



A National Statistics Publication

ENERGY TRENDS

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Further information on Oil and Gas is available at: www.gov.uk/browse/business/generating-energy/oil-and-gas-exploration-and-production

This document is available in large print, audio and braille on request. Please e-mail <u>correspondence@decc.gsi.gov.uk</u> with the version you require.

This is a National Statistics publication

The United Kingdom Statistics Authority has designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the UK Statistics Authority: Code of Practice for Official Statistics.

Designation can be broadly interpreted to mean that the statistics:

- meet identified user needs
- are well explained and readily accessible
- are produced according to sound methods, and
- are managed impartially and objectively in the public interest

Once statistics have been designated as National Statistics it is a statutory requirement that the Code of Practice shall continue to be observed.

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This document is also available from our website at: <u>www.gov.uk/government/collections/energy-trends</u>

Explanatory notes are to be found inside the back cover

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The cover illustration used for Energy Trends and other DECC energy statistics publications is from a photograph by David Askew. It was a winning entry in the DTI News Photographic Competition in 2002.

Introduction

Energy Trends and Energy Prices are produced by the Department of Energy and Climate Change (DECC) on a quarterly basis. Both periodicals are published concurrently in June, September, December and March. The March editions cover the fourth quarter of the previous year and also the previous year as a whole.

Users are reminded that as from June 2015 both publications will only be available on the DECC section of the GOV.UK website at: <u>www.gov.uk/government/collections/energy-trends</u> and <u>www.gov.uk/government/collections/quarterly-energy-prices</u> in PDF format. The decision to cease printed copies of the publications was announced in the special feature article entitled <u>'Future of Energy Trends and Quarterly Energy Prices: printed publications'</u> in the September 2014 edition of Energy Trends.

Energy Trends includes information on energy as a whole and by individual fuels. The text and charts provide an analysis of the data in the tables. The tables are mainly in commodity balance format, as used in the annual Digest of UK Energy Statistics. The 2014 edition of the Digest was published on 31 July 2014. Printed and bound copies of the 2014 Digest can be obtained from The Stationery Office and an electronic version is available on the DECC section of the GOV.UK website at: www.gov.uk/government/collections/digest-of-uk-energy-statistics-dukes

The balance format shows the flow of a commodity from its sources of supply, through to its final use. The articles provide in-depth information on current issues within the energy sector.

The text and tables included in this publication represent a snapshot of the information available at the time of publication. However, the data collection systems operated by DECC, which produce this information, are in constant operation. New data are continually received and revisions to historic data made. To ensure that those who use the statistics have access to the most up-to-date information, revised data will be made available as soon as possible, via the electronic versions of these tables. The electronic versions are available free of charge from the DECC section of the GOV.UK website. In addition to quarterly tables, the main monthly tables that were published in the period up to May 2001 when Energy Trends was produced monthly, continue to be updated and are also available on the DECC section of the GOV.UK website. Both sets of tables can be accessed at:

www.gov.uk/government/organisations/department-of-energy-climate-change/about/statistics

Annual data for 2014 included within this edition is on a provisional basis. New data are continually received and revisions to previous data made. Finalised figures for 2014 will be published on the 30 July 2015 in the annual Digest of UK Energy Statistics.

Energy Trends does not contain information on Foreign Trade, Weather (temperature, wind speed, sun hours and rainfall) and Prices. Foreign Trade, and Weather tables are, however, available on the DECC section of the GOV.UK website at: www.gov.uk/government/organisations/department-of-energy-climate-change/about/statistics. Information on Prices can be found in the Energy Prices publication and on the DECC section of the GOV.UK website at: www.gov.uk/government/organisations/department-of-energy-climate-change/about/statistics. Information on Prices can be found in the Energy Prices publication and on the DECC section of the GOV.UK website at: www.gov.uk/government/collections/guarterly-energy-prices

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The main points for 2014:

- Total energy production was 1½ per cent lower than in 2013. This rate of decrease was though the lowest for 12 years, and was due to falls in nuclear output, and lower production of both coal and oil. Gas output increased for the first time since 2000. There was also continued growth from renewables.
- Imports in 2014 were 8 per cent lower than in 2013, with exports at their lowest level since 1980. As a result, net import dependency stood at 46.0 per cent.
- Crude oil & NGL production was 2½ per cent lower than in 2013, the lowest annual production volume since our current reporting system began.
- Natural gas production was ¼ per cent higher than in 2013, the first year-on-year increase in production since 2000. Gas exports and imports were, respectively, 17 per cent higher and 11 per cent lower than in 2013.
- Coal production was 10 per cent lower than in 2013 mainly due to geological conditions and weather conditions at some mines, and at a record low level. Coal imports were 18 per cent lower. Generators' demand for coal was 23 per cent lower. Coal stocks rose as a result of less coal being used for electricity generation and were 26 per cent higher.
- Total primary energy consumption for energy uses fell by 6½ per cent from 2013. When adjusted to take account of weather differences between 2013 and 2014, primary energy consumption fell by 2½ per cent.
- Final energy consumption was 5½ per cent lower than in 2013, with falls in the domestic, services and industrial sectors but with a rise in the transport sector. Domestic consumption fell by 14 per cent, with average temperatures in 2014 at record levels. On a seasonally and temperature adjusted basis final energy consumption was just over 1 per cent lower than in 2013.
- Gas demand was 9 per cent lower than in 2013, whilst electricity consumption was 4½ per cent lower than in 2013 and at the lowest level since 1998, with both falls driven by the warmer weather in 2014.
- Electricity generated in 2014 fell by 6½ per cent, from 359.2 TWh a year earlier to 335.0 TWh, with a large fall in generation from coal.
- Low carbon electricity's share of generation increased from 34.6 per cent in 2013 to 38.3 per cent in 2014, due to higher renewables generation.
- Of electricity generated in 2014, gas accounted for 30 per cent (a rise of 3 percentage points on 2013 and coal 29 per cent (a fall of 7 percentage points on 2013). Nuclear's share decreased by less than 1 percentage point on 2013 to 19 per cent of the total. Renewables' share of generation increased by 4 percentage points on 2013 to a record 19 per cent.
- Renewable electricity generation was 64.4 TWh in 2014, an increase of 20 per cent on the 53.7 TWh in 2013, with bioenergy up by 24 per cent and wind generation up 11 per cent. Renewables' share of electricity generation was a record 19.2 per cent in 2014, an increase of 4.3 percentage points on the 14.9 per cent in 2013. Renewable electricity capacity was 24.2 GW at the end of 2014, a 23 per cent increase (4.5 GW) on a year earlier.
- Provisional estimates show that carbon dioxide emissions fell between 2013 and 2014; the key
 factor leading to this decrease was the warmer weather in 2014 combined with the reduction in
 the use of coal in generation. A separate DECC statistical release published at:
 www.gov.uk/government/collections/provisional-uk-greenhouse-gas-emissions-nationalstatistics provides more detail.

The main points for the fourth quarter of 2014:

- Total energy production was just over 2 per cent lower when compared with the fourth quarter of 2013.
- Crude oil production fell by 4½ per cent when compared with the fourth quarter of 2013, however NGL production rose by a third as two new fields came online in 2014.
- Natural gas production was 1 per cent higher than the fourth quarter of 2013. Gas imports fell by 3 per cent, whilst exports rose by 18 per cent.
- Coal production in the fourth quarter of 2014 was ½ per cent higher than the fourth quarter of 2013. Coal imports were 22 per cent lower as generators' demand for coal was down by 19 per cent.
- Total primary energy consumption for energy uses fell by 3½ per cent. However, when adjusted to take account of weather differences between the fourth quarter of 2013 and the fourth quarter of 2014, primary energy consumption fell by just over 2 per cent.
- Final energy consumption was 2½ per cent lower than in the fourth quarter of 2013. On a seasonally and temperature adjusted basis final energy consumption fell by just under 1½ per cent.
- Gas demand was ½ per cent lower than the fourth quarter of 2013, whilst electricity consumption was 3½ per cent lower than in the fourth quarter of 2013, both driven down by the warmer weather in 2014.
- Electricity generated in the fourth quarter of 2014 fell by 5 per cent, from 93.9 TWh a year earlier to 89.0 TWh.
- Of electricity generated in the fourth quarter of 2014, coal accounted for 30 per cent, whilst gas accounted for 29 per cent. Nuclear generation accounted for 16 per cent of total electricity generated in the fourth quarter of 2014, down from the 19 per cent share in the fourth quarter of 2013, due to planned and unplanned outages at four EDF stations.
- Renewables' share of electricity generation increased to a new record of 22 per cent from the 18 per cent share in the fourth quarter of 2013. Generation from bioenergy increased by 51 per cent, with the impact of a second conversion at Drax to biomass increasing capacity. Due to increased capacity, offshore wind generation rose by 16 per cent, however onshore wind generation fell by 6½ per cent. Hydro generation increased by 1½ per cent on the fourth quarter of 2013. Renewable electricity generation was a record 19.6 TWh in 2014 Q4, an increase of 17 per cent on the 16.8 TWh in 2013 Q4.
- In the fourth quarter of 2014, 336 MW of installed capacity was confirmed on the Feed in Tariff scheme, increasing the total confirmed to 3,325 MW, across 647,000 installations.

Key results show:

Provisional 2014

Total energy production was 1.5 per cent lower than in 2013. This rate of decrease was though the lowest for 12 years, and was due to falls in nuclear output, and lower production of both coal and oil. Gas output increased for the first time since 2000. There was also continued growth from renewables. **(Chart 1.1)**

Total primary energy consumption for energy uses was 6.4 per cent lower than in 2013. However, when adjusted to take account of weather differences between 2013 and 2014, primary energy consumption fell by 2.4 per cent. **(Chart 1.3**)

Final energy consumption was 5.6 per cent lower than in 2013, with falls in the domestic, services and industrial sectors but with a rise in the transport sector, on a temperature corrected basis it is estimated to have fallen by 1.2 per cent. Average temperatures in 2014 were at record levels. (Charts 1.4 & 1.5)

Net import dependency was 46.0 per cent in 2014. Imports fell in 2014 whilst exports were at their lowest level since 1980. Fossil fuel dependency was at a record low in 2014 at 84.6 per cent. (Charts 1.6 & 1.7)

Quarter 4 2014

Total energy production was 2.2 per cent lower than in the fourth quarter of 2013. (**Chart 1.2**)

Total primary energy consumption for energy uses fell by 3.3 per cent. However, when adjusted to take account of weather differences between the fourth quarter of 2013 and the fourth quarter of 2014, primary energy consumption fell by 2.2 per cent. **(Chart 1.3)**

Final energy consumption fell by 2.2 per cent compared to the fourth quarter of 2013, with the warmer weather a factor, on a temperature corrected basis it is estimated to have fallen by 1.5 per cent. (Charts 1.4 & 1.5)

Chart 1.1 Production of indigenous primary fuels



Total production in 2014 was 112.6 million tonnes of oil equivalent, 1.5 per cent lower than in 2013. This rate of decrease, the smallest in 12 years, was due to a fall in output from nuclear sources due to outages, and lower production of both coal and oil.

Production of natural gas rose slightly by 0.3 per cent between 2013 and 2014 due to the start-up of the Jasmine and Breagh fields. This was the first annual increase in production since 2000.

Production of bioenergy & waste rose by 14.1 per cent between 2013 and 2014. Primary electricity output fell by 5.2 per cent between 2013 and 2014, due to reduced nuclear output, though wind and natural flow hydro rose by 17.9 per cent.

Chart 1.2 UK production (annual growth rate)



In Q4 2014 production was 2.2 per cent lower than in Q4 2013. Nuclear output was down by 23 per cent, with oil production also down. Bioenergy was up by 24 per cent, with output from other fuels broadly unchanged.

Chart 1.3 Total inland consumption (primary fuel input basis)⁽¹⁾



(1) Seasonally adjusted and temperature corrected annual rates.

Total inland consumption on a primary fuel input basis (temperature corrected, seasonally adjusted annualised rate), was 198.0 million tonnes of oil equivalent in 2014, a fall of 2.4 per cent from 2013. On an unadjusted basis, consumption was down 6.4 per cent. The average temperature in 2014 was 1.2 degrees Celsius warmer than in 2013. DECC estimate that the number of heating degree days decreased by 21 per cent from 2250 to 1772.

Between 2013 and 2014 (on a seasonally adjusted and temperature corrected basis) coal and other solid fuel consumption fell by 14.2 per cent, nuclear fell by 9.7 per cent and gas consumption fell by 1.3 per cent. There were though increases in the consumption of oil and renewables.

Total inland consumption on a primary fuel input basis (temperature corrected, seasonally adjusted annualised rate), was 200.0 million tonnes of oil equivalent in the fourth quarter of 2014, a fall of 2.2 per cent compared to the fourth quarter of 2013. On an unadjusted basis, consumption was down 3.3 per cent; the average temperature in the fourth quarter of 2014 was 0.3 degrees Celsius warmer than the same period a year earlier.

Consumption of nuclear and coal were both down sharply, falling on an unadjusted basis by 23 and 19 per cent respectively. These reductions in consumption for electricity generation were partly offset by increased bioenergy and electricity imports.





In 2014, total final consumption (including non-energy use) was 5.3 per cent lower than in 2013.

Total final energy consumption fell by 1.7 per cent between the fourth quarter of 2013 and the fourth quarter of 2014.

Domestic sector energy consumption fell by 4.5 per cent between the fourth quarter of 2013 and the fourth quarter of 2014, annually it fell by 14.0 per cent reflecting the warmer weather in 2014.

Service sector energy consumption fell by 2.6 per cent between the fourth quarter of 2013 and the fourth quarter of 2014; annually it fell by 8.0 per cent.

Industrial sector energy consumption fell by 4.2 per cent between the fourth quarter of 2013 and the fourth quarter of 2014; annually it fell by 5.0 per cent.

Transport sector energy consumption rose by 1.0 per cent between the fourth quarter of 2013 and the fourth quarter of 2014; annually it rose by 2.1 per cent.

Chart 1.5 Seasonally adjusted and temperature corrected final energy consumption



Total unadjusted final energy consumption (excluding non-energy use) fell by 5.6 per cent between 2013 and 2014. On a seasonally and temperature adjusted basis final energy consumption (excluding non-energy use) is estimated to have fallen by 1.2 per cent, continuing the falling trend of the last 10 years

Total unadjusted final energy consumption (excluding non-energy use) fell by 2.2 per cent between the fourth quarter of 2013 and the fourth quarter of 2014.

On a seasonally and temperature adjusted basis final energy consumption (excluding non-energy use) is estimated to have decreased by 1.5 per cent between the fourth quarter of 2013 and the fourth quarter of 2014.

Consumption data by fuel and sector is available in the table ET 1.3c on the DECC section of the GOV.UK website at:

www.gov.uk/government/statistics/total-energy-section-1-energy-trends

Chart 1.6 Net import dependency



Annually, total imports fell by 8.1 per cent to 163.5 million tonnes of oil equivalent. Exports were also down 7.8 per cent to 70.3 million tonnes of oil equivalent, its lowest annual level since 1980. These falls have resulted in net import dependency decreasing by 1.1 percentage points from 2013 to stand at 46.0 per cent.

In the fourth quarter of 2014, imports fell by 4.2 per cent, whilst exports fell by 4.4 per cent. As a result, net import dependency fell 0.6 percentage points from the fourth quarter of 2013 to 46.8 per cent.





Dependency on fossil fuels in the fourth quarter of 2014 was 85.4 per cent, down 0.5 percentage points from the fourth quarter of 2013. Annually fossil fuel dependency was at a record low of 84.6 per cent, down 1.6 percentage points from 2013.

Relevant tables

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TABLE 1.1. Indigenous production of primary fuels

Million tonnes of oil equivalent

1

							Primary electricity				
		Total	Coal ¹	Petroleum ²	Natural gas ³	Bioenergy & waste ^{4,5}	Wi Nuclear	nd and natural flow hydro ⁶			
2010		157.9	11.5	69.0	57.2	5.2	13.9	1.19			
2011		136.8	11.6	56.9	45.3	5.5	15.6	1.84			
2012		122.0	10.6	48.8	38.9	6.2	15.2	2.26			
2013		114.4	8.0	44.5	36.5	6.9	15.4	3.02			
2014 p		112.6r	7.2	43.5r	36.6	7.9r	13.9	3.57			
Per cent	change	-1.5	-10.6	-2.3	+0.3	+14.1	-9.7	+17.9			
2013	Quarter 4	29.4	1.7	11.5	9.3	1.8	4.0	1.06			
2014	Quarter 1	30.6r	1.8	12.1	9.9	2.0	3.6	1.18r			
	Quarter 2	28.9r	1.8	11.3	9.3	2.0	3.8	0.65			
	Quarter 3	24.4	1.9r	8.9	8.0	1.6	3.4	0.63r			
	Quarter 4 p	28.7r	1.7	11.2	9.4	2.2r	3.1	1.10r			
Per cent	change ⁷	-2.2	+0.1	-2.6	+0.8	+24.1	-22.6	+4.2			

1. Includes an estimate of slurry.

2. Crude oil, offshore and land, plus condensates and petroleum gases derived at onshore treatment plants.

3. Includes colliery methane, excludes gas flared or re-injected.

4. Includes solid renewable sources (wood, straw and waste), a small amount of renewable primary heat sources (solar, geothermal etc), liquid biofuels and sewage gas and landfill gas.

5. Bioenergy & waste introduced as a separate category from March 2014 - see special feature article in the March 2014 edition of Energy Trends at: www.gov.uk/government/collections/energy-trends-articles

6. Includes generation by solar PV.

7. Percentage change between the most recent quarter and the same quarter a year earlier.

TABLE 1.2 Inland energy consumption: primary fuel input basis

Million tonnes of oil equivalent

						_		Primary electricity						_	F	rimary electricity	
					Natural	Bioenergy	,	Wind and natural	Net			1	Vatural	Bioenergy	١	Wind and natural	Net
		Total	Coal ¹	Petroleum ²	gas ³	& waste4, 5	Nuclear	flow hydro ⁶	imports	Total	Coal	Petroleum	gas	& waste	Nuclear	flow hydro	imports
		Unadjuste	d ⁷							Seasonally	adjusted	and temperate	ure corre	cted ^{8,9} (annual	ised rates)		
2010		218.7	32.7	70.2	93.6	6.9	13.9	1.19	0.23	212.7	31.1	70.2	89.2	6.9	13.9	1.19	0.23
2011		202.9	32.3	67.8	77.6	7.2	15.6	1.84	0.53	208.5	34.0	67.8	81.5	7.2	15.6	1.84	0.53
2012		207.2	41.0	66.9	73.3	7.7	15.2	2.26	1.02	207.2	40.9	66.9	73.3	7.7	15.2	2.26	1.02
2013		205.9	39.2	65.5	72.7	8.8	15.4	3.02	1.24	203.0r	38.4r	65.5	70.5	8.8	15.4	3.02	1.24
2014 p		192.7r	31.3	65.7r	66.0	10.4r	13.9	3.57	1.76	198.0r	33.0r	65.7r	69.6	10.4r	13.9	3.57	1.76
Per cent	change	-6.4	-20.0	+0.2	-9.2	+18.7	-9.7	+17.9	+42.1	-2.4	-14.2	+0.2	-1.3	+18.7	-9.7	+17.9	+42.1
2013	Quarter 4	54.3	10.2	16.7	19.8	2.3	4.0	1.06	0.29	204.5r	37.0r	66.9r	69.8	9.2	16.9r	3.43r	1.17
2014	Quarter 1	55.3r	10.3	15.7	21.6	2.4	3.6	1.18r	0.42	197.8r	37.4r	62.9r	68.1r	9.8r	13.9	4.06	1.68
	Quarter 2	43.9r	7.0	16.3r	13.1	2.5r	3.8	0.65	0.44	197.3r	34.7r	65.3r	67.5r	9.9r	15.0	3.16r	1.75
	Quarter 3	41.0r	5.7	16.7r	11.5	2.5r	3.4	0.63r	0.47	196.9r	28.9r	67.0r	71.8r	10.0r	13.9r	3.46r	1.87
	Quarter 4 p	52.5r	8.3	16.9r	19.7	3.0r	3.1	1.10r	0.44	200.0r	30.9r	67.5r	71.1r	12.2r	12.9r	3.58r	1.76
Per cent	change ¹⁰	-3.3	-18.6	+0.9	-0.6	+31.8	-22.6	+4.2	+50.4	-2.2	-16.4	+0.9	+1.8	+31.8	-23.4	+4.5	+50.4

1. Includes net foreign trade and stock changes in other solid fuels.

2. Inland deliveries for energy use, plus refinery fuel and losses, minus the differences between deliveries and actual consumption at power stations.

3. Includes gas used during production and colliery methane. Excludes gas flared or re-injected and non-energy use of gas.

4. Includes solid renewable sources (wood, straw and waste), a small amount of renewable primary heat sources (solar, geothermal, etc.), liquid biofuels, landfill gas and sewage gas.

5. Bioenergy & waste introduced as a separate category from March 2014 - see special feature article in the March 2014 edition of Energy Trends at:

www.gov.uk/government/collections/energy-trends-articles

6. Includes generation by solar PV. Excludes generation from pumped storage stations.

7. Not seasonally adjusted or temperature corrected.

8. Coal and natural gas are temperature corrected; petroleum, bioenergy and waste, and primary electricity are not temperature corrected.

9. For details of temperature correction see the June and September 2011 editions of Energy Trends; Seasonal and temperature adjustment factors were reassessed in June 2013

www.gov.uk/government/collections/energy-trends

10. Percentage change between the most recent quarter and the same quarter a year earlier.

Table 1.3a Supply and use of fuels

											Thousa	nd tonnes of c	il equivalent
				2012	2013	2013	2013	2013	2014	2014	2014	2014	
	2013	2014 p	per cent change	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter p	per cent change ¹
SUPPLY			-					-					-
Indigenous production	114,366	112,618	-1.5	29,398	30,357	29,062	25,591	29,356	30,576r	28,897r	24,437r	28,709	-2.2
Imports	177,984	163,485	-8.1	46,402	47,063r	46,055r	40,106r	44,759r	43,515r	38,871r	38,226r	42,873	-4.2
Exports	-76,182	-70,276	-7.8	-17,608	-19,292	-20,642	-18,328	-17,920	-17,942	-18,274r	-16,933r	-17,127	-4.4
Marine bunkers	-2,691	-2,485	-7.6	-702	-665	-714	-684	-629	-636	-599	-619	-631	+0.3
Stock change ²	+53	-2.988		+1.496	+5.934	-4.226	-2.129	+473	+1.720r	-3.028r	-2.247r	+567	
Primary supply	213,530	200,354	-6.2	58,985	63,398r	49,535r	44,557r	56,039r	57,233r	45,866r	42,864r	54,391	-2.9
Statistical difference ³	-644r	-416		-51	-115r	-285r	-155r	-89r	-53r	-178r	-60r	-125	
Primary demand	214,173r	200,770	-6.3	59,036	63,513r	49,821r	44,712r	56,128r	57,286r	46,044r	42,924r	54,516	-2.9
Transfers ⁴	324r	310		-12	81r	75r	73r	95r	79r	59r	83r	89	
TRANSFORMATION	-48,693r	-44,111	-9.4	-13,192	-13,925r	-11,169r	-11,083r	-12,516r	-12,217r	-10,425r	-9,940r	-11,530	-7.9
Electricity generation	-44,647r	-40,159	-10.1	-12,242	-12,884r	-10,245r	-10,117r	-11,400r	-11,123r	-9,494r	-8,998r	-10,544	-7.5
Heat generation	-1,138	-1,139	-	-329	-364	-258	-217	-299	-364	-258	-217	-299	+0.0
Petroleum refineries	-75	-140	+85.0	-79	-14	35	-4	-92	-11r	-32r	-22	-75	-18.6
Coke manufacture	-446	-229	-48.7	-57	-97	-90	-146	-113	-59	-51	-59r	-60	-47.1
Blast furnaces	-2,381	-2,379	-0.1	-487	-563	-609	-602	-607	-644	-573	-626r	-537	-11.5
Patent fuel manufacture	-6	-67	(+)	1	-3	-1	3	-5	-16	-17	-18r	-15	(+)
Energy industry use	12,597	11,541	-8.4	3,083	3,282	3,266	3,061	2,988	3,010r	2,850r	2,749r	2,932	-1.9
Losses	3,179	3,288	+3.4	813	918	784	654	823	944r	717r	699r	928	+12.7
FINAL CONSUMPTION	150,027r	142,140	-5.3	41,931	45,428r	34,682r	30,001r	39,916r	41,155r	32,117r	29,633r	39,235	-1.7
Iron & steel	1,346	1,391	+3.3	306	336	333	330	347	362	348	355r	326	-5.9
Other industries	22,881r	21,620	-5.5	5,990	6,631r	5,396r	5,006r	5,847r	6,240r	5,086r	4,686r	5,608	-4.1
Transport	53,418	54,524	+2.1	13,749	12,254	13,624	13,841	13,699	12,760	13,754r	14,181r	13,829	+1.0
Domestic	43,794	37,675	-14.0	14,623	17,834	8,551	4,822	12,588	14,351r	6,680r	4,627r	12,018	-4.5
Other Final Users	20,942r	19,257	-8.0	5,700	6,571r	4,698r	3,966r	5,706r	5,560r	4,250r	3,892r	5,555	-2.6
Non energy use	7,646r	7,673	+0.3	1,563	1,802r	2,080r	2,035r	1,730r	1,883r	1,999r	1,892r	1,899	+9.8
Net import dependency	47.1%	46.0%		48.2%	43.4%	50.6%	48.1%	47.4%r	44.2%r	44.3%r	49.0%r	46.8%	
Fossil fuel dependency	86.2%	84.6%		88.5%	88.2%	86.1%	83.5%	85.9%	86.2%	83.2%r	82.9%	85.4%	
Low carbon share	12.9%	14.0%		10.9%	11.1%	13.0%	15.2%	13.2%	12 7%r	15.3%r	15.4%	13.3%	
	12.070	11.070		10.070	1111/0	10.070	10.270	10.270	12.1 /01	10.0701	10.170	10.070	

1. Percentage change between the most recent quarter and the same quarter a year earlier.

2. Stock fall (+), stock rise (-).

3. Primary supply minus primary demand.

4. Annual transfers should ideally be zero. For manufactured fuels differences occur in the rescreening of coke to breeze.

For oil and petroleum products differences arise due to small variations in the calorific values used.

5. See article in the December 2010 edition of Energy Trends at:

http://webarchive.nationalarchives.gov.uk/20130109092117/http://www.decc.gov.uk/en/content/cms/statistics/publications/trends/trends.aspx

Table 1.3b Supply and use of fuels

Thousand tonnes of oil equivalent

		2013 Quarter 4										2014 Quarter 4 p							
	Coal	Manufactured fuels ⁴	Primary oil	Petroleum Products	Natural gas ⁵	Bioenergy & waste ⁶	Primary electricity	Electricity	Heat sold	Coal	Manufactured fuels ⁴	Primary oil	Petroleum Products	Natural gas ⁵	Bioenergy & waste ⁶	Primary electricity	Electricity	Heat sold	
SUPPLY																			
Indigenous production	1,708	-	11,524	-	9,312	1,780	5,032	-	-	1,709	-	11,224	-	9,388	2,208	4,179	-	-	
Imports	7,773	119	14,287	9,263	12,340	595	-	381	-	6,098	179	15,355	7,857	11,992	900	-	492	-	
Exports	-140	-18	-9,330	-6,516	-1,758	-68	-	-89	-	-79	-9	-9,546	-5,301	-2,072	-67	-	-53	-	
Marine bunkers	-	-	-	-629	-	-	-	-	-	-	-	-	-631	-	-	-	-	-	
Stock change ¹	+751	-3	-245	-57	+28	-	-	-	-	+464	-62	-534	+203	+495	-	-	-	-	
Primary supply	10,091	97	16,236	2,061	19,922	2,307	5,032	292	-	8,192	108	16,500	2,128	19,803	3,041	4,179	439	-	
Statistical difference ²	-5	-2	+8	-62	-46	-2	-	+19	-	-54	-0	-35	+39	-33	-	-	-41	-	
Primary demand	10,096	99	16,228	2,123	19,969	2,309	5,032	273	-	8,246	108	16,535	2,089	19,837	3,041	4,179	481	-	
Transfers ³	-	0	-168	+263	-0	-	-1,060	+1,060	-	-	+6	-517	+601	-	-	-1,104	+1,104	-	
TRANSFORMATION	-9,579	415	-16,060	15,784	-4,966	-1,468	-3,973	6,949	382	-7,811	312	-16,018	15,779	-5,415	-2,167	-3,075	6,483	382	
Electricity generation	-8,124	-232	-	-140	-4,440	-1,441	-3,973	6,949	-	-6,585	-209	-	-130	-4,889	-2,139	-3,075	6,483	-	
Heat generation	-98	-13	-	-17	-526	-28	-	-	382	-98	-13	-	-17	-526	-28	-	-	382	
Petroleum refineries	-	-	-16,060	15,968	-	-	-	-	-	-	-	-16,018	15,943	-	-	-	-	-	
Coke manufacture	-1,012	899	-	-	-	-	-	-	-	-853	793	-	-	-	-	-	-	-	
Blast furnaces	-303	-304	-	-	-	-	-	-	-	-235	-302	-	-	-	-	-	-	-	
Patent fuel manufacture	-42	64	-	-27	-	-	-	-	-	-40	43	-	-17	-	-	-	-	-	
Energy industry use	0	200	-	1,052	1,123	-	-	573	40	-	185	-	1,080	1,162	-	-	465	40	
Losses	-	60	-	-	157	-	-	606	-	-	39	-	-	146	-	-	743	-	
FINAL CONSUMPTION	517	254	-	17,117	13,723	840	-	7,103	362	435	202	-	17,389	13,113	874	-	6,860	362	
Iron & steel	10	141	-	1	115	-	-	81	-	10	115	-	1	118	-	-	81	-	
Other industries	368	20	-	1,131	1,936	153	-	2,026	212	284	14	-	1,126	1,915	152	-	1,906	212	
Transport	3	-	-	13,308	-	300	-	88	-	3	-	-	13,436	-	302	-	88	-	
Domestic	128	57	-	799	8,670	259	-	2,661	15	111	42	-	745	8,290	272	-	2,543	15	
Other final users	8			305	2,882	129		2,247	136	28			334	2,669	148	-	2,241	136	
Non energy use	-	36	-	1 573	120	-	-	-		-	31	-	1 748	120	-	-	_	-	

1. Stock fall (+), stock rise (-).

2. Primary supply minus primary demand.

 Annual transfers should ideally be zero. For manufactured fuels differences occur in the rescreening of coke to breeze. For oil and petroleum products differences arise due to small variations in the calorific values used.

4. Includes all manufactured solid fuels, benzole, tars, coke oven gas and blast furnace gas.

5. Inludes colliery methane.

6. Includes geothermal, solar heat and biofuels for transport; wind and wave electricity included in primary electricity figures.

Section 2 - Solid Fuels and Derived Gases

Key results show:

Provisional 2014

Overall production in 2014 was 11.5 million tonnes, its lowest on record, and down 10.2 per cent (-1.3 million tonnes) compared to 2013, with deep-mined output down 9.9 per cent (-0.4 million tonnes) and surface mined output down 8.6 per cent (-0.7 million tonnes) due to a number of mines closing and unfavourable geological and weather conditions at some mines. **(Chart 2.1)**

Coal imports were down 17.7 per cent (-8.8 million tonnes) on levels in 2013. (Chart 2.1)

The demand for coal by electricity generators in 2014, was 38.4 million tonnes (a new record low). This was 23 per cent (-11.6 million tonnes) lower than the demand in 2013, due to reduced capacity and lower overall electricity demand. **(Chart 2.3)**

Total stocks at the end of 2014 were 18.0 million tonnes, 26 per cent higher than at the end of 2013 (14.3 million tonnes). **(Chart 2.4)**

Quarter 4 2014

In the fourth quarter of 2014, overall production was up 0.7 per cent (+0.02 million tonnes) compared to quarter 4 2013 with deep-mined output up 8.7 per cent (+0.1 million tonnes). (Chart 2.1)

Coal imports were down 22 per cent (-2.6 million tonnes) on levels shown in quarter 4 2013. (Chart 2.1)

The demand for coal by electricity generators in the fourth quarter of 2014 was 19.0 per cent (-2.5 million tonnes) lower than demand in the fourth quarter of 2013, reflecting reduced capacity and lower demand for electricity overall (Chart 2.3)



Chart 2.1 Coal supply

Provisional figures for 2014, as a whole, show that coal production was 10 per cent down on 2013 at 11.5 million tonnes. Deep mined production was down 9.9 per cent at 3.7 million tonnes (a new record low). Surface mine production was down by 8.6 per cent at 7.8 million tonnes (also at a new record low). No slurry was produced in 2014.

Provisional figures for the fourth quarter of 2014, show that coal production rose to 2.8 million tonnes, up 0.7 per cent on the fourth quarter of 2013.

Imports of coal in 2014 as a whole were 18 per cent down on 2013 at 40.6 million tonnes. This was due to lower demand from electricity generators. The decline was due to a number of reasons, outages at several power stations, the closure of Uskmouth and the partial closure of Ferrybridge C during 2014, a second unit of Drax being converted to biomass, lower demand for generation overall and changes in the relative prices of coal and gas.

Table 2A	Coal	imports	by	origin
----------	------	---------	----	--------

			Thousand Tonnes					
	2013	2014 p	2013 Q4	2014 Q4 p				
European Union	1,228	764	278	128				
Russia	20,250	17,262	4,510	3,273				
Colombia	11,494	9,278	2,658	2,890				
USA	12,196	10,706	2,866	2,580				
Australia	2,147	1,249	780	309				
Other Countries	2,087	1,388	890	155				
Total imports	49,402	40,645	11,983	9,334				

Chart 2.2 Steam Coal imports by origin





Steam coal imports in 2014 fell by 21 per cent to 34.2 million tonnes and accounted for 84 per cent of total coal imports.

Coking coal imports in 2014 rose 1.6 per cent to 6.3 million tonnes and accounted for 16 per cent of total coal imports.

Total coal imports in the fourth quarter of 2014 decreased by 22 per cent to 9.3 million tonnes, with 35 per cent of total coal imports coming from Russia.

Steam coal imports in Q4 2014 fell by 25 per cent to 7.9 million tonnes and accounted for 85 per cent of total coal imports.

Coking coal imports in Q4 2014 rose 3.2 per cent to 1.4 million tonnes and accounted for 15 per cent of total coal imports.

In 2014, 34.1 million tonnes of the coal imported (84 per cent) was steam coal, largely for the power stations market.

All but 4 per cent of UK steam coal imports in 2014 came from just three countries: Russia (46 per cent), Colombia (27 per cent) and the USA (23 per cent).

Steam coal imports decreased from Russia 18 per cent (-3.3 million tonnes), Colombia 19 per cent (-2.1 million tonnes) and the USA 19 per cent (-1.8 million tonnes) from 2013.

In the fourth quarter of 2014 all but 2 per cent of UK steam coal imports came from just three counties: Russia (38 per cent), Colombia (37 per cent) and the USA (23 per cent).

Steam coal imports were down by 25 per cent, with large falls recorded from Russia (31 per cent), and the USA (26 per cent).







Chart 2.4 Coal stocks

Relevant tables

Total demand for coal in 2014 was 48.1 million tonnes, 20 per cent lower than in 2013, with consumption by electricity generators down by 23 per cent (-11.6 million tonnes) to a new record low of 38.4 million tonnes.

Electricity generators accounted for 80 per cent of total coal use in 2014; compared with 83 per cent in 2013.

Total demand for coal in the fourth quarter of 2014, at 12.8 million tonnes, was 18 per cent lower than in the fourth quarter of 2013. Consumption by electricity generators was down by 19 per cent to 10.5 million tonnes.

Electricity generators accounted for 82 per cent of total coal use in the fourth quarter of 2014; compared with 83 per cent a year earlier.

Sales to final consumers (as measured by disposals to final consumers) fell by 3 per cent in 2014. Sales to industrial users fell by 14 per cent.

Sales to final consumers were down by 16 per cent in the fourth quarter of 2014. Sales to industrial users decreased by 22 per cent.

Coal used in blast furnaces was 0.3 million tonnes in the fourth quarter of 2014, a decrease of 23 per cent compared to the fourth quarter of 2013.

Coal stocks showed a seasonal fall of 0.7 million tonnes during the fourth quarter of 2014 and stood at 18.0 million tonnes, 3.7 million tonnes higher than at the end of December 2013.

The level of coal stocks at power stations at the end of the fourth quarter of 2014 was 15.2 million tonnes, 3.3 million tonnes higher than at the end of December 2013, reflecting lower use for generation from coal.

Stocks held by coke ovens were 0.8 million tonnes at the end of quarter 4 2014, this was 0.3 million tonnes higher than stock levels at the end of the fourth quarter of 2013.

Stocks held by producers (undistributed stocks) increased during the fourth quarter of 2014 to stand at 0.9 million tonnes, 0.2 million tonnes higher than at the end of December 2013.

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and other manufactured solid fuels	Page 18
2.3: Supply and consumption of coke oven gas, blast furnace gas, benzole and tars	Page 19

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2 SOLID FUEL AND DERIVED GASES

Table 2.1 Supply and consumption of coal

												Thou	isand tonnes
				2012	2013	2013	2013	2013	2014	2014	2014	2014	
			per cent	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	per cent
	2013	2014 p	change	quarter p	change ¹								
SUPPLY													
Indigenous production	12,847	11,535	-10.2	3,869	3,754	3,465	2,898	2,731	2,818	2,975r	2,991r	2,750	+0.7
Deep mined	4,089	3,685	-9.9	1,184	1,350	1,124	785	829	932	936	916	901	+8.7
Surface mining ²	8,584	7,849	-8.6	2,550	2,404	2,268	2,011	1,902	1,887	2,038r	2,075r	1,849	-2.8
Other sources	175	-	-100.0	135	-	73	102r	-	-	-	-	-	
Imports ³	49,402	40,645	-17.7	11,505	12,035	12,843	12,540	11,983	12,653	10,631r	8,026r	9,334	-22.1
Exports ⁴	593	425	-28.4	134	186	127	95	185	129	79	112	105	-43.3
Stock change ⁵	-1,298	-3,663	(+)	+3,057	+2,686	-2,683	-2,383	+1,082	+529r	-2,644r	-2,272r	+724	-33.1
Total supply	60,358	48,092	-20.3	18,298	18,289	13,498	12,960	15,611	15,873r	10,883r	8,633r	12,703	-18.6
Statistical difference	-46	-52	+11.0	+341	-7	-17	-7	-15	+53r	-28r	-28r	-49	(+)
Total demand	60,405	48,143	-20.3	17,956	18,297	13,515	12,966	15,627	15,820r	10,911r	8,661r	12,751	-18.4
TRANSFORMATION	57,561	45,617	-20.7	17,322	17,544	12,819	12,318	14,880	15,140r	10,275r	8,079r	12,123	-18.5
Electricity generation	50,042	38,398	-23.3	15,715	15,777	10,984	10,348	12,933	13,257	8,431r	6,232r	10,478	-19.0
Heat generation ⁶	609	609	-	128	179	143	129	157	179	143	129	157	-
Coke manufacture	5,288	4,839	-8.5	1,149	1,242	1,310	1,404	1,331	1,235	1,252	1,230r	1,122	-15.7
Blast furnaces	1,411	1,513	+7.3	279	294	325	393	399	411	377	416r	309	-22.5
Patent fuel manufacture	212	258	+22.0	51	52	57	43	60	57	72	72r	57	-5.0
Energy industry use	3	1	-78.0	1	1	0	0	0	0	0	-	-	-100.0
FINAL CONSUMPTION	2,841	2,525	-11.1	634	751	695	648	747	680r	635r	582r	628	-15.9
Iron & steel	53	55	+3.7	13	13	13	13	13	14	14	14	14	+1.8
Other industries	2,094	1,798	-14.2	427	547	514	485	549	501r	460r	414	423	-23.0
Domestic	646	590	-8.6	185	179	160	139	168	155r	149r	139	148	-12.1
Other final users	48	82	+72.3	9	12	9	11	16	11r	13	15	43	(+)
Stocks at end of period													
Distributed stocks	13,591	17,114	+25.9	11,883	9,385	12,104	14,548	13,591	13,101r	15,726	17,873r	17,114	+25.9
Of which:													
Major power producers ⁷	11,871	15,183	+27.9	9,561	8,151	10,093	12,336	11,871	11,999r	14,701	14,609r	15,183	+27.9
Coke ovens	518	795	+53.3	831	558	1,170	952	518	323	473	739r	795	+53.3
Undistributed stocks	696	865	+24.3	1,120	933	897	836	696	686	705	838r	865	+24.3
Total stocks ⁸	14,287	17,979	+25.8	13,003	10,317	13,000	15,383	14,287	13,787r	16,431	18,711r	17,979	+25.8

1. Percentage change between the most recent quarter and the same quarter a year earlier.

2. The term 'surface mining' has now replaced opencast production. Opencast production is a surface mining technique.

3. For a detailed breakdown of UK Imports by country and grade of coal refer to Table 2.4 Coal imports (internet table only).

4. Trade is counted as an export under three conditions, when it is recorded as an import and is subsequently exported; it enters the UK port with the intention of being imported but due to a change of ownership at the port it is exported without having cleared the port; and when items leave the warehouse and are exported. Trade is not classified as exports when it is resting at a UK port and the UK is not the intended final destination.

5. Stock fall (+), stock rise (-).

6. Heat generation is based on an annual figure and is then split over a quarterly period. The 2014 heat generation will not be published until the end of July 2015. Therefore, the 2013 figure

is used as an estimate for 2014.

This includes stocks held at ports.

8. For some quarters, closing stocks may not be consistent with stock changes, due to additional stock adjustments

March 2015

2 SOLID FUEL AND DERIVED GASES

Table 2.2 Supply and consumption of coke oven coke, coke breeze and other manufactured solid fuels

												Thou	sand tonnes
	2013	2014 p	per cent change	2012 4th quarter	2013 1st quarter	2013 2nd quarter	2013 3rd quarter	2013 4th quarter	2014 1st quarter	2014 2nd quarter	2014 3rd quarter	2014 4th quarter p	per cent change ³
SUPPLY													
Indigenous production	4,136	3,906	-5.6	948	984	1,052	1,053	1,047	994	1,025	990r	897	-14.3
Coke Oven Coke	3,769	3,601	-4.4	853	894	958	969	949	919	940	912r	830	-12.5
Coke Breeze	32	31	-2.6	8	8	8	8	8	8	8	8	7	-12.2
Other MSF	336	274	-18.4	87	83	87	76	90	67	77	70	60	-33.6
Imports	834	940	+12.7	156	105	327	235	167	204	202	283r	251	+50.2
Exports	117	112	-4.3	42	36	35	20	26	40	30	29	13	-50.2
Stock change ¹	-123	-212	+72.5	-41	+91	-98	-111	-5	+42	-92	-75	-87	(+)
Transfers	0	-5		-	-	0	0	-0	-1	-13	9	-	-100.0
Total supply	4,730	4,518	-4.5	1,022	1,144	1,246	1,157	1,183	1,199	1,093	1,177r	1,049	-11.4
Statistical difference	-2	-1	-67.2	-2r	-1	-	-0	-1r	-0	-	-0	-0	
Total demand	4,732	4,519	-4.5	1,024	1,145	1,246	1,157	1,184	1,200	1,093	1,177r	1,049	-11.4
TRANSFORMATION	3,713	3,585	-3.4	782	902	987	913	911	958	856	929r	842	-7.6
Coke manufacture	-	-		-	-	-	-	-	-	-	-	-	
Blast furnaces	3,713	3,585	-3.4	782	902	987	913	911	958	856	929r	842	-7.6
Energy industry use	-	-		-	-	-	-	-	-	-	-	-	
FINAL CONSUMPTION	1,019	934	-8.4	242	243	259	244	273	242	237	248r	207	-24.2
Iron & steel	626	634	+1.2	142	141	156	159	169	165	161	174r	134	-20.9
Other industries	83	45	-46.4	15	14	25	22	23	11	10	10	14	-40.2
Domestic	310	256	-17.5	84	88	78	63	81	66	66	64	59	-26.5
Stocks at end of period ²	714	712	-0.3	854	500	689	599	714	465	525r	624r	712	-0.3

1. Stock fall (+), stock rise (-).

2. For some quarters, closing stocks may not be consistent with stock changes, due to additional stock adjustments

3. Percentage change between the most recent quarter and the same quarter a year earlier.

2 SOLID FUEL AND DERIVED GASES

Table 2.3 Supply and consumption of coke oven gas, blast furnace gas, benzole and tars

													GWh
				2012	2013	2013	2013	2013	2014	2014	2014	2014	
	2013	2014 p	per cent change	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter p	per cent change ¹
SUPPLY													
Indigenous production	25,625	25,441	-0.7	5,651	5,915	6,502	6,660	6,548	6,628	6,393	6,673r	5,748	-12.2
Coke oven gas	8,479	8,473	-0.1	1,989	2,004	2,140	2,216	2,119	2,132	2,211	2,199r	1,931	-8.9
Blast furnace gas	15,515	15,386	-0.8	3,286	3,516	3,959	4,027	4,013	4,075	3,762	4,094r	3,455	-13.9
Benzole & tars	1,630	1,582	-3.0	375	395	403	417	416	421	420	380r	361	-13.2
Transfers	56	140	(+)	26	28	11	13	4	9	25	40r	66	(+)
Total supply	25,680	25,581	-0.4	5,677	5,943	6,513	6,673	6,552	6,637	6,418r	6,713r	5,813	-11.3
Statistical difference	-29	-55	+88.3	-13	+20	-21	-16	-13	-18	-21	-10	-5	-64.6
Total demand	25,710	25,636	-0.3	5,690	5,923	6,534	6,688	6,565	6,656	6,440	6,723r	5,818	-11.4
TRANSFORMATION	11,522	10,983	-4.7	2,593	2,778	3,009	2,887	2,849	2,885r	2,816r	2,708r	2,575	-9.6
Electricity generation	10,925	10,386	-4.9	2,443	2,629	2,860	2,737	2,699	2,735r	2,666r	2,558r	2,426	-10.1
Heat generation ²	598	598	-	149	149	149	149	149	149	149	149	149	-
Energy industry use	9,041	9,331	+3.2	2,141	2,070	2,289	2,358	2,323	2,463	2,333	2,381r	2,154	-7.3
Losses	2,500	2,517	+0.7	299	445	604	755	697	579	561	926r	452	-35.2
FINAL CONSUMPTION	2,646	2,804	+6.0	658	629	632	689	695	729r	729r	709r	637	-8.4
Iron & steel	842	1,058	+25.7	235	181	196	231	235	277r	265r	285r	232	-1.1
Other industries	174	165	-5.3	48	53	33	42	45	32	45	44	44	-2.8
Non-Energy Use ³	1,630	1,582	-3.0	375	395	403	417	416	421	420r	380r	361	-13.2

1. Percentage change between the most recent quarter and the same quarter a year earlier.

2. For Heat generation, the 2014 figures currently shown are the 2013 figures carried forward - these will be updated in July 2015.

3. From 2009, unclassified final consumption for benzole and tars has been recorded under non energy use

Key results show:

Provisional 2014

UK production of crude and NGL's was 2.3 per cent lower in 2014, despite this, imports were 7.2 per cent lower, reflecting lower refinery use, while exports were 6.6 per cent lower. There has been a general decline in crude oil production since the 1990s. (**Chart 3.1**)

Refinery production in 2014 decreased by 8.8 per cent; this was partly driven by the closure of Milford Haven in 2014 as well as disruptions at other refineries. There were large decreases in the production of motor spirit, diesel, fuel oil and burning oil. (**Chart 3.2**)

In 2014 the UK was a net importer of petroleum products by 7.9 million tonnes, the highest annual figure since 1984 when industrial action in the coal sector led to greater demand for oil products. The UK is a net importer of DERV and aviation turbine fuel but a net exporter of motor spirit. (Chart 3.3)

In 2014, net imports of primary oils (Crude, NGL's *and* process oils) made up 36 per cent of UK supply, down from 39 per cent in 2013. **(Chart 3.3)**

In 2014, overall final consumption of petroleum products was up slightly, by 0.6 per cent, compared with 2013, this was the first annual increase since 2005. **(Chart 3.4)**

In 2014 total deliveries of key transport fuels increased by 1.9 per cent compared with 2013. Road diesel (DERV) deliveries increased by 3.4 per cent, aviation fuel was up by 3.9 per cent, while motor spirit deliveries decreased by 2.0 per cent. (**Chart 3.5**)

Quarter 4 2014

In Q4 2014, UK production of crude oil decreased by 4.4 per cent compared with Q4 2013. However, production of Natural Gas Liquids (NGLs) increased by a third in the latest quarter as two new fields came online in 2014 that produce a high proportion of NGLs compared to crude. (**Chart 3.1**).

Refinery production in Q4 2014 was up by 0.2 per cent compared with Q4 2013. Despite the cessation of refining activity at Milford Haven in 2014, production in Q4 2013 had been very low due to the temporary closure of a major UK refinery. (**Chart 3.2**)

Imports of petroleum products decreased by 15.2 per cent compared with Q4 2013, however, exports were also down, by 18.3 per cent. As a result the UK was a net importer of petroleum products in Q4 2014 by 2.3 million tonnes, the fourth largest net import figure on record. (Chart 3.2)

Total deliveries of key transport fuels were higher in Q4 2014 by 1.0 per cent. Within this, demand for DERV increased by 4.4 per cent but this was partially offset by a decrease in demand for motor spirit and aviation turbine fuel. **(Chart 3.5)**

At the end of 2014 total stocks of crude, process oils and petroleum products were 0.7 per cent lower than at the end of 2013. An increase in stocks of crude and process oils held abroad for the UK (bilateral agreements) was offset by a decrease in product stocks held abroad. (Chart 3.7)

Chart 3.1 Production and trade of crude oil and NGLs



Provisional figures for 2014 show that UK crude oil and NGL production was 2.3 per cent lower than 2013. Production has been in decline for nearly 20 years, however, the rate of decline slowed in 2013. Production was buoyed by an increase in NGL production, up 12 per cent on 2013 as a result of two new fields coming on line.

Despite reduced indigenous production, imports of crude oil and NGL's, decreased by 7.2 per cent in 2013. This was partly due to a decrease in exports (down 6.6 per cent on 2013) but mainly due to lower refinery demand.

Imports of refinery feedstocks were down by over a quarter and exports were up by nearly a quarter. This is due to the recent low price of crude which has made it more economically viable for UK refineries to process crude rather than other feedstocks.

In Q4 2014, indigenous crude oil production decreased by 4.4 per cent compared with Q4 2013. However, production of Natural Gas Liquids (NGLs) increased by a third in the latest quarter.

In Q4 2013 imports of crude oil and NGL's increased by 14.9 per cent on the previous year to 13.0 million tonnes. Q4 2013 had been a particularly low quarter for imports due to the temporary closure of a major refinery.

Chart 3.2 Production and trade of petroleum products



In 2014, production of petroleum products was 8.8 per cent lower compared with 2013. This is partly due to the cessation of refining activity at the Milford Haven refinery and maintenance issues at another major refinery. There has also been rationalisation elsewhere in the sector as well as an on-going decline in UK refinery production.

The shortfall in production resulted in much lower exports of petroleum products. In total, exports of petroleum products were down nearly a fifth to 21 million tonnes, the lowest annual figure since 2001. Imports increased by 2.8 per cent in 2014, which is again indicative of lower production. As a result, net imports of petroleum products were 7.9 million tonnes in 2014, the highest annual figure since 1984 when industrial action in the coal sector led to greater demand for oil products.

In Q4 2014, production of petroleum products was broadly similar to Q4 2013, despite refinery production ceasing at Milford Haven.

Chart 3.3 Overall trade of crude oil and NGLs, and petroleum products



Net imports of primary oils (crude, NGL's and feedstocks) narrowed by 4.0 million tonnes from 25.3 million tonnes in 2013 to 21.3 million tonnes in 2014. This was mainly due to lower refinery demand.

Net imports in 2014 met around 36 per cent of UK demand for primary oils, down slightly from 39 per cent in 2013. Crude oil import dependence has been on an increasing trend as the production from the UK Continental Shelf continues to decline. The decrease in production in 2013 was largely offset by reduced refinery demand which reduced demands for imports of crude oil and NGLs.

The UK was a net importer of petroleum products in 2014 by 7.9 million tonnes, the highest annual figure since 1984 when industrial action reduced coal production and necessitated increased oil imports for electricity generation..

Chart 3.4 Final consumption of oil



In 2014, overall final consumption of petroleum products was up slightly, by 0.6 per cent, compared with 2013. This was the first such increase since 2005. Within this:

Domestic consumption, mainly used for heating, was lower by 17.2 per cent in 2014. This reflects higher temperatures in 2014 than 2013.

Non energy use was up slightly, by 1.4 per cent. This was partially due to maintenance activity at chemical plants which reduced consumption in 2013.

Transport use, which accounts for more than threequarters of UK final consumption, was higher by 1.9 per cent in 2014. (See chart 3.5 for more detail).

In Q4 2014, overall final consumption of petroleum products was up by 2.0 per cent on Q4 2013. Within this, domestic use was 6.6 per cent lower with average temperatures in the fourth quarter being milder than Q4 2013.

Chart 3.5 Demand for key transport fuels



In 2014, total deliveries of hydrocarbon transport fuels were higher by 1.9 per cent. Within this:

Demand for diesel road fuel (DERV) increased by 3.4 per cent whilst motor spirit deliveries fell by 2.0 per cent. These are both the continuation of an ongoing trend as more motorists switch from motor spirit to diesel.

In 2014, demand for aviation fuels increased by 3.9 per cent. This reflects higher passenger numbers in 2014, which were up around 4 per cent in the first 3 quarters (passenger figures for Q4 are not yet available).

In Q4 2014, total deliveries of key hydrocarbon transport fuels rose by 1 per cent. Within this, demand for DERV increased by 4.4 per cent but this was partially offset by a decrease in demand for unleaded motor spirit and aviation turbine fuel.

Chart 3.6 Supermarket share of road fuel sales



The proportion of road fuels sold at supermarkets was around 43 per cent in 2014. This is down slightly from nearly 44 per cent in 2013, the first annual decrease since this data was first recorded in 1999. The proportion of road fuels sold at supermarkets is still far higher than it was 10 years ago when it accounted for around 27 per cent of sales.

In 2014, 44 per cent of retail sales of motor spirit were at supermarkets compared to 45 per cent in 2013. 42 per cent of diesel retail sales were at supermarkets, roughly the same level as 2013.

In Q4 2013 43 per cent of road fuels were sold at supermarkets, up slightly from the same quarter in 2013 when supermarkets accounted for just over 42 per cent of retail sales.

The Supermarket figures refer to Asda, Morrisons, Sainsbury's and Tesco only.

Chart 3.7 UK oil stocks



At the end of 2014 total stocks of crude and products were down slightly on the end of 2013, by 0.7 per cent. An increase in crude and product stocks was offset by a decrease in stocks of products.

Total stocks of crude oil and process oils were 8.7 per cent (0.6 million tonnes) higher than a year earlier. This was the result of a large increase in crude stocks held abroad for the UK (under bilateral agreements). From 2013 onwards, EC Directive 2009/119/EC came into effect and this has led to changes in how petroleum products were defined and what opportunities UK companies have with respect to how they choose to meet their stocking obligations. It has taken some time for the market to settle down under the new regulations.

Stocks of petroleum products at the end of 2014 were lower by 9.1 per cent (0.7 million tonnes).

Chart 3.7 shows crude and product stocks held for the UK. At the end of 2014, UK companies held stocks equal to around 77 days of consumption.

Chart 3.8 Drilling activity on the UKCS



There were 32 exploration and appraisal wells started offshore in 2014, compared to 44 in 2013.

There were 126 development wells drilled offshore in 2014, compared to 120 in 2013.

There were 8 exploration and appraisal wells started onshore in 2014, compared to 7 in 2013.

There were 11 development wells drilled onshore in 2014, compared to 8 in 2013.

Relevant tables

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Table 3.1 Supply and use of crude oil, natural gas liquids and feedstocks¹ Thousand tonnes 2012 2013 2013 2013 2013 2014 2014 2014 2014 per cent per cent 4th 1st 2nd 3rd 4th 1st 2nd 3rd 4th 2013 2014 p change quarter quarter quarter quarter quarter quarter quarter p change⁸ quarter quarter SUPPLY 39.698 10.397 10.541 11.052r 40.646 10,394 10.600 9.108 10.278r 8.112r 10.256 Indigenous production² -2.3 -2.7 Crude oil 38,456 37,245 -3.1 9,816 10,006 9,729 8,647 10,074 10,369r 9,634r 7,609r 9,633 -4.4 2,190 2,453 578 594 668 461 466 683 644 503 623 NGLs³ +12.0+33.659.137 53.580 13,619 14.541 16.344 15.195 13.056 13.086r 12.500r 13.957r 14.037 Imports⁴ -9.4 +7.552,470 48,672 -7.2 12,798 12,880 14,773 13,533 11,284 11,587r 11,319r 12,804r 12,963 +14.9Crude oil & NGLs Feedstocks 6,667 4,907 -26.4 821 1,660 1,571 1,662 1,773 1,499r 1,182 1,153 1,074 -39.4 33,844 32,266 8,798 8,905 8,821 7,587 8,531 8,451 7,922r 7,172r 8,720 Exports⁴ -4.7 +2.2Crude Oil & NGLs 31,754 29,665 -6.6 7,722 8.314 8.314 7.045 8.082 7.811 7,215 6.658r 7,981 -1.2 Feedstocks 2,089 2,601 +24.5 1,076 590 507 542 450 640 707 514 740 +64.4+724 -498 -740 +555 -222 +615 -224 -320 +251r -489 +60r Stock change⁵ -1,674 -1,320 -391 -496 -572 -490 -116 -327 -293 -274 -426 Transfers⁶ Total supply 64,990 59,193 -8.9 14,085 16,296 17,126 16,842 14,726 15,040r 14,624 14,874r 14,656 -0.5 -44 -31 -101 -93 -21 +51 +20 -0 -15 +3 -19 Statistical difference⁷ Total demand 65.034 59.225 -8.9 14.186 16,389 17.148 16,791 14,706 15,037r 14.624 14.889r 14,675 -0.2 17,148 TRANSFORMATION 65,034 59,225 -8.9 14,186 16,389 16,791 14,706 15,037r 14,624r 14,889 14,675 -0.2 Petroleum refineries 65.034 59,225 -8.9 14,186 16,389 17,148 16,791 14,706 15,037r 14,624r 14,889 14,675 -0.2

1. As there is no use made of primary oils and feedstocks by industries other than the oil and gas extraction and petroleum refining industries, other industry headings have not been included in this table. As such, this table is a summary of the activity of what is known as the Upstream oil industry.

2. Includes offshore and onshore production.

3. Natural Gas Liquids (NGLs) are condensate and petroleum gases derived at onshore treatment plants.

4. Foreign trade as recorded by the Petroleum Industry which may differ from the figures published by HM Revenue and Customs in the Overseas Trade Statistics. Data are subject to further revision as revised information on imports and exports becomes available.

5. Stock fall (+), stock rise (-). Stocks include stocks held at refineries, at oil terminals and also those held in tanks and partially loaded vessels at offshore facilities.

6. Mostly direct disposals to petrochemical plants.

7. Total supply minus total demand.

8. Percentage change between the most recent quarter and the same quarter a year earlier.

Table 3.2 Supply and use of petroleum products

												Thous	and tonnes
				2012	2013	2013	2013	2013	2014	2014	2014	2014	
			per cent	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	per cent
	2013	2014 p	change	quarter p	change ¹								
SUPPLY													
Indigenous production ²	67,139	61,253	-8.8	14,525	16,890r	17,776r	17,332r	15,141r	15,595r	15,159r	15,321r	15,177	+0.2
Imports ³	28,245	29,035	+2.8	8,375	6,376r	6,648r	6,756r	8,465r	6,899r	7,371r	7,584r	7,180	-15.2
Exports ³	26,223	21,143	-19.4	5,304	6,783	6,879	6,600	5,961	5,934	5,372r	4,971	4,867	-18.3
Marine bunkers	2,540	2,340	-7.9	666	626	677	645	591	600	563	582	595	+0.7
Stock change ⁴	+106	+292		-5	+30	+53	+63	-41	+204	+227	-324	+184	
Transfers ⁵	-463	-817		-27	-13	-29	-49	-371	-238	-272	-181	-125	
Total supply	66,265	66,281	+0.0	16,899	15,875r	16,891r	16,856r	16,643r	15,927r	16,550r	16,848r	16,955	+1.9
Statistical difference ⁶	-102	-59		-68	+51r	-8r	-89r	-56r	-20r	+22r	-20r	-41	
Total demand	66,367	66,340	-0.0	16,966	15,824r	16,899r	16,945r	16,698r	15,947r	16,529r	16,868r	16,996	+1.8
TRANSFORMATION	726	616	-15.2	236	203	155	190	178	169	150	143r	154	-13.5
Electricity generation	551	459	-16.6	188	158	112	151	130	125	110	107r	117	-10.0
Heat generation	65	65	+0.6	19	16	16	16	16	16	16	16	16	+0.5
Other Transformation	111	91	-17.8	29	29	26	24	32	27	24	20	20	-35.9
Energy industry use	4,387	4,076	-7.1	974	1,087	1,155	1,156	989	1,040	998	1,029	1,008	+1.9
Petrolem Refineries	3,768	3,456	-8.3	819	932	1,000	1,001	834	885	843	875	853	+2.2
Blast Furnaces	-	-		-	-	-	-	-	-	-	-	-	
Others	619	619	+0.0	154	155	155	155	155	155	155	155	155	+0.0
FINAL CONSUMPTION	61,253	61,648	+0.6	15,756	14,534r	15,589r	15,599r	15,531r	14,738r	15,381r	15,695r	15,834	+2.0
Iron & steel	4	4	+0.1	1	1	2	1	1	1	1	1	1	+69.0
Other industries	4,280	4,202	-1.8	1,210	1,090r	1,081r	1,052r	1,057r	1,057r	992r	1,049r	1,105	+4.5
Transport	47,104	47,981	+1.9	12,190	10,833	12,021	12,184	12,066	11,243	12,090r	12,463r	12,185	+1.0
Domestic	2,489	2,060	-17.2	795	890	483	398	719	668	362r	359	671	-6.6
Other final users	1,113	1,084	-2.6	299	256	289	288	280	234	283r	261r	307	+9.9
Non energy use	6,263	6,317	+0.9	1,262	1,463r	1,714r	1,676r	1,410r	1,536r	1,653r	1,563r	1,565	+11.0

1. Percentage change between the most recent quarter and the same quarter a year earlier.

2. Includes refinery production and petroleum gases extracted as products during the production of oil and gas.

3. Foreign trade as recorded by the Petroleum Industry which may differ from the figures published by HM Revenue and Customs in the Overseas Trade Statistics. Data are subject for further revision as revised information on imports and exports becomes available.

4. Stock fall (+), stock rise (-).

5. Mainly transfers from product to feedstock.

6. Total supply minus total demand.

Table 3.3 Supply and use of petroleum products - annual data

																	Thousand	d tonnes
					2013									2014 p				
	Total Petroleum Products	Motor spirit	DERV ⁹	Gas oil ¹	Aviation turbine fuel	Fuel oils	Petroleum gases²	Burning oil	Other products ³	Total Petroleum Products	Motor spirit	DERV ⁹	Gas oil ¹	Aviation turbine fuel	Fuel oils	Petroleum gases²	Burning oil	Other products ³
SUPPLY																		
Indigenous production ⁴	67,139r	17,572	14,831	8,193	4,527	6,483	6,820r	2,705	6,008	61,253	14,679	13,726	8,049	4,635	4,807	6,539	2,093	6,724
Imports ⁵	28,245	4,511	10,145	589	8,077	626	414	637	3,246	29,035	3,876	11,350	714	8,473	1,023	404	500	2,696
Exports ⁵	26,223	10,213	2,843	3,310	970	4,586	1,165	381	2,755	21,143	7,744	1,878	3,463	1,072	3,546	898	164	2,378
Marine bunkers	2,540	-	-	1,248	-	1,292	0	-	-	2,340	-	-	1,280	-	1,059	-	-	-
Stock change [°]	+106	-356	+46	+91	-20	+93	+11	+52	188	+292	+113	-61	+24	+123	+107	-30	-15	31
Transfers'	-463	+1,060	-253	+250	-535	-401	+23	+463	-1,070	-817	+1,401	-459	+439	-642	-616	+23	+621	-1,583
Total supply	66,265r	12,574	21,926	4,566	11,080	922	6,103r	3,477	5,617	66,281	12,326	22,678	4,482	11,517	715	6,037	3,035	5,491
Statistical difference ⁸	-102r	+0	+0	-66	-3	+9	-15r	+16	-45	-59	-0	+2	-28	+3	-13	+2	-12	-11
Total demand	66,367	12,574	21,926	4,631	11,083	913	6,118	3,460	5,662	66,340	12,326	22,675	4,511	11,515	728	6,036	3,047	5,502
TRANSFORMATION	726	-	-	105	-	252	207	-	162	616	-	-	103	-	214	207	-	91
Electricity generation	551	-	-	100	-	199	201	-	51	459	-	-	97	-	161	201	-	0
Heat generation	65	-	-	5	-	53	7	-	-	65	-	-	5	-	53	7	-	-
Petroleum refineries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coke manufacture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Patent fuel manufacture	111	-	-	-	-	-	-	-	111	91	-	-	-	-	-	-	-	91
Energy industry use	4,387	-	-	619	-	331	2,133	-	1,303	4,076	-	-	622	-	160	2,088	-	1,206
FINAL CONSUMPTION	61,253r	12,574	21,926	3,907	11,083	330	3,777r	3,460	4,197	61,648	12,326	22,675	3,787	11,515	354	3,740	3,047	4,204
Iron & steel	4	-	-	-	-	3	1	-	-	4	-	-	-	-	4	-	-	-
Other industries	4,280r	-	-	1,520	-	147	497r	1,400	-	4,202	-	-	1,497	-	172	658	1,317	-
Transport	47,104	12,574	21,926	1,323	11,083	89	94	-	16	47,981	12,326	22,675	1,272	11,515	87	88	-	18
Domestic	2,489	-	-	129	-	-	300	2,060	-	2,060	-	-	99	-	-	231	1,730	-
Other final users	1,113	-	-	921	-	90	102	-	-	1,084	-	-	909	-	90	85	-	-
Non energy use	6,263r	-	-	14	-	-	2,783r	-	3,466	6,317	-	-	11	-	-	2,678	-	3,627

1. Includes: Middle distillate feedstock destined for use in the petrochemical industry and marine diesel o

2. Includes ethane, propane, butane and other petroleum gases.

3. Includes naphtha, industrial and white spirits, lubricants, bitumen, petroleum waxes, petroleum coke and other oil products.

4. Includes refinery production and petroleum gases extracted as products during the production of oil and gas.

5. Foreign trade as recorded by the Petroleum Industry which may differ from the figures published by HM Revenue and Customs in the Overseas Trade Statistics

Data are subject to further revision as revised information on imports and exports becomes available.

6. Stock fall (+), stock rise (-).

7. Mainly transfers from product to feedstock.

Total supply minus total demand.

9. See page 15 of the March 2011 edition of Energy Trends for a note concerning changes to this table.

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Table 3.4 Supply and use of petroleum products - latest quarter

			2	2013 4th	quarter							20	14 4th q	uarter p				
	Total Petroleum Products	Motor spirit	DERV°	Gas oil¹	Aviation turbine fuel	Fuel oils	Petroleum gases²	Burning oil	Other products ^³	Total Petroleum Products	Motor spirit	DERV°	Gas oil¹	Aviation turbine fuel	Fuel oils	Petroleum gases²	Burning oil	Other products ^³
SUPPLY																		
Indigenous Production ⁴	15,141r	3,996	3,243	1,963	852	1,583	1,410r	631	1,464	15,177	3,499	3,472	1,929	1,184	1,226	1,603	575	1,688
Imports ⁵	8,465	1,139	3,195	129	2,491	131	133	310	937r	7,180	936	2,835	157	2,062	227	71	216	676
Exports ⁵	5,961	2,418	689	782	197	954	194	85	642	4,867	1,680	261	830	346	959	150	15	627
Marine bunkers	591	-	-	331	-	260	-	-	-	595	-	-	295	-	300	-	-	-
Stock change ⁶	-41	-52	+15	-17	-128	+69	+34	-33	+71	+184	-22	+23	+17	+142	+67	+3	-32	-14
Transfers ⁷	-371	+480	-57	+53	-193	-330	+3	+183	-511	-125	+354	-108	+104	-238	-103	+6	+237	-376
Total supply	16,643r	3,145	5,706	1,016	2,825	239	1,385r	1,007	1,320r	16,955	3,086	5,961	1,083	2,804	158	1,533	982	1,347
Statistical difference ⁸	-56r	+1	+0	-157	-10	+63	-1r	+45	+3	-41	-0	+2	-18	+7	-7	+1	-8	-17
Total demand	16,698r	3,145	5,706	1,173	2,835	175	1,386r	961	1,317r	16,996	3,086	5,960	1,100	2,798	166	1,532	990	1,364
TRANSFORMATION	178	-	-	26	-	59	52	-	41	154	-	-	28	-	53	52	-	20
Electricity generation	130	-	-	25	-	46	50	-	9	117	-	-	27	-	40	50	-	-
Heat generation	16	-	-	1	-	13	2	-	-	16	-	-	1	-	13	2	-	-
Petroleum refineries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coke manufacture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Patent fuel manufacture	32	-	-	-	-	-	-	-	32	20	-	-	-	-	-	-	-	20
Energy industry use	989	-	-	155	-	52	488	-	294	1,008	-	-	156	-	30	537	-	285
FINAL CONSUMPTION	15,531r	3,145	5,706	992	2,835	64	846r	961	982r	15,834	3,086	5,960	916	2,798	82	944	990	1,058
Iron & steel	1	-	-	-	-	1	-	-	-	1	-	-	-	-	1	-	-	-
Other industries	1,057r	-	-	380	-	37	139r	350	151r	1,105	-	-	349	-	24	188	396	148
Transport	12,066	3,145	5,706	337	2,835	14	26	-	3	12,185	3,086	5,960	301	2,798	14	23	-	4
Domestic	719	-	-	29	-	-	78	611	-	671	-	-	24	-	-	53	594	-
Other final users	280	-	-	243	-	13	23	-	-	307	-	-	241	-	43	24	-	-
Non energy use	1,410r	-	-	3	-	-	579r	-	828	1,565	-	-	1	-	-	656	-	907

1. Includes middle distillate feedstock destined for use in the petrochemical industry and marine diesel

2. Includes ethane, propane, butane and other petroleum gases.

3. Includes naphtha, industrial and white spirits, lubricants, bitumen, petroleum waxes, petroleum coke and other oil products.

4. Includes refinery production and petroleum gases extracted as products during the production of oil and gas.

5. Foreign trade as recorded by the Petroleum Industry which may differ from the figures published by HM Revenue and Customs in the Overseas Trade Statistics. Data are subject to further revision as revised information on imports and exports becomes available.

6. Stock fall (+), stock rise (-).

7. Mainly transfers from product to feedstock.

8. Total supply minus total demand.

Thousand tonnes

Table 3.5 Demand for key petroleum products¹

												The	usand tonnes
			4	2012	2013	2013	2013	2013	2014	2014	2014	2014	
	2013	2014 p	per cent change	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter p	per cent change ²
MOTOR SPIRIT													
of which, Hydrocarbon ³	12,574	12,326	-2.0%	3,288	2,983	3,268	3,178	3,145	2,974	3,163	3,103	3,086	-1.9%
of which, Bio-ethanol ⁴	650	645	-0.9%	161	151	161	178	160	152	164	168	160	0.0%
Total Motor Spirit including Bio-ethanol	13,224	12,971	-1.9%	3,449	3,134	3,429	3,355	3,305	3,126	3,327	3,271	3,247	-1.8%
of which, sold through Supermarkets ⁵	5,974	5,755	-3.7%	1,552	1,431	1,528	1,539	1,476	1,373	1,471	1,448r	1,464	-0.8%
of which, sold through Refiners, and other traders ⁶	7,250	7,216	-0.5%	1,897	1,704	1,901	1,816	1,829	1,753	1,856	1,823r	1,783	-2.5%
of which, sold via commercial sales ⁷	-	-		-	-	-	-	-	-	-	-	-	
DIESEL ROAD FUEL													
Hydrocarbon ⁸	21,926	22,675	3.4%	5,685	5,104	5,598	5,518	5,706	5,341	5,674	5,701	5,960	4.4%
Bio-diesel ⁹	682	850	24.7%	101	114	170	197	201	174	230	243	204	1.3%
Total Diesel Road Fuel including Bio-diesel	22,607	23,525	4.1%	5,786	5,218	5,768	5,715	5,907	5,514	5,903	5,944	6,164	4.3%
of which, sold through Supermarkets ¹⁰	6,217	6,394	2.8%	1,519	1,471	1,577	1,607	1,562	1,508	1,602	1,625r	1,658	6.2%
of which, sold through Refiners, and other traders ¹¹	8,519	8,946	5.0%	2,251	1,929	2,182	2,118	2,289	2,087r	2,247r	2,252r	2,360	3.1%
of which, sold via commercial sales ¹²	7,871	8,185	4.0%	2,015	1,817	2,008	1,989	2,056	1,919r	2,054	2,067r	2,146	4.4%
OTHER GAS DIESEL OIL ¹³	4,631	4,511	-2.6%	1,246	1,149	1,143	1,166	1,173	1,065r	1,125r	1,221r	1,100	-6.2%
AVIATION FUELS													
Total sales	11,099	11,533	3.9%	2,839	2,367	2,774	3,119	2,838	2,547	2,881	3,304r	2,801	-1.3%
Aviation spirit	16	18	18.6%	4	3	4	5	3	7	5	4	4	15.4%
Aviation turbine fuel	11,083	11,515	3.9%	2,835	2,365	2,770	3,114	2,835	2,541	2,876	3,300r	2,798	-1.3%
FUEL OIL													
Total Sales	581	569	-2.2%	188	174	147	136	123	154r	140r	140r	135	9.8%
Light	229	247	7.7%	130	81	60	69	19	49r	77r	72r	48	155.0%
Medium	139	126	-10.0%	35	32	45	31	32	32r	31r	31r	32	0.6%
Heavy	213	196	-7.8%	23	61	43	37	72	73r	32r	37r	55	-24.2%

1. Monthly data for inland deliveries of oil products are available - See DECC website: https://www.gov.uk/government/collections/oil-statistics

2. Percentage change between the most recent quarter and the same quarter a year earlie

3. Demand excluding bioethanol. Based on HMRC data

4. Bioethanol based on HMRC data and excludes other renewables

5. Data for sales by supermarkets collected by a monthly reporting system. Includes Asda, Morrisons, Sainsburys and Tesco only.

6. Equals total motor spirit sales minus supermarket and commercial sales.

7. Commercial sales are estimated through returns provided by the UK's refiner:

8. Demand excluding biodiesel. Based on HMRC data

9. Biodiesel based on HMRC data and excludes other renewables.

10. Data for sales by supermarkets collected by a monthly reporting system. Includes Asda, Morrisons, Sainsburys and Tesco only.

11. Equals total diesel sales minus supermarket and commercial sales.

12. Commercial sales are estimated through returns provided by the UK's refiners

13. This includes gas diesel oil used for other purposes such as heating and middle distillate feedstock destined for use in the petrochemical industry.

Table 3.6 Stocks of petroleum¹ at end of period

															Thousar	nd tonnes
			Crude oil a	and refinery p	rocess oil				Petro	pleum product	ts				Total stocks	
		Refineries ²	Terminals ³	Offshore ⁴	Net bilaterals of Crude and Process oil ⁵	Total ⁵	Motor Spirit ⁶	Kerosene ⁷	Gas/Diesel Oil ^e	Fuel oils	Other products ⁹	Net bilaterals of products ⁵	Total products	Total Net bilaterals ⁵	Total Stocks in UK ¹⁰	Total stocks
2010		4,110	1,049	520	210	5,889	797	1,397	1,946	544	917	2,563	8,164	2,773	11,280	14,053
2011		3,889	694	540	151	5,274	696	1,454	1,949	525	845	2,100	7,569	2,251	10,592	12,843
2012		3,829	1,194	473	195	5,690	605	1,427	1,940	491	841	2,441	7,743	2,636	10,798	13,434
2013		3,592	1,102	513	1,469	6,677	1,041	1,419	1,539	404	693	2,432	7,528	3,901	10,304	14,205
2014 p		3,876	1,195	460	1,728	7,259	947	1,178	1,633	246	773	2,064	6,841	3,792	10,195	14,100
2012	4th quarter	3,829	1,194	473	195	5,690	605	1,427	1,940	491	841	2,441	7,743	2,636	10,798	13,434
2013	1st quarter	3,588	965	392	1,562	6,507	1,073	1,103	1,704	490	963	1,827	7,160	3,388	10,278	13,666
	2nd quarter	3,843	1,274	508	1,719	7,344	987	1,235	1,634	481	872	2,005	7,213	3,724	10,833	14,557
	3rd quarter	3,314	1,020	473	1,943	6,750	1,015	1,276	1,641	469	804	1,841	7,047	3,784	10,012	13,797
	4th quarter	3,592	1,102	513	1,469	6,677	1,041	1,419	1,539	404	693	2,432	7,528	3,901	10,304	14,205
2014	1st quarter	3,538	1,216	452	1,946	7,152	1,066	1,210	1,454	364	710	1,769	6,573	3,715	10,010	13,725
	2nd quarter	3,384	1,226r	548	1,799	6,956r	887	1,118	1,688	228	718	1,529	6,168	3,328	9,797	13,124r
	3rd quarter	3,248	1,309	429	1,863	6,849	914	1,259	1,659	323	684	2,215	7,054	4,078	9,826	13,904
	4th quarter p	3,876	1,195	460	1,728	7,259	947	1,178	1,633	246	773	2,064	6,841	3,792	10,195	14,100
Per cent	change ¹¹	+7.9	+8.4	-10.3	+17.6	+8.7	-9.0	-17.0	+6.1	-39.0	+11.6	-15.2	-9.1	-2.8	-1.1	-0.7

1. Stocks held at refineries, terminals and power stations. Stocks in the wholesale distribution system and certain stocks at offshore fields (UK Continental Shelf [UKCS]), and others held underare approved bilateral agreements also included.

2. Stocks of crude oil, NGLs and process oil at UK refineries.

3. Stocks of crude oil and NGLs at UKCS pipeline terminals.

4. Stocks of crude oil in tanks and partially loaded tankers at offshore fields (UKCS).

5. The difference between stocks held abroad for UK use under approved bilateral agreements and the equivalent stocks held in the UK for foreign use. From 2013 onwards, EU Directive 2009/119/EC came into effect and this has lead to changes in how UK companies manage their stock-holding. The increase in crude stocks held abroad was at the expense of a decrease in product stocks held under similar agreements.

6.Motor spirit and aviation spirit.

7. Aviation turbine fuel and burning oil.

8. Gas oil, DERV fuel, middle distillate feedstock (mdf) and marine diesel oil.

9. Ethane, propane, butane, other petroleum gases, naphtha (ldf), industrial and white spirits, bitumen, petroleum wax, lubricating oil, petroleum coke, and miscellaneous products.

10. Stocks held in the national territory or elsewhere on the UKCS

11. Percentage change between the most recent quarter and the same quarter a year earlier.

March 2015

Table 3.7 Drilling activity¹ on the UKCS

Number of wells started

				Offshore		On	shore
				Exploration &		Exploration &	
		Exploration	Appraisal	Appraisal	Development ²	Appraisal	Development ²
2010		28	34	62	130	9	12
2011		14	28	42	123	14	11
2012		22	31	53	122	4	13
2013		15	29	44	120	7	8
2014 p)	14	18	32	126	8	11
Per ce	nt change	-6.7	-37.9	-27.3	+5.0	+14.3	+37.5
2012	4th quarter	8	10	18	29	1	2
2013	1st quarter	7	5	12	27	-	2
	2nd quarter	3	12	15	32	3	3
	3rd quarter	3	7	10	32	4	1
	4th quarter	2	5	7	29	-	2
2014	1st quarter	Зr	2	5r	30	3	2
	2nd quarter	4	3	7	41	1	3
	3rd quarter	3	5r	8r	33r	2	4
	4th quarter p	4	8	12	22	2	2
Per ce	$nt change^{3}$	+100.0	+60.0	+71.4	-24.1	(+)	-

1. Including sidetracked wells

2. Development wells are production or injection wells drilled after development approval has been granted.

3. Percentage change between the most recent quarter and the same quarter a year earlier.

Key results show:

Provisional 2014

In 2014 gross production of natural gas was 0.3 per cent higher than in 2013 and, at around 425 TWh, was the first year-on-year increase in production since 2000. (**Chart 4.1**)

Gas exports and imports were, respectively, 16.8 per cent higher and 10.8 per cent lower than in 2013. LNG imports were 20.7 per cent higher, whereas pipeline imports were 19.2 per cent lower in 2014 versus 2013. The trade position for 2014 showed net imports to be 18.0 per cent lower in 2014 versus 2013. (**Chart 4.4**)

Gas demand fell by 9.2 per cent versus 2013. Gas used for electricity generation increased by 1.5 per cent reflecting a large decrease in coal generation and lower wholesale gas prices, particularly during the final six months of 2014. Domestic and other final users' gas consumption was lower in 2014, driven by a warmer first six months in 2014 versus 2013. (Chart 4.6)

Quarter 4 2014

In the fourth quarter of 2014, gross production of natural gas was 0.8 per cent higher than in the same period a year ago. (**Chart 4.1**)

Imports decreased by 2.8 per cent in the fourth quarter of 2014 versus Q4 2013. Exports were 17.9 per cent higher than in quarter 4 2013. (**Chart 4.4**)

The trade position for quarter 4 2014 shows net imports (difference between imports and exports) were 6.3 per cent lower than in the same quarter in 2013. (**Chart 4.4**)

In the fourth quarter of 2014, gas demand fell by 0.7 per cent - driven by a decrease across most sectors, with warmer temperatures a factor. (**Chart 4.6**)

Chart 4.1 Production and imports and exports of natural gas



Provisional figures for 2014 show production of natural gas 0.3 per cent higher than in 2013. Despite this stabilisation of gas production this year due in part to higher volumes of gas from relatively large field start-ups at the end of 2013, it is around a third of its peak level.

Gas exports and imports were 16.8 per cent higher and 10.8 per cent lower respectively than in 2013. The trade position for 2014 showed net imports (difference between imports and exports) were 18.0 per cent higher than in 2013. Net import dependency fell from 50 per cent to 45 per cent.

In the fourth quarter of 2014, gross production of natural gas was 0.8 per cent higher than in the same period a year ago.

Imports were 2.8 per cent lower in the fourth quarter of 2014 versus quarter 4 2013, whilst exports were 17.9 per cent higher. As a result net imports for quarter 4 2014 were 6.3 per cent lower than that in the same quarter in 2013.

Chart 4.2 Production of dry gas and associated gas.



Associated gas production in 2014 was 3.4 per cent higher, driven by gas production from the relatively large Jasmine field. Dry gas production was 3.5 per cent lower in 2014 versus 2013.

Q4 2014 associated gas production increased by 7.2 per cent versus Q4 2013. Even with strong production from the new, relatively large Breagh field, dry gas production in quarter 4 2014 fell by 7.3 per cent versus Q4 2013.

Chart 4.3 Gas availability



Gas available at terminals is equal to the gross gas production, minus producers own use, plus net imports.

Gas availability is seasonal, mirroring gas demand, and peaks during Q4 and Q1 each year. Gas available in Q4 2014 decreased by 3.3 per cent compared to Q4 2013 to 213TWh. This was largely driven by a decrease in domestic and other final users' consumption, with average temperatures in the fourth quarter of 2014 being warmer than in the same quarter in 2013, particularly during November.

The long-term picture shows that the average availability over the 4 rolling quarters had remained fairly constant since the start of 2012 before reducing slightly from Q1 2014.


Chart 4.4 Imports and exports

In 2014, exports of natural gas were 16.8 per cent higher compared with 2013 reflecting higher UK production, lower total UK demand and relatively high demand from the Continent. Gas imports were lower by 10.8 per cent in 2014, whilst net imports were 18.0 per cent lower than 2013.

Pipeline imports in 2014 were 19.2 per cent lower. Liquefied Natural Gas (LNG) imports in 2014 were 20.7 per cent higher than in 2013. LNG imports accounted for 26.6 per cent of total imports in 2014 compared with around a fifth in 2013. The increase in LNG imports is likely to be due to a combination of factors, including relatively low spot prices of LNG during Q3 2014.

Total imports in Q4 2014 decreased by 2.8 per cent compared with Q4 2013; exports were 17.9 per cent higher than in Q4 2013. The trade position for quarter 4 2014 narrowed and showed net imports (difference between imports and exports) to be 6.3 per cent lower than in the same quarter in 2013.

Pipeline imports in Q4 2014 were 7.4 per cent lower compared with the same quarter a year earlier. Liquefied Natural Gas (LNG) imports in Q4 2014 were 18.0 per cent higher.



Chart 4.5 Imports by origin

In 2014, the 19.2 per cent decrease in pipeline imports was driven by decrease in Belgium and Norwegian imports. Belgian imports were almost 90 per cent lower than 2013. Imports from the Netherlands and Norway were also lower by 13.8 per cent and 12.6 per cent respectively.

The increase in LNG imports in 2014 was driven by a sharp fall in the price of LNG, particularly during Q3 2014.





1. Please note that imports and exports in this map uses nominated flows through the UK-Belgium Interconnector and BBL as in table 4.1. The figures here will differ from those in ET Table 4.3 which uses actual physical flows through the Interconnector.

Chart 4.6 UK demand for natural gas



In 2014, gas demand fell by 9.2 per cent. A large component of that was the decrease in domestic use (down 16.7 per cent) reflecting significantly warmer temperatures during 2014. There was also a significant fall in consumption amongst other final users, down 15.6 per cent compared with 2013. Around half of that can be explained due to temperature but DECC are investigating this decrease in more detail. There was a 1.5 per cent increase in gas used for electricity generation reflecting a decrease in coal generation and lower wholesale gas prices.

Other industry use of gas was 1.9 per cent lower in 2014 versus 2013. There was a decrease in gas use for both domestic and other final users, down by 16.7 and 15.6 per cent respectively. This was driven by warmer mean temperatures during 2014 in general. The average temperature during Q1 2014 was just over 3 degrees warmer than Q1 2013.

Gas demand in Q4 2014 was 0.7 per cent lower compared to Q4 2013. Broadly, decreases in final consumption slightly outweighed increases in transformation. Energy industry saw a 3.6 per cent increase in gas use, domestic and other final user demand also fell by 4.4 and 7.4 per cent respectively. Gas consumption within the iron and steel increased 2.9 per cent but fell within other industry by 1.1 per cent.

Relevant table

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4 GAS

Table 4.1. Natural gas supply and consumption

Table 4.1. Natural yas supply and consumption												GWh	
				2012	2013	2013	2013	2013	2014	2014	2014	2014	
	2013	2014 p	per cent change	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter p	per cent change ¹
SUPPLY													
Indigenous production	424,153	425,401	+0.3	110,606	113,470	112,494	90,047	108,142	115,395r	107,923r	93,050r	109,033	+0.8
Imports of which LNG	535,105 <i>102,6</i> 20	477,163 123,912	-10.8 +20.7	164,573 27,573	181,972 <i>16,226</i>	132,068 <i>44,196</i>	77,546 19,428	143,520 22,771	143,212 <i>12,911</i>	105,078 <i>4</i> 3,973	89,405 <i>40,151</i>	139,468 <i>26,877</i>	-2.8 +18.0
Exports	109,664	128,120	+16.8	23,348	21,692	37,423	30,106	20,443	22,862	41,063	+40,102	24,093	+17.9
Stock change ²	+621	-2,383		+4,198	+40,380	-25,196	-14,890	+327	+16,992	-18,072	-7,057	+5,754	
Transfers	-61	-61		-26	-29	-12	-14	-5	-29	-12	-14	-5	
Total supply	850,155	772,000	-9.2	256,002	314,100	181,931	122,583	231,541	252,708r	153,854r	135,281r	230,158	-0.6
Statistical difference	-3,541	-3,289		-1,278	-359	-1,941	-703	-537	-1,339r	-1,554r	-6r	-389	
Total demand	853,696	775,289	-9.2	257,280	314,460	183,872	123,286	232,079	254,047	155,408	135,287r	230,547	-0.7
TRANSFORMATION	232,234	235,334	+1.3	60,421	67,870	56,869	49,869	57,627	54,166r	53,835r	64,484r	62,850	+9.1
Electricity generation	209,076	212,176	+1.5	53,344	60,329	51,672	45,564	51,511	46,625r	48,638r	60,179r	56,734	+10.1
Heat generation ³	23,158	23,158	-	7,077	7,541	5,197	4,305	6,116	7,541	5,197	4,305	6,116	-
Energy industry use	54,775	51,150	-6.6	14,064	14,991	14,650	12,103	13,033	13,479r	12,732r	11,439r	13,500	+3.6
Losses	7,474	7,026	-6.0	1,894	1,963	2,069	1,614	1,828	2,030	1,645	1,647	1,704	-6.8
FINAL CONSUMPTION	559,213	481,778	-13.8	180,901	229,637	110,285	59,700	159,591	184,372r	87,196r	57,717r	152,494	-4.4
Iron & steel	5,338	5,588	+4.7	1,172	1,491	1,289	1,224	1,335	1,492	1,385	1,337r	1,373	+2.9
Other industries	84,896	83,299	-1.9	22,926	29,758	18,248	14,376	22,514	28,664r	18,463r	13,906r	22,267	-1.1
Domestic	344,502	287,002	-16.7	121,540	154,453	63,606	25,616	100,827	120,654r	45,556r	24,381r	96,411	-4.4
Other final users	118,879	100,291	-15.6	33,820	42,535	25,743	17,084	33,516	32,162r	20,392r	16,693r	31,044	-7.4
Non energy use ³	5,598	5,598	-	1,443	1,399	1,399	1,399	1,399	1,399	1,399	1,399	1,399	-

1. Percentage change between the most recent quarter and the same quarter a year earlier.

2. Stock fall (+), stock rise (-).

3. For Heat generation and non energy use, the 2014 figures currently shown are the 2013 figures carried forward - these will be updated in July 2015.

March 2015

Key results show:

Provisional 2014

Electricity generated in 2014 fell by 6.7 per cent from 359.2 TWh in 2013 to 335.0 TWh due to falling demand. (**Chart 5.1**)

Low carbon electricity's share of generation increased from 34.6 per cent in 2013 to a record high of 38.3 per cent in 2014, due to higher renewables generation. (**Chart 5.2**)

Renewables' share of electricity generation increased from 14.9 per cent in 2013 to a record 19.2 per cent in 2014. (**Chart 5.2**)

Gas's share of generation rose from 26.6 per cent to 30.2 per cent, due to lower wholesale gas prices between June and August and to help meet the shortfall in generation caused by nuclear outages in the second half of the year. Coal's share of generation decreased from 36.4 per cent to 29.1 per cent with a record low generation of 97.3 TWh, due to plant closures and conversions. (**Chart 5.2**)

Net imports of electricity, a record high level at 20.5 TWh, made up 6.1 per cent of electricity supplied in 2014 and were up 42 per cent from 14.4 TWh in 2013. This was due mainly to increased imports from France. (**Chart 5.4**).

Final consumption of electricity in 2014 was 4.3 per cent lower than in 2013, the lowest level in the last 17 years. Domestic consumption fell by 5.5 per cent, partly due to a warmer winter. (**Chart 5.6**).

Quarter 4 2014

Electricity generated in the fourth quarter of 2014 fell by 5.3 per cent from 93.9 TWh a year earlier to 89.0 TWh (**Chart 5.1**).

Renewables' share of electricity generation increased from 17.9 per cent in the fourth quarter of 2013 to a record 22.0 per cent in the fourth quarter of 2014. (**Chart 5.2**).

Gas's quarterly share of generation increased from 24.7 per cent to 29.5 per cent, while coal's quarterly share fell from 35.8 per cent to 30.3 per cent. Nuclear's share decreased from 19.3 per to 15.8 per cent, due to planned and unplanned outages affecting four EDF nuclear stations. (Chart 5.2).

Final consumption in the fourth quarter of 2014 fell by 3.4 per cent on a year earlier, and domestic sales fell by 4.4 per cent, as a result of warmer weather in 2014. (Chart 5.6)

Chart 5.1 Electricity generated by fuel type



Chart 5.2 Shares of electricity generation





In 2014, total electricity generated fell 6.7 per cent from 359.2 TWh in 2013 to 335.0 TWh as demand fell.

In 2014, coal fired generation fell by 25.6 per cent from 130.8 TWh in 2013 to 97.3 TWh, its lowest level in the time series as a result of reduced capacity due to the closure of several power stations and the conversion of a second unit at Drax from coal to biomass. Nuclear generation fell 9.7 per cent from 70.6 TWh to 63.7 TWh due to outages in the second half of the year. Gas fired generation rose 5.7 per cent from 95.6 TWh to 101.1 TWh due to lower wholesale gas prices between June and August and to help meet the shortfall in nuclear generation.

In 2014, wind and solar PV generation rose 16.6 per cent from 30.5 TWh to 35.5 TWh, mainly due to increased capacity compared to 2013. Hydro generation rose 26 per cent from 4.7 TWh to 5.9 TWh, with average rainfall in the main hydro areas 15.5 per cent higher in 2014 than a year earlier.

The share of generation from coal decreased from 36.4 per cent in 2013 to 29.1 per cent in 2014, and that from nuclear decreased from 19.7 per cent to 19.0 per cent in 2014. The share of generation from gas increased from 26.6 per cent in 2013 to 30.2 per cent in 2014.

The share of generation from renewables (hydro, wind and bioenergy) increased from 14.9 per cent in 2013 to 19.2 per cent in 2014. This was mainly due to increased wind and bioenergy generation capacity.

In 2014 Q4, total electricity generated fell 5.3 per cent from 93.9 TWh in 2013 Q4 to 89.0 TWh, driven by lower demand.

In 2014 Q4, coal fired generation fell by 19.7 per cent from 33.6 TWh in 2013 Q4 to 27.0 TWh. Gas fired generation rose 13.0 per cent from 23.2 TWh to 26.2 TWh. Nuclear generation fell 22.6 per cent from 18.2 TWh to 14.1 TWh, due to planned and unplanned outages affecting four EDF nuclear stations.

In 2014 Q4, wind and solar PV generation rose 4.6 per cent from 10.6 TWh to 11.1 TWh. Hydro generation rose 1.6 per cent.

The share of generation from coal decreased from 35.8 per cent in 2013 Q4 to 30.3 per cent in 2014 Q4. Share of generation from gas increased from 24.7 per cent in 2013 Q4 to 29.5 per cent in 2014 Q4. Share of generation from nuclear decreased from 19.3 per cent in 2013 Q4 to 15.8 per cent in 2014 Q4.

The share of generation from renewables (hydro, wind and bioenergy) increased from 17.9 per cent in 2013 Q4 to 22.0 per cent in 2014 Q4. This was due to increased capacity for wind and bioenergy generation.

The increased share of hydro and wind (which use little electricity on site), coupled with the fall in use of nuclear and coal input (which use a lot of electricity), has led to a drop in the industry own use of generation of 18 per cent between 2013 and 2014 and 17 per cent between Q4 2013 and Q4 2014.

Chart 5.3 Low carbon electricity's share of generation



Low carbon electricity's share of generation increased from 34.6 per cent in 2013 to 38.3 per cent in 2014, the highest share in the last 18 years, due to higher renewables generation.

Low carbon electricity's share of generation increased from 37.3 per cent in 2013 Q4 to 37.8 per cent in 2014 Q4, with an increase in renewable generation offsetting the fall from nuclear.



Chart 5.4 UK trade in electricity

Chart 5.5 Electricity final consumption (annual)



In 2014, imports of electricity rose by 32.5 per cent, whilst exports fell by 12.4 per cent. Net imports of electricity were a record high at 20.5 TWh, up 42 per cent on the 2013 value, and made up 5.8 per cent of electricity supplied in 2014. This was mainly due to increased imports from France via the interconnector, which in 2014 ran at 85.5 per cent of capacity (imports and exports combined) compared to 64.9 per cent in 2013.

In 2014, the UK was a net importer from France and the Netherlands with net imports of 15.0 TWh and 7.9 TWh respectively. The UK was a net exporter to Ireland, with net exports of 2.4 TWh.

In 2014 Q4, compared with the same period in 2013, imports of electricity rose by 29 per cent, whilst exports decreased by 41 per cent. In each of the quarters from 2010 Q2, the UK has been a net importer.

Net imports of electricity, at 5.1 TWh, were up 50 per cent on the level of 3.4 TWh in 2013 Q4. This represented 5.4 per cent of electricity supplied in 2014 Q4. In 2014 Q4, the UK was a net importer from France and Netherlands with net imports of 3.5 TWh and 2.1 TWh respectively and a net exporter to Ireland with net exports of 2.3 TWh.

Final consumption of electricity fell by 4.3 per cent in 2014, from 317.3 TWh in 2012, to 303.8 TWh, its lowest level in the last 18 years.

Domestic use fell by 5.5 per cent, from 113.5 TWh in 2013 to 107.2 TWh in 2014. Industrial use of electricity fell 6.3 per cent, from 98.0 TWh to 91.9 TWh, while consumption by commercial and other users ¹ fell by 1.0 per cent, from 105.8 TWh to 104.8 TWh.

In 2014, temperatures were on average 1.2 degrees warmer than in 2013. $^{2}\,$

¹Includes commercial, transport and other final users. ²Temperature data comes from table ET 7.1, at: <u>www.gov.uk/government/publications/energy-trends-</u> <u>section-7-weather</u>

Electricity

Chart 5.6 Electricity final consumption (quarterly)



Chart 5.7 Fuel used for electricity generation



Nuclear Coal Gas Oil and Other Renewables Net imports

Final consumption of electricity fell by 3.4 per cent in 2014 Q4, from 82.6 TWh in 2012 Q4, to 79.8 TWh.

Domestic use fell by 4.4 per cent, from 30.9 TWh in Q4 2013 to 29.6 TWh in Q4 2014. Industrial use of electricity fell 5.7 per cent, from 24.5 TWh to 23.1 TWh, and consumption by commercial and other users fell by 0.2 per cent, from 27.2 TWh to 27.1 TWh.

In 2014 Q4, temperatures were on average 0.3 degrees warmer than a year earlier.

Fuel used by generators in 2014 fell 7.5 per cent, from 76.4 mtoe in 2013 to 70.7 mtoe.³

In 2014, gas use was 4.1 per cent higher than in 2013. Coal use during 2014 was 23.3 per cent lower than a year earlier, while nuclear sources were 9.7 per cent lower.

Fuel used by generators in 2014 Q4 fell 5.4 per cent, from 19.7 mtoe in 2013 Q4 to 18.6 mtoe.

In 2014 Q4, gas use was 13.0 per cent higher than in 2013 Q4. Coal use during the quarter was 18.9 per cent lower than a year earlier, while nuclear sources were 22.6 per cent lower.

The increased share of primary renewables and gas, at the expense of the less thermally efficient coal and nuclear, has meant fuel use has fallen by more than generation in 2014.

³ For wind (and other primary renewable sources), the fuel used is assumed the same as the electricity generated, unlike thermal generation where conversion losses are incurred.

Relevant tables

5.1: Fuel used in electricity gene	eration and electricity supplied	Page 43
5.2: Supply and consumption of	electricity	Page 44

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Table 5.1. Fuel used in electricity generation and electricity supplied

				nor conf	2012	2013	2013	2013	2013	2014	2014	2014	2014	por cont
		2012	2014 n	change	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	change ¹
		2015	2014 p	onango	quarter	quarter	quarter	quarter	quarter	quarter	quarter	quarter	quarter p	onungo
	FUEL USED IN GENERATION										Million for			
	All generating companies	24.44	24.42	. 22.2	0.02	0.00	6.00	0.50	0.40	0.00	Million to	nnes of oll	equivalent	-18.0
	Oil	31.44	24.12	-23.3	9.83	9.92	6.90	6.50	8.12	8.33	5.30	3.91	0.58	-16.9
	Gas	17 57	18 29	+4.0	4 59	0.14 5.06r	0.11 4.35r	0.17 3.83r	0.10 4 32r	0.10 4.02r	0.17 / 10r	0.15 5.10r	1 89	+13.0
	Nuclear	15.44	13.94	-9.7	3.60	4 00	3.38	4 09	3.97	3.61	3.83r	3 43	3.07	-22.6
	Hydro	0.40	0.51	+26.1	0.14	0.11	0.08	0.06	0.15	0.19	0.10	0.07	0.15	+1.5
	Wind and Solar ²	2.62	3.06	+16.7	0.56	0.61	0.62	0.48	0.91	0.98r	0.55	0.57	0.95	+46
	Biooporgy ³	5.82	7.25	1245	1 29	1 39	1.57	1 44	1 44	1 47r	1 70r	1.01r	2.08	
	Other fuels	1.02	1.25	+24.0	1.50	0.04	0.05	0.22	0.22	0.20	0.07	0.20	2.00	+44.0
	Net imports	1.31	1.10	+42 1	0.30	0.31	0.35	0.32	0.32	0.30	0.27	0.30	0.31	+50.4
	Total all generating companies	76.44	70.72	-7.5	20.82	21 77	17.69	17.29	19.69	19.42	16.63r	15 98r	18.62	-5.4
	iotai al goloranig companico	70.44	10.12	7.0	20.02	21.77	11.00	11.20	10.00	10.401	10.001	10.001	10.02	0
	ELECTRICITY GENERATED													
	All generating companies												TWh	
	Coal	130.77	97.35	-25.6	41.01	41.53	28.97	26.69	33.58	33.82	21.38	15.19	26.96	-19.7
	Oil	2.14	2.04	-4.4	0.75	0.57	0.47	0.60	0.50	0.57r	0.55	0.48	0.44	-11.9
	Gas	95.61	101.09	+5.7	24.73	27.24	24.05	21.10	23.22	21.93	23.79r	29.15r	26.23	+13.0
	Nuclear Hydro (notural flow)	70.61	63.75	-9.7	16.65	18.28	15.47	18.69	18.16	16.53r	17.50r	15.66	14.06	-22.0
	Hydro (natural now)	4.70	5.93	+20.2	1.63	1.26	0.97	0.74	1.73	2.26	1.12r	0.79	1.76	+1.0
4	wind and Solar	30.48	35.55	+16.6	6.53	7.12	7.23	5.53	10.59	11.45	6.42r	6.59r	11.08	+4.6
ω	- or which, Offshore	11.44	13.28	+16.1	2.73	2.85	2.61	1.96	4.01	4.37	2.03	2.23r	4.65	+15.9
	Bioenergy 3	18.49	22.92	+24.0	4.10	4.28	5.15	4.55	4.51	4.58r	5.57r	6.00r	6.77	+50.1
	Pumped Storage	2.90	2.85	-1.8	0.79	0.74	0.69	0.71	0.76	0.79	0.67	0.65	0.73	-3.8
	Other fuels	3.46	3.55	+2.6	0.77	0.86	0.91	0.85	0.85	0.86	0.86	0.88	0.94	+10.8
	l otal all generating companies	359.15	335.03	-6.7	96.96	101.87	83.92	79.46	93.90	92.78r	77.88r	75.39r	88.97	-5.3
	All generating companies												TWb	
	Coal	124.06	95.48	-23.0	38.90	39.40	27 48	25 32	31.86	32 90	21.05	15 14	26.39	-172
	Oil	1.94	1.86	-3.9	0.66	0.51	0.43	0.55	0.45	0.52r	0.51	0.44	0.40	-12.4
	Gas	93.80	97.43	+3.9	24.25	26.72	23.59	20.73	22.77	20.88r	22.74r	28.01r	25.80	+13.3
	Nuclear	64.13	57.90	-9.7	15.12	16.61	14.05	16.97	16.50	15.01r	15.90r	14.22	12.77	-22.6
	Hydro	4.66	5.89	+26.3	1.62	1.25	0.96	0.74	1.72	2.25r	1.11r	0.78	1.75	+1.6
	Wind and Solar ²	30.48	35.55	+16.6	6.53	7.12	7.23	5.53	10.59	11.45r	6.42r	6.59r	11.08	+4.6
	- of which, Offshore ⁵	11.44	13.28	+16.1	2.73	2.85	2.61	1.96	4.01	4.37	2.03	2.23r	4.65	+15.9
	Bioenergy ³	16.04	20.06	+25.1	3.61	3.71	4.49	3.94	3.90	3.97r	4.85r	5.32r	5.92	+51.6
	Pumped Storage (net supply) 5	-1.04	-1.00	-4.2	-0.27	-0.27	-0.26	-0.26	-0.25	-0.26	-0.25	-0.24	-0.24	-3.8
	Other fuels	3.26	3.34	+2.6	0.73	0.81	0.85	0.80	0.80	0.81	0.81	0.83	0.89	+10.8
	Net imports	14.43	20.51	+42.1	2.70	2.82	3.56	4.65	3.40	4.89	5.08	5.43	5.11	+50.4
	Total all generating companies	351.76	337.03	-4.2	93.85	98.66	82.39	78.97	91.74	92.42r	78.23r	76.53r	89.85	-2.1
Σ	1. Percentage change between the most rec	ent quarter and the same	e quarter a yea	ar earlier.										
arc	2. Includes wave and tidal													
5	3. Up to 2006 Q4, this includes non-biodegra	adable wastes. From 200	7 Q1, this is in	cluded in 'Othe	r fuels' (as it is	not consider	ed a renewat	ole source).						
20	4. Electricity supplied net of electricity used i	n generation												
<u>л</u>	5 Net supply from pumped storage is usual	v negative as electricity	used in numpi	hat is deducted										

5. Net supply from pumped storage is usually negative, as electricity used in pumping is deducted.

6. This now includes a small amount of offshore wind generation from other generators

5 ELECTRICITY Table 5.2 Supply and consumption of electricity

				2012	2013	2013	2013	2013	2014	2014	2014	2014	
	2013	2014 p	Per cent change	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter p	Per cent change ¹
SUPPLY													
Indigenous production	359,149	335,025	-6.7	96,964	101,873	83,915	79,456	93,904	92,784r	77,883r	75,389r	88,969	-5.3
Major power producers ^{2 3} Auto producers	320,805 35,446	293,820 38,360	-8.4 +8.2	87,231 8,941	92,365 8,766	74,298 8,928	70,411 8,339	83,731 9,413	82,266r 9,726r	67,785r 9,427r	65,305r 9,434r	78,464 9,773	-6.3 +3.8
Other sources ⁴	2,898	2,846	-1.8	793	742	690	706	761	792	672	650	731	-3.8
Imports	17,533	23,230	+32.5	2,960	3,354	4,340	5,402	4,436	5,701	5,771	6,031	5,726	+29.1
Exports	3,103	2,720	-12.4	262	538	777	751	1,038	807	695	602	616	-40.7
Transfers	-	-		-	-	-	-	-	-	-	-	-	
Total supply	373,578	355,535	-4.8	99,662	104,689	87,479	84,107	97,302	97,678r	82,959r	80,819r	94,080	-3.3
Statistical difference	-176	-1,154		-420	-112	17	-305	223	319r	-520r	-473r	-480	
Total demand	373,755	356,689	-4.6	100,082	104,801	87,462	84,413	97,079	97,359r	83,479r	81,292r	94,560	-2.6
TRANSFORMATION	-	-		-	-	-	-	-	-	-	-	-	
Energy industry use ⁵	29,455	24,187	-17.9	7,678	7,980	6,998	7,052	7,425	6,558r	5,989r	5,497r	6,143	-17.3
Losses	27,000	28,691	+6.3	7,263	8,272	6,443	5,236	7,048	8,366r	6,128r	5,561r	8,635	+22.5
FINAL CONSUMPTION	317,300	303,811	-4.3	85,140	88,549	74,021	72,124	82,605	82,435r	71,361r	70,234r	79,781	-3.4
Iron & steel	3,803	3,782	-0.5	851	950	967	946	939	955	944	936	948	+0.9
Other industries	94,204	88,078	-6.5	24,445	24,766	22,864	23,009	23,565	22,349r	21,633r	21,929r	22,167	-5.9
Transport	4,109	4,109	-	1,024	1,027	1,027	1,027	1,027	1,027	1,027	1,027	1,027	-
Domestic	113,453	107,190	-5.5	32,799	34,234	25,521	22,755	30,943	31,438	23,992r	22,188r	29,572	-4.4
Other final users Non energy use	101,731 -	100,652 -	-1.1	26,021 -	27,572 -	23,641	24,386	26,131 -	26,666r -	23,766r -	24,154r -	26,067	-0.2

1. Percentage change between the most recent quarter and the same quarter a year earlier.

2. Companies that produce electricity from nuclear sources plus all companies whose prime purpose is the generation of electricity are included under the heading "Major Power Producers". At the end of December 2014 they were:

AES Electric Ltd., Baglan Generation Ltd., British Energy plc., Centrica Energy, Coolkeeragh ESB Ltd., Corby Power Ltd., Coryton Energy Company Ltd.,

Dong Energy Burbo UK Ltd., Drax Power Ltd., EDF Energy plc., Eggborough Power Ltd., E.On UK plc., Energy Power Resources, Falck Renewables Ltd., Fred Olsen, Greencoat UK Wind plc.,

HG Capital, Immingham CHP, Infinis plc, International Power Mitsui, London Waste Ltd., Magnox North Ltd., Peel Energy Ltd., Premier Power Ltd., Renewable Energy Systems, Riverside Resource Recovery Ltd., Rocksavage Power Company Ltd., RWE Npower plc, Scottish Power plc, Scottish and Southern Energy plc., Seabank Power Ltd., SELCHP Ltd., Spalding Energy Company Ltd., Statkraft Energy Ltd., Third Energy Trading Ltd., Vattenfall Wind Power

3. This table includes the change of definition of Major power producers (MPPs) to include major wind farm companies. Details of this change of definition were given in an article on pages 43 to 48 of the September 2008 edition of Energy Trends.

4. Gross supply from pumped storage hydro

5. Includes electricity used in generation and for pumping

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Key results show:

Provisional 2014

In 2014, on the 2009 Renewable Energy Directive basis, normalised renewable generation was 17.9 per cent of gross electricity consumption, an increase of 4.1 percentage points on 2013's share. **(Table 6A)**

Renewables' share of electricity generation was a record 19.2 per cent in 2014, an increase of 4.3 percentage points on the 14.9 per cent in 2013. **(Chart 6.1)**

Renewable electricity generation was 64.4 TWh in 2014, an increase of 20 per cent on the 53.7 TWh in 2013, with bioenergy up by 24 per cent and wind generation up by 11 per cent. **(Chart 6.2)**

Renewable electricity capacity was 24.2 GW at the end of 2014, a 23 per cent increase (4.5 GW) on a year earlier. (Chart 6.3)

Quarter 4 2014

Renewables' share of electricity generation was a record 22.0 per cent, up 4.1 percentage points on the share in 2013 Q4, reflecting high renewable generation on low overall generation. (Chart 6.1)

Renewable electricity generation was a record 19.6 TWh in 2014 Q4, an increase of 16.5 per cent on the 16.8 TWh in 2013 Q4, (Chart 6.2)

In 2014 Q4, 336 MW of installed capacity was confirmed on the Feed in Tariff scheme, increasing the total confirmed to 3,325 MW, across 647,000 installations. **(Chart 6.5)**

	2013	2014
Renewable Generation (TWh)	53.7	64.4
Total Electricity Generation	359.1	335.0
(TWh)		
International Basis:	14.9%	19.2%
Normalised Renewable	51.3	63.2
Generation (TWh)		
Gross Electricity Consumption	370.7	352.6
(TWh)		
2009 Renewable Energy	13.9%	17.9%
Directive Basis:		

Table 6A Renewable electricity shares – 2013 and 2014 (provisional)

In 2014, renewables' share of electricity generation increased to 19.2 per cent, from 14.9 per cent in 2013, due to increased capacity. Overall electricity generation fell 6.6 per cent, as a result of lower overall demand; this reduction contributed around 0.3 percentage points of the 4.2 percentage point increase in renewables' share.

On the 2009 Renewable Energy Directive (RED) basis, the electricity share was 17.9 per cent, compared with 13.9 per cent in 2013. The RED measure uses normalised wind and hydro generation, to account for variable generation due to weather conditions. Under this measure, wind and hydro generation were reduced (due to higher than average load factors in 2014).¹

In 2014 Q4, renewables' share of electricity generation increased by 4.2 percentage points to a record 22.0 per cent, from 17.9 per cent in 2013 Q4.² The increase reflects increased capacity, particularly in solar photovoltaics and onshore and offshore wind.

Overall quarterly electricity generation in 2014 Q4 (89.0 TWh) was down by 5.3 per cent on a year earlier (as a result of lower demand, due to higher temperatures); this had a 1.1 percentage point contribution to the 4.1 percentage point increase in the renewables share.

Total electricity generated from renewables in 2014 was up by 20 per cent on 2013, from 53.7 TWh to a record 64.4 TWh. *Normalised* renewable generation rose from 51.3 TWh in 2013 to 63.2 TWh in 2014.

¹ For more information on normalisation, and the various measures of renewable electricity's shares, please see March 2011's "*Renewable electricity 2010 – provisional data*", at: www.gov.uk/government/collections/energy-trends-articles

² Total electricity generation and electricity demand figures (all generating companies) can be found in tables ET 5.1 and ET 5.2, at: www.gov.uk/government/publications/electricity-section-5-energy-trends

Chart 6.1 Renewables' share of electricity generation



Chart 6.2 Renewable electricity generation



■ Wave and tidal ■ Solar PV ■ Offshore wind ■ Onshore wind ■ Hydro ■ Bioenergy

In 2014, generation from offshore wind increased by 16 per cent, from 11.4 TWh in 2013 to 13.3 TWh. Onshore wind generation rose by 8 per cent, from 17.0 TWh to 18.3 TWh. Both increases were mainly due to increased capacity; average wind speeds were similar for both years.

Hydro generation increased by 26 per cent on a year earlier, from 4.7 TWh to a record 5.9 TWh, with rainfall levels (in the main hydro areas) in 2014 16 per cent higher than those of 2013, and the highest for three years.

In 2014, generation from bioenergy³ increased by 24 per cent, from 18.5 TWh in 2013 to a record 22.9 TWh. Within this figure, generation from plant biomass increased from 8.9 TWh in 2013 to 13.1 in 2014 (47 per cent) due to a second conversion at Drax Power Station to biomass; however, as a result of the conversion, generation from co-firing fell by 56 per cent.

In 2014, 36 per cent of renewables generation was from bioenergy, 29 per cent from onshore wind, 21 per cent from offshore wind, and 9 per cent from hydro. In 2014, solar PV accounted for 6.1 per cent of renewable generation compared to 3.8 percent in 2013; this increase is due to a large increase in capacity.

Total electricity generated from renewables in 2014 Q4 was up by 17 per cent on 2013 Q4, from 16.8 TWh to a record high of 19.6 TWh.

Offshore wind generation, in 2014 Q4, increased by 16 per cent on a year earlier, from 4.0 TWh to 4.6 TWh; an increase in capacity more than offset lower average wind speeds. However onshore wind generation in 2014 Q4 fell by 6.3 per cent on 2013 Q4, from 6.3 TWh to 5.9 TWh despite an increase in capacity. Average wind speeds for 2014 Q4 were 9.2 knots, in line with the 10 year average (9.3 knots), but lower compared to 10.0 knots a year earlier.

Generation from bioenergy increased by 50 per cent, from 4.5 TWh in 2013 Q4 to 6.8 TWh, with the impact of the Drax conversion increasing capacity.

In 2014 Q4, hydro generation rose by 1.7 per cent on a year earlier to 1.8 TWh; a small increase in hydro capacity offset a lower average rainfall (in the main hydro areas) for the quarter.

In 2014 Q4, bioenergy had the largest share of generation (35 per cent), with 30 per cent from onshore wind, 24 per cent from offshore wind, and 9.0 per cent from hydro.

³ Bioenergy consists of: landfill gas, sewage gas, biodegradable municipal solid waste, plant biomass, animal biomass, anaerobic digestion and co-firing (generation only)

Chart 6.3 Renewable electricity capacity (as at end of quarter)



To note that the solar PV (and onshore wind) figures not only include installations confirmed on the Feed in Tariffs (FiTs) scheme, but also a large number of sub 50 kW installations commissioned, and registered on the Microgeneration Certification Scheme, that are awaiting confirmation on FiTs (as well as any capacity supported by the Renewables Obligation (RO) or un-accredited capacity).

Chart 6.4 Renewable electricity load factors



At the end of 2014 Q4, the UK's renewable electricity capacity totalled 24.2 GW, an increase of 23 per cent (4.5 GW) on that installed at the end of 2013 Q4, and 3.2 per cent (0.7 GW) on that installed at the end of the previous quarter. At the end of 2014 Q4, onshore wind had the highest share of capacity (34 per cent), followed by solar PV (22 per cent), offshore wind (19 per cent), bioenergy (18 per cent), and hydro (7.1 per cent).

During 2014, both onshore and offshore wind capacity increased by 0.8 GW, with several large wind farms opening, or continuing to expand during the year, including the Gwynt y Mor (offshore) and Mid Hill (onshore) sites. Solar PV capacity increased by 2.4 GW during 2014 with the majority of growth in large scale sites under the Renewables Obligation as well as increases in small scale Feed in Tariff sites.

Bioenergy capacity increased by 12 per cent (0.5 GW) during 2014 largely due to the conversion of a second unit at Drax from coal to biomass.

In 2014, onshore wind's load factor averaged 26.5 per cent, a 2.5 percentage point decrease on 2013's 28.9 per cent, though wind speeds were similar (8.6 knots for both years). Offshore wind's load factor fell, by 2.0 percentage points, from 39.0 per cent to 37.0 per cent⁴. With 15.5 per cent more rainfall (in the main hydro areas) on average than a year earlier, hydro's load factor in 2014 increased by 8.0 percentage points, from 31.7 per cent in 2013 to 39.7 per cent.

Hydro's load factor in 2014 Q4 was 46.4 per cent, a 0.1 percentage point increase on a year earlier, though average rainfall was lower. This was a large increase from the 20.8 per cent a quarter earlier, with rainfall more than double in the final quarter.

Onshore wind's load factor in 2014 Q4 of 32.5 per cent, 5.8 percentage points lower than a year earlier with wind speeds 0.8 knots lower. Compared to the previous quarter, the load factor increased from 16.2 percent reflecting higher wind speeds. Offshore wind's load factor fell compared to 2013 Q4 from 49.4 per cent, to 47.2 per cent. Compared to the previous quarter, the load factor increased by 23.4 percentage points, reflecting an average wind speed increase of 2.2 knots (31 per cent).

Bioenergy's load factor increased to 68.7 per cent, from 50.6 per cent in 2013 Q4 and 61.6 per cent in 2014 Q3.

⁴ Load Factors are calculated using an average of capacity at the start and end of the quarter. Therefore, they can be influenced by the time in the quarter when any new capacity came online

Chart 6.5 Feed in Tariffs: eligible installed capacity (as at end of quarter)



Chart 6.6 Liquid biofuels for transport consumption



At the end of 2014 Q4, 3,325 MW of capacity was eligible for the GB Feed in Tariff (FiT) scheme. This was an increase of 11.2 per cent (336 MW) on that confirmed at the end of 2014 Q3, and 32 per cent (808 MW) higher than the amount confirmed at the end of 2013 Q4. $^{5.6}$

In terms of number of installations, at the end of 2014 Q4, there were 647,000 eligible for the FiT scheme, a 6.5 per cent increase on the 607,000 confirmed at the end of the previous quarter.

Solar photovoltaics (PV) represent the majority of both installations and installed capacity confirmed on FiTs, with, respectively, 99 per cent and 84 per cent of the total.

Renewable installations eligible for FiTs (all except Micro CHP) represented 13.7 per cent of all renewable installed capacity.

In 2014, 1,767 million litres of liquid biofuels were consumed in transport, a rise of 11.5 per cent on 2013's 1,586 million litres. Bioethanol consumption fell by 0.9 per cent, from 820 million litres to 812 million litres. Biodiesel consumption rose by 25 per cent, from 766 million litres in 2013 to 955 million litres in 2014.

Although bioethanol contributed the largest share of biofuel consumption in 2012 and 2013, the mix of bioethanol and biodiesel in 2014 has reverted to its longer term trend with biodiesel contributing the larger share at 54 per cent.

In 2014, bioethanol accounted for 4.6 per cent of motor spirit, and biodiesel 3.4 per cent of total diesel; the combined contribution was 3.9 per cent, 0.3 percentage points more than in 2013.

In 2014 Q4, 431 million litres of liquid biofuels were consumed in transport, a rise of 0.7 per cent on the 428 million litres in 2013 Q4. Biodiesel consumption rose by 1.3 per cent, from 226 million litres to 229 million litres. Although bioethanol consumption fluctuated during the year, consumption in 2014 Q4 was the same as 2013 Q4 (202 million litres).

In 2014 Q4, biodiesel accounted for 3.1 per cent of diesel, and bioethanol 4.6 per cent of motor spirit. The combined contribution of the two fuels was 3.7 per cent, the same as 2013 Q4.

In 2014 Q4, the largest share of consumption was from biodiesel (53 per cent), with 47 per cent from bioethanol.

⁵ To note that Feed in Tariff uptake statistics are based on the *confirmation* date, which can be several months later than the commissioning (installation) date. Hence the amount of capacity installed in a quarter may differ substantially from that confirmed on the FiTs scheme in the same quarter.

⁶ Statistics on Feed in Tariffs can be found at: www.gov.uk/government/collections/feed-in-tariff-statistics

Chart 6.7 Renewable electricity capacity, by UK country



Chart 6.8 Renewable electricity generation, by UK country



Relevant tables

6.1: Renewable electricity c	apacity and generation	nPage 50
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Scotland's capacity was 7.2 GW, an increase of 10 per cent (0.6 GW), the majority of which was due to increased on shore wind capacity.

Wales's capacity was 1.8 GW, an increase of 55 per cent (0.6 GW), with more than half due to offshore wind particularly the Gwynt y Mar site. Northern Ireland's capacity was 0.7 GW, an increase of 19 per cent (0.1 GW).⁷

At the end of 2014, England accounted for 60 per cent of UK renewable electricity capacity; Scotland's share was 30 per cent, Wales 7.4 per cent and Northern Ireland 2.9 per cent.

In 2014, renewable electricity generation in England was 40.3 TWh, an increase of 27 per cent (8.6 TWh) on 2013, with wind and bioenergy (mainly due to the Drax second conversion) the main contributors.

Generation in Scotland was 19.0 TWh, an increase of 11 per cent (1.9 TWh); wind increased by over one third and hydro also increased by 26 per cent. Increased generation of biomass was offset by lower sewage sludge.

Generation in Wales was 3.4 TWh, an increase of 31 per cent (0.8 TWh); the majority of which was due to increased wind generation. Generation in Northern Ireland was 1.7 TWh, an increase of 17 per cent (0.2 TWh), mainly from wind.

In 2014, England accounted for 63 per cent of UK renewable electricity generation; Scotland's share was 29 per cent, Wales 5.4 per cent and Northern Ireland 2.6 per cent.

⁷ Quarterly renewable electricity statistics by UK country can be found in the electronic version of table ET 6.1, at: <u>www.gov.uk/government/statistics/energy-trends-section-6-renewables</u>

6 RENEWABLES

Table 6.1. Renewable electricity capacity and generation

			per cent	2012	2013	2013	2013	2013	2014	2014	2014	2014	per cent
	2013	2014 p	change	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter p	change 11
Cumulative Installed Capacity ¹		·										MW	
Onshore Wind	7,513	8,306	+10.6	5,899	6,620	7,011	7,360	7,513	7,607r	7,934	8,141	8,306	+10.6
Offshore Wind	3,696	4,502	+21.8	2,995	3,381	3,544	3,657	3,696	3,765r	4,085	4,421	4,502	+21.8
Shoreline wave / tidal	7	9	+21.3	7	6	6	7	7	8	9	9	9	+21.3
Solar photovoltaics	2,780	5,228	+88.1	1,747	2,170	2,462	2,593	2,780	4,122r	4,380	4,779	5,228	+88.1
Small scale Hydro	222	247	+11.4	216	216	219	220	222	244r	246	246	247	+11.4
Large scale Hydro	1,471	1,471	-	1,471	1,471	1,471	1,471	1,471	1,471	1,471	1,471	1,471	-
Landfill gas	1,042	1,053	+1.1	1,036	1,041	1,042	1,042	1,042	1,052r	1,052	1,053	1,053	+1.1
Sewage sludge digestion	198	208	+5.3	204	196	197	198	198	204r	205	205	208	+5.3
Energy from waste	553	700	+26.7	521	546	553	553	553	604r	648	656	700	+26.7
Animal Biomass (non-AD) ²	111	111	-	111	111	111	111	111	111	111	111	111	-
Anaerobic Digestion	150	179	+19.8	118	126	132	136	150	174r	177	178	179	+19.8
Plant Biomass ³	1,949	2,211	+13.4	1,166	2,118	2,767	1,949	1,949	2,023r	2,172	2,210	2,211	+13.4
Total	19,690	24,226	+23.0	15,491	18,003	19,514	19,296	19,690	21,385r	22,490	23,479	24,226	+23.0
Co-firing ⁴	35	15	-56.3	203	35	35	35	35	15r	15r	15	15	-56.3
Generation ⁵												GWh	
Onshore Wind ⁶	16,992	18,333	+7.9	3,605	4,100	3,875	2,720	6,297	6,614r	2,944	2,873	5,902	-6.3
Offshore Wind 6, 7	11.441	13.282	+16.1	2.728	2.855	2.614	1.963	4.010	4.374r	2.027	2.235	4.647	+15.9
Shoreline wave / tidal ⁶	6	3	-52.0	1	2	2	1	1	1	0	1	1	-27.7
Solar photovoltaice ⁶	2 036	3 931	-02.0	199	166	743	843	284	459r	1 453	1 485	534	-27.7
	4 608	5 030	+93.1	1 631	1 256	968	744	1 730	2 260r	1,100	780	1 750	+00.2
	4,030	5,330	+26.2	1,007	1,200	4 000	4 070	1,750	2,2001	1,122	103	1,755	+1.7
Landfill gas	5,169	5,049	-2.3	1,297	1,297	1,293	1,272	1,306	1,2081	1,208	1,250	1,203	-3.3
Sewage sludge digestion	/61	810	+6.4	178	180	202	184	196	189r	219	202	199	+2.0
Energy from waste	1,987	2,258	+13.6	521	499	484	506	499	494r	556	592	615	+23.4
Co-firing with fossil fuels	309	135	-56.3	140	170	49	39	50	35r	37	27	36	-29.2
Animal Biomass (non-AD) ^{2, 0}	628	620	-1.4	180	166	167	144	151	160r	162	133	164	+8.5
Anaerobic Digestion	707	915	+29.5	154	166	168	180	192	222r	237	231	225	+17.4
Plant Biomass 3, 6	8,933	13,138	+47.1	1,630	1,800	2,792	2,226	2,116	2,215r	3,096	3,559	4,268	(+)
Total	53,667	64,404	+20.0	12,265	12,657	13,355	10,823	16,833	18,293r	13,121	13,377	19,613	+16.5
Non-biodegradable wastes*	1,144	1,300	+13.6	300	287	278	291	287	285	320	341	354	+23.4
Load Factors ¹⁰													
Onshore Wind	28.9%	26.5%		28.2%	30.3%	26.0%	17.1%	38.4%	40.5%	17.3%	16.2%	32.5%	
Offshore Wind	39.0%	37.0%		43.5%	41.4%	34.6%	24.7%	49.4%	54.3%	23.6%	23.8%	47.2%	
Hydro	31.7%	39.7%		43.8%	34.5%	26.3%	19.9%	46.3%	61.4%	29.9%	20.8%	46.4%	
Landfill gas	56.8%	55.0%		56.7%	57.8%	56.8%	55.3%	56.8%	56.1%	55.2%	53.8%	54.3%	
Sewage sludge digestion	43.2%	45.5%		39.5%	41.5%	47.1%	42.2%	44.7%	43.5%	49.1%	44.7%	43.7%	
Energy from waste	42.3%	41.1%		45.5%	43.3%	40.3%	41.4%	40.9%	39.6%	40.7%	41.1%	41.1%	
Animal Biomass (non-AD)	64.9%	64.0%		74.0%	69.5%	69.3%	59.1%	61.9%	67.2%	67.3%	54.6%	67.2%	
Anaerobic Digestion	60.2%	63.5%		64.9%	62.9%	59.5%	60.9%	60.8%	63.6%	61.7%	58.8%	57.1%	
Plant Biomass	65.5%	72.1%		63.5%	50.7%	52.3%	42.7%	49.2%	51.6%	67.6%	73.6%	87.4%	
I otal (excluding co-firing and non-biodegradable wastes)	34.6%	33.4%		36.2%	34.5%	32.5%	25.2%	39.0%	41.2%	27.3%	26.3%	37.2%	

1. Cumulative capacity at the end of the guarter/year

2. Includes the use of poultry litter and meat and bone.

3. Includes the use of straw and energy crops. Also includes enhanced co-firing (>85% biomass).

Includes the use of straw and energy crops. Also includes enhanced co-Iring (>85% biomass).
 This is the amount of fossil fuelled capacity used for co-Iring of renewables based on the proportion accounted for by the renewable source over the course of the year.
 Generation figures for the latest quarter are highly provisional, particularly for the thermal renewable technologies (such as landfill gas) in the lower half of the table.
 Actual generation figures are given where available, but otherwise are estimated using a typical load factor or the design load factor, where known. All solar photovoltaic generation is estimated this way.

7. For 2009, shoreline wave and tidal are included in offshore wind.

8. Biodegradable part only.

9. Non-biodegradable part of municipal solid waste plus waste tyres, hosptal waste and general industrial waste.

10. Load factors are calculated based on installed capacity at the beginning and the end of the quarter/year. These can be influenced by the time in the period when new capacity came online.

Load factors on an unchanged configuration basis, which consider just those sites operational throughout the year, are available annually in table DUKES 6.5, at:

https://www.gov.uk/government/publications/renewable-sources-of-energy-chapter-6-digest-of-united-kingdom-energy-statistics-dukes 11. Percentage change between the most recent quarter and the same quarter a year earlier.

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Table 6.2. Liquid biofuels for transport consumption

			per cent	2012	2013	2013	2013	2013	2014	2014	2014	2014	per cent
	2013	2014 p	change	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter p	change ¹
Volume (million litres)												1	Million litres
Bioethanol	819	812	-0.9	203	190	203	224	202	192	206	212	202	-
Biodiesel	766	955	+24.7	113	128	191	221	226	195	258	273	229	+1.3
Total biofuels for transport	1,585	1,767	+11.5	316	318	394	445	428	387	464	485	431	+0.7
Energy (thousand toe)											Thousa	ind tonnes of oi	l equivalent
Bioethanol	462	458	-0.9	115	107	114	126	114	108	116	120	114	-
Biodiesel	629	785	+24.7	92	105	157	182	186	160	212	224	188	+1.3
Total biofuels for transport	1,091	1,242	+13.9	207	212	271	308	300	268	328	344	302	+0.8
Shares of road fuels													
Bioethanol as per cent of Motor Spirit	4.5%	4.6%		4.3%	4.4%	4.3%	4.9%	4.5%	4.5%	4.5%	4.8%	4.6%	
Biodiesel as per cent of DERV	2.8%	3.4%		1.6%	2.1%	2.8%	3.2%	3.2%	3.0%	3.7%	3.9%	3.1%	
Total biofuels as per cent of road fuels	3.5%	3.9%		2.7%	3.0%	3.4%	3.9%	3.7%	3.6%	4.0%	4.2%	3.7%	

1. Percentage change between the most recent quarter and the same quarter a year earlier. Source: HM Revenue and Customs Hydrocarbon Oils Bulletin, available ar

www.uktradeinfo.com/Statistics/Pages/TaxAndDutybulletins.aspx

Domestic energy bills in 2014: The impact of variable consumption

Summary

In 2014 energy prices rose by just under 3 per cent, but warmer weather and further improvements in energy efficiency resulted in consumption falling by around 10 per cent. This resulted in household expenditure on energy, falling by around 7 per cent.

Introduction

DECC publishes estimates of annual domestic electricity and gas bills in its Quarterly Energy Prices (QEP) publication. These bills are based on quarterly pricing information collected from energy suppliers. They are calculated using standard annual consumption assumptions of 3,800kWh for standard electricity, 6,000kWh for Economy 7 electricity, and 15,000kWh for gas. These assumptions allow for easy price comparisons between years, removing the impact of weather and energy efficiency measures.

	Standard Electricity	Gas	Combined Bill
2010	£474	£564	£1,038
2011	£513	£617	£1,130
2012	£542	£686	£1,228
2013	£577	£729	£1,306
2014	£592	£752	£1,344
Growth 2013-2014	2.6%	3.2%	2.9%

Table 1: Domestic energy bills based on fixed consumption levels 2010-2014¹

The key advantage of presenting bills with a fixed consumption level is that users can see the effects of price changes in the table. Also estimates can be produced in advance of detailed consumption information being made available. The first estimates of energy bills are published in December of the year, whilst estimates of domestic consumption are first published in March of the following year, with data subsequently being revised in the July edition of DUKES (Digest of UK Energy Statistics).

Price Changes

CPI (Consumer price index) data shows that gas and electricity prices have been rising in both current and real terms almost every year between 2003 and 2014.

All six major domestic energy suppliers increased their prices at the end of 2013 or start of 2014. Four of the six subsequently reduced their prices in the first quarter of 2014 in response to Government changes to the costs of some energy policies. Overall, the changes reflect an average increase in gas and electricity prices of around 5 per cent. In Q4 2014 a £12 government rebate was applied to domestic electricity customers in Great Britain. Gas prices have generally risen by more than electricity prices in recent years. The extent of these rises is visible in Table 1, where consumption has been fixed between years.

¹ Gas data within this article refers to Great Britain unless otherwise stated. Electricity bills and consumption figures are based on UK data.

Weather

Changes in consumption figures have been greater for gas than electricity as a result of variation in the demand for heating. DECC estimates that in 2013, 77 per cent of domestic gas use was for space heating, compared to only 22 per cent for electricity.² As a result, the degree to which changes in electricity consumption will be attributable to weather patterns will be much smaller than for gas, as far fewer households rely on electricity for heating.

Heating Degree Days (HDDs) are used to reflect how weather influences the energy used to heat homes. They are calculated relative to a base temperature (DECC use 15.5°C), so if a day has an average (of the maximum and minimum) temperature of 10°C, the HDD for that day will be 5.5. If the daily average temperature exceeds the base temperature, the HDD for that day will be 0. The HDDs are summed for each month and published in Table 7.1 of Energy Trends. (Chart 1)



Chart 1: Heating Degree Days 2004-2014

Temperatures in 2014 were the warmest on record and on average were 1.2 degrees warmer per day compared to 2013. This resulted in the number of Heating Degree Days reducing significantly. This led to a decrease in demand for gas for heating resulting in a lower consumption of gas by the domestic sector in 2014.

Annual Domestic Energy Consumption

Quarterly data on energy consumption is published in tables 4.1 (Gas) and 5.2 (Electricity) of Energy Trends. The data is collected from a variety of sources - supplier surveys, DECC administrative systems, data modelling – and is combined to provide quarterly and annual figures. Chart 2 shows the trends in energy consumption in the UK from 2003 to 2014. Data are temperature and seasonally adjusted by DECC so that a better idea of the underlying trend can be observed.

² Energy Consumption in the UK: Table 3.05

Special feature - Domestic energy bills in 2014

Although this period has seen some large fluctuations in annual energy consumption (particularly for gas), the trend is of generally falling consumption between 2004 and 2014. This is likely to be as a result of a number of factors, which include price changes, weather patterns, and increased household energy efficiency in the form of greater insulation and increased efficiency of boilers, lighting, and appliances.



Chart 2: Annual domestic energy consumption in the UK: 2003-2014 (GWh)³

Annual Domestic Energy Bills based on Actual Consumption

Table 2 shows estimates of annual household consumption of gas and electricity for 2010 - 2014. These are calculated by dividing total energy consumption figures shown in Chart 2 by DECC estimates of customer numbers on each fuel type.⁴

	Standard	E7	Total	Gas
	electricity	electricity	electricity	
2010	4,090	6,230	4,420	17,770
2011	3,830	5,850	4,130	13,250
2012	3,890	6,090	4,220	15,550
2013	3,890	5,830	4,170	15,460
2014	3,670	5,500	3,940	12,880
Growth 2013-	-5.7%	-5.7%	-5.5%	-16.7%
2014				

Table 2: Average annual household consumption in kWh 2010-2014
--

Most energy tariffs are comprised of a fixed and a variable element. These can be in the form of either a Standing Charge and Single Unit price structure, or a two-tier tariff whereby a customer pays a high price for a set number of units of energy consumed, and any subsequent consumption is paid for at a lower unit rate. The average fixed and variable prices and corresponding bills for

³ Electricity consumption figures include both Standard Electricity and Economy 7 Electricity customers.

⁴ DECC estimates that in 2014 there were 23.3 million domestic Standard electricity customers and 3.9 million Economy 7 electricity customers in the UK, and 22.3 million domestic Gas customers in Great Britain. These figures are based on DCLG household numbers published in Table 3.07 of DECC's Energy Consumption in the UK, data collected through the Domestic Fuel Inquiry, and other sources.

⁵ Total domestic consumption figures are available in DUKES tables 4.2 (Gas) and 5.3 (Electricity).

2010-2014 can be seen in table 3 below. If consumption for gas is above 15,000 kWh/year, the average price will be lower for the actual consumption, whilst if, as in 2014 consumption is lower, the average price per unit paid will be higher as the fixed costs are spread over a smaller consumption volume.

	Using standard vol	ume assumptions	Using actual volume assumptions				
	Std electricity	Gas	Std electricity	Gas			
2010	12.47	3.76	12.36	3.66			
2011	13.50	4.11	13.59	4.19			
2012	14.26	4.57	14.18	4.53			
2013	15.20	4.86	15.12	4.83			
2014	15.89	5.02	15.82	5.11			
% change	4.5%	3.3%	4.7%	5.8%			

Table 3: Average prices based on standard and actual consumption (pence/kWh)⁶

Combining the actual consumption estimates with the prices above suggests that average bills by consumer's dual fuel electricity and gas were as follows:

	Electricity	Gas	Total
2010	£507	£651	£1,158
2011	£517	£558	£1,075
2012	£553	£707	£1,260
2013	£590	£748	£1,338
2014	£585	£659	£1,244
Change	-£4	-£89	-£94

-0.7%

Table 4: Average energy bills on actual consumption

Between 2010 and 2014, bills based on standard consumption assumptions have been rising consistently between years. This reflects price increases during this period. However, when variations in annual consumption are taken into account, there is much more variation especially for gas. In particular, the warm weather in 2014 resulted in the average expenditure being estimated to have fallen by just under £100 (7%).

-7.0%

User Feedback

Please send any comments or queries regarding this analysis to the contact details below:

-11.9%

Helen Lucas

% change

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⁶ The average unit prices are published in QEP tables 2.2.4 (Electricity) and 2.3.4 (Gas).

Variation in tariff types and energy bills

Background

The amount of money a household spends on their domestic gas and electricity bills is influenced by a number of factors. This analysis explores some of the variation around average household energy bills due to different tariff types. The main publication within DECC presenting domestic energy prices data is Quarterly Energy Prices (QEP), a National Statistics publication. The tables published within QEP currently present the average annual bills for domestic gas and electricity (with economy 7 separately¹). Tables are also produced on customer numbers. Both the bills and customer number tables provide breakdowns by various factors including region, home supplier/non-home supplier² and payment type (standard credit, direct debit and prepayment). The average bills are presented as an average across all tariffs, with no breakdown by tariff type.

Data on all gas and electricity tariffs are received directly from the main energy companies that supply electricity and gas across the UK via a quarterly survey. This data allows us to calculate the average gas and electricity bills (annually) and customer numbers (quarterly). The survey covers over 90% of all domestic energy users. DECC calculates bills as an average of the weighted prices over the whole year combined with standard consumption estimates: 3,800 kWh for standard electricity; 6,000 kWh for Economy 7 electricity (of which 3,000 kWh are assumed to be day time and 3,000 kWh at night); and 15,000 kWh for gas. Latest estimates for 2014 domestic gas and electricity bills, published in QEP, indicate that an average annual gas bill was £752 in Great Britain, and an average annual standard electricity bill was £592³ in the United Kingdom.

Variation in Tariffs – proportion of customers on each tariff type

Energy companies offer many different tariffs in order to meet various different customer needs. Tariffs can be considered as: Online, Green, Social, Fixed, Standard, Dual Fuel or Other depending on the tariff description. A tariff may also overlap multiple types. This article presents estimates for the percentage of customers on different categories of tariff types, with an indication of the average associated bill for certain tariff types in 2014. This analysis has focused on three specific tariff types standard, online and fixed. All other tariffs have been grouped together into an 'other' category for the purpose of the current analysis.

A number of assumptions have been applied in order to undertake the analysis. Broadly speaking, the definition of each tariff type used in this analysis is listed below. We welcome comments on the definitions used.

- **Standard:** The basic energy deal from a supplier if a customer does not sign up to any other specific tariff.
- **Online:** Customers manage their account and supply meter readings online.
- **Fixed:** The price a customer pays for fuel will not change for a set amount of time, regardless of price movements in the market.
- Fixed Online: A combination of the online and fixed tariffs.

Throughout this analysis it should be noted that not all tariffs are consistently open to all customers. Tariffs available to a consumer vary by region, payment method and meter type. Many fixed and online tariffs will only be open to new customers for a limited amount of time before a newer version is introduced.

³ Including a £12 rebate in quarter 4 of 2014 for England, Scotland and Wales.

¹ Economy 7 electricity tariffs have a separate unit cost for the night and day and are designed for use with night storage heaters. By contrast, standard electricity tariffs have no distinction in price between night and day. The majority (86%) of all electricity customers are on standard electricity tariffs. Throughout the analysis electricity data corresponds to standard electricity only.

² For Gas, home supplier denotes British Gas Trading. For electricity, home supplier denotes the former public electricity suppliers within their own distribution area or that of their parent company.

Looking at the different tariff types, the majority of gas and electricity customers are on standard tariffs (66% for gas and 67% for standard electricity), despite the wide range of tariffs available on the market (see table 1).

Table	1:	The	percentage	of	gas	and	standard	electricity	customers	on	each	tariff
type.												

	Standard	Fixed	Online	Fixed Online	Other
Gas (GB) ⁴	66%	22%	5%	6%	1%
Standard Electricity (UK)	68%	20%	6%	5%	2%

Variation in Tariffs – Method of Payment

DECC currently publishes in QEP the percentage of gas and electricity customers on each payment method, across Great Britain and the UK, on a quarterly basis. Around 57 per cent of all gas customers and 56 per cent of all electricity customers pay by direct debit, with prepayment holding the lowest proportion of customers. Figures for 2014 are shown in table 2 below:

Table 2: The percentage of gas and standard electricity customers in Great Britain and the United Kingdom, split by payment method

	Credit	Direct Debit	Pre-payment
Gas (GB)	28%	57%	15%
Standard Electricity (UK)	27%	56%	17%

The method of payment varies when broken down by tariff type. Looking at the four main categories (excluding 'other' tariffs), direct debit has the highest proportion of customers paying in this way for all tariff types and for both gas and standard electricity. However, the proportion of customers paying by direct debit ranges from just over 40% within the standard tariffs; to almost 100% within the fixed online tariffs (see table 3 for gas and table 4 for standard electricity). Customers on fixed tariffs and online tariffs have similar patterns in their choice of payment method with around four fifths paying by direct debit.

Table 3: The percentage of gas customers in Great Britain, split by payment method and Tariff type

	Credit	Direct Debit	Pre-payment
Standard	34%	44%	22%
Fixed	19%	79%	2%
Online	14%	86%	0%
Fixed Online	2%	98%	0%
Other	49%	41%	10%
Overall	28%	57%	15%

⁴ Competition is still limited in scope for domestic customers in Northern Ireland, and so is excluded for analysis of gas tariffs.

	Credit	Direct Debit	Pre-payment
Standard	33%	43%	24%
Fixed	17%	80%	2%
Online	15%	85%	0%
Fixed Online	3%	97%	0%
Other	57%	32%	12%
Overall	27%	56%	17%

Table 4: The percentage of standard electricity customers in United Kingdom, split by payment method and tariff type

Variation in Tariffs – average bills by tariff type and payment method

DECC currently publishes annual average domestic gas and electricity bills⁵ for Great Britain and the UK. Bills are calculated using an assumed consumption of 15,000 kWh for gas and 3,800 kWh for electricity. Latest estimates for 2014 for domestic gas is £752 and for standard electricity bills is £592 (including a £12 rebate for Great Britain) as published in QEP. These annual bills show what consumers would have paid on average and can be used to track price movements over time.

In QEP the average annual bills are also calculated for each method of payment. In 2014 the average annual bill for those paying by standard credit was $\pounds796$ for gas and $\pounds619^6$ for. Those using direct debit had average annual bills of $\pounds721$ for gas and $\pounds570$ for electricity; and $\pounds793$ if using prepayment for gas and $\pounds623$ for electricity.

This analysis has taken each of the tariff types, as outlined earlier in the article, and calculated the average associated annual bills broken down by the payment method. It should be noted that some bill estimates are representative of a relatively small number of customers on a relatively small number of tariffs.

Standard tariffs overall have the highest average gas bill at £777 and fixed online tariffs the lowest at £646. Looking at the payment methods within tariff type, direct debit has consistently lower average annual bills (see table 5).

	Credit	Direct Debit	Pre-payment	Overall
Standard	803	751	792	777
Fixed	776	694	829	712
Online	782	722	757	731
Fixed Online	699	645	-	646
Other	741	682	742	717
Overall	796	721	793	752

Table 5: Average 2014 domestic gas bills by tariff type⁷, for Great Britain

For standard electricity, the average annual bill is lowest for fixed online tariffs overall. On this tariff type, the average annual bill is £590 for those paying by standard credit, and £540 for those paying by direct debit. On this tariff type, there are no pre-payment customers (See table 6).

⁵ Bills reflect the prices of all suppliers and include standing charges. The bills shown relate to the total bill including VAT in cash terms received during the calendar year, for the payment type shown, including all tariff changes and rebates. Averages are weighted by the number of domestic customers.

⁶ All average annual electricity bills include a £12 rebate for customers in Great Britain in 2014 for standard electricity.

⁷ The average bill for each tariff type reflects the prices for all tariffs with customers in 2014; some of these tariffs will be historical legacy tariffs that are no-longer available to new customers. Average 2014 bills are therefore not necessarily reflective of current bills on the market.

	Credit	Direct Debit	Pre-payment	Overall
Other	620	567	629	605
Standard	625	587	623	608
Online	623	585	625	591
Fixed	578	543	603	550
Fixed Online	590	540	-	541
Overall	619	570	623	592

Table 6: Average 2014 domestic standard electricity bills by tariff type⁵, for the United Kingdom⁷

Distribution of annual bills by tariff types for gas and standard electricity

Gas

The graph below shows the number of customers and the annual gas bills by each tariff type. The annual bill costs are calculated based on an average consumption of 15,000 kWh for gas. A moving average has been applied to both the gas and the electricity series to prevent disclosure issues.



Electricity

The graph below shows the number of customers and the annual standard electricity bills by each tariff type. The annual bill costs are calculated based on an average consumption of 3,800 kWh for gas.



User feedback

Please send any comments or queries regarding this analysis to Helen Lucas using the contact details below. We welcome all feedback.

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Visualising non-gas grid households in Great Britain

Introduction

This article summarises on-going work being carried out by the Department of Energy and Climate Changes (DECC), with support from industry partners, to make more data on non-gas properties available to support policy development and delivery.

DECC has already published a range of evidence on households not connected to the gas grid¹, including estimates of the number of non-gas households at Lower Layer Super Output Area (LSOAs)². With new information on estimated distance of non-gas properties from the mains gas network, DECC and industry partners are producing better visualisations to make outputs more accessible to a wider audience. A map will also capture other key statistics that will allow better targeting of relevant policies such as fuel poverty, where one of the key focuses outlined in the Fuel Poverty Strategy³, published March 2015, is delivering change for non-gas fuel poor households.

Statistics on non-gas estimates

Estimates of households not connected to the gas network are derived from existing published statistics. DECC publish sub-national gas consumption estimates, using meter point gas consumption data for all meters in Great Britain, based on data provided by energy suppliers and other energy industry representatives.

The meter point data provide an estimate of the number of meters in each area. By comparing the number of domestic gas meters in the area to the number of households, from the 2011 Census, the number of properties without a gas meter can be estimated. Further information on the methodology used, including the limitations of the dataset can be found in 'Sub-national consumption statistics: Methodology and guidance booklet' on the DECC website⁴. It is important to highlight that the published data do not allow the identification of specific households within an area, but do allow small geographic areas which have a few or no gas meters to be identified. Figure 1 provides a snapshot of the 2013 local authority dataset⁵.

LSOA Name	Lower Layer Super Output Area (LSOA) Code	Number of domestic gas meters	Number of households from 2011 Census ³	Estimated number of households not connected to the gas network ⁵	Estimated percentage of households not connected to the gas network (gas meters to number of households)
City of London 001A	E01000001	64	876	812	93%
City of London 001B	E0100002	19	830	811	98%
City of London 001C	E01000003	569	817	248	30%
City of London 001E	E01000005	505	467	0	0%
Barking and Dagenham 016A	E0100006	405	543	138	25%
Barking and Dagenham 015A	E01000007	479	612	133	22%
Barking and Dagenham 015B	E0100008	434	521	87	17%
Barking and Dagenham 016B	E01000009	578	638	60	9%
Barking and Dagenham 015C	E01000010	701	1103	402	36%
Barking and Dagenham 016C	E01000011	464	457	0	0%
Barking and Dagenham 015D	E01000012	427	698	271	39%
Barking and Dagenham 013A	E01000013	655	650	0	0%
Barking and Dagenham 013B	E01000014	631	638	7	1%
Barking and Dagenham 009A	E01000015	848	836	0	0%
Barking and Dagenham 009B	E01000016	636	626	0	0%
Barking and Dagenham 009C	E01000017	660	609	0	0%
Barking and Dagenham 009D	E01000018	627	612	0	0%
Barking and Dagenham 023A	E01000019	503	504	0	0%
Barking and Dagenham 023B	E01000020	632	650	18	3%
Barking and Dagenham 008A	E01000021	504	593	89	15%
Barking and Dagenham 008B	E01000022	481	474	0	0%

Figure 1: Sample of DECC's 2013 non-gas estimates at LSOA

² Lower Super Output Areas in England and Wales have a minimum size of 1,000 residents or 400 households, but have an average of 1,500 residents. Following the 2011 Census, there are now 34,753 LSOAs. Further information on statistical geographies can be found here, <u>www.gov.uk/government/statistics/regional-energy-data-guidance-note</u>

¹ www.gov.uk/government/statistics/energy-trends-december-2013-special-feature-article-off-gas-properties

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

⁴ www.gov.uk/government/statistics/regional-energy-data-guidance-note

⁵ The 2013 non-gas grid estimates at Local Authority and LSOA level were published on 19 February 2015

www.gov.uk/government/collections/sub-national-gas-consumption-data

Special feature - Visualising non-gas grid households in GB

It is estimated that around 10 per cent of household in Great Britain are not connected to the gas network. By region, the South West and Scotland has the highest proportion of properties without a gas meter, with 20 per cent and 17 per cent respectively, although within these regions there are some LSOAs where most of the properties are connected.

Current non-gas mapping

The first step DECC has taken to visualize the distribution of non-gas households in Great Britain, is by using a free online tool, Google Fusion Tables. This is an experimental data visualization web application to gather, visualize, and share data tables⁶. By loading the non-gas estimates and other data, and using boundary line information of all LSOAs in England and Wales, the map shows the distribution of non-gas grid connections, where the darker shades represent LSOAs with a high percentage of properties not connected to the gas mains, and lighter shades represent low percentages i.e. areas with fewer households not connected to the gas network. The other benefit of this tool is the ability to show additional information for each LSOA on the map, such as electricity and gas consumption; and the number of households (Figure 2). The map is available to view online⁷.

Figure 2: Snapshot of Google Fusion Table Map with 2013 non-gas estimates at LSOA level



The dataset containing the non-gas estimates along with the additional information, can be downloaded from the map, by clicking on the DECC hyperlink in the legend of the map. Guidance on how to download the dataset along with instructions on how to create a map using this tool has been published on DECC's sub-national consumption gas statistics webpage⁸.

New non-gas data

DECC have obtained from industry partners data identifying the location of the gas grid from all the main network operators. These data have been used together with location details of all domestic properties, and all domestic properties with a gas meter from datasets held by DECC to estimate the distances from the mains network to each non-gas property in Great Britain.

⁶ <u>https://support.google.com/fusiontables/answer/2571232?hl=en</u>

⁷ www.google.com/fusiontables/embedviz?q=select+col3%3E%3E0+from+1Pc8zUyy63Y7GiBOHIQW0_i5YMsuQxgWe-Y0F_9u4&viz=MAP&h=false&lat=51.046086328970496&Ing=-

^{1.0156940307617787&}amp;t=1&z=11&l=col3%3E%3E%2&tmplt=2&hml=GEOCODABLE

www.gov.uk/government/collections/sub-national-gas-consumption-data

Special feature – Visualising non-gas grid households in GB

The final dataset will include summaries of the distance of non-gas households from the gas network grouped by properties within 23 meters of distribution network⁹ within 50m; within 500m; within 2km; and greater than 2km. They have then been aggregated at LSOA level and are currently in the process of being mapped with an overlay of information including:

- Estimate of number of properties with a mains gas connection (LSOA data)¹⁰
- Indices of Multiple Deprivation (LSOA data)¹¹
- ECO Carbon Saving Communities Obligation and rural sub-obligation (LSOA data)¹²
- Penetration of energy efficiency measures (LA data)¹³
- Rural-urban classification (based on Defra definition)¹⁴
- Census data e.g. Main heating fuel (split by: no central heating; gas; electricity; oil; solid; other; two or more types)¹⁵, and
- Benefits claimant counts (aggregate data)¹⁶

This dataset will then be published on the sub-national gas consumption statistics webpage on the DECC website on Thursday 26th March 2015.

The mapping output based on these data will show more data than the Google Fusion tables shown above, and a postcode level map will also be produced which will be made available under licence to organisations supporting delivery of government policy. The interactive map will be published later in Spring 2015, when available.

Benefits of visualising non-gas households

The overall purpose of the project is to produce a clear, user-friendly, visually appealing map that is informative, and supports the development and delivery of policy. The maps should help users to understand where there might be potential:

- for specific technologies or energy efficiency measures;
- for gas grid extensions;
- to support to fuel poor households;
- to support delivery of ECO, especially Carbon Saving Communities Obligation and rural sub-obligation.

Feedback

DECC welcomes your feedback on this project and are keen to learn how these datasets and tools are being used. We would also be interested in suggestions on other free online visualisation tools that could be useful in presenting DECC's local area statistics.

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Wales 2014: http://wales.gov.uk/statistics-and-research/welsh-index-multiple-deprivation/?lang=en

⁹ The Gas Act 1986 contains a provision giving consumers a right to be connected to the gas network if they are within 23m of a distribution main

¹⁰ www.gov.uk/government/statistics/llsoa-electricity-and-gas-2013

¹¹ Making use of the latest indices in each country:

England 2010: <u>www.gov.uk/government/statistics/english-indices-of-deprivation-2010</u>

Scotland 2012: www.gov.scot/husitics-difu-lesedif

¹² The CSCO areas are available in a spreadsheet towards a bottom of this page: <u>www.gov.uk/government/consultations/the-future-of-the-energy-company-obligation</u>.

For the rural sub-obligation, a household must be within a settlement of fewer than 10,000 inhabitants i.e. rural by the Defra definition of Rural-urban), see section 5, of the carbon saving community obligation rural and low income areas publications shows how rural areas are eligible for CSCO:

www.gov.uk/government/uploads/system/uploads/attachment_data/file/48405/5536-carbon-saving-community-obligation-ruraland-low-.pdf

¹³ www.gov.uk/government/statistics/green-deal-energy-company-obligation-eco-and-insulation-levels-in-great-britain-quarterlyreport-to-september-2014

¹⁴ www.gov.uk/government/collections/rural-urban-definition

¹⁵ www.ons.gov.uk/ons/guide-method/census/2011/census-data/index.html

¹⁶ www.gov.uk/government/collections/dwp-statistics-tabulation-tool

Sub-national consumption statistics: Data at postcode level

Introduction

In June 2014, DECC published a short sub-national user feedback request report. The report outlined DECC's proposals to make some changes to the presentation, content and methodology of sub-national consumption statistics¹. Some of the changes that were put forward were based on previous user feedback along with other suggested improvements.

One of the suggested improvements was to publish domestic consumption statistics at postcode level for both electricity and gas. This article describes in a little more detail the methodology used and what will be published.

Domestic consumption statistical dataset for Great Britain at postcode level

DECC publish sub-national gas and electricity consumption estimates, using meter point electricity and gas consumption data for all meters in Great Britain, based on data provided by energy suppliers and other energy industry representatives. DECC have already published the 2013 gas and electricity domestic consumption data at Local Authority level (December 2014) and at Lower/Middle Super Output Areas level (January 2015)².

Using the underlying data for both fuels, we have verified the postcode information provided against the National Statistics Postcode Lookup file (NSPL)³, which is a directory of all valid postcodes in the Great Britain. This has been completed in a three stage process. Firstly, the full postcode has been checked against the NSPL. If the full postcode has matched up correctly against the NSPL, it is considered a valid postcode. The second stage deals with the invalid postcodes, i.e. a full postcode that has not been successfully matched against the NSPL. At this stage we matched a partial postcode against the equivalent on the NSPL. A partial postcode is the first half of a postcode and usually contains a maximum of 4 characters. Unsuccessful matches at this point, lead to the final stage, which is to allocate the meter point to an 'unallocated' category for Great Britain.

The datasets show the number of meters and total domestic consumption at postcode level (a combination of full and partial postcodes will be shown in one list, for reasons described above) and 'unallocated' meters in Great Britain. This data is provided at a finer geographical level detail, and so there are a number of disclosure issues. We have therefore, re-allocated meters and consumption to partial postcodes, if a full postcode contains less than 6 meters. We have also reallocated partial postcodes that are disclosive to the 'unallocated' category for Great Britain (this affected around 150 electricity and gas meters each). Although meters at postcode districts level (partial postcodes) are less likely to be disclosive, the full postcode can still be deduced if the dataset contains a list of the majority of full postcodes within a postcode district.

The final non-disclosive datasets were published on the sub-national consumption statistics webpages for electricity⁴ and gas⁵ on Thursday 26 March 2015. Since the file sizes are large, the online datasets have been split across several files. These are experimental statistics. If users find the datasets useful, we will assess the possibility of publishing updates every other year.

www.gov.uk/government/uploads/system/uploads/attachment_data/file/320488/sub_national_user_feedback_request.pdf www.gov.uk/government/organisations/department-of-energy-climate-change/about/statistics#sub-national-energyconsumption-statistics

www.ons.gov.uk/ons/guide-method/geography/products/postcode-directories/-nspp-/index.html

www.gov.uk/government/collections/sub-national-electricity-consumption-data

www.gov.uk/government/collections/sub-national-gas-consumption-data

Future developments

There are a number of other upcoming developments for sub-national consumption statistics, which DECC are keen to explore later in 2015, these include, publishing similar statistics at Parliamentary Constituency level and gas consumption data, which has not been weather corrected.

Feedback

DECC welcomes your feedback on the postcode level statistics as well as future developments, and are keen to learn how useful these datasets are and how they have been used. We would also welcome feedback about other geographic breakdowns users may find helpful and will assess the possibility of publishing these in future.

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Non-domestic Renewable Heat Incentive

Introduction

This one-off article provides a statistical summary of take-up of renewable heating installations incentivised under the non-domestic Renewable Heat Incentive (RHI) scheme. Its focus is on the industrial sectors associated with the recipient's use of the heat and also their geographic location.

This analysis uses administrative data relating to the non-domestic RHI scheme accurate as at 31 January 2015. The data used within this article are available at: www.gov.uk/government/collections/renewable-heat-incentive-renewable-heat-premium-payment-statistics.

More up-to-date data will continue to be published at this location.

Background to the non-domestic RHI

The non-domestic RHI is a long-term financial incentive scheme introduced in Great Britain in November 2011 to support the uptake of renewable heat in the non-domestic sector.

The scheme provides payments to industrial, commercial, public sector and not-for-profit organisations, as well as district heating schemes for domestic properties, which are generating heat from technologies¹ including:

- Biomass boilers;
- Heat pumps;
- Solar thermal;
- Biogas²; and
- Biomethane³.

Further information on the non-domestic RHI scheme can be found at: <u>www.gov.uk/government/policies/increasing-the-use-of-low-carbon-technologies/supporting-pages/renewable-heat-incentive-rhi</u>

Overview of deployment under the non-domestic RHI

As at 31 January 2014, 11,563 full applications⁴ had been received (including both successful and unsuccessful applications) to join the non-domestic scheme. Of these, 7,675 have gone through full checks by Ofgem E-serve to make sure that they comply with the relevant conditions and have consequently have been accepted onto the scheme (accredited).

Biomass installations dominate deployment, in particular small biomass boilers which constitute 88 per cent of full applications and 87 per cent of accreditations since the launch of the scheme in November 2011. Medium biomass boilers have contributed a further 7 per cent of full applications and 8 per cent of accreditations.

Currently there are 6,844 installations which have received one or more payments for heat generated under the scheme, and as at 31 January 2015, installations on the non-domestic RHI scheme had generated 2.3 TWh of eligible heat.

¹ Further information on eligible systems can be found at: <u>www.legislation.gov.uk/all?title=renewable heat incentive</u>.

² Generation of heat from the combustion of biogas in boilers or engines. Biogas is a mixture of combustible gases produced by biological feedstock/ fuel.

³ An alternative to burning biogas involves removing the carbon dioxide and other impurities from biogas in a process known as scrubbing, and ensuring that the calorific value, or energy content, closely matches that of the natural gas in the network.

⁴ Full applications are completed applications submitted to Ofgem E-serve with a relevant system already installed.

The popularity of small biomass boilers on the scheme has led to the tariff being reduced 3 times to date – see Table 1. Prior to any tariff reduction taking effect applicants have a one month grace period after the announcement is made, during which they can apply to the scheme and receive the non-reduced tariff. It is likely that the spikes in applications seen in June, September and December 2014 were caused by tariff reductions taking effect in the following months (Figure 1).

Announcement month	Effective month	Tariff reduced	Percentage	Old tariff	New tariff
May-2013	Jul-2013	Medium Biomass	5%	Tier 1: 5.3p/kWh Tier 2: 2.2p/kWh	5.0p/kWh 2.1p/kWh
May-2014	Jul-2014	Small biomass	5%	8.8p/kWh 2.3p/KWh	8.4p/Kwh 2.2p/Kwh
Aug-2014	Oct-14	Small biomass	10%	8.4p/kWh 2.2p/kWh	7.6p/kWh 2.0p/kWh
Nov-14	Jan-15	Small biomass	10%	7.6p/kWh 2.0p/kWh	6.8p/kWh 1.8p/kWh
Nov-14	Jan-15	Biomethane	10%	7.5p/kWh	6.8p/kWh
Feb-15	Apr-15	Small biomass	15%	6.8p/kWh 1.8p/kWh	5.87p/kWh 1.56p/kWh

Table 1 – Degression announcements

Figure 1 - Number of full applications, Great Britain, November 2011 to January 2015



Source: RHI Official Statistics, DECC

Applicants can also apply for preliminary accreditation to the scheme. Preliminary accreditation provides applicants with reassurance that once the proposed installation is built and the owner submits a full application, accreditation will be granted as long as the installation is built in line with the submitted plans and all other conditions are met. At the end of January 2015, there were 97 preliminary applications, 34 per cent of which were for medium solid biomass boilers, a further 12 per cent of which were for large solid biomass boilers and 48 per cent for biogas.

Uptake by Standard Industrial Classification code

Standard Industrial Classification (SIC)⁵ codes are used to identify between different industry areas. Every applications for accreditation onto the non-domestic RHI has an associated SIC code which relates to the sector for which the heat generated is being used for. Using the SIC code and through aggregation by this characteristic, uptake and scheme performance can be monitored across the different sectors.

As at 31 January 2015, the combined capacity of the 7,675 installations accredited onto the nondomestic RHI scheme was 1,273 MW. Thirty-three per cent (417 MW) of accredited capacity has been installed in the crop and animal production sector (SIC Code 1), and 22 per cent (280 MW) has been installed in the accommodation sector (SIC Code 55). Figure 2 shows capacity by SIC code for the five major users of the RHI by this measure.



Figure 2 – Capacity of accredited systems by SIC code, Great Britain, as at 31 January 2015

Source: RHI Official Statistics, DECC

⁵ Further information on SIC codes are available at: <u>www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/standard-industrial-classification/index.html</u>

Figure 3 shows the composition of renewable technology installed for each of the five major sectors. For each of the sectors biomass boilers are the dominant technology installed, this is in line with what has so far been seen across the scheme as a whole, with 99% of capacity from accredited installation attributable to biomass installations. Note that biomethane installations injecting directly into the grid do not have a capacity directly comparable to the other technologies eligible for the RHI and therefore do not contribute towards capacity figures here.

The crop and animal production (SIC Code 1) and accommodation (SIC Code 55) sectors combined account for 697 MW (54.8 per cent) of accredited installation capacity. Within the crop and animal production sector small biomass was responsible for 69 per cent of accredited capacity (287.3 MW of 416.9 MW), and 86 per cent (241.9 MW of 280 MW) of accredited capacity in the accommodation sector.

Although the crop and animal production sector account for a considerably larger portion of accredited capacity than the accommodation sector, the accommodation sector accounts for 2,580 individual installations, a third of all installations accredited onto the scheme, compared to 2,142 in the crop and animal production sector.

The retail sector (SIC Code 47) heavily favours the use of medium biomass boilers which account for 81 per cent of accredited capacity. Medium biomass is also favoured, though to a somewhat lesser extent, within the education sector (SIC Code 85) where it accounts for 56 per cent of accredited capacity.

Within the manufacture of wood and cork products sector (SIC Code 16) large biomass constitutes nearly half of accredited capacity, accounting for 47 per cent. The reason large biomass forms such a large proportion of accredited capacity in this sector is because large biomass boilers are well suited to process heating, which constitutes a significant portion of heat demand within this sector, whilst heat demand from other sectors is mainly for space and water heating.

Figure 3 – Composition of installation type by Standard Industrial Classification Code, Great Britain, as at 31 January 2015



Source: RHI Official Statistics, DECC

Note: Other includes all heat pumps, biogas, deep geothermal, CHP and solar thermal. Biomethane is not included.

Heat generated based on payments by SIC code

Heat generated is calculated by Ofgem from the meter readings of accredited scheme participants. Meter readings are collected and processed to ensure that the correct amount of support can be paid. These data relate to the period when the payment was received for heat generated not the period in which heat was actually generated. Consequently, there is heat generated under the scheme which is not included in these data.

As at 31 January 2015, 2,305 GWh of renewable heat had been generated and paid for under the non-domestic RHI, of which 31 per cent (710 GW) was from the crop and animal production sector (SIC Code 1). A further 16 per cent (358 GW) has been generated by the manufacture of wood and cork products sector, and 15 per cent (341 GW) from the accommodation sector. No other single sector has more than 10 per cent of heat generated and paid attributed to it.





Source: RHI Official Statistics, DECC

Uptake by region

As at 31 January 2015, 74 per cent (941.5 MW) of accredited capacity was attributed to installations located within England, compared to 19 per cent (235.8 MW) from installations located within Scotland and 8 per (95.8 MW) from installations located within Wales. Figure 5 shows how capacity has increased over time by country.

The South West is the region within England with most installed capacity, 14 per cent of the scheme total (172.6 MW), followed by the West Midlands with 12 per cent (158.2 MW). In general take-up of the non-domestic RHI is higher in rural areas, probably because these are areas where a greater proportion of properties are not on the gas grid. In such cases applicants are likely replacing a solid fuel or oil burning system which may be costlier than using mains gas, thereby making the tariffs offered under the RHI appear particularly attractive due to the more expensive counterfactual. Table 2 shows a regional breakdown for the number of applications, accreditations and their capacities.


Figure 5 – Cumulative installed capacity by country, November 2011 to January 2015

Source: RHI Official Statistics, DECC

Region		Full applications		Accredited installations		Capacity of full applications		Capacity of accredited installations	
		Number	% of total	Number	% of total	MW	% of total	MW	% of total
England	ł	8,292	72%	5,632	73%	1,351.0	71%	941.5	74%
-	South West	1,830	16%	1,293	17%	239.8	13%	172.6	14%
	West Midlands	1,130	10%	792	10%	207.8	11%	158.2	12%
	Yorkshire and the Humber	1,183	10%	815	11%	189.4	10%	136.6	11%
	North West	1,071	9%	709	9%	172.1	9%	118.5	9%
	South East	772	7%	492	6%	122.1	6%	73.4	6%
	East Midlands	1,033	9%	662	9%	188.8	10%	122.0	10%
	East of England	814	7%	567	7%	155.1	8%	105.6	8%
	North East	402	3%	264	3%	58.9	3%	41.8	3%
	London	57	0%	38	0%	17.0	1%	12.8	1%
Scotlan	d	2,139	18%	1,341	17%	400.1	21%	235.8	19%
Wales		1,132	10%	702	9%	162.3	8%	95.8	8%
Total		11,563		7,675		1,913.4		1,273.1	

Source: RHI Official Statistics, DECC

Special feature – Non-domestic RHI

Figure 6 shows the composition of renewable technology installed for each region.





Source: RHI Official Statistics, DECC

Note: Due to small numbers medium and large biomass have been combined.

Other includes all heat pumps, biogas, deep geothermal, CHP and solar thermal. Biomethane is not included.

Heat generated based on payments by region

Figure 7 shows the regional distribution of total heat generated and paid for up. As at 31 January 2015 installations on the non-domestic scheme had generated 2,305 GWh of eligible heat. Of this, 20 per cent was generated in Scotland, 17 per cent in the South West and a further 14 per cent in the West Midlands.





Source: RHI Official Statistics, DECC

User feedback

Please send any comments or queries regarding these statistics to the contact details below:

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International comparisons of energy efficiency indicators

Introduction

International comparisons of energy efficiency are a helpful way to measure performance of the UK relative to other countries and understand the key energy demands of the UK economy. This article presents indicators for each of the main energy consuming sectors based on data published by the ODYSSEE European energy efficiency indicators project. These indicators are designed to make meaningful comparisons between countries but care must be taken when making comparisons regarding efficiency due to differences in the types of energy used in different countries, and differences in heating demand, building type and structure of industry that cannot be fully controlled for.

Data are taken from the ODYSSEE database unless otherwise noted. The ODYSSEE project is a European Commission supported project made up of partners from EU Member States together with Norway to produce detailed energy efficiency indicators for European countries. The majority of European Union (EU) countries have data covering at least 2000 to 2012. However, in some cases where a country does not have 2012 data available yet 2011 data has been used. For Estonia and Hungary all data are for 2010. If a country is not displayed on a cross-European chart, it is because that country has not reported data for that indicator at the time of writing.

This article provides a brief overview of energy efficiency in each major sector.

Domestic

The indicator in Chart 1 shows average energy consumption per dwelling, adjusted for climatic differences across the EU. This indicator uses climate corrected data, which enables better comparisons to be made across countries by adjusting some key energy uses (e.g. heating demand) based on modelled variation both over time and to standard EU climate; for instance a household that lives in a country with a cooler climate may use more energy to heat their home than a household living in a warm climate. In 2012, UK average consumption per dwelling when adjusted to the EU climate¹ was 16,630 kWh per dwelling, 2 per cent higher than the EU² average of 16,280 kWh per dwelling. It is sometimes useful to make comparisons to countries that are similar to the UK both in climate and economic factors. In 2012, UK average consumption per dwelling was 9 per cent more than Germany but 26 per cent lower than France after climate adjustment.

UK domestic energy use per household rose by 1 per cent between 2011 and 2012, but in 2013 was 4 per cent lower than in 2012 (based on national data reporting, adjusted to standard UK climate).³

¹ Temperature correction of a country's energy consumption data adjusted for difference in temperature compared to the average EU climate.

² The EU statistics refer to a weighted average of 27 of the 28 member states. Croatia is shown throughout this chapter but is not included in the calculation of the EU average statistics by ODYSSEE. For certain indicators, not all EU member states will have data points for 2012 and therefore wouldn't be included in the average. Cases with missing 2012 data are noted.

³ Calculated using domestic energy consumption data in Table 1.3 in Energy Trends: December 2014, and household data in Table 3.07 in Energy Consumption in the UK 2014 update.



Chart 1: Domestic energy consumption per dwelling adjusted to the EU climate, 2012

Source: ODYSSEE

Note: Data for Belgium and Romania are for 2011.

Overall, UK energy consumption per dwelling fell by 24 per cent between 2002 and 2012. By comparison, the EU average fell by 14 per cent over the same period, with energy consumption per dwelling falling in the majority of EU countries over this period.



Chart 2: Change in domestic energy consumption per dwelling adjusted to the EU climate from 2002 to 2012

Source: ODYSSEE

Note: Data for Belgium and Romania are for 2002 to 2011.

Manufacturing

Manufacturing intensity is measured by the amount of energy required to add one unit of gross value added (GVA) to the gross domestic product. As shown in Chart 3 the UK has the fifth lowest manufacturing intensity in Europe, 28 per cent below the EU average relative to gross value added.^{4,5}

A key issue in determining the energy intensity of manufacturing is the share of each manufacturing sub-sector within the overall industry in each country. In 2012, UK energy intensity was 2 per cent lower once adjusted to the EU standard share of each sub-sector, reflecting that the structure of UK manufacturing is slightly more energy intensive than the EU average. After adjusting for EU structure, the UK has the second lowest manufacturing energy intensity in Europe, 29 per cent below the EU average relative to gross value added.^{4,5}

Chart 3: Manufacturing energy consumption per unit of GVA 2012 for unadjusted data and adjusted to EU structure (PPP adjusted)



Source: ODYSSEE

Note: Manufacturing intensity data adjusted at EU structure is calculated by taking actual sub-sectoral intensities of the country and the share of each branch in the value added of manufacturing of the EU. Data not adjusted to EU structure for Belgium, Cyprus, France, Greece and Romania are for 2011. Data adjusted to EU structure for Belgium, France, Poland, Portugal and Romania are for 2011.

Since 2002 UK manufacturing energy intensity at EU structure has fallen by 34 per cent, and by 40 per cent when adjusted for EU structure. The EU as a whole has reduced its manufacturing energy intensity by 22 per cent in the same period. Between 2002 and 2012, the GVA of the UK's manufacturing industry fell by 4 per cent⁶ and in 2012 manufacturing only accounted for 10 per cent of the UK's GVA.⁷

When the energy intensity of industry has been adjusted for EU structure the UK has made the sixth largest reduction in the EU, and the largest reduction in manufacturing energy intensity out of countries in the EU 15 (Chart 4).

⁴ Adjusted for purchasing power parity (PPP).

⁵ Data for manufacturing intensity at the EU structure has not been reported for Malta or Sweden at the time of writing.

⁶ www.ons.gov.uk/ons/rel/naa2/quarterly-national-accounts/q3-2014/rft-data-ref-tables-qna-q3-2014.xls

⁷ ONS series: KL8A (total economy).



Chart 4: Change in manufacturing energy consumption per unit of GVA, 2002-2012 (PPP adjusted at EU structure)

Source: ODYSSEE

Note: Manufacturing intensity data adjusted at EU structure is calculated by taking actual sub-sectoral intensities of the country and the share of each branch in the value added of manufacturing of the EU. Data for Belgium, France, Poland, Portugal and Romania are for 2011.

While the broad indicator of manufacturing intensity shows overall intensity it is important to also compare relative efficiencies of manufacturing sub-sectors across countries. Care should be taken whilst making international comparisons of manufacturing because the type and quality of products produced varies between countries. For example in the steel industry, energy intensity will vary depending on the share of coke that is manufactured on-site compared to the share that is purchased.

Energy intensity in the cement, steel and paper sectors are measured by energy consumption by tonne of output (as opposed to GVA). Using this measure for these energy intensive sectors the UK is generally shown to be more energy intensive than the EU as a whole. In 2012, the UK was 67 per cent more energy intensive than the EU in cement and by 39 per cent in steel as shown in Chart 5. However in paper manufacturing, the UK was 3 per cent less energy intensive than the EU average. The UK's energy intensity in cement increased by 31 per cent and steel by 16 per cent between 2002 and 2012; this may be partly due to a decline in output from the sectors which is likely to reduce the overall efficiency of production. UK output of the cement sector fell 32 per cent between 2002 and 2012, whilst the paper sector fell 29 per cent and the steel sector 36 per cent over the same time period.





Source: ODYSSEE

Commercial and Public Sector Services

The UK has one of the least energy intensive service sectors in the EU as measured by energy consumption per unit of GVA, shown in Chart 6. The UK performs particularly well on this indicator due to the high-value professional services that generate high GVA for relatively low energy use. UK service sector energy consumption per unit of GVA was 17 per cent lower than the EU average in 2012. The UK service sector is the dominant sector of the UK economy, contributing 78 per cent of GDP output in 2013.⁸

Between 2002 and 2012, the UK's service sector energy intensity fell 32 per cent, compared to a fall of 25 per cent in the EU as a whole. Over the same time period, the GVA of the service sector in the UK increased 25 per cent.⁹

⁸ United Kingdom National Accounts, The Blue Book, 2013 Edition: <u>www.ons.gov.uk/ons/rel/naa1-rd/united-kingdom-national-accounts/the-blue-book--2013-edition/chapter-01--national-accounts-at-a-glance.html</u>

⁹ ONS Quarterly National Accounts, Q3 2014: <u>www.ons.gov.uk/ons/rel/naa2/quarterly-national-accounts/q3-2014/rft-data-ref-tables-qna-q3-2014.xls</u>



Chart 6: Service Sector energy consumption per unit of GVA, 2012 (PPP adjusted)

Source: ODYSSEE

Note: Data for Belgium and Romania are for 2011.

Transport

The energy efficiency of vehicles is measured by the amount of fuel needed to cover 100km. Newer vehicles tend to be more energy efficient, so new cars and vehicle fleet as a whole are considered separately. For the vehicle fleet as a whole, the UK continues to have the lowest consumption rate of 5.6 litres/100km (equivalent to 50 miles per gallon), which is 17 per cent below the EU average. The UK new car consumption rate is 5.29 litres/100km (equivalent to 53 miles per gallon), comparable to the EU average of 5.25 litre/100km. Chart 7 shows the average energy consumption (litres) per 100 km travelled for cars in EU countries, where figures are available.

In the UK energy consumption for new cars decreased by 26 per cent, and for the car fleet as a whole by 25 per cent, between 2002 and 2012. This is compared to an EU average of 22 per cent for new cars and 12 per cent for all cars. In the UK the average number of years since 1st registration for cars was 7.9 years in 2013,¹⁰ and is again comparable to 8.2 years for the European Economic Area in 2009 (the last data available).¹¹ Diesel is more efficient fuel than petrol, and the share of the whole fleet in the UK propelled by diesel was 33 per cent in 2012, up 18 percentage points from 15 per cent in 2002.¹² While this is still lower than the EU average of 37 per cent (last reported in 2010) the UK has been increasing its share of diesel cars at a faster rate than the EU as a whole.

¹² Department for Transport Table VEH0203: www.gov.uk/government/uploads/system/uploads/attachment_data/file/301636/veh0203.xls

¹⁰ Department for Transport Road Traffic Survey www.gov.uk/government/uploads/system/uploads/attachment_data/file/184161/veh0211.xls

¹¹ www.eea.europa.eu/data-and-maps/indicators/average-age-of-the-vehicle-fleet/average-age-of-the-vehicle-3

Special feature - International comparisons of energy efficiency indicators





Source: ODYSSEE

Note: Data for total fleet consumption in Germany and Poland data are for 2011, for Slovakia data are for 2010. For new cars data for Belgium, Cyprus and Romania are for 2011.

The UK has the fifth lowest percentage share of public transport in total land passenger transport, accounting for 15 per cent of all traffic. This has increased 3 percentage points from 12 per cent in 2002. The EU average remained stable at 18 per cent of public transport in total land passenger from 2002 to 2012.



Chart 8: Percentage share of public transport in total land passenger transport, 2012

Source: ODYSSEE

Note: Data for Belgium, Poland and Romania are for 2011.

Conclusion

Energy consumption in the UK has reduced in each main sector over the 10 years between 2002 and 2012.

In the domestic sector, the UK was marginally more energy intensive in 2012 than the EU average, but there has been a greater reduction in domestic energy intensity in the 10 years between 2002 and 2012 in the UK (24 per cent) compared to the EU (14 per cent).

The energy intensity of manufacturing in the subsectors of cement and steel has increased from 2002 to 2012, likely because of the decline in each of these industries. After adjusting for structural changes within manufacturing, the UK energy intensity fell by 30 per cent.

Improvements in energy efficiency in the service sector have meant that while this sector has increased its GVA by 25 per cent between 2002 and 2012, energy intensity has been reduced by one-third (32 per cent).

In transport, the intensity of the car fleet as a whole has been reduced by one quarter in the UK compared to 12 per cent in the EU. In the UK the percentage of the fleet fuelled by diesel more than doubled between 2002 and 2012, and average time since first registration is just 7.9 years. Faster replacement of the car stock leads to a more energy efficient fleet, contributing to the fact that UK average energy consumption for the entire car fleet is the lowest in the EU.

For further information on International energy efficiency statistics, please contact:

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Non-domestic National Energy Efficiency Data Framework – new publication

The National Energy Efficiency Data-Framework (ND-NEED) was set up by DECC to provide a better understanding of energy use in domestic and non-domestic buildings. The purpose of the non-domestic National Energy Efficiency Data-Framework (ND-NEED) is to match buildings data to electricity and gas consumption data. Over the past year, improvements to the coverage and methodology have been made to ND-NEED and a report presenting statistical analysis of energy use in these buildings has now been published¹.

The new report follows on from the May 2014 publication, which reported the development and quality assurance of this project. Since then improvements in address matching have been made, and feedback from the consultation held on weighting has been implemented. The results in this report should be considered experimental since the weighting methodology has been implemented for the first time. We welcome any feedback on both the results presented and ideas for how this analysis could be improved and what users would like to see done with the data; please contact: <u>Energyefficiency.stats@decc.gsi.gov.uk</u>

Consumption analysis

Figure 1 (electricity) and Figure 2 (gas) show how ND-NEED can disaggregate consumption between the main building types. Factories are the largest consuming group of buildings in the non-domestic sector and account for over one quarter of electricity consumption and over a third of gas consumption. Electricity consumption of factories decreased by 13 per cent between 2006 and 2012 and their gas consumption by 25 per cent, with the majority of savings between 2008 and 2009 as UK industrial index of production fell by 10 per cent over the year. Shops (the second highest consuming building type) decreased their electricity consumption by 18 per cent and their gas consumption by 16 per cent between 2006 and 2012.



Figure 1: Electricity consumption (TWh) for each building type for each year in ND-NEED, 2006-2012

¹ ND National Energy Efficiency Data-Framework: Energy Statistics 2006-12 <u>www.gov.uk/government/statistics/the-non-domestic-national-energy-efficiency-data-framework-nd-need</u>

Figure 2: Gas consumption (TWh) for each building type for each year in ND-NEED, 2006-2012



Energy intensity analysis²

For both electricity (Figure 3) and gas (Figure 4), warehouses have the lowest average energy intensity measured as consumption per m², followed by factories. Electricity and gas intensities fell across all building types between 2006 and 2012 with reductions of between 14 and 25 per cent in electricity intensity for the main building types and 23 and 33 per cent reductions for gas intensity. The largest savings were seen in factories and warehouses.



Figure 3: Median electricity intensity for non-domestic buildings by building type, 2006-2012

² It should be noted that the floor area data in ND-NEED is a fixed value for each building since the data has been taken from a 2012 version of the 2010 Ratings List. Changes over time in the size of individual buildings will not be factored in to the analysis but buildings will only be included in the analysis if they have valid consumption readings in for the relevant year and therefore the overall floor area included in the analysis does vary year on year.



Figure 4: Median gas intensity for non-domestic buildings by building type, 2006-2012

Business size analysis

Using the Experian data in ND-NEED, it is possible to analyse trends by size of business in terms of site and organisation employment. No specific weighting has been applied to correct for the sample of ND-NEED records that have matched to Experian data.

For electricity, larger businesses (in terms of employment) have higher average intensities than smaller businesses. However, for gas the intensity is generally lower for larger businesses, although this is not the case for factories.

The analysis found statistically significant differences between small & medium sized enterprises (SMEs) and larger enterprises in their rate of reduction in electricity and gas intensity for most building types

The full report can be found at: <u>www.gov.uk/government/collections/national-energy-efficiency-data-need-framework</u>

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UKCS Capital Expenditure Survey 2014

A survey of activity relating to oil and gas fields and associated infrastructure on the UK Continental Shelf (UKCS) was conducted in autumn 2014 during a period of rapidly falling oil prices. The annual joint DECC–Oil & Gas UK survey was conducted by Oil & Gas UK who have collated the data and provided it to DECC. The survey covered operators' intentions to invest in UKCS oil and gas production. It also collected information on projected operating and decommissioning costs and on oil and gas production. The survey excluded exploration and appraisal activity. This note is restricted to development capital expenditure in the period up to 2019.¹

Summary of results

The survey indicates total development capital expenditure (i.e. excluding expenditure on exploration, appraisal and decommissioning) relating to existing fields and significant discoveries of some £14.8 billion in 2014. Operators' expectations of future capital expenditure as reflected in the Survey will have anticipated some fiscal relaxation but in general did not build in the effect of a prolonged period of much lower oil prices than in recent years. Despite that, the reported survey data suggest that expenditure will fall significantly in 2015 and subsequent years. Much uncertainty applies to such projections but DECC's central estimates are for spend of £10.8 billion in 2015 and £8.3 billion in 2016. These estimates assume lower oil prices reduce both the volume and cost of development capital expenditure.

After 2016, the survey indicates a sustained high level of development capital expenditure but such projections are inevitably very uncertain. It is extremely unlikely that all of the possible projects will go ahead as reported, at least on the timeframe indicated, but against that the survey excludes activity relating to new and some recent discoveries and extends beyond the time horizon for planning many incremental projects.

Background

Operators were asked to report their investment intentions for all oil and gas field developments and projects where development data were available. They placed each field or project in one of the following categories:

Sanctioned fields - fields, including sanctioned incremental investments, which are in production or under development assuming minimum ongoing investment (e.g. mandatory environmental or safety projects, etc.)

'Probable' incremental projects - projects which are not yet sanctioned but with at least 50% probability of being technically and economically developable

Probable new field developments - new fields which are not yet sanctioned but with at least 50% probability of being technically and economically producible

'Possible' incremental projects - projects which are not yet sanctioned with a significant but less than 50% probability of being technically and economically developable

Possible new field developments - new fields which are not yet sanctioned with a significant but less than 50% probability of being technically and economically producible

Operators were asked to include any developments which have the potential to become commercial at some time in the next 10 years. They were asked to indicate the probability of each new field or project going ahead and to use the central (most likely) case in the event that there was uncertainty about the timing of expenditure. Operators' estimates (of costs and production) were meant to be consistent with commercial development.

^{1.} A report by Oil & Gas UK on the full range of findings from the survey and a parallel survey of exploration and appraisal activity, *Activity Survey 2015*, was published in February 2015 and is available online at <u>www.oilandgasuk.co.uk/</u>.

Special feature – UKCS Capital Expenditure

Capital expenditure plans by category

The results of the survey are summarised in Table 1 and illustrated in Chart 1. Expenditure has been included on the scale and at the time reported by the operators though it is likely that at least some of the less-certain projects will slip or even not materialise. The table also includes weighted totals which reflect the probabilities assigned by the operators. The resultant profile for total development capital expenditure is close to but generally below that for sanctioned fields plus probable projects.

Table 1: Total development capital expenditure plans by category							
							Total for
(£ billion, 2014 prices)	2014	2015	2016	2017	2018	2019	2015–2019
Sanctioned Fields	13.4	10.5	7.1	5.1	3.6	2.6	28.8
Probable Incremental Projects	0.7	1.1	1.1	0.9	0.7	0.7	4.5
Probable New Fields	0.4	1.1	2.4	3.0	2.3	2.1	10.9
Sanctioned plus Probable	14.5	12.7	10.6	9.0	6.5	5.5	44.2
Possible Incremental Projects	0.1	0.6	1.4	1.8	1.3	1.0	6.1
Possible New Fields	0.2	0.3	0.8	2.2	2.8	2.3	8.4
Sanctioned plus Probable plus Possible	14.8	13.6	12.8	13.0	10.6	8.7	58.7
Weighted Total	14.8	12.3	10.1	9.0	6.8	5.5	43.6



Chart 1: Total development capital expenditure plans by category

Compared with the intentions over the five years following the survey conducted in 2013, the 2014 survey indicates significantly lower expenditure with a similar share of sanctioned spend but a lower share for probable and higher share for possible spend.

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Recent and forthcoming publications of interest to users of energy statistics

Electricity and gas consumption at middle layer super output area (MSOA), lower layer super output area (LSOA) and intermediate geography zone (IGZ) level during 2013

On 29 January 2015, DECC released 2013 electricity and gas consumption data for England and Wales at Middle Layer Super Output Area (MSOA) level, and for Scotland at Intermediate Geography Zone (IGZ) level. These data are available for both domestic and non-domestic gas and domestic and non-domestic electricity consumption (though excluding consumption from businesses on half-hourly meters).

These follow on from the publication of similar estimates for 2005 to 2012 and are classed as National Statistics. MSOAs are a statistical geography developed by the Office for National Statistics (ONS) as part of the 2011 census. On average, an MSOA contains a population of around 7,200 (with a minimum of 5,000), while IGZs are slightly smaller containing an average of around 4,000 people (with a minimum of 2,500).

Also on 29 January 2015, DECC released 2013 LSOA electricity and gas consumption data for domestic consumers within Great Britain. This data has previously been published for the whole of England and Wales for 2008 to 2012 following a successful pilot carried out when the 2007 data were published for around 40 local authorities.

LSOAs are a statistical geography developed for the 2001 and 2011 Census by the ONS. The 34,753 LSOAs in England and Wales have a minimum population of 1,000 (or around 400 households) and are used as the building block for MSOAs. DECC are only able to publish the gas and electricity LSOA consumption data for domestic consumers. Due to the small size of these geographical areas, the majority of the non-domestic consumption would be disclosive and would have to be aggregated. These LSOA statistics are currently classified as Experimental National Statistics.

These datasets complement the local authority based data sets released in December 2013.

These data can be accessed on the DECC section of the GOV.UK website at: www.gov.uk/government/collections/mlsoa-and-llsoa-electricity-and-gas-estimates

The MSOA, LSOA and IGZ geography boundaries have been updated by the Office for National Statistics following the 2011 census; these updates have resulted in property coverage changes to around 2½ per cent of LSOAs, and around 2 per cent of MSOAs since the 2001 Census. Further information on the changes resulting from the census can be found on the neighbourhood statistics website at: www.ons.gov.uk/ons/guide-method/geography/beginner-s-guide/census/output-area-oas-/index.html

Green Deal and ECO monthly and quarterly statistics

These publications provide estimates of various elements of the rollout of the Green Deal and ECO policy, including number of assessments, plans, and measures installed. The latest releases were published on 19 March 2015 at:

www.gov.uk/government/collections/green-deal-and-energy-company-obligation-eco-statistics

Estimates of home insulation levels in Great Britain

This quarterly publication, released alongside the quarterly Green Deal and ECO statistics, provides estimates of the number of homes in Great Britain with cavity wall insulation, loft insulation and solid wall insulation. The latest release, detailing estimates of home insulation levels in Great Britain: December 2014, was published on 19 March 2015 at:

www.gov.uk/government/collections/green-deal-and-energy-company-obligation-eco-statistics

Special feature - Recent and forthcoming publications

Smart Meters quarterly statistics

This quarterly publication provides estimates of the number of Smart Meters installed and operating in homes and businesses in Great Britain. The latest release, covering estimates of the number of Smart Meters deployed up to the end of December 2014, was published on 19 March 2015 at: www.gov.uk/government/collections/smart-meters-statistics

National Energy Efficiency Data-framework 2015

This publication presents analysis from the National Energy Efficiency Data-Framework (NEED). It provides updated domestic energy consumption results to include 2013 gas and electricity consumption data. It also includes updated estimates of the impact of installing energy efficiency measures on a household's gas consumption for measures installed in 2012. The publication will be released on 28 May 2015 at:

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

Annual Fuel Poverty statistics report and sub-regional data

This annual publication details the latest statistics on fuel poverty. The 2015 edition, detailing the 2013 statistics, will be released on 28 May 2015, along with a series of appendices, at: www.gov.uk/government/collections/fuel-poverty-statistics. Data for 2013 at sub-regional level will also be available at: www.gov.uk/government/collections/fuel-poverty-statistics. Data for 2013 at sub-regional level will also be available at: www.gov.uk/government/collections/fuel-poverty-statistics. Data for 2013 at sub-regional level will also be available at: www.gov.uk/government/collections/fuel-poverty-statistics. Data for 2013 at sub-regional level will also be available at: www.gov.uk/government/collections/fuel-poverty-sub-regional-statistics

Sub-national road transport consumption during 2013

This annual publication provides estimates of road transport fuel consumption in the United Kingdom, by vehicle and fuel type. Data for 2013 will be released on 25 June 2015 at: www.gov.uk/government/collections/road-transport-consumption-at-regional-and-local-level

Explanatory notes

General

More detailed notes on the methodology used to compile the figures and data sources are available on the DECC section of the gov.uk website.

Notes to tables

- Figures for the latest periods and the corresponding averages (or totals) are provisional and are liable to subsequent revision.
- The figures have not been • adjusted for temperature or seasonal factors except where noted.
- Due to rounding the sum of the • constituent items may not equal the totals.
- Percentage changes relate to • the corresponding period a year ago. They are calculated from unrounded figures but are shown only as (+) or (-) when the percentage change is very large.
- Quarterly figures relate to • calendar quarters.
- All figures relate to the United • Kingdom unless otherwise indicated.

Abbreviations

ATF	Aviation turbine
	fuel
CCGT	Combined cycle
	gas turbine
DERV	Diesel engined
	road vehicle
LNG	Liquefied natural gas
MSF	Manufactured
	solid fuels
NGLs	Natural gas liquids
UKCS	United Kingdom
	continental shelf

Symbols used in the tables

- not available ...
- nil or not separately available -
- р provisional
- revised; where a column or row shows 'r' at the beginning, most, but r not necessarily all, of the data have been revised.
- estimated; totals of which the figures form a constituent part are е therefore partly estimated

Conversion factors

- 1 tonne of crude oil =
- 1 tonne =
- 1 gallon (UK) = 1 kilowatt (kW) =
- 1 megawatt (MW) =
- 1 gigawatt (GW) =
- 1 terawatt (TW) =
- 1,000 kilograms 4.54609 litres 1.000 watts
- 1.000 kilowatts

7.55 barrels

- 1.000 megawatts
- 1,000 gigawatts

All conversion of fuels from original units to units of energy is carried out on the basis of the gross calorific value of the fuel. More detailed information on conversion factors and calorific values is given in Annex A of the Digest of United Kingdom **Energy Statistics.**

Conversion matrices

To convert from the units on the left hand side to the units across the top multiply by the values in the table. Tarajaulaa CW/h Million

10.	toe	Terajoules	GWII	therms
From Thousand toe Terajoules (TJ) Gigawatt hours (GWh) Million therms	Multiply by 1 0.023885 0.085985 2.5200	41.868 1 3.6000 105.51	11.630 0.27778 1 29.307	0.39683 0.0094778 0.034121 1
To	Tonnes of oil	Gigaioules	k\M/b	Thormo
10.	equivalent	Gigajoules	KVVII	mernis

Note that all factors are quoted to 5 significant figures

Sectoral breakdowns

The categories for final Industrial Classification	consumption by user are defined by the Standard 2007, as follows:			
Fuel producers 05-07, 09, 19, 24.46, 35				
Final consumers				
Iron and steel	24 (excluding 24.4, 24.53 and 24.54)			
Other industry	08, 10-18, 20-23, 24.4 (excluding 24.46), 24.53, 24.54,			
	25-33, 36-39, 41-43			
Transport	49-51			
Other final users				
Agriculture	01-03			
Commercial	45-47, 52-53, 55-56, 58-66, 68-75, 77-82			
Public administration	84-88			
Other services	90-99			
Domestic	Not covered by SIC 2007			

ENERGY TRENDS

Energy is a major natural resource and a key factor in the economy and environment of the United Kingdom. Data on energy supply and demand, energy prices and values and trade in energy are vital components of this country's main economic and environmental indicators.

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Quarterly Energy Prices and Energy Trends

Subscription available from DECC (0300 068 5056) Price £40 per annum UK www.gov.uk/government/collections/quarterly-energy-prices and www.gov.uk/government/collections/energy-trends Single copies available from the Publications Orderline priced £6 for Energy Trends and £8 for Quarterly Energy Prices.



UK Energy in Brief

Available from the Publications Orderline www.gov.uk/government/collections/uk-energy-in-brief



Digest of UK Energy Statistics

Available from the Stationery Office (0870 600 5522) www.gov.uk/government/collections/digest-of-uk-energy-statistics-dukes

Energy Consumption in the UK

Available on the Internet at: www.gov.uk/government/collections/energy-consumption-in-the-uk

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