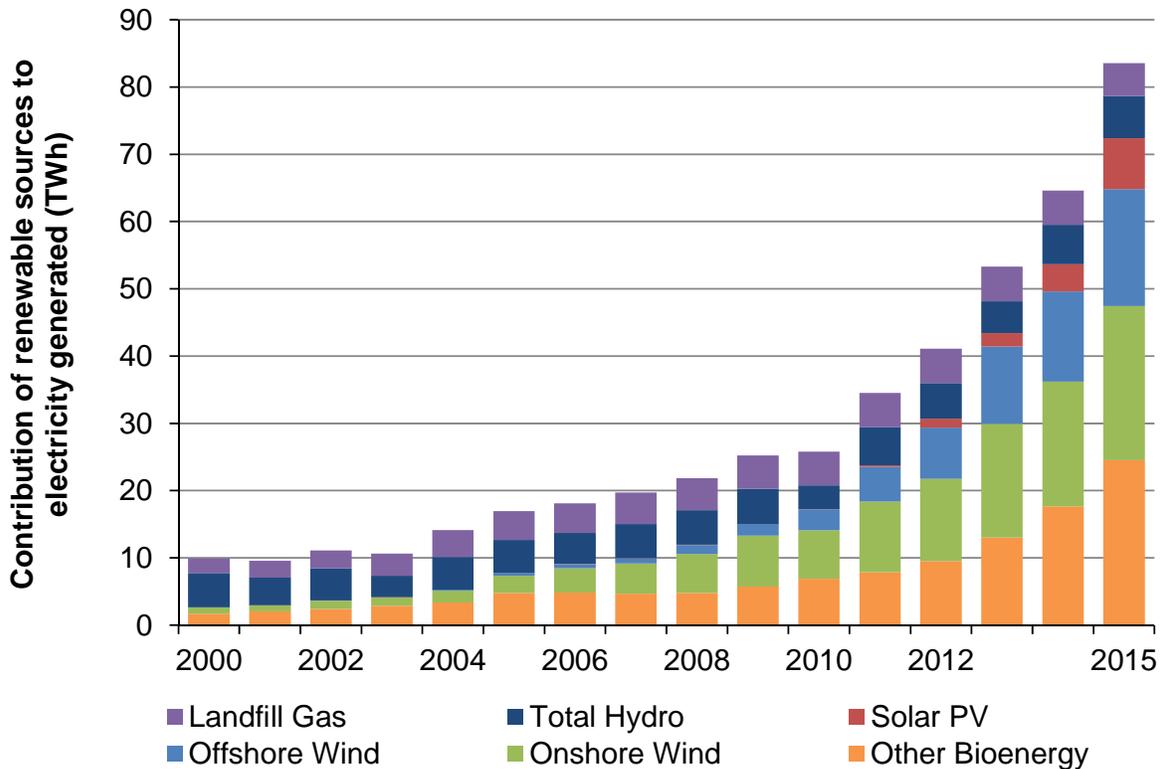
Total use of renewables	Thousand tonnes of oil equivalent				
	1990	2000	2010	2014	2015
Solar PV and active solar heating	6	11	43	397	701
Wind	1	81	882	2,749	3,466
Hydro (large & small) and wave	448	437	307	507	541
Landfill gas	80	731	1,663	1,668	1,612
Sewage gas	138	169	286	345	364
Wood (domestic and industrial)	174	458	1,514	2,200	2,697
Municipal waste combustion (biodegradable)	101	375	632	713	1,028
Heat pumps and deep geothermal	1	1	31	143	169
Transport biofuels	-	-	1,217	1,243	1,003
Cofiring	-	-	625	25	38
Other bioenergy	72	265	1,052	3,928	5,037
Total	1,021	2,529	8,253	13,918	16,656

In 2015, bioenergy accounted for 71% of renewable energy sources used, with most of the remainder coming from wind (21%), solar (4.2%) and hydro (3.2%).

Of the 16.7 million tonnes of oil equivalent of primary energy use accounted for by renewables, 12.1 million tonnes was used to generate electricity, 3.5 million tonnes was used to generate heat, and 1.0 million tonnes was used for road transport. Renewable energy use grew by 20% between 2014 and 2015 and is now over six and a half times the level it was at in 2000.

RENEWABLES

Electricity generation from renewable sources since 2000



Note: Hydro bar includes shoreline wave/tidal (0.002 TWh in 2015)

Renewable Electricity Generation, TWh					
	1990	2000	2010	2014	2015
Onshore wind	-	0.9	7.2	18.6	22.9
Offshore wind	-	-	3.1	13.4	17.4
Solar PV	-	-	0.0	4.0	7.6
Hydro	5.2	5.1	3.6	5.9	6.3
Landfill Gas	0.1	2.2	5.0	5.0	4.9
Other Bioenergy	0.5	1.7	6.9	17.6	24.5
Total Renewables	5.8	9.9	25.8	64.6	83.6

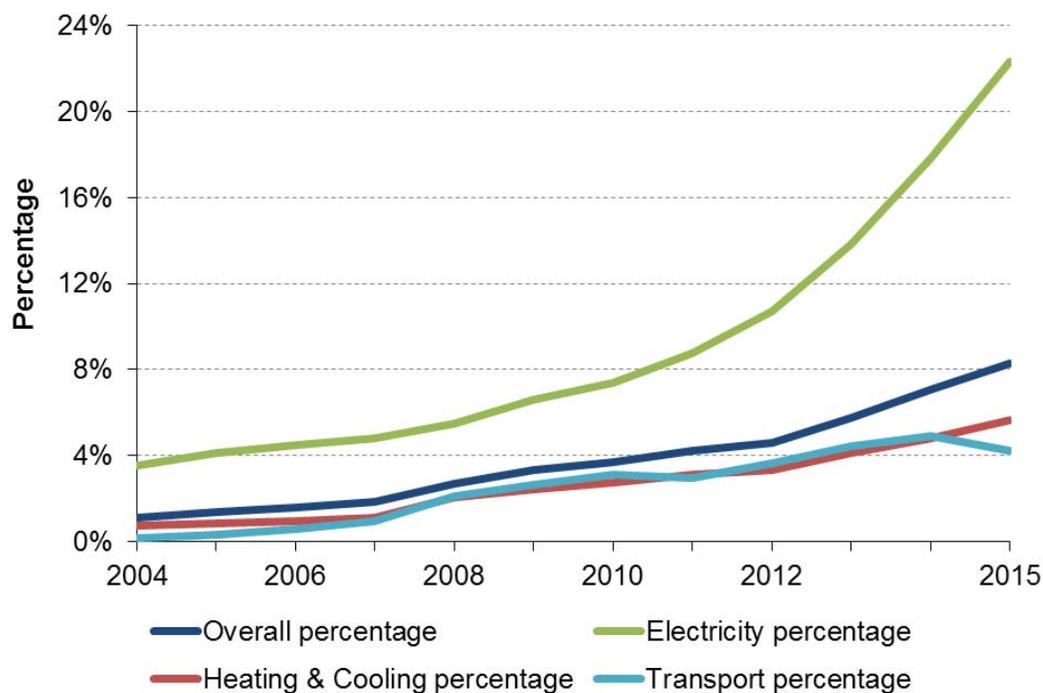
At 83.6 TWh, renewables accounted for 24.6% of electricity generated in the UK during 2015, 5.5 percentage points higher than during 2014. Total generation from renewables increased by 29% between 2014 and 2015. Other bioenergy showed the largest absolute increase at 6.7 TWh (30%), mostly from plant biomass. Solar photovoltaics increased by 87% from 4.0 TWh to 7.6 TWh. Total wind generation increased by 26% to 40.3 GWh due to increased capacity and higher than average wind speeds. Hydro increased by 6.7% reflecting higher than average rainfall.

The main weather effect on renewable generation was the average wind speeds which were the highest in the last fifteen years.

When taking into account only sources eligible under the Renewables Obligation, renewables accounted for 26% of UK electricity sales, up from 20% in 2014.

RENEWABLES

UK progress against 2009 EU Renewable Energy Directive



Progress against the 2009 Renewable Energy Directive

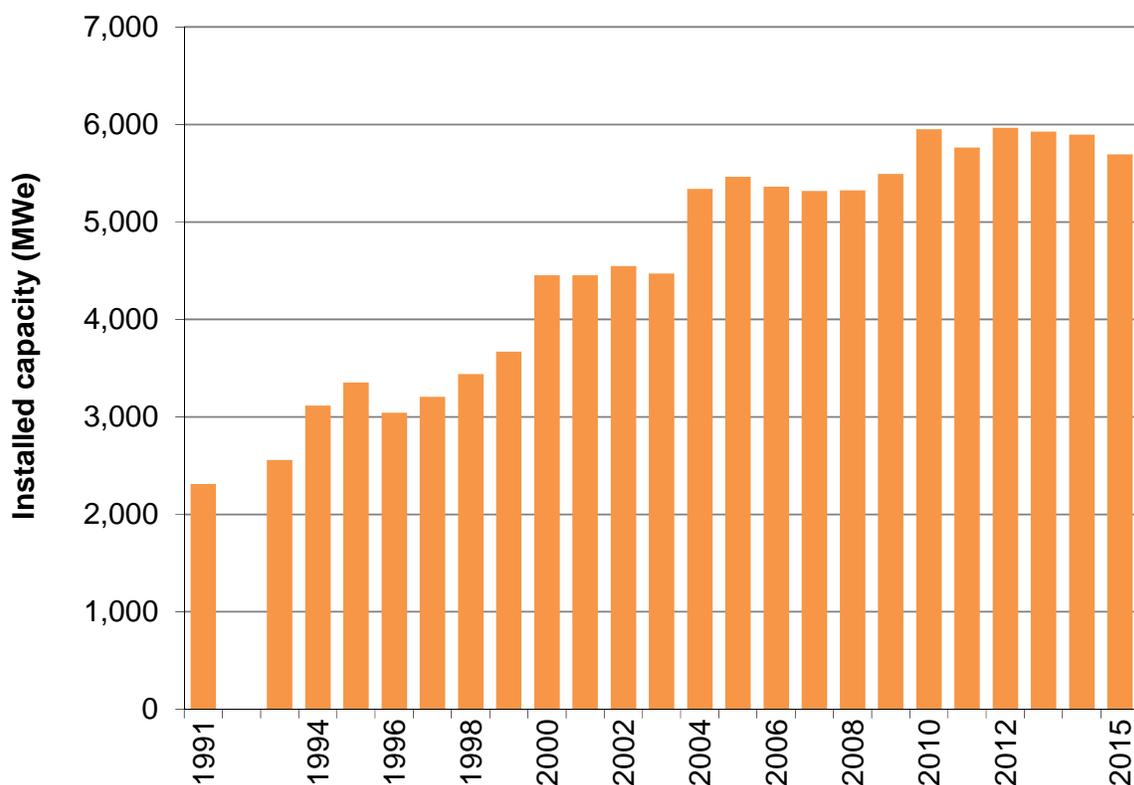
	2010	2011	2012	2013	2014	2015
Percentage of electricity from renewable sources	7.4%	8.8%	10.7%	13.8%	17.9%	22.3%
Percentage of heating and cooling from renewable sources	3.0%	3.4%	3.7%	4.1%	4.9%	5.6%
Percentage of transport energy from renewable sources	3.1%	2.7%	3.7%	4.4%	4.9%	4.1%
Overall renewable consumption as a percentage of capped gross final energy consumption using net calorific values	3.8%	4.2%	4.7%	5.8%	7.1%	8.3%

In March 2007, the European Council agreed to a common strategy for energy security and tackling climate change. It set a target of 20% of the EU's energy to come from renewable sources. In 2009 a new Renewable Energy Directive was implemented and resulted in agreement of country "shares" of this target. For the UK, by 2020, 15% of **final energy consumption** - calculated on a net calorific basis, and with an air transport fuel cap - should be accounted for by energy from renewable sources.

In 2015 8.3% of final energy consumption was from renewable sources; this is up from 7.1% in 2014 and 5.8% in 2013. The methodology uses normalised load factors for wind (over 5 years) and hydro (over 15 years) to reduce the impact of unusual weather conditions on the calculations.

COMBINED HEAT AND POWER

Combined heat and power, 1991 to 2015

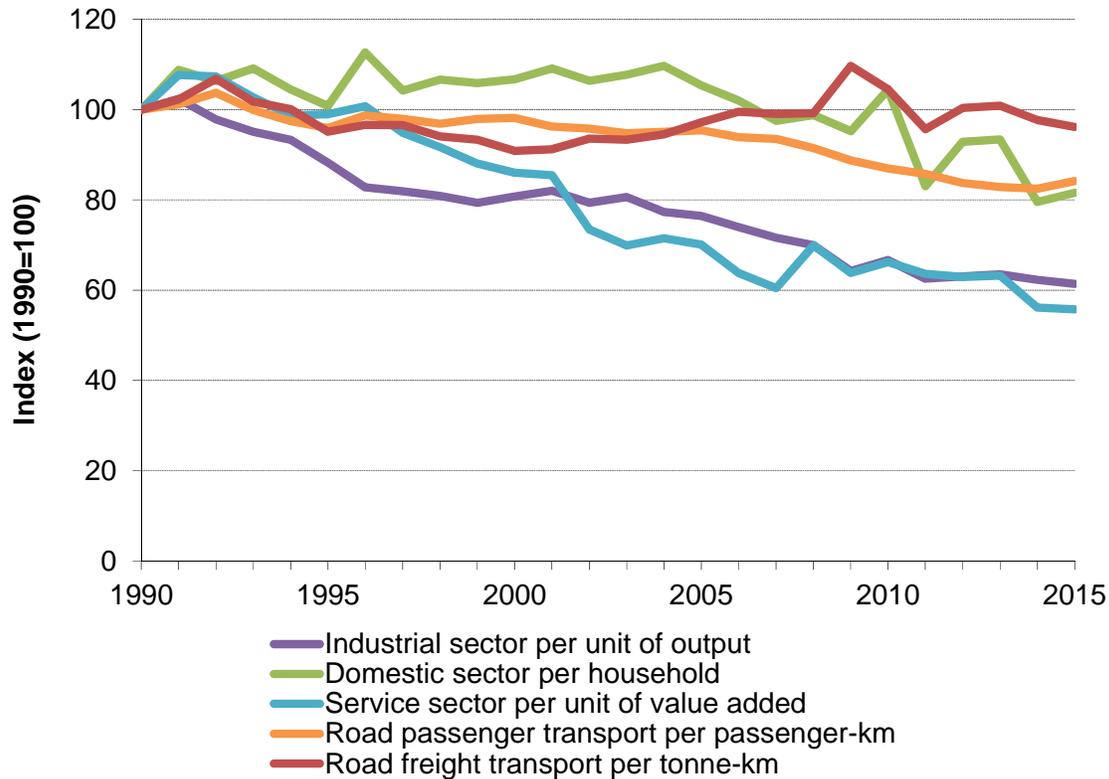


	1995	2000	2010	2014	2015
CHP electrical capacity (MWe)	3,354	4,451	5,950	5,894	5,692
CHP electrical generation (GWh)	14,778	25,245	26,768	19,698	19,900
CHP heat generation (GWh)	56,833	54,877	48,267	41,962	40,325
Number of CHP sites					
<= 100 kWe	620	560	405	609	608
> 100 kWe to 1 MWe	397	533	763	1,106	1,114
>1 MWe to 2 MWe	26	41	83	132	140
> 2 MWe to 10 MWe	113	141	138	169	174
> 10 MWe +	63	64	66	65	66
Total	1,219	1,339	1,455	2,081	2,102

In 2015, CHP electrical capacity fell by 3.4% compared to 2014 despite a 1.0% increase in the total number of schemes. Electricity generation in 2015 was 1.0% higher than in 2014, while heat generation was 3.9% lower. Schemes larger than 10MWe represent 77% of the total electrical capacity of CHP schemes whereas schemes less than 1MWe constitute the majority (82%) of the number of schemes. In 2015, CHP schemes accounted for 5.9% of the total electricity generated in the UK and 8.1% of UK gas demand.

ENERGY EFFICIENCY

Energy intensity, 1990 to 2015



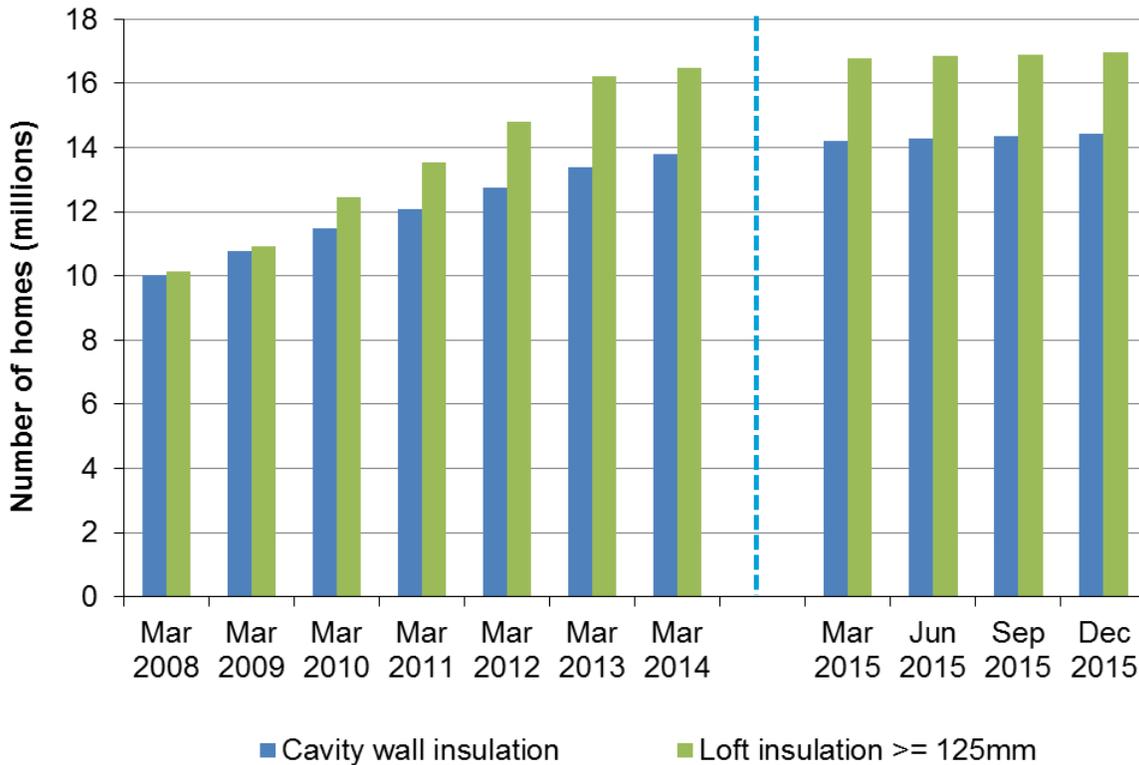
	Tonnes of oil equivalent				
	1990	2000	2010	2014	2015p
Industrial energy consumption per million units of GVA	179.6	145.0	119.7	111.9	110.2
Domestic energy consumption per household	1.8	1.9	1.9	1.4	1.5
Service sector energy consumption per million units of GVA	30.7	26.4	20.3	17.2	17.1
Road passenger energy consumption per million passenger-kilometres	41.9	41.1	36.5	34.6	35.3
Road freight energy consumption per million freight-kilometres	86.7	78.8	90.6	84.7	83.4

* BEIS estimates for 2015

Energy consumption per unit of output, known as energy intensity, gives a broad indication of how efficiently energy is being used over time. Changes in energy intensity occur for a number of reasons: process change, technological change and structural change (in the case of industry and the service sector) as well as efficiency change. The largest falls in energy intensity over the last thirty years or so have occurred in the industrial sector mainly due to structural change in the period before 2000, and in the service sector due to general energy efficiency improvements. Despite the fluctuation over the past few years, there has been a general downward trend in domestic consumption since 2004.

ENERGY EFFICIENCY

Number of homes with energy efficiency measures, March 2008 to December 2015



Insulated homes in Great Britain (Thousands)							
	Mar 2008	Mar 2010	Mar 2012	Mar 2013	Mar 2014	Mar 2015	Dec 2015
Cavity wall insulation	10,030	11,490	12,750	13,390	13,780	14,190	14,410
Loft insulation >= 125mm	10,150	12,460	14,780	16,230	16,470	16,790	16,950

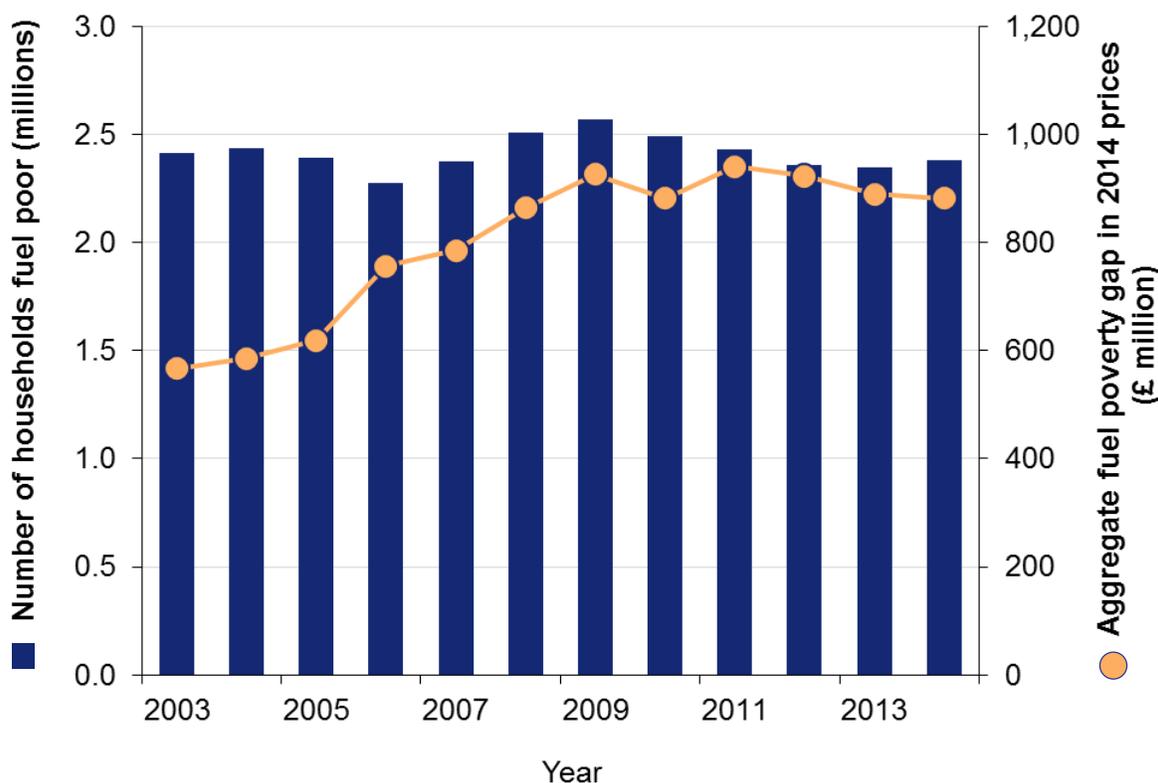
Source: BEIS, Household Energy Efficiency National Statistics, Detailed report 2015. This series was developed to monitor levels of insulation (primarily through Government schemes) from 2008 onwards. Figures are rounded to the nearest ten thousand.

Cost effective methods of improving energy efficiency in homes are to install cavity wall and loft insulation where these measures are practical. Building Regulations require new homes to reach thermal efficiency standards which would typically be met by installing these measures. In addition, existing homes have had these measures retrofitted through Government schemes or through a DIY loft insulation. These data show the change in the number of insulated homes as a result of new build and retro fitting insulation.

The number of homes with cavity wall insulation has increased by 44% between the end of March 2008 and December 2015 such that 14.4 million, of the 19.6 million homes with cavities, are insulated. The number of homes with loft insulation, of a depth of at least 125mm, has increased by 67% between the end of March 2008 and December 2015 meaning that 16.9 million of the 24.1 million homes with lofts are insulated to this level.

FUEL POVERTY

Households in fuel poverty, 2003 to 2014



A household is considered to be fuel poor if:

- they have required fuel costs that are above average (the national median level)
- were they to spend that amount, they would be left with a residual income below the official poverty line.

This a relative measure as it compares households to the national median bill and income – thereby reflecting contemporary trends. There are two indicators:

- i) the **number** of households that have both low incomes and high fuel costs and
- ii) the **depth** of fuel poverty amongst these fuel poor households. This is measured through a fuel poverty gap which represents the difference between the required fuel costs for each household and the median required fuel costs.

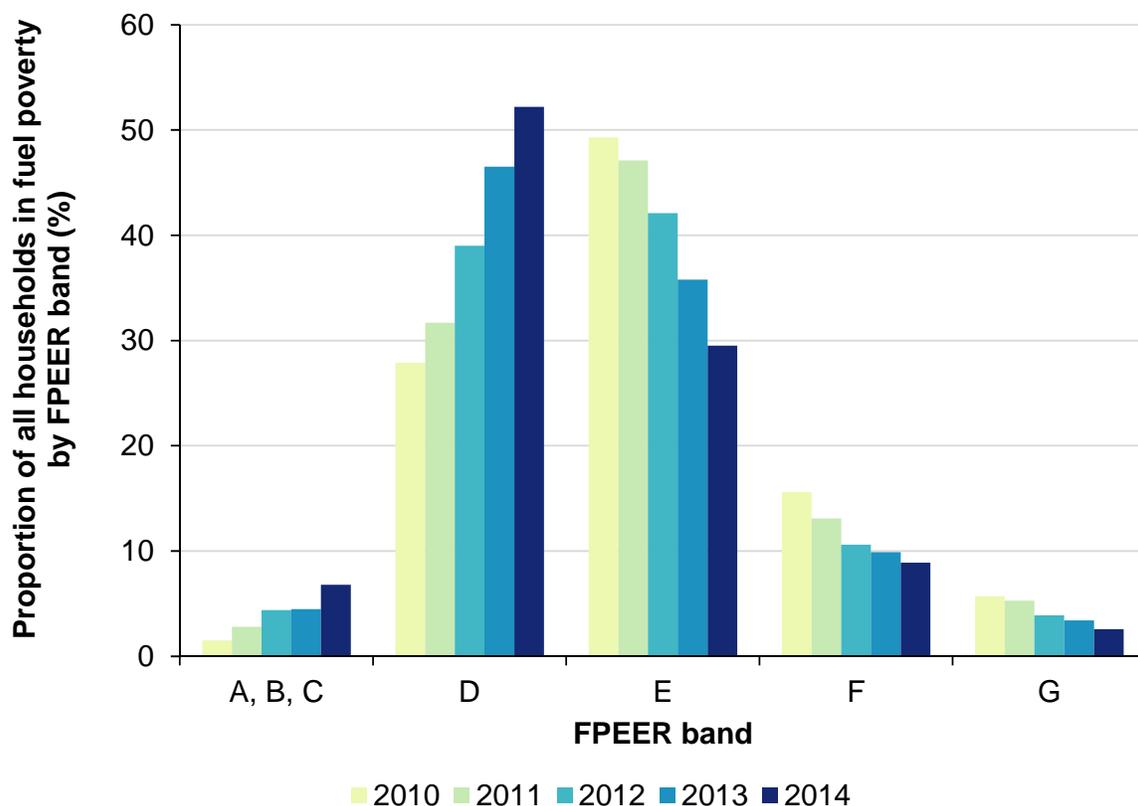
The fuel poverty gap for each individual household is then aggregated across all fuel poor households to produce an overall aggregate fuel poverty gap which gives a sense of the depth of fuel poverty on a national level.

In 2014, the number of households in fuel poverty in England was estimated at around 2.38 million, representing approximately 10.6% of all English households. This is a slight increase from 2.35 million households in 2013. The aggregate fuel poverty gap¹ fell slightly (by 0.9%) in real terms, from £890 million in 2013 to £882 million in 2014. The average fuel poverty gap over this period also decreased from £379 to £371.

¹ Historic aggregate and average fuel poverty gaps are rebased to 2014 prices.

FUEL POVERTY

Proportion of households in fuel poverty by FPEER band, 2010 to 2014



The fuel poverty energy efficiency rating (FPEER) is a measure of the energy efficiency of a property based on the Standard Assessment Procedure (SAP)² but accounts for policies that directly affect the cost of energy. Similar to SAP, the FPEER methodology generates a rating between 1 and 100, which is then translated into an energy efficiency band from G (lowest) to A (highest) and underpins the Government's fuel poverty target³.

In December 2014, the Government introduced a new statutory fuel poverty target for England. The target is to ensure that as many fuel poor homes as reasonably practicable achieve a minimum energy efficiency rating of a band C by 2030 (with interim milestones to lift as many fuel poor homes in England as is reasonably practicable to band E by 2020; and band D by 2025).

The chart above looks specifically at the fuel poor population by FPEER bands between 2010 and 2014. This shows that the proportion of fuel poor households in band C and above and band D have increased over time, while the proportion in bands E, F and G have decreased.

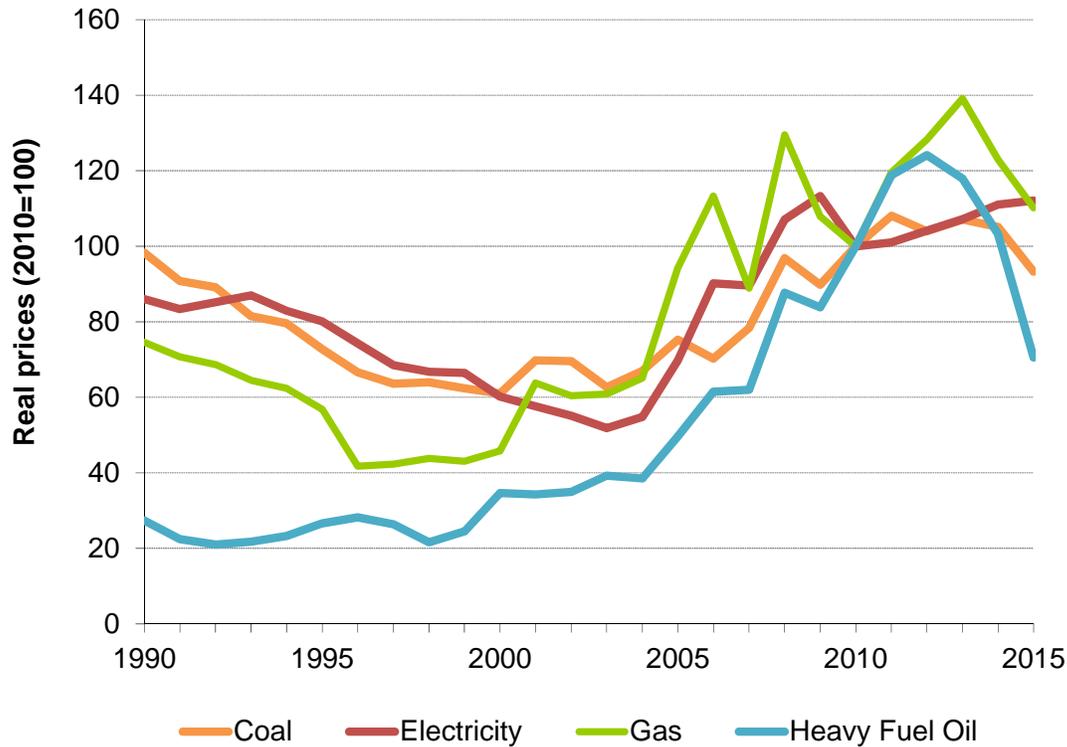
In 2014, 28% of properties in G rated homes were classed as fuel poor, compared to only 2.5% of C rated properties and above. The fuel poverty gap for G rated properties (£1,345) is around seven times higher than for C rated properties and above (£196).

² www.gov.uk/guidance/standard-assessment-procedure

³ www.gov.uk/government/uploads/system/uploads/attachment_data/file/408644/cutting_the_cost_of_keeping_warm.pdf

PRICES

Fuel price indices for the industrial sector, 1990 to 2015



	Real prices, 2010 = 100				
	1990	2000	2010	2014	2015
Coal	98.3	61.0	100.0	105.1	93.3
Electricity	86.0	60.2	100.0	111.0	112.1
Gas	74.6	45.8	100.0	123.0	110.2
Heavy fuel oil	27.4	34.7	100.0	103.2	70.6
Industrial prices	76.2	52.4	100.0	111.5	102.8

Includes the Climate Change Levy that came into effect in April 2001.

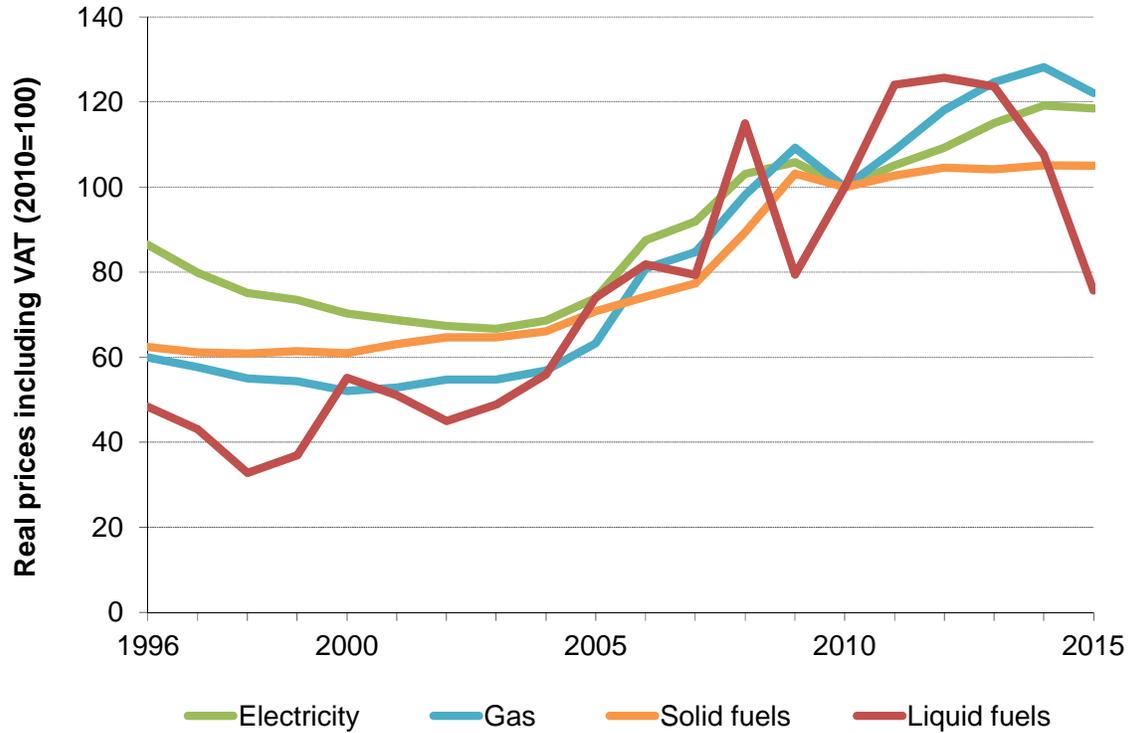
Industrial prices generally fell in the 90's and were at their lowest levels in aggregate levels in 2003. Prices then rose, peaking in 2013 before falling back in the last two years. Prices in 2015 are double those of 2003.

In 2015 compared to 2014, prices for most fuels decreased, though electricity prices rose slightly, by 1%. Gas prices fell by 10%, with heavy fuel oil prices falling by 32%. Over the last ten years gas and electricity prices have risen by 17% and 61% respectively.

Prices for most fuels are generally driven by changes to the price of crude oil. In the last twelve years the price of Brent in \$ per barrel (bbl) has increased from around \$28/bbl in 2003, to \$112/bbl in 2012, before falling back to \$52/bbl in 2015.

PRICES

Fuel price indices for the domestic sector, 1996 to 2015



	Real prices including VAT, 2010 = 100					
	1996	2000	2005	2010	2014	2015
Solid fuels	62.4	61.0	70.8	100.0	105.1	105.1
Electricity	86.4	70.3	73.9	100.0	128.2	122.1
Gas	59.9	52.0	63.3	100.0	119.2	118.5
Liquid fuels	48.4	55.1	74.0	100.0	107.7	75.7
Domestic fuels	71.5	61.6	69.4	100.0	123.2	118.8

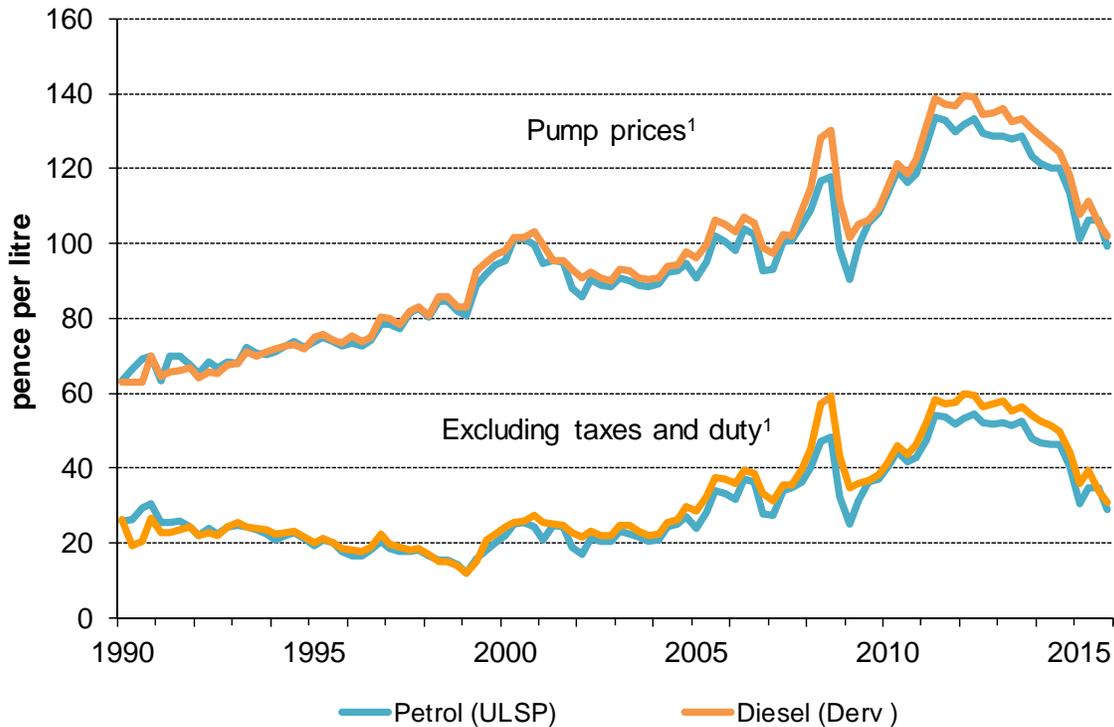
Source: Consumer Price Index, Office for National Statistics

Compared to 2014, total domestic energy prices in 2015 decreased in real terms by 4%. Within the overall movement, liquid fuels decreased by 30%, gas prices decreased by 5%, and electricity prices decreased by 1%. Between 2014 and 2015 crude oil prices fell by 45% from just below \$100 per barrel to \$52 per barrel. This drop in the raw material was passed through to petroleum products produced from refining crude, leading to the sharp fall in liquid fuel prices.

Between 2005 and 2015, real prices for domestic energy increased by 70%, with the real price of electricity increasing by 60% and the real price of gas increasing by 93%. Liquid fuel prices rose between 2005 and 2014 but have now returned to near 2005 levels.

PRICES

Petrol and diesel prices, 1990 to 2015



¹ Deflated using GDP (market prices) deflator (2010 = 100)

Current retail prices

	Petrol (ULSP)	Pence/litre Diesel
1990	42.0	40.5
1995	53.8	54.2
2000	79.9	81.3
2005	86.8	90.9
2010	116.9	119.3
2011	133.3	138.7
2012	135.4	141.8
2013	134.1	140.4
2014	127.5	133.5
2015	111.1	114.9

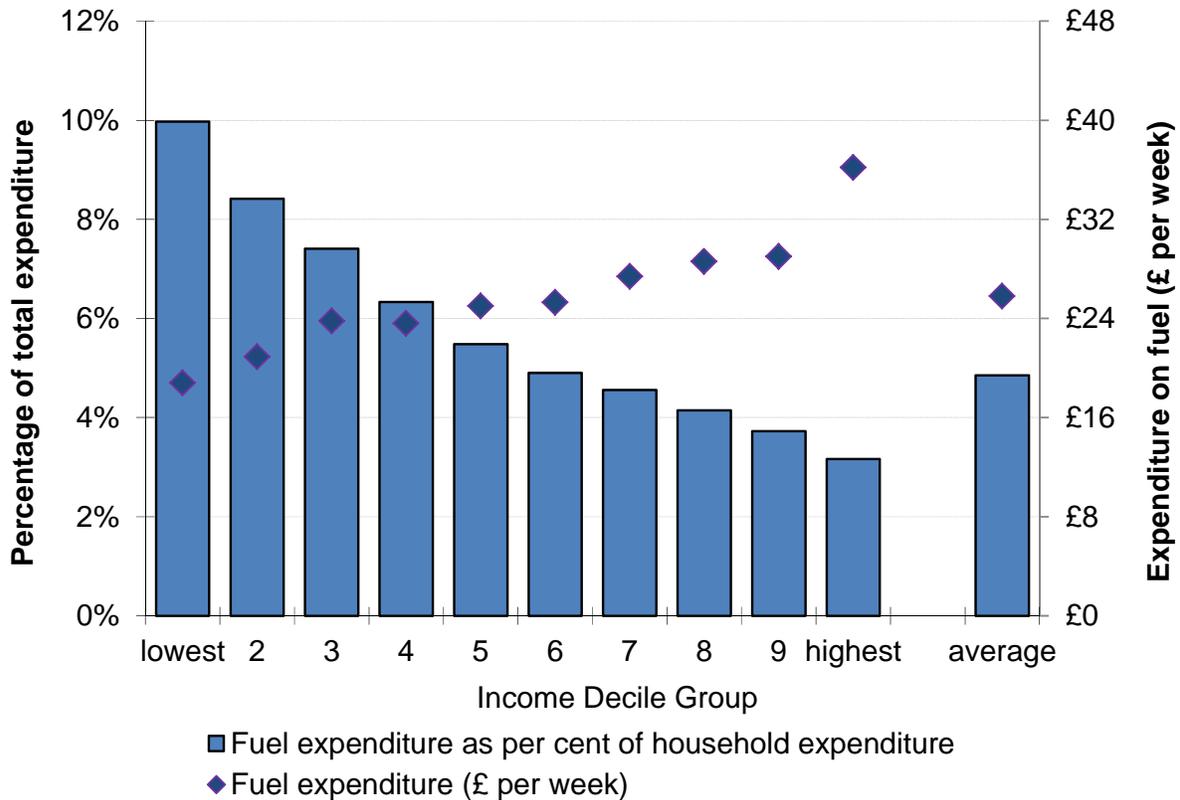
In cash terms the price of Ultra Low Sulphur Petrol (ULSP) cost 16.4 pence less in 2015 than in 2014, whilst diesel cost 18.6 pence per litre less. These large decreases reflect the price of crude oil, which was above \$100 per barrel for most months between February 2011 and September 2014 before starting to fall, falling below \$50 per barrel in January 2015. Prices rose to over \$65 per barrel in May before falling back below \$40 per barrel in December 2015. Average crude prices fell by over 45% between 2014 and 2015.

In real terms the price of petrol was 13% lower in 2015 compared to 2014, whilst the price of diesel was 14% lower.

In 2015, taxes and duty accounted for 69% of the retail price of unleaded and 67% of the price of diesel.

EXPENDITURE

Fuel expenditure of households¹, 2014



Fuel expenditure as a percentage of total household expenditure, 1990 to 2014

Fuel type	1990	2000/01	2010	2013	2014
Gas	1.7%	1.2%	2.0%	2.4%	2.3%
Electricity	2.3%	1.6%	2.1%	2.3%	2.3%
Coal and Coke	0.3%	} 0.3%	0.4%	0.4%	0.3%
Heating oil	0.2%		0.4%		
Total	4.5%	3.1%	4.5%	5.1%	4.9%

Source: Living Costs and Food Survey 2014, Office for National Statistics

(1) Includes non-consuming households

Households in the lowest income decile group (i.e. the 10% of households with the lowest income) spend almost half as much on domestic fuel per week compared to households in the highest income decile group (£19 compared to £36 per week). However, when comparing expenditure on domestic fuels as a proportion of total expenditure in 2014, then those in the lowest income decile group spend considerably more (10.0%) than those in the highest income decile group (3.2%).

Across all income deciles, households spent, on average, 4.9% of their total expenditure on fuel in 2014. This is a slight decrease on 2013 (5.1%), however, remains higher than 2010 (4.5%).

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CONTACTS

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For information on **North Sea profits, operating costs and investments** contact Mike Earp, Oil & Gas Authority, 0300 067 1604, Mike.Earp@oga.gsi.gov.uk

In addition, there is a general enquiry number, which the deaf and hard of hearing can use to contact BEIS: 0300 060 4000

Calling BEIS from overseas

Some overseas callers have experienced problems connecting to our 0300 numbers. If you have difficulties calling an extension from overseas, please call our dedicated 24 hour switchboard, +44 (20) 7979 7777. Your call will then be put through to a named person or extension.

CONVERSION FACTORS AND DEFINITIONS

CONVERSION FACTORS AND DEFINITIONS

To convert from the units on the left hand side to the units across the top multiply by the value in the table.

		Thousand	TJ	GWh	Million therms
		to: toe			
<i>from:</i>	Thousand toe	1	41.868	11.630	0.39683
	TJ	0.023885	1	0.27778	0.0094778
	GWh	0.085985	3.6000	1	0.034121
	Million therms	2.5200	105.51	29.307	1

Data relating to the energy content of fuels are on a gross calorific value basis.

Prices are presented in real terms i.e. the effect of inflation has been removed by adjusting each series using the GDP deflator.

The symbol '-' is used in the tables where the figure is nil or not separately available, and '.' is used to indicate 'not available'.

The Department for Business, Energy and Industrial Strategy is the source of all data except where stated.

All data within this publication are classified as National Statistics.

All figures are for the United Kingdom, except for pages 34, 35 and 36.

REFERENCES

The Department for Business, Energy and Industrial Strategy (BEIS) also produces the following energy and climate change statistics publications:

The **Digest of United Kingdom Energy Statistics** is the annual energy statistics publication of BEIS. With extensive tables, charts and commentary covering all the major aspects of energy, it provides a detailed and comprehensive picture of the last three years and a detailed picture for the last five years. It includes detailed information on the production and consumption of individual fuels and of energy as a whole. The 2016 edition, published on 28 July 2016, can be accessed at:

www.gov.uk/government/collections/digest-of-uk-energy-statistics-dukes

The **Energy Flow Chart** is an annual publication illustrating the flow of primary fuels from home production and imports to their eventual final uses. They are shown in their original state and after being converted into different kinds of energy by the secondary fuel producers. The 2016 edition of the chart, published on 28 July 2016, shows the flows for 2015 and can be accessed at: www.gov.uk/government/collections/energy-flow-charts

Energy Trends is a quarterly publication of statistics on energy in the United Kingdom. It includes tables, charts and commentary covering all major aspects of energy. It provides a comprehensive picture of energy production and use, to allow readers to monitor trends during the year. www.gov.uk/government/collections/energy-trends

Monthly updates to tables in Energy Trends split by fuel source are also available.

Energy Prices is a quarterly publication that contains tables, charts and commentary covering energy prices, to domestic and industrial consumers, for all the major fuels. It also presents comparisons of fuel prices in the European Union and G7 countries. www.gov.uk/government/collections/quarterly-energy-prices

Energy Consumption in the United Kingdom brings together statistics from a variety of sources to produce a comprehensive review of energy consumption and changes in efficiency, intensity and output since the 1970s, with a particular focus on trends since 1990. The information is presented in five sections covering overall energy consumption and energy consumption in the transport, domestic, industrial and service sectors.

www.gov.uk/government/collections/energy-consumption-in-the-uk

Fuel Poverty statistics are produced by BEIS to support the UK Fuel Poverty Strategy.

www.gov.uk/government/collections/fuel-poverty-statistics

UK Greenhouse Gas Emissions statistics are produced by BEIS to show progress against the UK's goals, both international and domestic, for reducing greenhouse gas emissions. www.gov.uk/government/collections/uk-greenhouse-gas-emissions

Household Energy Efficiency statistics are published by BEIS on the Energy Company Obligation (ECO) and Green Deal (GD). The headline release presents monthly updates of ECO measures and quarterly updates of in-depth ECO statistics, carbon savings and the Green Deal schemes. The detailed report presents annual updates on in-depth Green Deal statistics and insulation levels.

www.gov.uk/government/collections/household-energy-efficiency-national-statistics

REFERENCES

Sub-National Energy Consumption statistics are produced by BEIS to emphasise the importance of local and regional decision making for energy policy in delivering a number of national energy policy objectives.

www.gov.uk/government/organisations/department-for-business-energy-and-industrial-strategy

BEIS has constructed a **National Energy Efficiency Data-framework (NEED)** to enable detailed statistical analysis of energy efficiency. The data framework matches the gas and electricity consumption data collected for BEIS sub-national energy consumption statistics and records of energy efficiency measures in the Homes Energy Efficiency Database (HEED) run by the Energy Saving Trust (EST), as well as typographic data about dwellings and households.

www.gov.uk/government/collections/national-energy-efficiency-data-need-framework

