Department of Energy & Climate Change

A National Statistics Publication

ENERGY TRENDS

SEPTEMBER 2014

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

Explanatory notes are to be found inside the back cover

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Special feature articles

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 Quarterly 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 September editions cover the second quarter of the current year.

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

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 Quarterly Energy Prices publication and on the DECC section of the gov.uk website at: www.gov.uk/government/collections/quarterly-energy-prices

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The main points for the second quarter of 2014:

- Total energy production was 1 per cent lower than in the second quarter of 2013. This decline in output is due to falls in coal production as a result of mine closures and in oil and gas production as a result of the general decline and maintenance work on a number of fields, which have exceeded an increase in primary electricity output.

- Coal production in the second quarter of 2014 was 20 per cent lower than the second quarter of 2013 due to mine closures. Coal imports were 23 per cent lower with generator's demand for coal down by 29 per cent.

- Oil production fell by 1 per cent when compared with the second quarter of 2013.

- Natural gas production was 4 per cent lower than the second quarter of 2013. Gas imports fell by 20 per cent driven by low demand; pipeline imports decreased by 31 per cent whilst LNG imports remained broadly stable.

- Total primary energy consumption for energy uses fell by 8½ per cent. However, when adjusted to take account of weather differences between the second quarter of 2013 and the second quarter of 2014, primary energy consumption fell by 4 per cent, chiefly due to lower fossil fuel use in generation and lower final demand.

- Final energy consumption was provisionally 8 per cent lower than in the second quarter of 2013. Domestic consumption fell by 22 per cent reflecting the warmer weather in the quarter, other final users consumption fell by 10 per cent, industrial consumption fell by 7½ per cent, whilst transport consumption rose by ½ per cent.

- On a seasonally and temperature adjusted basis, final consumption (excluding non-energy use) fell by 1½ per cent, but with domestic consumption up marginally.

- Total deliveries of the key transport fuels were up ½ per cent when compared to the same period last year. Motor spirit deliveries were down 3 per cent, DERV deliveries were up 1½ per cent while aviation turbine fuel deliveries were up 4 per cent.

- Electricity generated in the second quarter of 2014 fell by 6 per cent, from 83.9 TWh a year earlier to 78.7 TWh, the lowest level of generation since 1998.

- Of electricity generated in the second quarter of 2014, gas accounted for 30 per cent, whilst coal accounted for 28 per cent. Nuclear generation accounted for 22 per cent of total electricity generated in the second quarter of 2014, an increase from the 18 per cent share in the second quarter of 2013.

- Renewables' share of electricity generation increased to 17 per cent from the 16 per cent share in the second quarter of 2013. Renewable generation fell compared to a year earlier, but at a lower rate than overall generation. Hydro generation was up 16 per cent (+0.1 TWh) due to an increase in rainfall, mainly during May, in the main hydro regions. Over the same period, offshore wind generation fell by 22 per cent, whilst onshore wind generation fell by 17 per cent, as wind speeds were lower.

- By the end of the second quarter of 2014, 2,816 MW of capacity had been installed under the Feed in Tariff scheme, an increase of 27 per cent on a year earlier, constituting approximately 13 per cent of all renewable installed capacity.

Section 1 - Total Energy

Key results show:

Total energy production was 1.0 per cent lower than in the second quarter of 2013. (**Charts 1.1 & 1.2**)

Total primary energy consumption for energy uses fell by 8.4 per cent. However, when adjusted to take account of weather differences between the second quarter of 2013 and the second quarter of 2014, primary energy consumption fell by 3.9 per cent, due to decreased coal use in electricity generation and a fall in domestic gas consumption. (**Chart 1.3**)

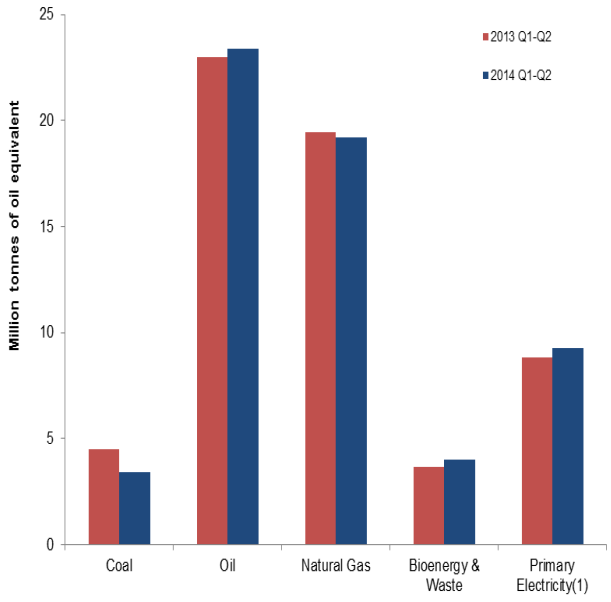
Final energy consumption provisionally fell by 8.1 per cent compared to the second quarter of 2013. Domestic consumption fell by 22 per cent reflecting the warmer weather in the quarter, other final users' consumption fell by 10.1 per cent, industrial consumption fell by 7.5 per cent, whilst transport consumption rose by 0.7 per cent. (**Chart 1.4**)

On a seasonally and temperature adjusted basis, final consumption (excluding non-energy use) fell by 1.5 per cent, but with domestic consumption up 0.2 per cent. (**Chart 1.5**)

Net import dependency was 43.7 per cent, up 0.3 percentage points from the first quarter of 2014, but down 6.9 percentage points from the second quarter of 2013. (**Chart 1.6**)

Fossil fuel dependency was 83.1 per cent in the second quarter of 2014. (**Chart 1.7**)

Chart 1.1 Production of indigenous primary fuels



(1) Nuclear and wind & natural flow hydro electricity.

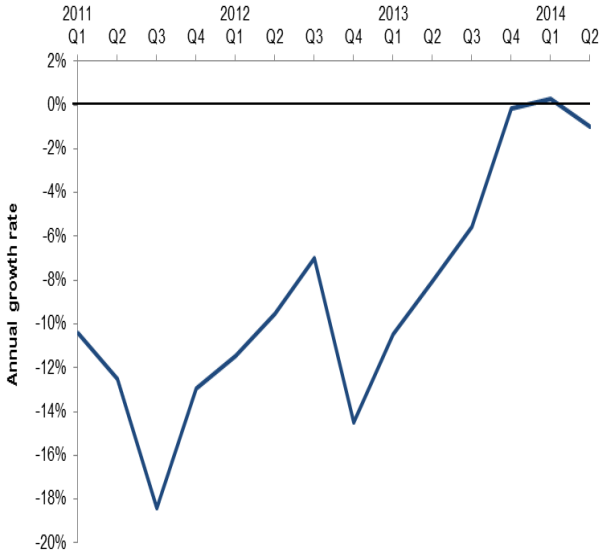
Total primary energy production in the second quarter of 2014 stood at 28.8 million tonnes of oil equivalent, 1.0 per cent lower than in the second quarter of 2013.

Production of natural gas fell by 3.8 per cent as a result of low demand and planned maintenance activity. Production of oil fell by 1.1 per cent compared to the second quarter of 2013, as a result of the general decline, and maintenance activity on a number of fields.

Primary electricity output in the second quarter of 2014 was 9.5 per cent higher than in the second quarter of 2013, within which nuclear electricity output was 13.0 per cent higher due to a number of stations resuming operations, whilst output from wind and natural flow hydro was 7.1 per cent lower than the same period in 2013, due to lower wind speeds.

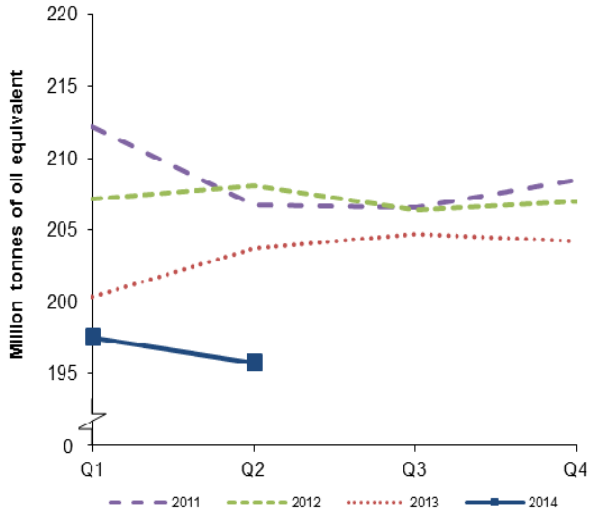
In the second quarter of 2014 production of coal and other solid fuels was 20.3 per cent lower than the corresponding period of 2013. This was due to a decrease in both deep-mined and surface mining production following mine closures and geological issues.

Chart 1.2 UK production (annual growth rate)



In the second quarter of 2014, the annual growth rate of UK quarterly production was -1.0 per cent. The increases in nuclear and bioenergy production were insufficient to offset the reduced output of coal, due to mine closures and geological issues, and gas due to maintenance activity.

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



(1) Seasonally adjusted and temperature corrected annual rates

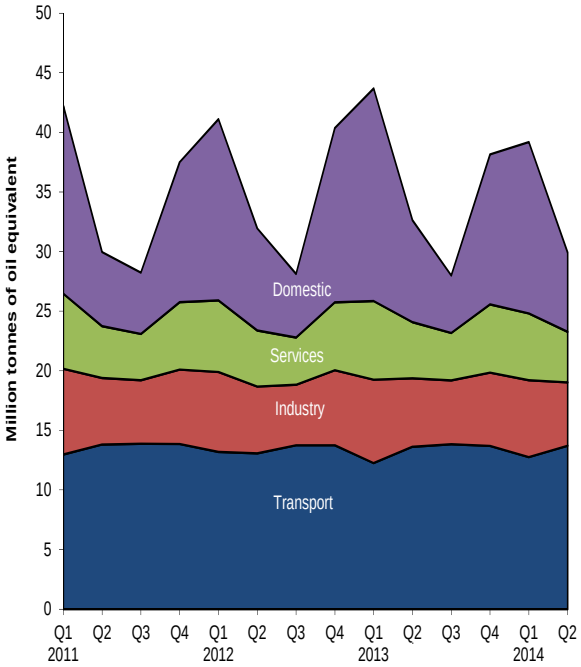
Total inland consumption on a primary fuel input basis (seasonally adjusted and temperature corrected annualised rate), was 195.8 million tonnes of oil equivalent in the second quarter of 2014, 3.9 per cent lower than in the second quarter of 2013. The average temperature in the second quarter of 2014 was 1.9 degree Celsius warmer than the same period a year earlier.

Between the second quarter of 2013 and the second quarter of 2014 (on a seasonally adjusted and temperature corrected basis) coal and other solid fuel consumption fell by 16.1 per cent, driven by decreased coal use in electricity generation.

On the same basis, natural gas consumption fell by 4.2 per cent between the second quarter of 2013 and the second quarter of 2014, due to fall in domestic consumption as a result of the warmer weather. Gas demand also fell in the other major sectors.

Also on a seasonally adjusted and temperature corrected basis, oil consumption in the second quarter of 2014 was 2.2 per cent lower than in the second quarter of 2013. There were though increases in nuclear and bioenergy consumption.

Chart 1.4 Final energy consumption by user



Total final energy consumption fell by 8.1 per cent between the second quarter of 2013 and the second quarter of 2014.

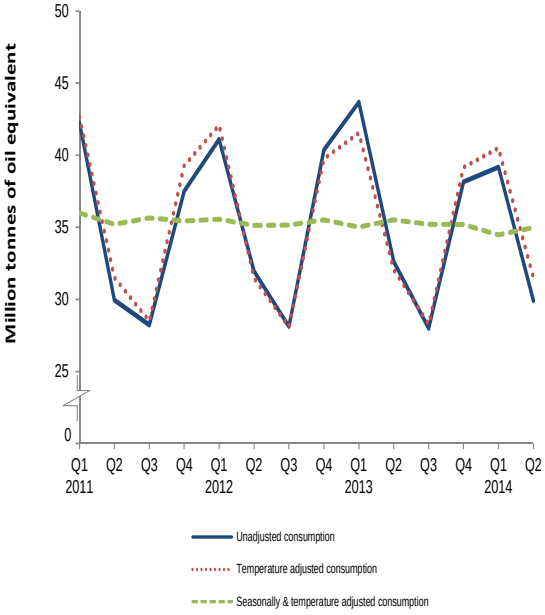
Domestic sector energy consumption fell by 22.2 per cent, reflecting the warmer weather compared to a year earlier.

Service sector energy consumption fell by 10.1 per cent.

Industrial sector energy consumption fell by 7.5 per cent.

Transport sector energy consumption rose by 0.7 per cent.

Chart 1.5 Seasonally adjusted and temperature corrected final energy consumption



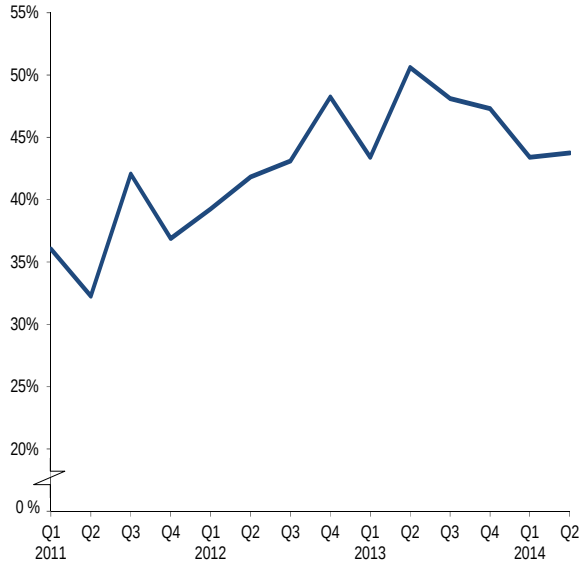
Total unadjusted final energy consumption (excluding non-energy use) fell by 8.3 per cent between the second quarter of 2013 and the second quarter of 2014.

On a seasonally and temperature adjusted basis final energy consumption (excluding non-energy use) fell by 1.5 per cent between the second quarter of 2013 and the second quarter of 2014.

Unadjusted domestic consumption fell by 22.2 per cent over this same period, but was up 0.2 per cent on a seasonally and temperature adjusted basis.

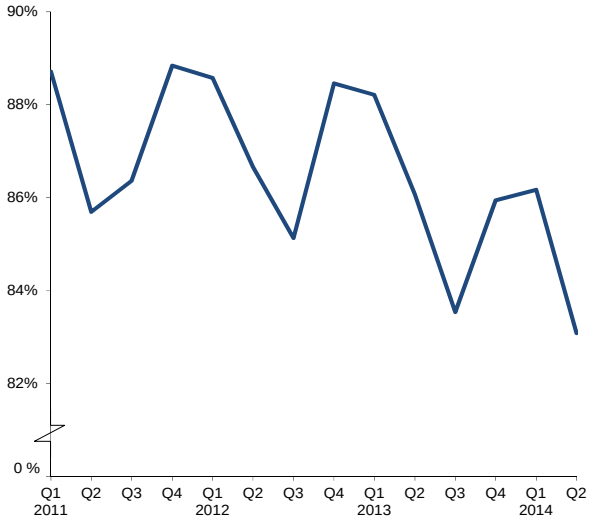
Consumption data by fuel and sector is available in the table ET 1.3c on the DECC section of the gov.uk website at:
www.gov.uk/government/publications/total-energy-section-1-energy-trends

Chart 1.6 Net import dependency



In the second quarter of 2014 net import dependency was 43.7 per cent, up 0.3 percentage points from the first quarter of 2014, but down 6.9 percentage points from the second quarter of 2013, reflecting lower primary energy demand.

Chart 1.7 Fossil fuel dependency



In the second quarter of 2014 fossil fuel dependency was 83.1 per cent, down 3.0 percentage points from the second quarter of 2013, mainly due to increased nuclear generation.

Relevant tables

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1 TOTAL ENERGY

TABLE 1.1. Indigenous production of primary fuels

Million tonnes of oil equivalent

							Primary electricity	
		Total	Coal[1]	Petroleum[2]	Natural gas[3]	Bioenergy & waste[4,5]	Nuclear	Wind and natural flow hydro[6]
2009		166.8	11.0	74.7	59.7	4.8	15.2	1.25
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
Per cent change		*-6.3*	*-24.5*	*-8.8*	*-6.2*	*+10.4*	*+1.6*	*+33.7*
2013	Quarter 2	29.1	2.2	11.4	9.7	1.7	3.4	0.71
	Quarter 3	25.6	1.8	10.0	7.8	1.4	4.1	0.54
	Quarter 4	29.4	1.7	11.5	9.3	1.8	4.0	1.06
2014	Quarter 1	30.4	1.7	12.1	9.9	2.0r	3.6	1.17r
	Quarter 2	28.8r	1.7	11.3	9.3	2.0r	3.8	0.65r
Per cent change[7]		*-1.0*	*-20.3*	*-1.1*	*-3.8*	*+14.9*	*+13.0*	*-7.1*

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.

1 TOTAL ENERGY

TABLE 1.2 Inland energy consumption: primary fuel input basis

Million tonnes of oil equivalent

		Total	Coal[1]	Petroleum[2]	Natural gas[3]	Bioenergy & waste[4, 5]	Primary electricity: Nuclear	Primary electricity: Wind and natural flow hydro[6]	Net imports
		Unadjusted [7]							
2009		211.2	31.2	70.9	86.3	6.1	15.2	1.25	0.25
2010		218.7	32.7	70.2	93.6	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
2012		207.2	41.0	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
Per cent change		*-0.6*	*-4.3*	*-2.0*	*-0.8*	*+15.0*	*+1.6*	*+33.7*	*+21.6*
2013	Quarter 2	47.5	8.8	16.6	15.5	2.2	3.4	0.71	0.31
	Quarter 3	42.5r	8.4	16.6r	10.4	2.0	4.1	0.54	0.40
	Quarter 4	54.3r	10.2	16.7	19.8	2.3	4.0	1.06	0.29
2014	Quarter 1	55.3r	10.3r	15.6r	21.6	2.4r	3.6	1.17r	0.42
	Quarter 2 p	43.5r	6.7	16.2r	13.3	2.4r	3.8	0.65r	0.44
Per cent change [10]		*-8.4*	*-23.7*	*-2.2*	*-14.6*	*+10.3*	*+13.0*	*-7.1*	*+42.4*

		Total	Coal	Petroleum	Natural gas	Bioenergy & waste	Primary electricity: Nuclear	Primary electricity: Wind and natural flow hydro	Net imports
		Seasonally adjusted and temperature corrected [8,9] (annualised rates)							
2009		212.4	31.5	70.9	87.1	6.1	15.2	1.25	0.25
2010		212.7	31.1	70.2	89.2	6.9	13.9	1.19	0.23
2011		208.5	34.0	67.8	81.5	7.2	15.6	1.84	0.53
2012		207.2	40.9	66.9	73.3	7.7	15.2	2.26	1.02
2013		203.2	38.7	65.5	70.5	8.8	15.4	3.02	1.24
Per cent change		*-1.9*	*-5.5*	*-2.0*	*-3.7*	*+15.0*	*+1.6*	*+33.7*	*+21.6*
2013	Quarter 2	203.7r	39.6	66.2r	71.1	8.9	13.3	3.40	1.23
	Quarter 3	204.7r	41.9	66.5r	67.3	7.9	16.7	2.75	1.60
	Quarter 4	204.2r	37.3	66.8r	69.8	9.2	16.5	3.42	1.17
2014	Quarter 1	197.6r	37.1r	62.6r	68.4r	9.8r	13.9	4.11r	1.68
	Quarter 2 p	195.8r	33.2r	64.7r	68.1r	9.8r	15.1	3.11r	1.75
Per cent change [10]		*-3.9*	*-16.1*	*-2.2*	*-4.2*	*+10.3*	*+13.3*	*-8.4*	*+42.4*

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
https://www.gov.uk/government/collections/energy-trends
10. Percentage change between the most recent quarter and the same quarter a year earlier.

1 TOTAL ENERGY

Table 1.3a Supply and use of fuels

Thousand tonnes of oil equivalent

	2012	2013	*per cent change*	2012 2nd quarter	2012 3rd quarter	2012 4th quarter	2013 1st quarter	2013 2nd quarter	2013 3rd quarter	2013 4th quarter	2014 1st quarter	2014 2nd quarter p	*per cent change [1]*
SUPPLY													
Indigenous production	122,016	114,366	*-6.3*	31,601	27,103	29,398	30,357	29,062	25,591	29,356	30,435r	28,778	*-1.0*
Imports	174,040	177,984	*+2.3*	42,588	39,817	46,402	47,117r	46,081r	40,074r	44,712r	42,936r	38,305	*-16.9*
Exports	-80,295	-76,182	*-5.1*	-21,374	-20,199	-17,608	-19,292	-20,642	-18,328	-17,920	-17,861r	-18,110	*-12.3*
Marine bunkers	-2,812	-2,691	*-4.3*	-681	-738	-702	-665	-714	-684	-629	-662	-671	*-6.0*
Stock change[2]	+1,613	+53		-2,085	-1,206	+1,496	+5,934	-4,226	-2,129	+473	+2,258r	-2,807	
Primary supply	214,563	213,530	*-0.5*	50,048	44,777	58,985	63,452r	49,561r	44,525r	55,993r	57,106r	45,494	*-8.2*
Statistical difference[3]	-268	-384		+175	-134	-51	-31	-189	-147	-17	-111r	-145	
Primary demand	214,831	213,914	*-0.4*	49,873	44,912	59,036	63,482r	49,750r	44,671r	56,010r	57,217r	45,640	*-8.3*
Transfers[4]	-55	3		-17	-12	-12	0	-2	-5	9	-2r	-12	
TRANSFORMATION	-49,278	-48,071	*-2.5*	-11,638	-11,138	-13,192	-13,749	-11,001	-10,954	-12,366	-12,132r	-10,044	*-8.7*
Electricity generation	-45,868	-44,024	*-4.0*	-10,735	-10,293	-12,242	-12,708	-10,077	-9,988	-11,250	-11,027r	-9,026	*-10.4*
Heat generation	-1,168	-1,138	*-2.5*	-267	-229	-329	-364	-258	-217	-299	-364	-258	*+0.1*
Petroleum refineries	-74	-75	*+2.1*	-23	-9	-79	-14	35	-4	-92	-10r	-88	*(-)*
Coke manufacture	-268	-446	*+66.3*	-69	-86	-57	-97	-90	-146	-113	-64r	-65	*-28.1*
Blast furnaces	-1,890	-2,381	*+26.0*	-543	-519	-487	-563	-609	-602	-607	-656r	-598	*-1.8*
Patent fuel manufacture	-11	-6	*-41.3*	-1	-2	1	-3	-1	3	-5	-11r	-9	-
Energy industry use	13,383	12,597	*-5.9*	3,480	3,197	3,083	3,282	3,266	3,061	2,988	3,095r	2,999	*-8.2*
Losses	3,251	3,179	*-2.2*	815	697	813	918	784	654	823	921r	699	*-10.8*
FINAL CONSUMPTION	148,864	150,069	*+0.8*	33,926	29,877	41,931	45,494r	34,703r	30,010r	39,863r	41,027r	31,891	*-8.1*
Iron & steel	1,148	1,346	*+17.2*	299	267	306	336	333	330	347	345r	325	*-2.6*
Other industries	22,526	22,886	*+1.6*	5,301	4,807	5,990	6,664r	5,407r	5,019r	5,795r	6,101r	4,987	*-7.8*
Transport	53,769	53,418	*-0.7*	13,075	13,753	13,749	12,254	13,624	13,841	13,699	12,760r	13,715	*+0.7*
Domestic	43,720	43,794	*+0.2*	8,567	5,334	14,623	17,834	8,551	4,822	12,588	14,371r	6,648	*-22.2*
Other Final Users	20,376	21,017	*+3.1*	4,704	3,964	5,700	6,594	4,715	3,982	5,725	5,608r	4,238	*-10.1*
Non energy use	7,324	7,609	*+3.9*	1,982	1,752	1,563	1,811	2,073	2,016	1,708	1,843r	1,978	*-4.6*
DEPENDENCY[5]													
Net import dependency	43.1%	47.1%		41.8%	43.1%	48.2%	43.4%	50.6%	48.1%	47.3%	43.4%	43.7%	
Fossil fuel dependency	87.4%	86.2%		86.7%	85.1%	88.5%	88.2%	86.1%	83.5%	85.9%	86.2%	83.1%	
Low carbon share	11.8%	12.9%		12.5%	13.7%	10.9%	11.1%	13.0%	15.2%	13.2%	12.7%	15.4%	

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

1 TOTAL ENERGY

Table 1.3b Supply and use of fuels

Thousand tonnes of oil equivalent

	2013 Quarter 2									2014 Quarter 2 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	2,163	-	11,382	-	9,686	1,742	4,089	-	-	1,724	-	11,254	-	9,320	2,002	4,477	-	-
Imports	8,406	233	17,870	7,303	11,356	539	-	373	-	6,506	144	13,687	7,943	9,035	493	-	496	-
Exports	-96	-25	-9,643	-7,532	-3,218	-62	-	-67	-	-60	-22	-8,632	-5,881	-3,409	-47	-	-60	-
Marine bunkers	-	-	-	-714	-	-	-	-	-	-	-	-	-671	-	-	-	-	-
Stock change[1]	-1,796	-70	-244	+50	-2,166	-	-	-	-	-1,504	-66	+68	+249	-1,554	-	-	-	-
Primary supply	8,678	138	19,366	-893	15,657	2,219	4,089	306	-	6,667	56	16,377	1,640	13,392	2,448	4,477	436	-
Statistical difference[2]	-76	-2	-38	-5	-74	+3	-	+2	-	-45	-2	-19	-15	-15	-	-	-49	-
Primary demand	8,753	139	19,404	-888	15,731	2,216	4,089	305	-	6,711	58	16,397	1,655	13,407	2,448	4,477	486	-
Transfers[3]	-	1	-681	+679	-1	-	-705	+705	-	-	-7	-371	+367	-1	-	-655	+655	-
TRANSFORMATION	-8,272	347	-18,724	18,595	-4,732	-1,610	-3,383	6,451	328	-6,280	392	-16,025	15,775	-4,647	-1,823	-3,822	6,058	328
Electricity generation	-6,899	-246	-	-125	-4,286	-1,589	-3,383	6,451	-	-4,912	-226	-	-122	-4,200	-1,802	-3,822	6,058	-
Heat generation	-89	-13	-	-17	-447	-21	-	-	328	-89	-13	-	-17	-447	-21	-	-	328
Petroleum refineries	-	-	-18,724	18,759	-	-	-	-	-	-	-	-16,025	15,938	-	-	-	-	-
Coke manufacture	-996	906	-	-	-	-	-	-	-	-952	887	-	-	-	-	-	-	-
Blast furnaces	-247	-362	-	-	-	-	-	-	-	-286	-312	-	-	-	-	-	-	-
Patent fuel manufacture	-41	62	-	-22	-	-	-	-	-	-41	55	-	-23	-	-	-	-	-
Energy industry use	0	197	-	1,225	1,262	-	-	542	40	0	196	-	1,058	1,179	-	-	527	40
Losses	-	52	-	-	178	-	-	554	-	-	47	-	-	141	-	-	511	-
FINAL CONSUMPTION	481	238	-	17,161	9,558	606	-	6,365	294	431	200	-	16,740	7,439	626	-	6,161	294
Iron & steel	9	128	-	2	111	-	-	83	-	10	117	-	1	115	-	-	81	-
Other industries	344	20	-	1,126	1,627	111	-	1,966	212	295	10	-	935	1,542	106	-	1,887	212
Transport	2	-	-	13,262	-	271	-	88	-	3	-	-	13,295	-	328	-	88	-
Domestic	122	55	-	538	5,469	163	-	2,194	9	116	47	-	369	3,917	129	-	2,062	9
Other final users	4	-	-	315	2,230	60	-	2,033	73	8	-	-	307	1,744	63	-	2,043	73
Non energy use	-	35	-	1,918	120	-	-	-	-	-	26	-	1,832	120	-	-	-	-

1. Stock fall (+), stock rise (-).
2. Primary supply minus primary demand.
3. 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:

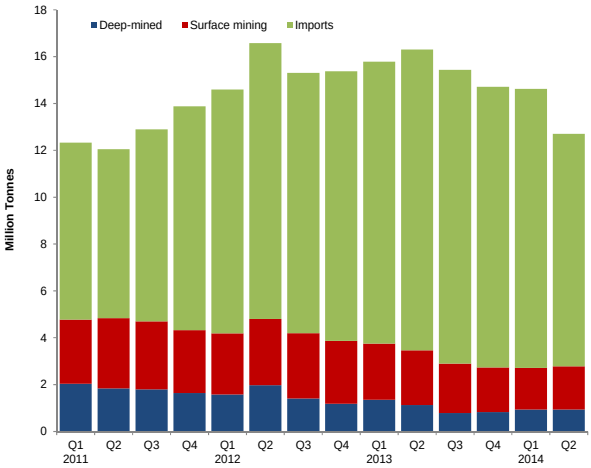
Overall coal production was down 19.9 per cent (-0.7 million tonnes) compared to quarter 2 2013 with deep-mined output down 16.7 per cent (-0.2 million tonnes) and surface mining output down by 18.9 per cent (-0.4 million tonnes). **(Chart 2.1)**

Coal imports were down 23 per cent (-2.9 million tonnes) on levels shown in quarter 2 2013, as demand fell. **(Charts 2.1 and 2.2)**

The demand for coal by electricity generators in the second quarter of 2014, was 29 per cent (-3.2 million tonnes) lower than demand in the second quarter of 2013 reflecting both a switch away from coal and lower overall generation. **(Chart 2.3)**

Total stock levels were 15.3 million tonnes, up 17.4 per cent (-2.3 million tonnes) compared to quarter 2 2013 and up by 2.3 million tonnes on quarter 1 2014. **(Chart 2.4)**

Chart 2.1 Coal supply



Provisional figures for the second quarter of 2014 show that coal production at 2.8 million tonnes was 19.9 per cent lower than the second quarter of 2013. The decrease was a result of the closure of a number of mines/companies in 2013, including Unity, Scottish Coal Company, Huntingdon Lane and Park Wall North, a phase gap in production at one of the mines and geological and weather conditions at other mines.

Imports of coal in the second quarter of 2014 were 23 per cent lower than in the second quarter of 2013 at 9.9 million tonnes. This was the lowest value since the fourth quarter of 2011.

Table 2A Coal imports by origin

Thousand Tonnes

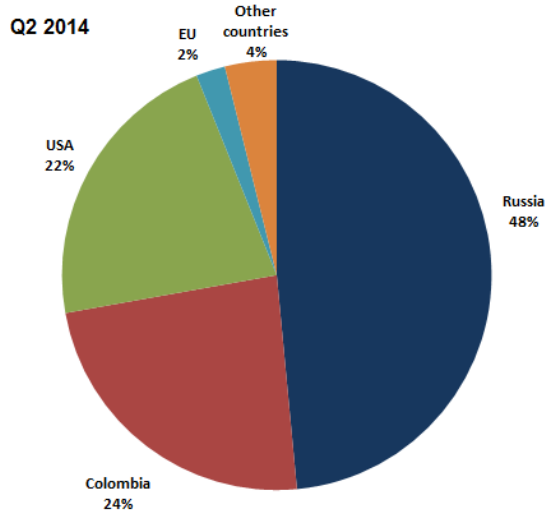
	2012	2013	2013 Q2	2014 Q2 p
European Union	693	1,228	505	203
Russia	18,053	20,250	5,524	4,295
USA	10,790	12,196	3,167	2,655
Colombia	11,749	11,494	2,664	1,947
Australia	2,360	2,147	641	377
Other Countries	1,170	2,087	341	449
Total imports	44,815	49,402	12,843	9,925

Total coal imports decreased by 23 per cent to 9.9 million tonnes in the second quarter of 2014, with 43 per cent of total coal imports coming from Russia.

Steam coal imports at 8.2 million tonnes accounted for 83 per cent of total coal imports.

Coking coal imports at 1.7 million tonnes accounted for 17 per cent of total coal imports.

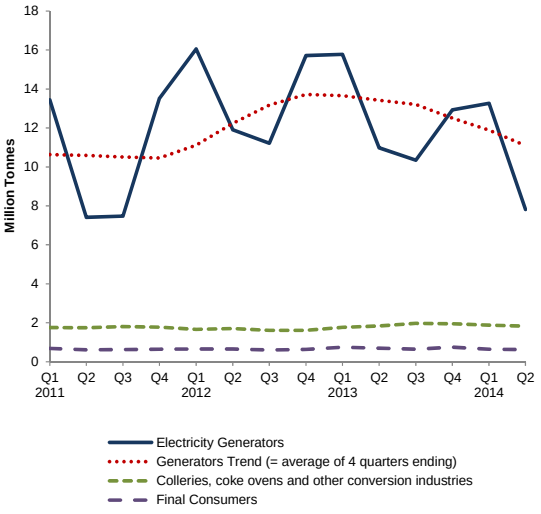
Chart 2.2 Steam coal imports by origin



All but six per cent of UK steam coal imports came from just three countries: Russia (48 per cent), Colombia (24 per cent), and the USA (22 per cent).

Steam coal imports were down by 23 per cent, with falls recorded from each of the three main producer countries.

Chart 2.3 Coal consumption

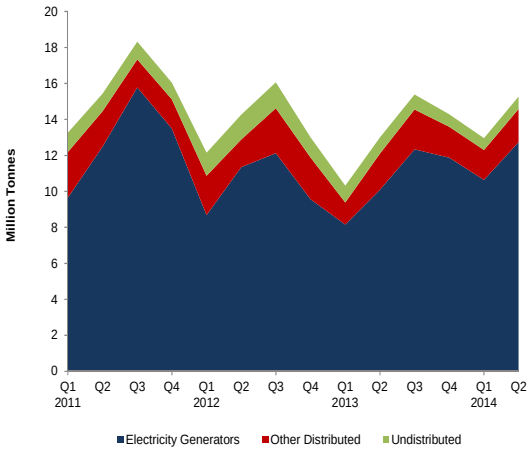


Total demand for coal in the second quarter of 2014, at 10.3 million tonnes, was 24 per cent lower than in the second quarter of 2013. Consumption by electricity generators was down by 29 per cent to 7.8 million tonnes (the lowest value since the third quarter of 2011). This fall was due to a number of reasons, including outages at several power stations, Drax unit 2 being converted to biomass, lower generation overall and increases in nuclear generation.

Electricity generators accounted for 76 per cent of total coal use in the second quarter of 2014; compared with 81 per cent a year earlier.

Sales to industrial users decreased by 13.8 per cent in the second quarter of 2014 while sales to other final consumers (as measured by disposals to final consumers) remained the same at 0.2 million tonnes during the second quarter of 2014.

Chart 2.4 Coal stocks



Coal stocks showed a seasonal rise of 2.3 million tonnes during the second quarter of 2014 and stood at 15.3 million tonnes, 2.3 million tonnes higher than at the end of June 2013.

The level of coal stocks at power stations at the end of the second quarter of 2014 was 12.7 million tonnes, 2.6 million tonnes higher than at the end of June 2013, reflecting lower generation.

Stocks held by coke ovens were 0.4 million tonnes at the end of the second quarter of 2014, this was 0.8 million tonnes lower than stock levels at the end of the June 2013.

Stocks held by producers (undistributed stocks) decreased during the second quarter of 2014 to stand at 0.7 million tonnes, 0.2 million tonnes lower than at the end of June 2013.

Relevant tables

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2 SOLID FUEL AND DERIVED GASES

Table 2.1 Supply and consumption of coal

Thousand tonnes

	2012	2013	*per cent change*	2012 2nd quarter	2012 3rd quarter	2012 4th quarter	2013 1st quarter	2013 2nd quarter	2013 3rd quarter	2013 4th quarter	2014 1st quarter	2014 2nd quarter p	*per cent change*[1]
SUPPLY													
Indigenous production	17,047	12,847	*-24.6*	4,802	4,191	3,869	3,754	3,465	2,898	2,731	2,711	2,775	*-19.9*
Deep mined	6,153	4,089	*-33.6*	1,978	1,406	1,184	1,350	1,124	785	829	932	936	*-16.7*
Surface mining[2]	10,134	8,584	*-15.3*	2,540	2,585	2,550	2,404	2,268	2,011	1,902	1,779	1,838	*-18.9*
Other sources	760	175	*(-)*	284	200	135	-	73	102	-	-	-	
Imports[3]	44,815	49,402	*+10.2*	11,775	11,117	11,505	12,035	12,843	12,540	11,983	11,909r	9,925	*-22.7*
Exports[4]	488	593	*+21.5*	133	102	134	186	127	95	185	126r	79	*-37.8*
Stock change[5]	+2,967	-1,298		-2,114	-1,797	+3,057	+2,686	-2,683	-2,383	+1,082	+1,362r	-2,314	
Total supply	64,341	60,358	*-6.2*	14,330	13,409	18,298	18,289	13,498	12,960	15,611	15,856r	10,307	*-23.6*
Statistical difference	+310	-46		+64	-19	+341	-7	-17	-7	-15	+64r	+39	
Total demand	64,030	60,405	*-5.7*	14,266	13,428	17,956	18,297	13,515	12,966	15,627	15,792r	10,267	*-24.0*
TRANSFORMATION	61,486	57,561	*-6.4*	13,616	12,828	17,322	17,544	12,819	12,318	14,880	15,146r	9,645	*-24.8*
Electricity generation	54,901	50,042	*-8.9*	11,913	11,217	15,715	15,777	10,984	10,348	12,933	13,272r	7,816	*-28.8*
Heat generation[6]	461	609	*+32*	107	94	128	179	143	129	157	179	143	-
Coke manufacture	4,965	5,288	*+6.5*	1,301	1,215	1,149	1,242	1,310	1,404	1,331	1,235	1,252	*-4.4*
Blast furnaces	987	1,411	*+43.0*	253	255	279	294	325	393	399	411	377	*+16.0*
Patent fuel manufacture	172	212	*+23.1*	41	46	51	52	57	43	60	49r	57	*+0.1*
Energy industry use	4	3		1	1	1	1	0	0	0	0	0	
FINAL CONSUMPTION	2,541	2,841	*+11.8*	649	600	634	751	695	648	747	646r	622	*-10.5*
Iron & steel	51	53	*+5.1*	12	12	13	13	13	13	13	14	14	*+4.8*
Other industries	1,776	2,094	*+17.9*	453	429	427	547	514	485	549	452r	441	*-14.2*
Domestic	674	646	*-4.1*	174	146	185	179	160	139	168	169r	153	*-4.2*
Other final users	40	48	*+19.1*	10	12	9	12	9	11	16	10r	15	*+74.9*
Stocks at end of period													
Distributed stocks	11,883	13,591	*+14.4*	12,890	14,621	11,883	9,385	12,104	14,548	13,591	12,302r	14,576	*+20.4*
Of which:													
Major power producers[7]	9,561	11,871	*+24.2*	11,348	12,118	9,561	8,151	10,093	12,336	11,871	10,633r	12,740	*+26.2*
Coke ovens	831	518	*-37.6*	1,018	941	831	558	1,170	952	518	323	408	*(-)*
Undistributed stocks	1,120	696	*-37.9*	1,374	1,439	1,120	933	897	836	696	653r	692	*-22.8*
Total stocks[8]	13,003	14,287	*+9.9*	14,264	16,061	13,003	10,317	13,000	15,383	14,287	12,954r	15,268	*+17.4*

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.

7. This includes stocks held at ports.

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

2 SOLID FUEL AND DERIVED GASES

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

Thousand tonnes

	2012	2013	*per cent change*	2012 2nd quarter	2012 3rd quarter	2012 4th quarter	2013 1st quarter	2013 2nd quarter	2013 3rd quarter	2013 4th quarter	2014 1st quarter	2014 2nd quarter p	*per cent change* [3]
SUPPLY													
Indigenous production	4,000	4,136	*+3.4*	1,056	956	948	984	1,052	1,053	1,047	994	1,025	*-2.6*
Coke Oven Coke	3,712	3,769	*+1.5*	983	884	853	894	958	969	949	919	940	*-1.8*
Coke Breeze	31	32	*+3.2*	8	8	8	8	8	8	8	8	8	*-1.8*
Other MSF	258	336	*+30.4*	66	65	87	83	87	76	90	67	77	*-11.3*
Imports	207	834	*(+)*	17	23	156	105	327	235	167	204	202	*-38.1*
Exports	552	117	*(-)*	143	43	42	36	35	20	26	40	31	*-12.0*
Stock change[1]	+94	-123		+150	+52	-41	+91	-98	-111	-5	+42	-92	
Transfers	-	0		-	-	-	-	0	0	-0	-1	-13	
Total supply	3,749	4,730	*+26.2*	1,080	989	1,022	1,144	1,246	1,157	1,183	1,199	1,091	*-12.4*
Statistical difference	-5	-2		-	-1	-2	-1	-	-0	-1	-0	-	
Total demand	3,754	4,732	*+26.1*	1,080	990	1,024	1,145	1,246	1,157	1,184	1,200	1,091	*-12.4*
TRANSFORMATION	3,014	3,713	*+23.2*	882	828	782	902	987	913	911	975	881	*-10.7*
Coke manufacture	-	-		-	-	-	-	-	-	-	-	-	
Blast furnaces	3,014	3,713	*+23.2*	882	828	782	902	987	913	911	975	881	*-10.7*
Energy industry use	-	-		-	-	-	-	-	-	-	-	-	
FINAL CONSUMPTION	740	1,019	*+37.7*	198	162	242	243	259	244	273	225	210	*-18.8*
Iron & steel	435	626	*+43.9*	122	91	142	141	156	159	169	148	135	*-13.4*
Other industries	45	83	*+83.2*	13	12	15	14	25	22	23	11	9	*(-)*
Domestic	260	310	*+19.3*	64	59	84	88	78	63	81	66	66	*-15.0*
Stocks at end of period[2]	854	714	*+26.2*	845	779	854	500	689	599	714	465	525	*-23.8*

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	*per cent change*	2012 2nd quarter	2012 3rd quarter	2012 4th quarter	2013 1st quarter	2013 2nd quarter	2013 3rd quarter	2013 4th quarter	2014 1st quarter	2014 2nd quarter p	*per cent change* [1]
SUPPLY													
Indigenous production	21,489	25,625	*+19.2*	5,729	5,446	5,651	5,915	6,502	6,660	6,548	6,570r	6,142	*-5.5*
Coke oven gas	8,254	8,479	*+2.7*	2,105	2,009	1,989	2,004	2,140	2,216	2,119	2,112r	2,166	*+1.2*
Blast furnace gas	11,692	15,515	*+32.7*	3,224	3,080	3,286	3,516	3,959	4,027	4,013	4,075r	3,673	*-7.2*
Benzole & tars	1,543	1,630	*+5.6*	400	357	375	395	403	417	416	382r	303	*-24.7*
Transfers	56	56	-	4	14	26	28	11	13	4	9	24	*(+)*
Total supply	21,545	25,680	*+19.2*	5,733	5,460	5,677	5,943	6,513	6,673	6,552	6,579r	6,167	*-5.3*
Statistical difference	-50	-29		-13	-12	-13	+20	-21	-16	-13	-18	-21	
Total demand	21,595	25,710	*+19.1*	5,747	5,472	5,690	5,923	6,534	6,688	6,565	6,598r	6,188	*-5.3*
TRANSFORMATION	9,906	11,522	*+16.3*	2,684	2,557	2,593	2,778	3,009	2,887	2,849	2,924r	2,775	*-7.8*
Electricity generation	9,309	10,925	*+17.4*	2,535	2,408	2,443	2,629	2,860	2,737	2,699	2,774r	2,626	*-8.2*
Heat generation[2]	598	598	-	149	149	149	149	149	149	149	149	149	-
Energy industry use	8,133	9,041	*+11.2*	2,126	2,092	2,141	2,070	2,289	2,358	2,323	2,459r	2,283	*-0.3*
Losses	1,008	2,500	*(+)*	319	213	299	445	604	755	697	576r	541	*-10.4*
FINAL CONSUMPTION	2,547	2,646	*+3.9*	617	610	658	629	632	689	695	639r	589	*-6.8*
Iron & steel	806	842	*+4.4*	166	206	235	181	196	231	235	224r	241	*+23.0*
Other industries	198	174	*-12.1*	51	47	48	53	33	42	45	32	45	*+34.6*
Non-Energy Use[3]	1,543	1,630	*+5.6*	400	357	375	395	403	417	416	382r	303	*-24.7*

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

Section 3 - Oil and Oil Products

Key results show:

Total indigenous UK production of crude oil and Natural Gas Liquids (NGL) in Q2 2014 was 1.1 per cent lower than a year ago, this follows two consecutive quarters of growth. **(Chart 3.1)**

Indigenous production of petroleum products was 14.8 per cent lower in the second quarter of 2014 compared with the same quarter in 2013. Production was lower due to the suspension of one of the UK's refineries and rationalisation elsewhere in the sector as well as a general decline in UK refinery production. (**Chart 3.2**)

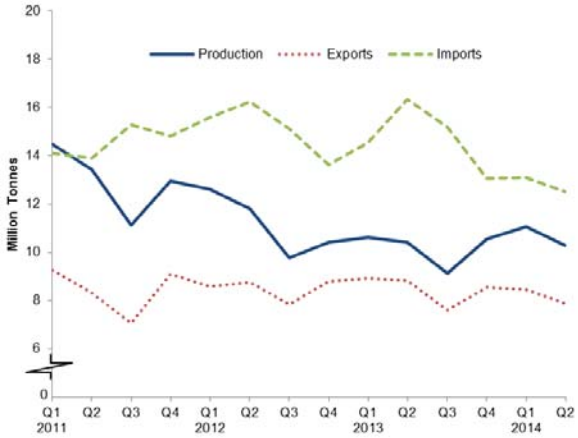
Imports of petroleum products increased by 8.8 per cent and exports decreased by 22 per cent compared with the second quarter of 2013 due to the low refinery production. As a result, the UK was a net importer of petroleum products in Q2 2014, for the fourth consecutive quarter, by 1.9 million tonnes. This follows a long period where the UK was generally a net exporter of petroleum products. **(Chart 3.2)**

Net imports of primary oils (crude oil, NGLs and process oils) in Q2 2014 decreased to 4.6 million tonnes (down 39 per cent) due to lower refinery demand. This met nearly 32 per cent of UK's refinery demand. **(Chart 3.3)**

In Q2 2014 total deliveries of key transport fuels increased by 0.7 per cent compared with Q2 2013. Motor Spirit deliveries were down by 3.2 per cent, DERV deliveries were up by 1.4 per cent, while deliveries of Aviation Turbine Fuel increased by 3.8 per cent. (**Chart 3.5)**

Overall stocks of crude oil and petroleum products were down by 9.8 per cent at end of the Q2 2014 compared to a year earlier (1.4 million tonnes). **(Chart 3.7)**

Chart 3.1 Production and trade of crude oil and NGLs



Indigenous crude oil production was lower by 1.0 per cent in Q2 2014 compared with the same quarter a year ago. Production was boosted by a new Floating, Production, Storage and Offloading vessel (FPSO), however, this was offset by planned and unplanned maintenance at several fields.

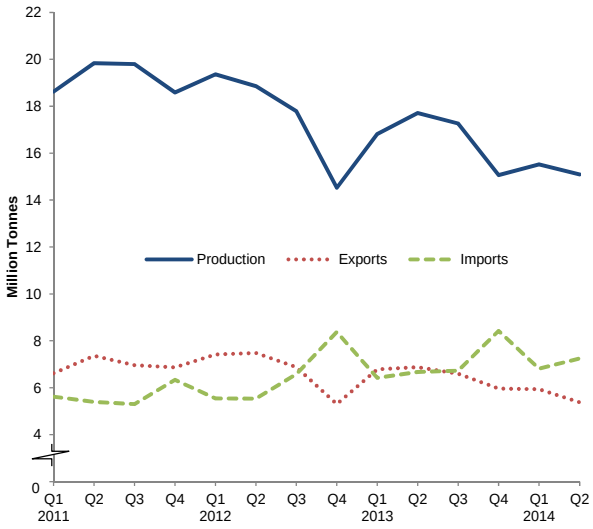
Production of Natural Gas Liquids (NGLs) decreased by 3.6 per cent on the second quarter of 2013; production had been relatively high in Q2 2013.

Taken together, indigenous production of crude and NGLs was 1.1 per cent lower. Production had grown in Q4 2013 and Q1 2014 but that followed a long period of general decline. Production has fallen by 40 per cent since Q1 2010.

In Q2 2014, imports of crude oil and NGL's were 23 per cent lower compared with the same period a year ago, reflecting both lower demand for primary oils for the UK's refining industry and greater exports. Exports of crude oil and NGLs decreased by 10.6 per cent.

Overall, net imports of primary oils (crude, NGL's and feedstocks) were 4.6 million tonnes in Q2 2014 compared with 7.5 million tonnes in the same quarter in 2013.

Chart 3.2 Production and trade of petroleum products

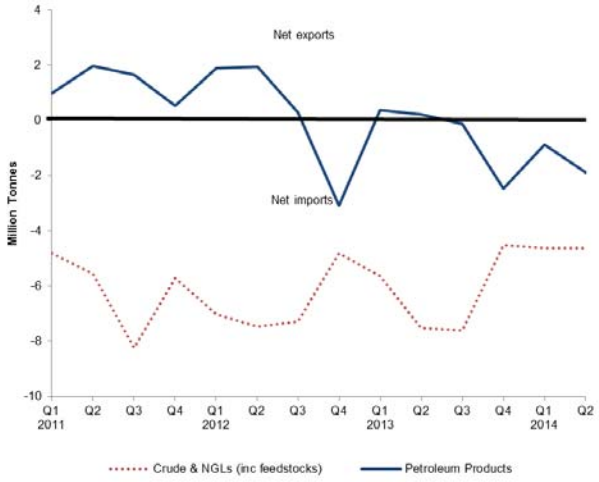


Indigenous production of petroleum products in Q2 2014 was lower by 14.8 per cent lower compared with the same quarter in 2013. There has been a general decline in refinery production for some time. Furthermore, production at one of the UK's refineries has been suspended. Elsewhere production has been affected by planned maintenance and some rationalisation.

Imports have increased and exports have decreased as a result of the fall in domestic production. Imports of petroleum products have increased by 8.8 per cent on the second quarter of 2013. In absolute terms, the largest increases were imports of road diesel up nearly a third (0.7 million tonnes) and jet fuel up 5.6 per cent (0.1 million tonnes) on Q2 2013.

The UK was a net importer (1.9 million tonnes) of petroleum products in Q2 2014, the fourth consecutive quarter where imports have outweighed exports.

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

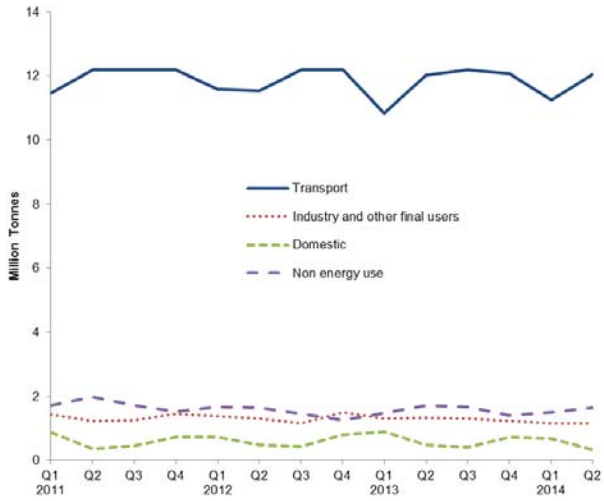


In Q2 2014, net imports of primary oils (crude, NGL's and feedstocks) decreased to 4.6 million tonnes compared with 7.5 million tonnes in Q2 2013, a decrease of 39 per cent. This is again indicative of lower refinery production of petroleum products.

The UK's overall net import dependence for primary oils (crude, NGL's and feedstocks) was 20 per cent in Q2 2014, down from 28 per cent in Q2 2013.

In Q2 2014 the UK was a net importer of petroleum products, by 1.9 million tonnes. However, in the same quarter of 2013, the UK had been a net *exporter* by 0.2 million tonnes. There have now been 4 consecutive quarters where the UK has imported more petroleum products than it exported. This follows decades where the UK has been a net exporter of petroleum. In 2013 as a whole, the UK was a net importer, the first time this has happened since 1984 when there was industrial action in the coal industry.

Chart 3.4 Final consumption of oil



In Q2 2014, final consumption of petroleum products was lower by 2.3 per cent compared with Q2 2013. Within this:

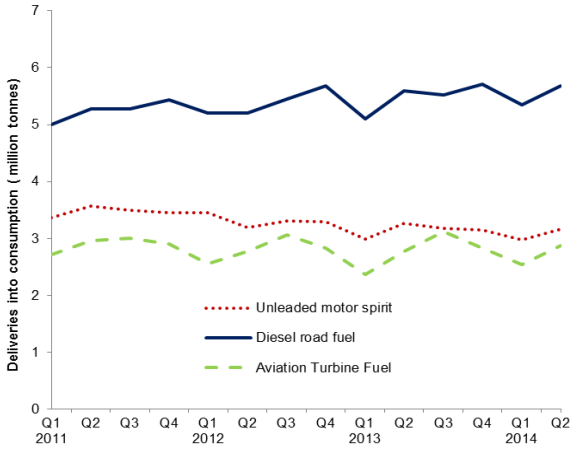
Transport, which accounts for about three-quarters of UK final consumption, was marginally higher, by 0.3 per cent. (See chart 3.5 for more detail).

Final consumption within the Industry sector in Q2 2014 fell by around 15 per cent on last year to 0.8 million tonnes. DECC are still investigating some of the underlying data in this sector and may make revisions to these figures in future, where necessary.

Domestic consumption of oil was significantly lower by nearly a third - oil is mostly used for heating, average temperatures were higher in Q2 2014 than Q2 2013. In particular, April was 1.7 degrees warmer on average.

Demand for oil for non-energy use was lower by 3.9 per cent in the latest quarter.

Chart 3.5 Demand for key transport fuels



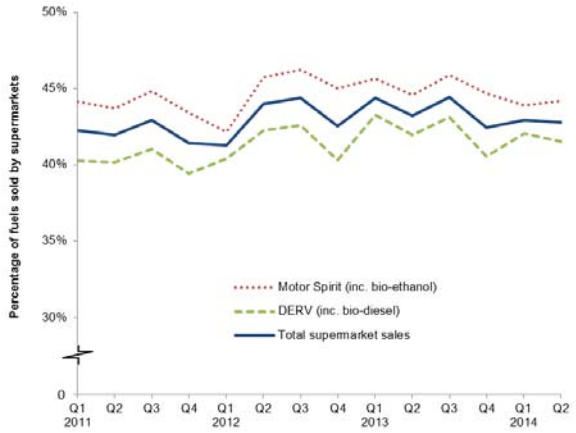
In Q2 2014, total deliveries of key hydrocarbon transport fuels were higher by 0.7 per cent. Within this:

Motor spirit (petrol) deliveries were down by 3.2 per cent on the second quarter of 2013. The decline is broadly in line with the long term trend as more motorists switch to diesel.

Hydrocarbon DERV (diesel) demand increased by 1.4 per cent on the second quarter of 2013. However, total DERV consumption, including bio-diesel increased by 2.4 per cent as a greater quantity of bio-fuels were blended into diesel in Q2 2014.

Demand for aviation turbine fuel (ATF) increased by 3.8 per cent on the second quarter of 2013. Consumption of ATF increased sharply on the first quarter of this year but demand is seasonal with more people flying during summer months.

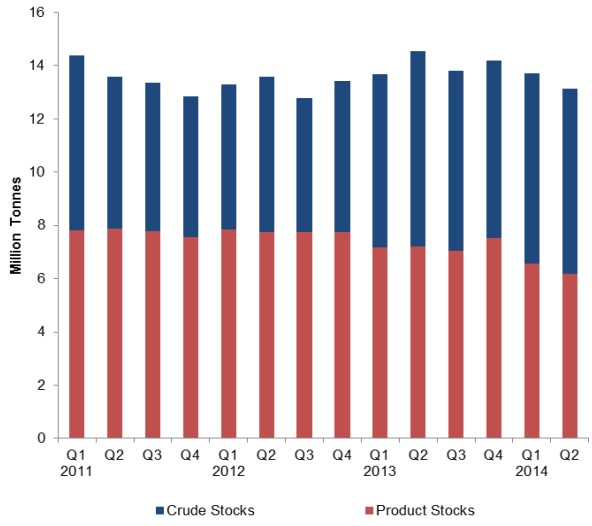
Chart 3.6 Supermarket shares of road fuel sales



In Q2 2014, the total shares of road fuel sales remained broadly consistent. Whilst the overall volume of motor spirit sales (including the bio-fuel element) decreased by 3.0 per cent, supermarkets sold 44 per cent of that volume, virtually identical to the same period last year. Sales of diesel fuel (again including the bio-fuel element) increased by 2.4 per cent, of which the supermarket share remained at roughly 42 per cent in Q2 2014.

On an overall basis, supermarket outlets accounted for nearly 43 per cent of total retail sales, roughly the same level as the second quarter of 2013 where supermarkets accounted for just over 43 per cent of retail sales.

Chart 3.7 UK oil stocks



At the end of Q2 2014, total stocks for all oil were down by 9.8 per cent (1.4 million tonnes) compared with Q2 2013.

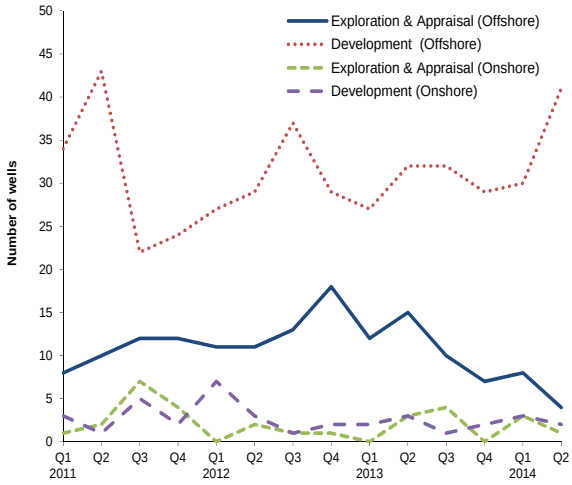
Total stocks of crude and process oils were 5.3 per cent (0.6 million tonnes) lower at the end of Q2 2014 compared with the same quarter a year earlier. There has been a large increase in crude stocks held abroad for the UK (under bilateral agreements). From 2013 onwards, EU Directive 2009/119/EC came into effect and this has led to changes in how UK companies manage their stock-holding. However, the increase in stocks held abroad was offset by a large decrease in stocks held in the UK.

One of the UK's refineries has been drawing down from stocks as refining activity has been temporarily suspended; this has driven a sharp decrease in stocks of petroleum products. These stocks were down by more than a million tonnes (14.5 per cent) at the end of June 2014 compared to the end of June 2013.

Chart 3.7 combines stocks of products with the product equivalent of stocks of crude oil to give an overall level of UK stocks of key products.

At the end of the Q2 2014, the UK had stocks equal to around 71 days of demand.

Chart 3.8 Drilling activity on the UKCS



There were 4 exploration and appraisal wells started offshore in the second quarter of 2014, compared to 15 in the corresponding quarter of 2013.

There were 41 development wells drilled offshore in the second quarter of 2014, compared to 32 in the corresponding quarter of 2013.

There was 1 exploration and appraisal wells started onshore in the second quarter of 2014, compared to 3 in the corresponding quarter of 2013.

There were 2 development wells drilled onshore in the second quarter of 2014, compared to 3 in the corresponding quarter of 2013.

Relevant tables

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3 OIL AND OIL PRODUCTS

Table 3.1 Supply and use of crude oil, natural gas liquids and feedstocks[1]

Thousand tonnes

	2012	2013	*per cent change*	2012 2nd quarter	2012 3rd quarter	2012 4th quarter	2013 1st quarter	2013 2nd quarter	2013 3rd quarter	2013 4th quarter	2014 1st quarter	2014 2nd quarter p	*per cent change*[8]
SUPPLY													
Indigenous production[2]	44,561	40,646	*-8.8*	11,812	9,751	10,394	10,600	10,397	9,108	10,541	11,062r	10,279	*-1.1*
Crude oil	42,052	38,456	*-8.6*	11,111	9,361	9,816	10,006	9,729	8,647	10,074	10,378r	9,635	*-1.0*
NGLs[3]	2,508	2,190	*-12.7*	701	390	578	594	668	461	466	683	644	*-3.6*
Imports[4]	60,559	59,137	*-2.3*	16,229	15,120	13,619	14,541	16,344	15,195	13,056	13,073r	12,508	*-23.5*
Crude oil & NGLs	55,340	52,470	*-5.2*	14,629	13,823	12,798	12,880	14,773	13,533	11,284	11,575r	11,281	*-23.6*
Feedstocks	5,218	6,667	*+27.8*	1,599	1,297	821	1,660	1,571	1,662	1,773	1,498	1,227	*-21.9*
Exports[4]	33,961	33,844	*-0.3*	8,746	7,848	8,798	8,905	8,821	7,587	8,531	8,448r	7,882	*-10.6*
Crude Oil & NGLs	29,939	31,754	*+6.1*	7,782	6,815	7,722	8,314	8,314	7,045	8,082	7,808r	7,175	*-13.7*
Feedstocks	4,021	2,089	*-48.0*	964	1,033	1,076	590	507	542	450	640	707	*+39.2*
Stock change[5]	-486	+724		-223	+673	-740	+555	-222	+615	-224	-320r	+60	
Transfers[6]	-1,934	-1,674		-582	-306	-391	-496	-572	-490	-116	-327r	-293	
Total supply	68,738	64,990	*-5.5*	18,490	17,390	14,085	16,296	17,126	16,842	14,726	15,039r	14,672	*-14.3*
Statistical difference[7]	-124	-44		+102	-114	-101	-93	-21	+51	+20	+3	-2	
Total demand	68,862	65,034	*-5.6*	18,388	17,504	14,186	16,389	17,148	16,791	14,706	15,036r	14,674	*-14.4*
TRANSFORMATION	68,862	65,034	*-5.6*	18,388	17,504	14,186	16,389	17,148	16,791	14,706	15,036r	14,674	*-14.4*
Petroleum refineries	68,862	65,034	*-5.6*	18,388	17,504	14,186	16,389	17,148	16,791	14,706	15,036r	14,674	*-14.4*

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.

3 OIL AND OIL PRODUCTS

Table 3.2 Supply and use of petroleum products

Thousand tonnes

	2012	2013	*per cent change*	2012 2nd quarter	2012 3rd quarter	2012 4th quarter	2013 1st quarter	2013 2nd quarter	2013 3rd quarter	2013 4th quarter	2014 1st quarter	2014 2nd quarter p	*per cent change* [1]
SUPPLY													
Indigenous production [2]	70,522	66,865	*-5.2*	18,854	17,785	14,525	16,821	17,710	17,265	15,068	15,525r	15,098	*-14.8*
Imports [3]	26,028	28,245	*+8.5*	5,533	6,579	8,375	6,422r	6,669r	6,728r	8,426r	6,814r	7,254	*+8.8*
Exports [3]	27,083	26,223	*-3.2*	7,486	6,874	5,304	6,783	6,879	6,600	5,961	5,934	5,373	*-21.9*
Marine bunkers	2,663	2,540	*-4.6*	645	698	666	626	677	645	591	624	629	*-7.1*
Stock change [4]	+128	+106		+209	-102	-5	+30	+53	+63	-41	+204r	+227	
Transfers [5]	+53	-463		+50	-17	-27	-13	-29	-49	-371	-237r	-272	
Total supply	66,985	65,990	*-1.5*	16,515	16,673	16,899	15,852r	16,847r	16,761r	16,530r	15,749r	16,305	*-3.2*
Statistical difference [6]	-85	-124		+37	+29	-68	+63	-6	-132	-49	-28r	-35	
Total demand	67,070	66,114	*-1.4*	16,477	16,644	16,966	15,789r	16,853r	16,893r	16,579r	15,777r	16,341	*-3.0*
TRANSFORMATION	853	726	*-14.9*	209	171	236	203	155	190	178	169	154	*-0.6*
Electricity generation	694	551	*-20.7*	169	134	188	158	112	151	130	125	110	*-2.1*
Heat generation	76	65	*-14.5*	19	19	19	16	16	16	16	16	16	*+0.9*
Other Transformation	83	111	*+33.0*	21	19	29	29	26	24	32	27	27	*+4.3*
Energy industry use	4,916	4,387	*-10.8*	1,325	1,234	974	1,087	1,155	1,156	989	1,040	998	*-13.6*
Petrolem Refineries	4,299	3,768	*-12.4*	1,170	1,080	819	932	1,000	1,001	834	885	843	*-15.7*
Blast Furnaces	-	-		-	-	-	-	-	-	-	-	-	
Others	617	619	*+0.4*	154	154	154	155	155	155	155	155	155	*+0.0*
FINAL CONSUMPTION	61,300	61,000	*-0.5*	14,943	15,238	15,756	14,499r	15,543r	15,547r	15,412r	14,568r	15,189	*-2.3*
Iron & steel	5	4	*-17.6*	1	1	1	1	2	1	1	1	1	*-31.5*
Other industries	4,177	4,059	*-2.8*	1,012	859	1,210	1,047r	1,040r	1,016r	955r	920r	879	*-15.4*
Transport	47,515	47,104	*-0.9*	11,534	12,196	12,190	10,833	12,021	12,184	12,066	11,243r	12,053	*+0.3*
Domestic	2,433	2,489	*+2.3*	480	425	795	890	483	398	719	668r	331	*-31.3*
Other final users	1,166	1,113	*-4.5*	285	310	299	256	289	288	280	234r	282	*-2.3*
Non energy use	6,004	6,231	*+3.8*	1,632	1,446	1,262	1,471	1,709	1,660	1,392	1,502r	1,642	*-3.9*

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.

3 OIL AND OIL PRODUCTS

Table 3.3 Supply and use of petroleum products - annual data

Thousand tonnes

	2012									2013								
	Total Petroleum Products	Motor spirit	DERV[9]	Gas oil[1]	Aviation turbine fuel	Fuel oils	Petroleum gases[2]	Burning oil	Other products[3]	Total Petroleum Products	Motor spirit	DERV[9]	Gas oil[1]	Aviation turbine fuel	Fuel oils	Petroleum gases[2]	Burning oil	Other products[3]
SUPPLY																		
Indigenous production[4]	70,522	17,013	15,772	8,941	5,775	7,164	6,666	2,268	6,924	66,865	17,572	14,831	8,193	4,527	6,483	6,546	2,705	6,008
Imports[5]	26,028	4,184	9,541	1,186	7,127	660	293	702	2,334	28,245	4,511	10,145	589	8,077	626	414	637	3,246
Exports[5]	27,083	8,561	3,377	4,270	1,320	5,300	1,147	112	2,996	26,223	10,213	2,843	3,310	970	4,586	1,165	381	2,755
Marine bunkers	2,663	-	-	1,123	-	1,540	-	-	-	2,540	-	-	1,248	-	1,292	-	-	-
Stock change[6]	+128	+26	-133	+7	+96	+90	+9	+40	-6	+106	-356	+46	+91	-20	+93	+11	+52	188
Transfers[7]	+53	+560	-268	+217	-479	-14	+23	+446	-432	-463	+1,060	-253	+250	-535	-401	+23	+463	-1,070
Total supply	66,985	13,222	21,535	4,958	11,199	1,059	5,844	3,343	5,824	65,990	12,574	21,926	4,566	11,080	922	5,828	3,477	5,617
Statistical difference[8]	-85	-8	-3	-33	-22	+8	-0	+14	-42	-124	+0	+0	-66	-3	+9	-37	+16	-45
Total demand	67,070	13,231	21,538	4,990	11,221	1,052	5,844	3,329	5,866	66,114	12,574	21,926	4,631	11,083	913	5,865	3,460	5,662
TRANSFORMATION	853	-	-	60	-	390	209	-	194	726	-	-	105	-	252	207	-	162
Electricity generation	694	-	-	54	-	337	191	-	111	551	-	-	100	-	199	201	-	51
Heat generation	76	-	-	5	-	52	18	-	-	65	-	-	5	-	53	7	-	-
Petroleum refineries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coke manufacture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Patent fuel manufacture	83	-	-	-	-	-	-	-	83	111	-	-	-	-	-	-	-	111
Energy industry use	4,916	-	-	617	-	346	2,348	-	1,606	4,387	-	-	619	-	331	2,133	-	1,303
FINAL CONSUMPTION	61,300	13,231	21,538	4,313	11,221	316	3,287	3,329	4,066	61,000	12,574	21,926	3,907	11,083	330	3,524	3,460	4,197
Iron & steel	5	-	-	-	-	2	2	-	-	4	-	-	-	-	3	1	-	-
Other industries	4,177	-	-	1,878	-	120	377	1,332	-	4,059	-	-	1,520	-	147	276	1,400	-
Transport	47,515	13,231	21,538	1,326	11,221	89	93	-	17	47,104	12,574	21,926	1,323	11,083	89	94	-	16
Domestic	2,433	-	-	140	-	-	297	1,996	-	2,489	-	-	129	-	-	300	2,060	-
Other final users	1,166	-	-	954	-	105	108	-	-	1,113	-	-	921	-	90	102	-	-
Non energy use	6,004	-	-	15	-	-	2,410	-	3,579	6,231	-	-	14	-	-	2,751	-	3,466

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.
8. 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.

3 OIL AND OIL PRODUCTS

Table 3.4 Supply and use of petroleum products - latest quarter

Thousand tonnes

	2013 2nd quarter									2014 2nd quarter p								
	Total Petroleum Products	Motor spirit	DERV[9]	Gas oil[1]	Aviation turbine fuel	Fuel oils	Petroleum gases[2]	Burning oil	Other products[3]	Total Petroleum Products	Motor spirit	DERV[9]	Gas oil[1]	Aviation turbine fuel	Fuel oils	Petroleum gases[2]	Burning oil	Other products[3]
SUPPLY																		
Indigenous Production[4]	17,710	4,581	4,018	2,073	1,243	1,742	1,878	673	1,503	15,098	3,754	3,283	2,097	1,138	1,190	1,645	415	1,577
Imports[5]	6,669	1,131	2,328	212	1,862	215	124	52	745r	7,254	1,020	3,094	112	1,967	220	111	78	652
Exports[5]	6,879	2,802	640	814	157	1,361	343	72	691	5,373	2,157	531	908	167	859	304	29	418
Marine bunkers	677	-	-	267	-	410	-	-	-	629	-	-	407	-	221	-	-	-
Stock change[6]	+53	+110	-28	-41	-55	+19	-6	-44	+98	+227	+180	-48	-7	+24	+71	+19	+5	-18
Transfers[7]	-29	+248	-80	+75	-116	-15	+8	+106	-254	-272	+365	-124	+125	-85	-227	+4	+81	-411
Total supply	16,847	3,268	5,597	1,237	2,777	190	1,661	715	1,401r	16,305	3,163	5,674	1,012	2,877	174	1,475	549	1,382
Statistical difference[8]	-6	-0	-0	+94	+7	-56	-4	-33	-13	-35	-0	+0	-36	+1	-0	-3	+0	+2
Total demand	16,853	3,268	5,598	1,143	2,770	246	1,665	748	1,414r	16,341	3,163	5,674	1,047	2,876	175	1,478	549	1,379
TRANSFORMATION	155	-	-	23	-	53	52	-	26	154	-	-	26	-	49	52	-	27
Electricity generation	112	-	-	22	-	40	50	-	-	110	-	-	24	-	35	50	-	-
Heat generation	16	-	-	1	-	13	2	-	-	16	-	-	1	-	13	2	-	-
Petroleum refineries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coke manufacture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Patent fuel manufacture	26	-	-	-	-	-	-	-	26	27	-	-	-	-	-	-	-	27
Energy industry use	1,155	-	-	155	-	99	558	-	343	998	-	-	156	-	42	494	-	306
FINAL CONSUMPTION	15,543	3,268	5,598	965	2,770	94	1,055	748	1,045r	15,189	3,163	5,674	866	2,876	84	932	549	1,046
Iron & steel	2	-	-	-	-	1	-	-	-	1	-	-	-	-	1	-	-	-
Other industries	1,040	-	-	379	-	37	123	350	150r	879	-	-	315	-	43	162	269	90
Transport	12,021	3,268	5,598	325	2,770	34	22	-	4	12,053	3,163	5,674	295	2,876	17	23	-	5
Domestic	483	-	-	16	-	-	68	398	-	331	-	-	10	-	-	42	279	-
Other final users	289	-	-	242	-	22	25	-	-	282	-	-	241	-	22	19	-	-
Non energy use	1,709	-	-	2	-	-	816	-	890	1,642	-	-	5	-	-	685	-	952

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

3 OIL AND OIL PRODUCTS

Table 3.5 Demand for key petroleum products[1]

Thousand tonnes

	2012	2013	*per cent change*	2012 2nd quarter	2012 3rd quarter	2012 4th quarter	2013 1st quarter	2013 2nd quarter	2013 3rd quarter	2013 4th quarter	2014 1st quarter	2014 2nd quarter p	*per cent change [2]*
MOTOR SPIRIT													
of which, Hydrocarbon [3]	13,231	12,574	*-5.0%*	3,191	3,305	3,288	2,983	3,268	3,178	3,145	2,974	3,163	*-3.2%*
of which, Bio-ethanol[4]	615	650	*5.8%*	156	156	161	151	161	178	160	152	164	*1.5%*
Total Motor Spirit including Bio-ethanol	**13,845**	**13,224**	*-4.5%*	**3,348**	**3,460**	**3,449**	**3,134**	**3,429**	**3,355**	**3,305**	**3,126**	**3,327**	*-3.0%*
of which, sold through Supermarkets[5]	6,196	5,974	*-3.6%*	1,532	1,599	1,552	1,431	1,528	1,539	1,476	1,373	1,471	*-3.8%*
of which, sold through Refiners, and other traders[6]	7,649	7,250	*-5.2%*	1,816	1,861	1,897	1,704	1,901	1,816	1,829	1,753	1,856	*-2.4%*
of which, sold via commercial sales [7]	-	-		-	-	-	-	-	-	-	-	-	
DIESEL ROAD FUEL													
Hydrocarbon [8]	21,538	21,926	*1.8%*	5,196	5,447	5,685	5,104	5,598	5,518	5,706	5,341	5,674	*1.4%*
Bio-diesel [9]	563	682	*21.0%*	152	97	101	114	170	197	201	174	230	*35.1%*
Total Diesel Road Fuel including Bio-diesel	**22,101**	**22,607**	*2.3%*	**5,349**	**5,544**	**5,786**	**5,218**	**5,768**	**5,715**	**5,907**	**5,514**	**5,903**	*2.4%*
of which, sold through Supermarkets[10]	5,959	6,217	*4.3%*	1,446	1,539	1,519	1,471	1,577	1,607	1,562	1,508	1,602	*1.6%*
of which, sold through Refiners, and other traders[11]	8,446	8,519	*0.9%*	1,975	2,073	2,251	1,929	2,182	2,118	2,289	2,077	2,256	*3.4%*
of which, sold via commercial sales [12]	7,696	7,871	*2.3%*	1,928	1,931	2,015	1,817	2,008	1,989	2,056	1,929	2,044	*1.8%*
OTHER GAS DIESEL OIL [13]	**4,990**	**4,631**	*-7.2%*	**1,200**	**1,258**	**1,246**	**1,149**	**1,143**	**1,166**	**1,173**	**1,021r**	**1,011**	*-11.5%*
AVIATION FUELS													
Total sales	11,238	11,099	*-1.2%*	2,771	3,064	2,839	2,367	2,774	3,119	2,838	2,547	2,881	*3.8%*
Aviation spirit	17	16	*-10.3%*	5	5	4	3	4	5	3	7	5	*3.9%*
Aviation turbine fuel	11,221	11,083	*-1.2%*	2,766	3,059	2,835	2,365	2,770	3,114	2,835	2,541	2,876	*3.8%*
FUEL OIL													
Total Sales	707	581	*-17.7%*	155	177	188	174	147	136	123	143r	132	*-10.2%*
Light	367	229	*-37.5%*	86	98	130	81	60	69	19	25r	71	*18.1%*
Medium	118	139	*17.8%*	21	30	35	32	45	31	32	32r	31	*-30.9%*
Heavy	221	213	*-3.9%*	48	49	23	61	43	37	72	87r	30	*-28.7%*

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.

3 OIL AND OIL PRODUCTS

Table 3.6 Stocks of petroleum[1] at end of period

Thousand tonnes

		Crude oil and refinery process oil					Petroleum products								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[8]	Fuel oils	Other products[9]	Net bilaterals of products [5]	Total products	Total Net bilaterals [5]	Total Stocks in UK[10]	Total stocks
2009		3,848	1,136	682	367	6,033	817	1,633	2,124	690	1,182	2,728	9,173	3,095	12,112	15,206
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
Per cent change		*-6.2*	*-7.6*	*+8.4*	*(+)*	*+17.3*	*+72.2*	*-0.5*	*-20.6*	*-17.8*	*-17.6*	*-0.3*	*-2.8*	*+48.0*	*-4.6*	*+5.7*
2012	2nd quarter	3,825	1,248	522	247	5,843	750	1,171	1,958	595	843	2,431	7,747	2,678	10,912	13,590
	3rd quarter	3,344	988	456	245	5,033	692	1,193	1,954	539	929	2,448	7,756	2,693	10,096	12,788
	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 p	3,384	1,227	546	1,799	6,955	887	1,118	1,688	228	718	1,529	6,168	3,328	9,796	13,124
Per cent change [11]		*-11.9*	*-3.7*	*+7.5*	*+4.6*	*-5.3*	*-10.1*	*-9.5*	*+3.3*	*(-)*	*-17.6*	*-23.8*	*-14.5*	*-10.7*	*-9.6*	*-9.8*

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.

3 OIL AND OIL PRODUCTS

Table 3.7 Drilling activity[1] on the UKCS

Number of wells started

		Offshore				Onshore	
				Exploration &		Exploration &	
		Exploration	Appraisal	Appraisal	Development[2]	Appraisal	Development[2]
2009		23	41	64	131	15	11
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
Per cent change		*-31.8*	*-6.5*	*-17.0*	*-1.6*	*+75.0*	*-38.5*
2012	2nd quarter	5	6	11	29	2	3
	3rd quarter	4	9	13	37	1	1
	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	6	2	8	30	3	3
	2nd quarter p	2	2	4	41	1	2
Per cent change[3]		*-33.3*	*-83.3*	*-73.3*	*+28.1*	*-66.7*	*-33.3*

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.

Section 4 - Gas

Key results show:

Gross UK production of natural gas in Q2 2014 was 3.8 per cent lower than in Q2 2013 (**Chart 4.1**). Within this, production of dry gas remained almost unchanged (0.9 per cent lower), whilst associated gas production decreased by 6.1 per cent (**Chart 4.2**).

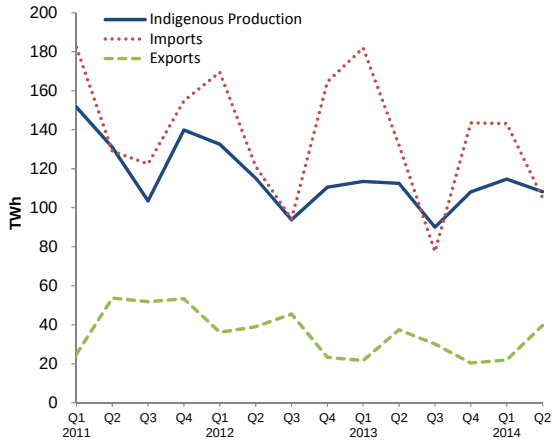
Total imports have fallen 20 per cent in Q2 2014 compared to Q2 2013, driven by low demand. This has almost completely been due to a decrease in pipeline imports whilst total LNG imports have remained broadly stable on last year. The volume of Norwegian gas into the UK has decreased substantially, down over a third versus Q2 2013 (**Chart 4.4**).

Pipeline imports decreased by 31 per cent compared to Q2 2013, whereas LNG imports remained similar (down 0.5 per cent). (**Chart 4.4**). Pipeline imports accounted for 57 per cent of all imports in Q2 2014, versus 65 per cent in Q2 2013 (**Chart 4.5**).

Gas available in Q2 2014 was 16.8 per cent lower than in Q2 2013, at 162 TWh. (**Chart 4.3**)

Overall UK gas demand decreased by 14.8 per cent in Q2 2014 compared to Q2 2013. This was primarily driven by domestic and other consumption (down 28 and 22 per cent respectively). This reflects the warmer temperatures in Q2 2014 versus the previous year. Gas used for electricity generation was similar in Q2 2014 versus Q2 2013 (down 2.0 per cent) whilst industrial consumption was down by 4.6 per cent (**Chart 4.6**).

Chart 4.1 Production and imports and exports of natural gas



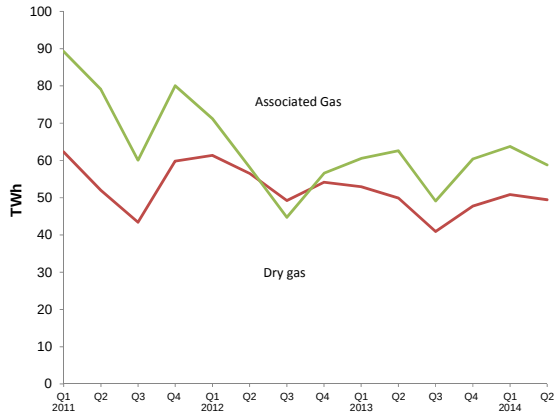
Total indigenous UK production of natural gas in Q2 2014 was 3.8 per cent lower than in the same quarter a year earlier.

This was driven predominantly by relatively low demand during this period. As a consequence planned maintenance (on Vesterled and Langeled) has also recently taken place.

On the whole, UKCS production is continuing to decline on an annual basis, with UKCS production over the last ten years decreasing by almost 10 per cent on average per annum.

UK imports were down 20 per cent in Q2 2014 compared with the same quarter in 2013. Conversely, exports have risen, increasing by 5.9 per cent. As a result, net imports in Q2 2014 decreased to 65 TWh, a decrease of 31 per cent on the same quarter the previous year.

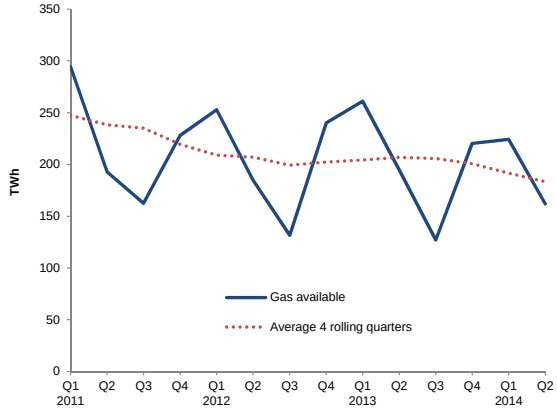
Chart 4.2 Production of dry gas and associated gas



Associated gas production in Q2 2014 decreased by 6.1 per cent from 63 TWh in Q2 2013 to 59 TWh.

Dry gas production decreased by 0.9 per cent from 50 TWh in Q2 2013 to 49 TWh in Q2 2014, reflecting the continuing decline in UK gas production.

Chart 4.3 Gas availability

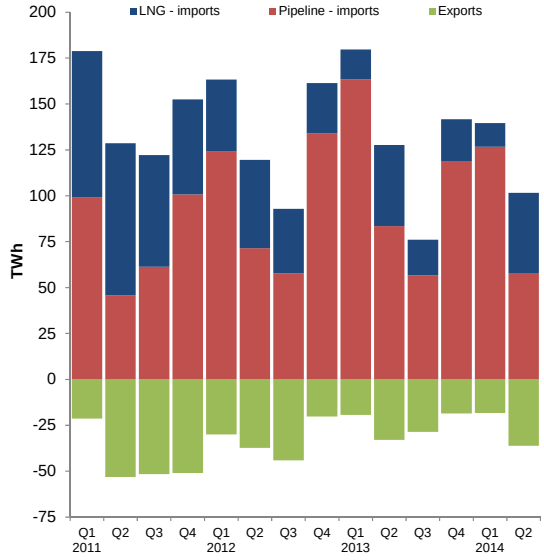


Gas available at terminals is equal to the gross gas production minus producers own use, plus net imports.

Gas availability is seasonal, mirroring gas demand, and peaks during Q1 and Q4 each year. Gas availability in Q2 2014 decreased by 16.8 per cent compared to Q2 2013 to 162 TWh.

The annual average availability for gas had remained reasonably constant up to 2010. However, in 2013, gas availability fell slightly as a result of the milder weather during the second half of the year. This pattern continued into 2014 with gas availability being 16.8 per cent lower compared with the same period in the previous year.

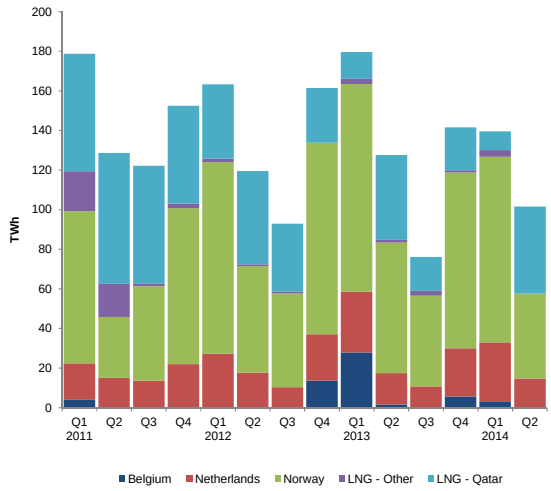
Chart 4.4 Import and exports



Total imports in Q2 2014 decreased by 20 per cent compared to the same quarter a year earlier. Included in this, imports of Liquefied Natural Gas (LNG) were down 0.5 per cent. LNG imports accounted for 43 per cent of total imports compared with 35 per cent a year earlier. Pipeline imports for Q2 2014 decreased by 31 per cent. This was assisted by low demand and planned maintenance work affecting pipeline imports from Norway and the Netherlands in 2014.

Total exports increased by 5.9 per cent in Q2 2014. This came partly as a result of an increase in exports to the Netherlands following the start-up of production of Orca and Kew fields, resulting in an increase in exports by 13 per cent on Q2 2013.

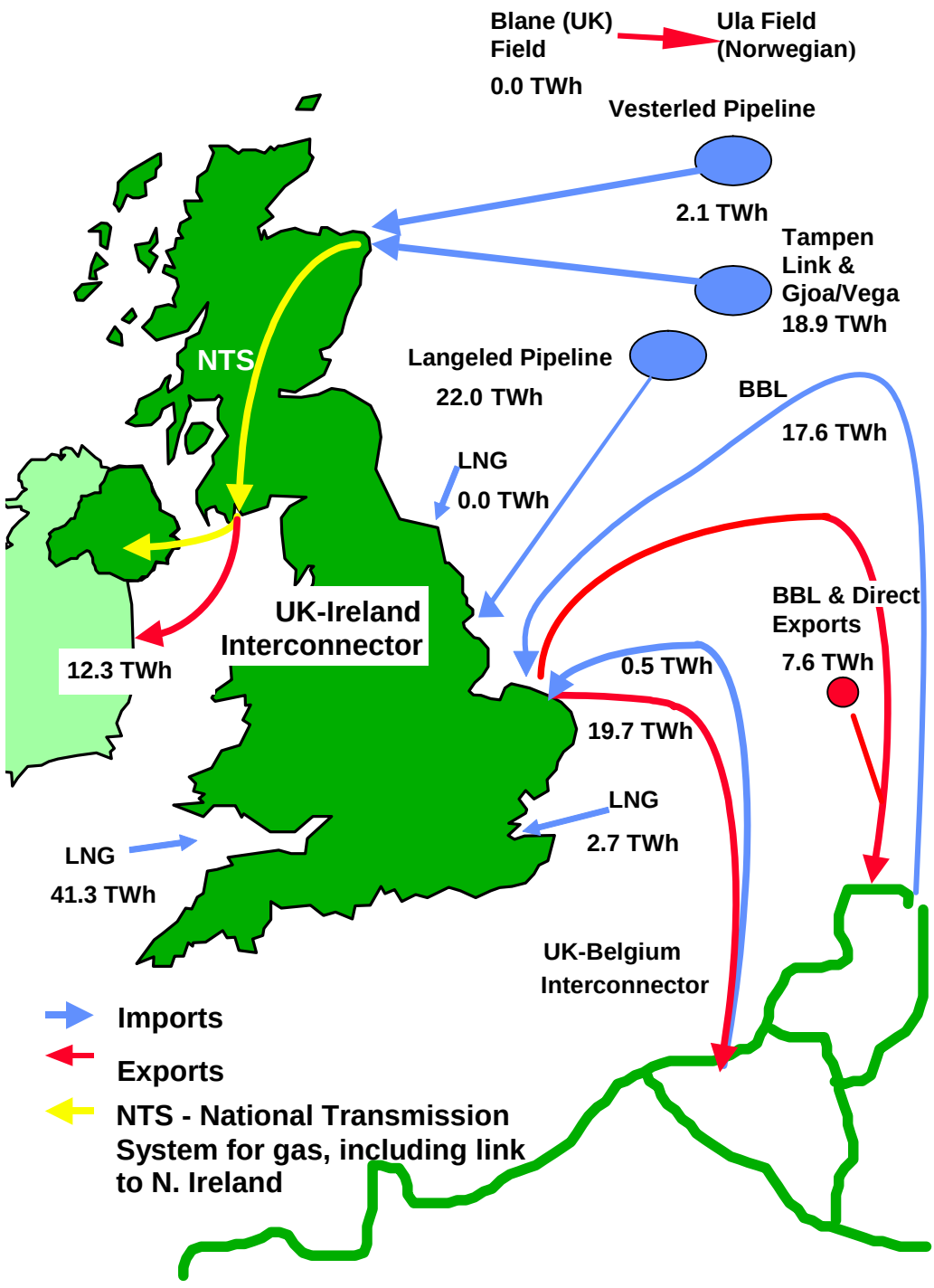
Chart 4.5 Imports by origin



The UK imported 43 TWh and 15 TWh via pipelines from Norway and the Netherlands respectively, a decrease of 30 per cent on the amounts in Q2 2013. This decrease illustrates the effects of maintenance work on Dutch and Norwegian pipelines.

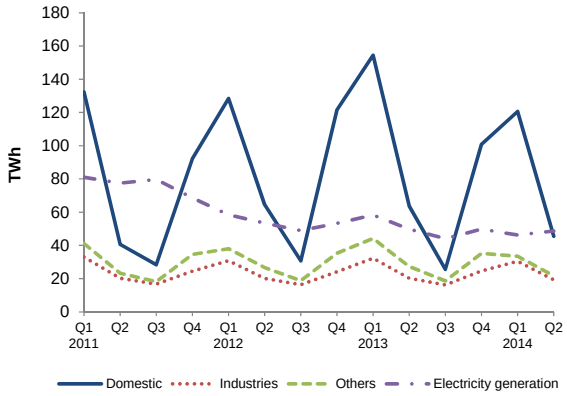
Since 2009, LNG imports have been mainly procured from Qatar. LNG imports from Qatar were 3 per cent higher in Q2 2014 compared with the same quarter a year earlier.

Map: UK imports and exports of gas Q2 2014[1]



1. Please note that imports and exports in this map uses nominated flows through the UK-Belgium Interconnector and BBL pipeline 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



UK overall demand in Q2 2014 decreased substantially by 14.8 per cent compared to Q2 2013.

A reduction in gas use in Q2 2014 versus Q2 2013 was seen across all major sectors. Over the past 3 years, the drop in gas demand has generally been driven by a reduction in gas used for electricity generation. However, gas use in this sector fell only slightly between Q2 2013 and Q2 2014, by 2.0 per cent.

Domestic and other final users saw large reductions in gas use, of 28 and 22 per cent lower respectively. This reflects the greater impact of temperature on these sectors versus the industrial sector. The average temperature in Q2 2014 was 12.5 degrees Celsius, 1.9 degrees warmer than in Q2 2013.

The industrial sector, where gas demand is driven less by use for space heating, saw smaller reductions in gas use than other sectors; iron and steel gas use grew by 4.2 per cent in Q2 2014 versus Q2 2013, whereas other industry use fell by 5.2 per cent. Energy industry use also fell in Q2 2014 versus Q2 2013, being 6.5 per cent lower.

Relevant table

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4 GAS

Table 4.1. Natural gas supply and consumption

GWh

	2012	2013	*per cent change*	2012 2nd quarter	2012 3rd quarter	2012 4th quarter	2013 1st quarter	2013 2nd quarter	2013 3rd quarter	2013 4th quarter	2014 1st quarter	2014 2nd quarter p	*per cent change* [1]
SUPPLY													
Indigenous production	452,094	424,153	*-6.2*	115,118	93,807	110,606	113,470	112,494	90,047	108,142	114,642r	108,242	*-3.8*
Imports	549,518	535,105	*-2.6*	121,188	94,305	164,573	181,972	132,068	77,546	143,520	143,212	105,078	*-20.4*
of which LNG	*150,098*	*102,620*	*-31.6*	*48,076*	*35,223*	*27,573*	*16,226*	*44,196*	*19,428*	*22,771*	*12,911*	*43,973*	*-0.5*
Exports	144,023	109,664	*-23.9*	38,953	45,507	23,348	21,692	37,423	30,106	20,443	21,984r	39,646	*+5.9*
Stock change[2]	-269	+621		-9,544	-8,427	+4,198	+40,380	-25,196	-14,890	+327	+16,992	-18,072	
Transfers	-56	-61		-4	-14	-26	-29	-12	-14	-5	-29	-12	
Total supply	857,265	850,155	*-0.8*	187,805	134,164	256,002	314,100	181,931	122,583	231,541	252,833r	155,590	*-14.5*
Statistical difference	-2,353	-227		664	-387	-1,278	455	-855	-26	200	-1,219r	-189	
Total demand	859,618	850,382	*-1.1*	187,142	134,551	257,280	313,645	182,786	122,609	231,342	254,052r	155,779	*-14.8*
TRANSFORMATION	239,242	224,992	*-6.0*	59,163	53,879	60,421	65,819	54,916	48,370	55,887	53,836r	53,921	*-1.8*
Electricity generation	214,151	201,834	*-5.8*	53,435	48,965	53,344	58,278	49,720	44,065	49,771	46,296r	48,724	*-2.0*
Heat generation[3]	25,091	23,158	*-7.7*	5,728	4,914	7,077	7,541	5,197	4,305	6,116	7,541	5,197	-
Energy industry use	57,235	54,775	*-4.3*	14,911	12,955	14,064	14,991	14,650	12,103	13,033	13,603r	13,697	*-6.5*
Losses	7,891	7,474	*-5.3*	1,844	1,917	1,894	1,963	2,069	1,614	1,828	2,031r	1,645	*-20.5*
FINAL CONSUMPTION	555,250	563,141	*+1.4*	111,225	65,800	180,901	230,873	111,151	60,522	160,594	184,582r	86,516	*-22.2*
Iron & steel	5,091	5,338	*+4.9*	1,338	1,168	1,172	1,491	1,289	1,224	1,335	1,488r	1,343	*+4.2*
Other industries	86,415	87,953	*+1.8*	18,827	15,230	22,926	30,720	18,923	15,016	23,295	28,945r	17,932	*-5.2*
Domestic	345,080	344,502	*-0.2*	64,420	30,676	121,540	154,453	63,606	25,616	100,827	120,684r	45,558	*-28.4*
Other final users	112,893	119,749	*+6.1*	25,197	17,283	33,820	42,809	25,935	17,266	33,739	32,065r	20,284	*-21.8*
Non energy use[3]	5,771	5,598	*-3.0*	1,443	1,443	1,443	1,399	1,399	1,399	1,399	1,399r	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.

Section 5 – Electricity

Key results show:

Electricity generated in the second quarter of 2014 fell by 6.2 per cent, from 83.9 TWh a year earlier to 78.7 TWh, the lowest level of generation since 1998. (**Chart 5.1**).

Renewables' share of electricity generation was 16.8 per cent in 2014 Q2, up 0.9 percentage points on the share in 2013 Q2, with the fall in overall generation exceeding that of renewables. **(Chart 5.2)**

Shares of generation for fossil fuels in the second quarter of 2014 compared to a year earlier saw gas have a larger share than coal for the first time in three years. Coal's share decreased from 34.5 per cent to 28.2 per cent, whilst gas' share of generation increased from 28.7 per cent in the second quarter of 2013 to 30.2 per cent in the second quarter of 2014, due to a large decrease in coal generation. (**Chart 5.2**).

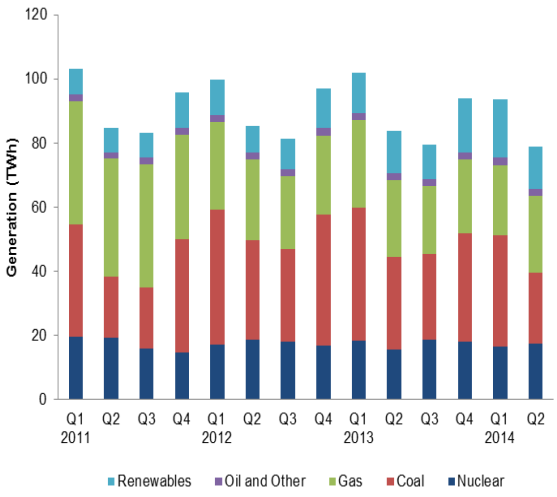
Nuclear's share of generation rose from 18.4 per cent in the second quarter of 2013 to 22.2 per cent in the second quarter of 2014. (**Chart 5.2**).

Low carbon electricity's share of generation increased from 34.3 per cent in the second quarter of 2013 to 39.0 per cent in the second quarter of 2014, due to both higher shares for renewables and nuclear generation. **(Chart 5.3)**.

The UK remains a net importer with 6.1 per cent of electricity supplied from net imports in the second quarter of 2014 (**Chart 5.4**).

Final consumption of electricity during the second quarter of 2014, at 71.7 TWh, was provisionally 3.2 per cent lower than in the same period last year. Domestic sales fell by 6.0 per cent, to its lowest quarter two level for 3 years. (**Chart 5.5**).

Chart 5.1 Electricity generated by fuel type



In 2014 Q2, total electricity generated fell 6.2 per cent from 83.9 TWh in 2013 Q2 to 78.7 TWh, reflecting lower demand.

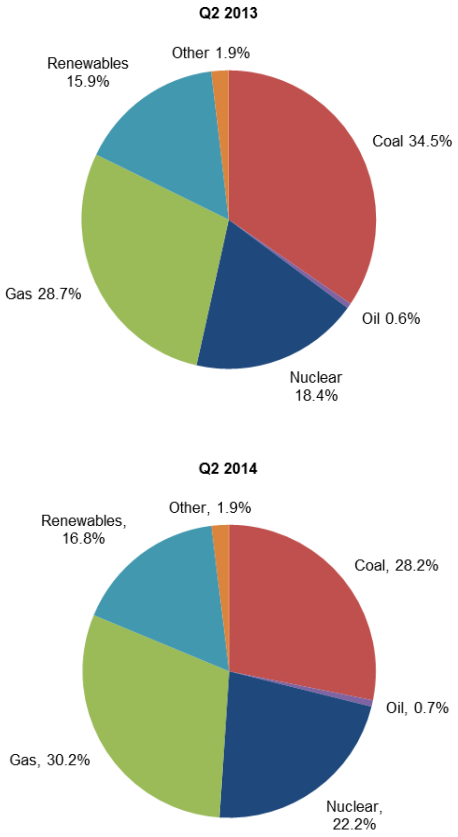
Coal fired generation fell by 23 per cent from 29.0 TWh in 2013 Q2 to 22.2 TWh in 2014 Q2, due to reduced capacity caused by the conversion of a unit at Drax from coal to biomass.

In 2014 Q2, gas fired generation fell 1.1 per cent from 24.1 TWh to 23.8 TWh, its lowest second quarter level for at least seventeen years.

Nuclear generation rose 13.0 per cent from 15.5 TWh in 2013 Q2 to 17.5 TWh in 2014 Q2.

In 2014 Q2, wind and PV generation fell 10.2 per cent from 7.2 TWh to 6.5 TWh. Wind generation was down 19.1 per compared with a year ago, due to lower wind speeds (wind speeds were 1.6 knots lower compared to the same quarter a year earlier). Solar generation increased by 67 per cent due to increased capacity. Hydro generation rose 15.9 per cent from 1.0 TWh to 1.1 TWh, due to a 12.3 per cent increase in rainfall, mainly during May, in the main hydro regions.

Chart 5.2 Shares of electricity generation



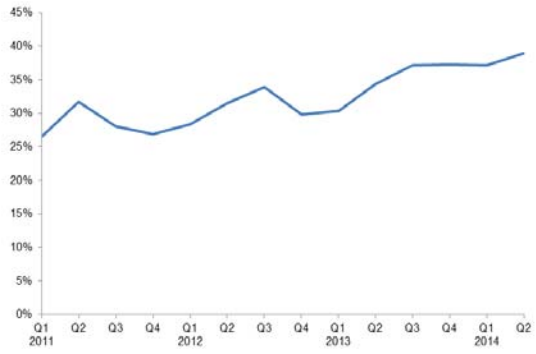
The share of generation from coal decreased from 34.5 per cent in 2013 Q2 to 28.2 per cent in 2014 Q2.

Gas's share of generation increased from 28.7 per cent in 2013 Q2 to 30.2 per cent in 2014 Q2.

Nuclear's share of generation rose from 18.4 per cent in 2013 Q2 to 22.2 per cent in 2014 Q2.

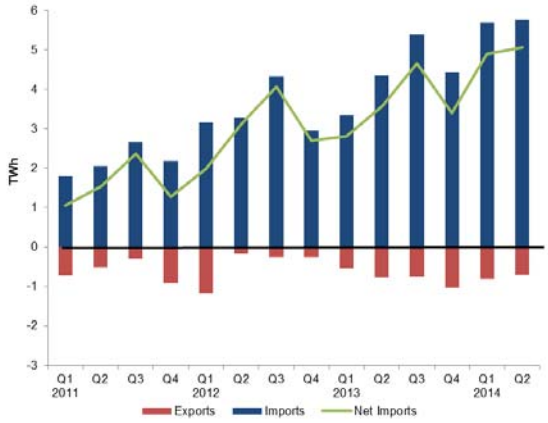
The share of renewables (hydro, wind and other renewables) increased from 15.9 per cent in 2013 Q2 to 16.8 per cent in 2014 Q2. This was due to increased hydro generation as well as the conversion of Drax from coal to biomass in May. The increased share on a year earlier occurred despite a fall in generation from renewables, and reflects the fact that overall generation was at its lowest quarterly level in the last 16 years.

Chart 5.3 Low carbon electricity's share of generation



Low carbon electricity's share of generation increased from 34.3 per cent in 2013 Q2 to 39.0 per cent in 2014 Q2, due to higher nuclear generation.

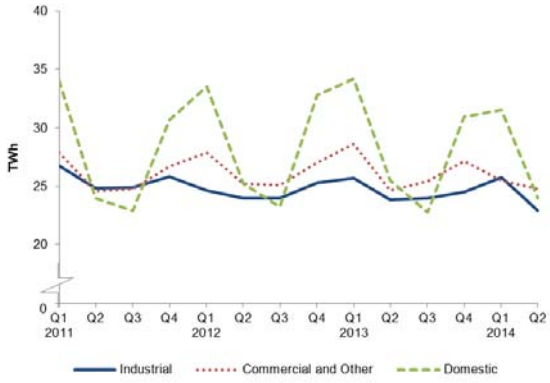
Chart 5.4 UK trade in electricity



In 2014 Q2, compared with the same period in 2013, imports of electricity rose by 33 per cent (+1.4 TWh), whilst exports fell by 10.5 per cent. For every quarter from 2010 Q2, the UK has been a net importer after two quarters of being a net exporter (2009 Q4 and 2010 Q1).

Net imports of electricity rose by 42.4 per cent from 3.6 TWh in 2013 Q2 to 5.1 TWh in 2014 Q2, due mainly to increased imports France to their highest level in this quarterly series. Net imports represented 6.1 per cent of electricity supplied in 2014 Q2.

Chart 5.5 Electricity Final Consumption



Final consumption of electricity fell by 3.2 per cent in 2014 Q2, from 74.0 TWh in 2013 Q2, to 71.7 TWh.

Domestic use fell by 6.0 per cent, from 25.5 TWh to 24.0 TWh.

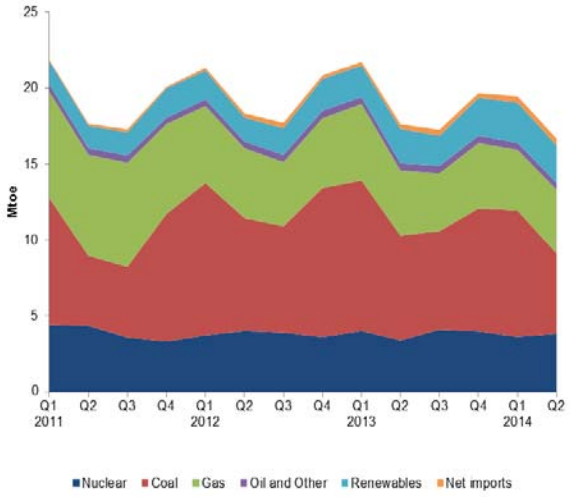
Industrial use of electricity, including iron and steel, fell 4.0 per cent, from 23.8 TWh to 22.9 TWh, while consumption by commercial and other users [1] increased by 0.5 per cent, from 24.7 TWh to 24.8 TWh.

In 2014 Q2, temperatures were on average 1.9 degrees higher than in 2013 Q2.[2]

[1] Includes commercial, transport and other final users.

[2] Temperature data comes from ET 7.1, at: www.gov.uk/government/publications/energy-trends-section-7-weather

Chart 5.6 Fuel used for electricity Generation



Fuel used by generators in 2014 Q2 fell 5.4 per cent, from 17.6 mtoe in 2013 Q2 to 16.7 mtoe in 2014 Q2[3].

In 2014 Q2, gas use was 2.0 per cent lower than in 2013 Q2. Coal use during the quarter was 23 per cent lower than a year earlier, while nuclear sources were 13.0 per cent higher.

[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

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Table 5.1. Fuel used in electricity generation and electricity supplied

	2012	2013	per cent change	2012 2nd quarter	2012 3rd quarter	2012 4th quarter	2013 1st quarter	2013 2nd quarter	2013 3rd quarter	2013 4th quarter	2014 1st quarter	2014 2nd quarter p	per cent change [1]
FUEL USED IN GENERATION													
All generating companies										**Million tonnes of oil equivalent**			
Coal	34.33	31.44	*-8.4*	7.45	7.01	9.83	9.92	6.90	6.50	8.12	8.33r	5.30	*-23.3*
Oil	0.73	0.59	*-19.0*	0.19	0.16	0.19	0.14	0.11	0.17	0.16	0.14r	0.16	*+43.0*
Gas	18.46	17.40	*-5.7*	4.59	4.21	4.59	5.02	4.29	3.80	4.29	3.99r	4.20	*-2.0*
Nuclear	15.21	15.44	*+1.6*	4.00	3.89	3.60	4.00	3.38	4.09	3.97	3.61r	3.82	*+13.0*
Hydro	0.46	0.40	*-11.2*	0.07	0.09	0.14	0.11	0.08	0.06	0.15	0.19	0.10	*+15.7*
Wind and Solar [2]	1.80	2.62	*+45.6*	0.37	0.43	0.56	0.61	0.62	0.48	0.91	0.97	0.55	*-10.8*
Bioenergy [3]	5.08	5.82	*+14.5*	1.15	1.24	1.38	1.38	1.57	1.44	1.44	1.49r	1.81	*+15.2*
Other fuels	1.11	1.31	*+17.5*	0.25	0.32	0.30	0.31	0.35	0.32	0.32	0.31r	0.29	*-18.1*
Net imports	1.02	1.24	*+21.6*	0.27	0.35	0.23	0.24	0.31	0.40	0.29	0.42	0.44	*+42.4*
Total all generating companies	78.19	76.27	*-2.5*	18.33	17.71	20.82	21.74	17.62	17.25	19.66	19.45r	16.67	*-5.4*
ELECTRICITY GENERATED													
All generating companies												**TWh**	
Coal	143.16	130.77	*-8.7*	31.22	28.79	41.01	41.53	28.97	26.69	33.58	34.68r	22.18	*-23.4*
Oil	2.57	2.14	*-16.9*	0.55	0.56	0.75	0.57	0.47	0.60	0.50	0.56r	0.55	*+17.5*
Gas	100.16	95.61	*-4.5*	25.24	22.96	24.73	27.24	24.05	21.10	23.22	21.93r	23.78	*-1.1*
Nuclear	70.41	70.61	*+0.3*	18.53	18.03	16.65	18.28	15.47	18.69	18.16	16.52	17.48	*+13.0*
Hydro (natural flow)	5.28	4.70	*-11.1*	0.79	1.05	1.63	1.26	0.97	0.74	1.73	2.23	1.12	*+15.9*
Wind and Solar [2]	21.01	30.48	*+45.0*	4.28	4.98	6.53	7.12	7.23	5.53	10.59	11.39r	6.49	*-10.2*
- of which, Offshore	7.55	11.44	*+51.6*	1.64	1.69	2.73	2.85	2.61	1.96	4.01	4.37	2.03	*-22.5*
Bioenergy [3]	14.91	18.49	*+24.0*	3.21	3.59	4.10	4.28	5.15	4.55	4.51	4.61r	5.61	*+8.8*
Pumped Storage	2.97	2.90	*-2.3*	0.67	0.71	0.79	0.74	0.69	0.71	0.76	0.79	0.67	*-2.6*
Other fuels	2.94	3.46	*+17.9*	0.74	0.77	0.77	0.86	0.91	0.85	0.85	0.86	0.86	*-5.7*
Total all generating companies	363.41	359.15	*-1.2*	85.22	81.42	96.96	101.87	83.92	79.46	93.90	93.57r	78.74	*-6.2*
ELECTRICITY SUPPLIED [4]													
All generating companies												**TWh**	
Coal	135.86	124.06	*-8.7*	29.64	27.32	38.90	39.40	27.48	25.32	31.86	32.90r	21.04	*-23.4*
Oil	2.28	1.94	*-15.0*	0.49	0.50	0.66	0.51	0.43	0.55	0.45	0.51r	0.51	*+18.6*
Gas	98.25	93.80	*-4.5*	24.77	22.51	24.25	26.72	23.59	20.73	22.77	21.51r	23.37	*-0.9*
Nuclear	63.95	64.13	*+0.3*	16.83	16.38	15.12	16.61	14.05	16.97	16.50	15.00	15.87	*+13.0*
Hydro	5.26	4.66	*-11.4*	0.78	1.04	1.62	1.25	0.96	0.74	1.72	2.22	1.11	*+15.9*
Wind and Solar [2]	21.01	30.48	*+45.0*	4.28	4.98	6.53	7.12	7.23	5.53	10.59	11.39r	6.49	*-10.2*
- of which, Offshore	7.55	11.44	*+51.6*	1.64	1.69	2.73	2.85	2.61	1.96	4.01	4.37	2.03	*-22.5*
Bioenergy [3]	13.12	16.04	*+22.3*	2.82	3.16	3.61	3.71	4.49	3.94	3.90	3.99r	4.88	*+8.6*
Pumped Storage (net supply) [5]	-1.02	-1.04	*+1.9*	-0.24	-0.25	-0.27	-0.27	-0.26	-0.26	-0.25	-0.26	-0.25	*-4.0*
Other fuels	2.77	3.26	*+17.9*	0.69	0.73	0.73	0.81	0.85	0.80	0.80	0.81	0.81	*-5.7*
Net imports	11.87	14.43	*+21.6*	3.12	4.07	2.70	2.82	3.56	4.65	3.40	4.89	5.08	*+42.4*
Total all generating companies	353.35	351.76	*-0.5*	83.17	80.43	93.85	98.66	82.39	78.97	91.74	92.96r	78.90	*-4.2*

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

2. Includes wave and tidal

3. Up to 2006 Q4, this includes non-biodegradable wastes. From 2007 Q1, this is included in 'Other fuels' (as it is not considered a renewable source).

4. Electricity supplied net of electricity used in generation

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

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Table 5.2 Supply and consumption of electricity

GWh

	2012	2013	*Per cent change*	2012 2nd quarter	2012 3rd quarter	2012 4th quarter	2013 1st quarter	2013 2nd quarter	2013 3rd quarter	2013 4th quarter	2014 1st quarter	2014 2nd quarter p	*Per cent change* [1]
SUPPLY													
Indigenous production	363,407	359,149	*-1.2*	85,224	81,425	96,964	101,873	83,915	79,456	93,904	93,571r	78,742	*-6.2*
Major power producers [2 3]	325,225	320,805	*-1.4*	75,894	72,124	87,231	92,365	74,298	70,411	83,731	83,090r	68,461	*-7.9*
Auto producers	35,216	35,446	*+0.7*	8,655	8,596	8,941	8,766	8,928	8,339	9,413	9,689r	9,609	*+7.6*
Other sources [4]	2,966	2,898	*-2.3*	675	705	793	742	690	706	761	792	672	*-2.6*
Imports	13,742	17,533	*+27.6*	3,280	4,333	2,960	3,354	4,340	5,402	4,436	5,701	5,771	*+33.0*
Exports	1,871	3,103	*+65.8*	161	267	262	538	777	751	1,038	807	695	*-10.5*
Transfers	-	-		-	-	-	-	-	-	-	-	-	
Total supply	375,278	373,578	*-0.5*	88,344	85,491	99,662	104,689	87,479	84,107	97,302	98,465r	83,818	*-4.2*
Statistical difference	-920	-176	*-80.8*	-432	277	-420	-112	17	-305	223	-676r	-571	*(-)*
Total demand	376,198	373,755	*-0.6*	88,776	85,214	100,082	104,801	87,462	84,413	97,079	99,140r	84,389	*-3.5*
TRANSFORMATION	-	-		-	-	-	-	-	-	-	-	-	
Energy industry use [5]	29,458	29,455	-	7,043	6,965	7,678	7,980	6,998	7,052	7,425	7,431r	6,797	*-2.9*
Losses	28,911	27,000	*-6.6*	7,315	5,975	7,263	8,272	6,443	5,236	7,048	8,109	5,941	*-7.8*
FINAL CONSUMPTION	317,829	317,300	*-0.2*	74,417	72,274	85,140	88,549	74,021	72,124	82,605	83,600r	71,651	*-3.2*
Iron & steel	3,376	3,803	*+12.7*	842	860	851	950	967	946	939	954r	943	*-2.5*
Other industries	94,437	94,204	*-0.2*	23,103	23,102	24,445	24,766	22,864	23,009	23,565	22,751r	21,943	*-4.0*
Transport	4,097	4,109	*+0.3*	1,024	1,024	1,024	1,027	1,027	1,027	1,027	1,027	1,027	-
Domestic	114,763	113,453	*-1.1*	25,206	23,231	32,799	34,234	25,521	22,755	30,943	31,520r	23,978	*-6.0*
Other final users	101,156	101,731	*+0.6*	24,241	24,056	26,021	27,572	23,641	24,386	26,131	27,348r	23,761	*+0.5*
Non energy use	-	-		-	-	-	-	-	-	-	-	-	

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 2013 they were:

AES Electric Ltd., Baglan Generation Ltd., Barking Power 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., GDF Suez Teesside Power Ltd.,

Immingham CHP, Infinis plc, International Power Mitsui, London Waste Ltd., Magnox North Ltd., Peel Energy Ltd., Premier Power Ltd., RGS Energy Ltd, 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.

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

Section 6 – Renewables

Key results show:

Renewables' share of electricity generation was 16.8 per cent in 2014 Q2, up 0.9 percentage points on the share in 2013 Q2, with the fall in overall generation exceeding that of renewables. **(Chart 6.1)**

Renewable electricity generation was 13.2 TWh in 2014 Q2, a fall of 1.0 per cent on the 13.4 TWh in 2013 Q2, and 27 per cent lower than the peak quarterly generation of 2014 Q1 (18.2 TWh). **(Chart 6.2)**

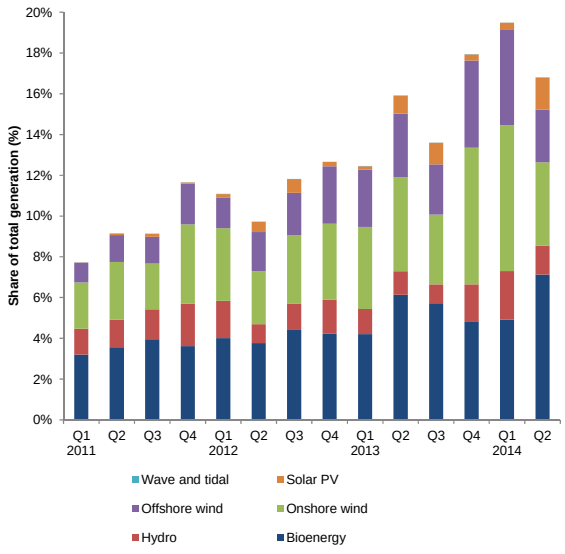
Bioenergy generation increased by 8.8 per cent in 2014 Q2, from 5.2 TWh in 2013 Q2 to a record 5.6 TWh, as a result of the recently converted second unit at Drax power station. Solar PV was up 67 per cent, from 0.7 TWh to 1.2 TWh due to increased capacity. Due to very low wind speeds, generation from both onshore and offshore wind fell, by 16.9 per cent and 22.5 per cent, respectively. **(Chart 6.2)**

Renewable electricity capacity was 22.2 GW at the end of 2014 Q2, a 13.8 per cent increase (2.7 GW) on a year earlier, and 4.5 per cent (0.9 GW) increase on the previous quarter, with the Drax conversion being offset by a reduction in capacity at the Ironbridge conversion (following a fire in 2014 Q1). **(Chart 6.3)**

By the end of 2014 Q2, 2,816 MW of capacity had been installed, and eligible for, the Feed in Tariff scheme, an increase of 27 per cent on a year earlier, constituting approximately 13 per cent of all renewable installed capacity. **(Chart 6.5)**

Liquid biofuels consumption rose by 17.8 per cent, from 394 million litres in 2013 Q2 to a record 464 million litres in 2014 Q2, with biodiesel up by over one third. In 2014 Q2, liquid biofuels represented 4.0 per cent of petrol and diesel consumed in road transport. **(Chart 6.6)**

Chart 6.1 Renewables' share of electricity generation



Renewables' share of electricity generation increased from 15.9 per cent in 2013 Q2 to 16.8 per cent in 2014 Q2. This was, however, a 2.7 percentage point fall on 2014 Q1's record high share of 19.5 per cent. [1]

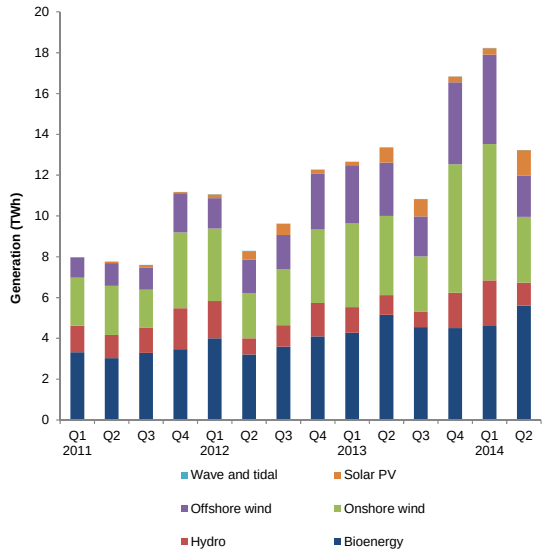
The increased share on a year earlier occurred despite a fall in generation from renewables, and reflects the fact that overall generation was at its lowest quarterly level in the last 16 years.

Total electricity generated from renewables in 2014 Q2 was down by 1.0 per cent on 2013 Q2, from 13.4 TWh to 13.2 TWh, and 27 per cent lower than the record 18.2 TWh in 2014 Q1. This fall was primarily due to low generation from wind, due to very low wind speeds.

Overall electricity generation (78.7 TWh) in 2014 Q2 was down 6.2 per cent on a year earlier (83.9 TWh). This alone increased renewables' share by 1.0 percentage point, with the reduction in generation from renewables removing 0.1 percentage point.

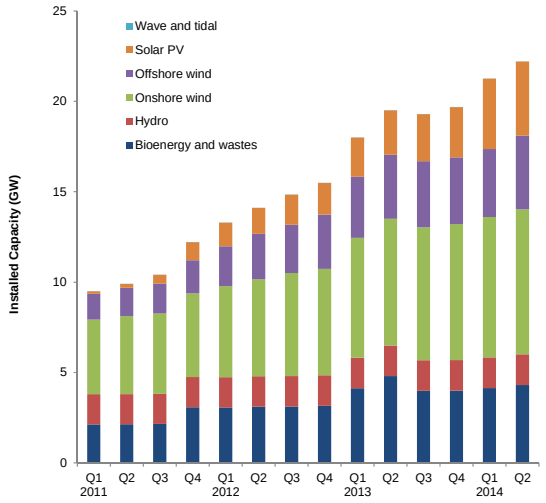
[1] Total electricity generation figures (all generating companies) can be found in table ET 5.1, at: www.gov.uk/government/publications/electricity-section-5-energy-trends

Chart 6.2 Renewable electricity generation



To note that the solar PV (and onshore wind) figures not only include installations confirmed on the FiTs scheme, but also any sub 50 kW installations commissioned, and registered on the Microgeneration Certification Scheme, that are awaiting confirmation on FiTs (as well as any capacity not supported by FiTs).

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



In 2014 Q2, hydro generation rose by 15.8 per cent on a year earlier, from 1.0 TWh to 1.1 TWh, with rainfall up 12.3 per cent on a year earlier.

Electricity generated from onshore wind fell by 16.9 per cent between 2013 Q2 and 2014 Q2, from 3.9 TWh to 3.2 TWh, while generation from offshore wind fell by 22 per cent on a year earlier, from 2.6 TWh to 2.0 TWh, with the impact of low wind speeds exceeding that of increased capacity.

Average wind speeds in 2014 Q2, at 7.2 knots, were the lowest for that quarter since 2010, and 1.6 knots lower than a year earlier. With wind speeds of 6.1 knots (1.5 knots lower than a year earlier), June was the calmest month in the last 14 years, while wind speeds in both April and May were 1.7 knots lower than a year earlier.[2]

Generation from bioenergy [3] in 2014 Q2 increased by 8.8 per cent on a year earlier, from 5.2 TWh to, a record, 5.6 TWh. The main contributor to this was plant biomass, which increased from 2.8 TWh to 3.1 TWh. Increased generation at Drax (as a result of the conversion of a second unit) and Ironbridge more than offset a reduction from the closure of Tilbury in August 2013. As a result of these conversions, generation from co-firing remained at less than 0.1 TWh.

In 2014 Q2, bioenergy had a 42 per cent share of generation, with 24 per cent from onshore wind, 15.3 per cent from offshore wind, and 9.4 per cent from solar.

At the end of 2014 Q2, the UK's renewable electricity capacity totalled 22.2 GW, an increase of 4.5 per cent (0.9 GW) on that installed at the end of 2014 Q1, and 13.8 per cent (2.7 GW) on that installed a year earlier.

Of the 0.9 GW increase during 2014 Q2, 645 MW came from the conversion of the second Drax unit to dedicated biomass (enhanced co-firing initially), with 251 MW due to the opening, and expansion, of several new onshore wind farms, while 320 MW came from the continued expansion of the West of Duddon Sands and Gwynt-y-Mor offshore wind farms. This was offset, however, by a reduction of 540 MW in capacity at Ironbridge, mainly due to the closure of one of the two units following a fire in the previous quarter.

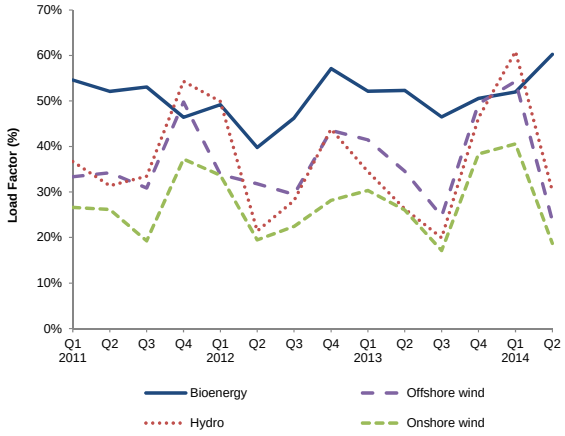
Solar photovoltaics (PV) capacity increased by 205 MW in 2014 Q2, with around 105 MW of this from Feed in Tariff eligible schemes, 95 MW from large-scale schemes, and 5 MW from small-scale Northern Irish schemes. At the end of 2014 Q2, solar PV, at 4.1 GW, was 18.5 per cent of all renewable capacity.

At the end of 2014 Q2, onshore wind had the largest share of capacity (36 per cent), followed by bioenergy (19.4 per cent). Offshore wind had an 18.4 per cent share.

[2] Statistics on weather (temperature, wind speeds, rainfall and sun levels) can be found in tables ET 7.1 – 7.4, at: www.gov.uk/government/publications/energy-trends-section-7-weather

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

Chart 6.4 Renewable electricity load factors



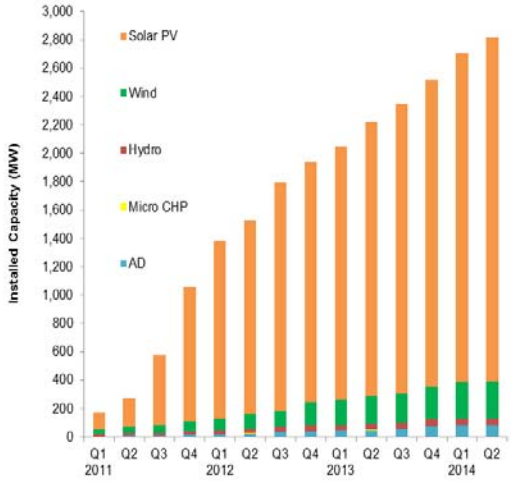
In 2014 Q2, onshore wind's load factor fell by 7.3 percentage points, from 26.0 per cent in 2013 Q2 to 18.7 per cent, the lowest since 2013 Q3. Meanwhile, offshore wind's load factor fell by 10.9 percentage points, from 34.6 per cent in 2013 Q2 to 23.7 per cent, the lowest since 2010 Q2. [4]

Compared with the record high levels [5] of 2014 Q1, onshore wind's load factor was down by around 22 percentage points, while offshore wind's load factor was around 31 percentage points lower, with wind speeds 3.7 knots lower.

Hydro's load factor in 2014 Q2 increased by 4.0 percentage points, from 26.3 per cent in 2013 Q2 to 30.2 per cent, due to higher rainfall in May and June. Compared with 2014 Q1, hydro's load factor in 2014 Q2 was less than half, falling from a record 60.9 per cent, with almost half as much rainfall.

For bioenergy, the load factor in 2014 Q2, at 60.2 per cent, was up 8.0 percentage points on a year earlier, and up 8.3 percentage points on 2014 Q1, with the converted power stations particularly achieving higher load factors than previously.

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



At the end of 2014 Q2, 2,816 MW of capacity was installed and eligible for the GB Feed in Tariff (FiT) scheme [6]. This was a 27 per cent increase on that at the end of 2013 Q2. [7]

In terms of number of installations, at the end of 2014 Q2, there were over 572,000 installed and eligible for the FiT scheme, a 24 per cent increase on the number installed a year earlier.

Solar photovoltaics (PVs) represent the majority of both installations and installed capacity on FiTs, with, respectively, 99 per cent and 86 per cent of the total. The majority of PV installations are sub-4 kW retrofitted schemes, 1,559 MW in 2014 Q2.

Renewable installations eligible for FiTs (all except MicroCHP) represented 13 per cent of all renewable installed capacity.

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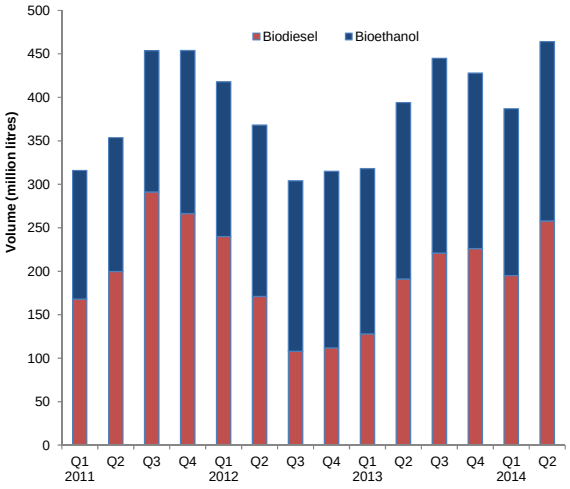
[4] Load Factors are calculated using an average of capacity at the start and end of the quarter. Therefore, they can be influenced by the time in the quarter when any new capacity came online.

[5] Quarterly load factors for renewables have been calculated since 2010 Q1.

[6] The data are taken from the MCS and ROOFIT database which is the first stage towards registering for the FIT scheme. Not all installations will eventually be confirmed onto the FIT scheme.

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

Chart 6.6 Liquid biofuels for transport consumption



In 2014 Q2, a record 464 million litres of liquid biofuels were consumed in transport, a rise of 17.8 per cent on the total in 2013 Q2 (394 million litres).

In 2014 Q2, biodiesel accounted for 3.7 per cent of diesel, and bioethanol 4.5 per cent of motor spirit. The combined contribution of the two fuels was 4.0 per cent, 0.6 percentage points higher than 2013 Q2's share.

Bioethanol consumption rose by 1.5 per cent, from 203 million litres to 206 million litres, while biodiesel consumption rose by 35 per cent, from 191 million litres in 2013 Q2 to 258 million litres in 2014 Q2.

In 2014 Q2, biodiesel contributed the largest share of biofuels consumption, for the third successive quarter (following six successive quarters of bioethanol having the majority share), with 55.6 per cent. Bioethanol represented 44.4 per cent of biofuels consumption.

Relevant tables

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Table 6.1. Renewable electricity capacity and generation

	2012	2013	*per cent change*	2012 2nd quarter	2012 3rd quarter	2012 4th quarter	2013 1st quarter	2013 2nd quarter	2013 3rd quarter	2013 4th quarter	2014 1st quarter	2014 2nd quarter p	*per cent change* [11]
Cumulative Installed Capacity [1]												**MW**	
Onshore Wind	5,899	7,513	*+27.4*	5,369	5,696	5,899	6,620	7,011	7,360	7,513	7,762r	8,013	*+14.3*
Offshore Wind	2,995	3,696	*+23.4*	2,516	2,682	2,995	3,381	3,544	3,657	3,696	3,757r	4,078	*+15.1*
Shoreline wave / tidal	7	7	*+7.5*	7	7	7	6	6	7	7	7	7	*+16.2*
Solar photovoltaics	1,747	2,780	*+59.1*	1,425	1,653	1,747	2,170	2,462	2,593	2,780	3,896r	4,101	*+66.6*
Small scale Hydro	216	222	*+2.8*	211	212	216	216	219	220	222	229r	229	*+4.8*
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	1,036	1,042	*+0.5*	1,034	1,035	1,036	1,041	1,042	1,042	1,042	1,037r	1,037	*-0.5*
Sewage sludge digestion	204	198	*-3.1*	203	204	204	196	197	198	198	200r	200	*+1.8*
Energy from waste	521	553	*+6.1*	516	516	521	546	553	553	553	611r	648	*+17.3*
Animal Biomass (non-AD) [2]	111	111	-	111	111	111	111	111	111	111	111	111	-
Anaerobic Digestion	118	150	*+26.5*	87	97	118	126	132	136	150	166r	166	*+25.9*
Plant Biomass [3]	1,166	1,949	*+67.1*	1,159	1,161	1,166	2,118	2,767	1,949	1,949	2,016r	2,151	*-22.3*
Total	15,491	19,690	*+27.1*	14,109	14,844	15,491	18,003	19,514	19,296	19,690	21,262r	22,211	*+13.8*
Co-firing [4]	203	35	*-82.7*	203	203	203	35	35	35	35	19r	19	*-44.7*
Generation [5]												**GWh**	
Onshore Wind [6]	12,111	16,992	*+40.3*	2,215	2,742	3,605	4,100	3,875	2,720	6,297	6,690r	3,221	*-16.9*
Offshore Wind [6, 7]	7,550	11,441	*+51.5*	1,637	1,691	2,728	2,855	2,614	1,963	4,010	4,374r	2,027	*-22.5*
Shoreline wave / tidal [6]	4	6	*+64.8*	1	1	1	2	2	1	1	1	1	*-65.0*
Solar photovoltaics [6]	1,351	2,036	*+50.7*	430	544	199	166	743	843	284	325r	1,244	*+67.4*
Hydro [6]	5,285	4,698	*-11.1*	786	1,045	1,631	1,256	968	744	1,730	2,230r	1,122	*+15.8*
Landfill gas [6]	5,154	5,169	*+0.3*	1,278	1,280	1,297	1,297	1,293	1,272	1,306	1,265r	1,282	*-0.8*
Sewage sludge digestion [6]	719	761	*+5.8*	181	173	178	180	202	184	196	190r	216	*+7.1*
Energy from waste [8]	2,034	1,987	*-2.3*	497	535	521	499	484	506	499	496r	544	*+12.4*
Co-firing with fossil fuels	1,783	309	*-82.7*	530	410	140	170	49	39	50	35r	49	-
Animal Biomass (non-AD) [2, 6]	643	628	*-2.3*	141	144	180	166	167	144	151	160r	162	*-3.1*
Anaerobic Digestion	499	707	*+41.6*	116	133	154	166	168	180	192	217r	227	*+35.5*
Plant Biomass [3, 6]	4,083	8,933	*(+)*	471	918	1,630	1,800	2,792	2,226	2,116	2,241r	3,129	*+12.1*
Total	41,214	53,667	*+30.2*	8,282	9,616	12,265	12,657	13,355	10,823	16,833	18,225r	13,224	*-1.0*
Non-biodegradable wastes [9]	1,170	1,144	*-2.2*	286	308	300	287	278	291	287	286r	313	*+12.4*
Load Factors [10]													
Onshore Wind	26.2%	28.9%		19.5%	22.4%	28.2%	30.3%	26.0%	17.1%	38.4%	40.6%	18.7%	
Offshore Wind	35.6%	39.0%		31.8%	29.5%	43.5%	41.4%	34.6%	24.7%	49.4%	54.3%	23.7%	
Hydro	35.8%	31.7%		21.4%	28.1%	43.8%	34.5%	26.3%	19.9%	46.3%	60.9%	30.2%	
Landfill gas	56.2%	56.8%		56.6%	56.0%	56.7%	57.8%	56.8%	55.3%	56.8%	56.4%	56.6%	
Sewage sludge digestion	40.7%	43.2%		40.8%	38.4%	39.5%	41.5%	47.1%	42.2%	44.7%	44.3%	49.5%	
Energy from waste	45.2%	42.3%		44.1%	47.0%	45.5%	43.3%	40.3%	41.4%	40.9%	39.5%	39.5%	
Animal Biomass (non-AD)	66.2%	64.9%		58.5%	59.1%	74.0%	69.5%	69.3%	59.1%	61.9%	66.9%	67.2%	
Anaerobic Digestion	60.2%	60.2%		67.5%	65.6%	64.9%	62.9%	59.5%	60.9%	60.8%	63.7%	62.7%	
Plant Biomass	40.2%	65.5%		18.8%	35.9%	63.5%	50.7%	52.3%	42.7%	49.2%	52.3%	68.8%	
Total (excluding co-firing and non-biodegradable wastes)	32.4%	34.6%		25.9%	28.8%	36.2%	34.5%	32.5%	25.2%	39.0%	41.1%	27.8%	

1. Cumulative capacity at the end of the quarter/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).
4. This is the amount of fossil fuelled capacity used for co-firing of renewables based on the proportion of generation accounted for by the renewable source over the course of the year.
5. 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.
6. 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

	2012	2013	*per cent change*	2012 2nd quarter	2012 3rd quarter	2012 4th quarter	2013 1st quarter	2013 2nd quarter	2013 3rd quarter	2013 4th quarter	2014 1st quarter	2014 2nd quarter p	*per cent change* [1]
Volume													**Million litres**
Bioethanol	774	819	*+5.8*	197	196	203	190	203	224	202	192	206	*1.5*
Biodiesel	631	766	*+21.4*	171	108	112	128	191	221	226	195	258	*35.1*
Total biofuels for transport	1,405	1,585	*+12.8*	368	304	315	318	394	445	428	387	464	*17.8*
Energy													**Thousand tonnes of oil equivalent**
Bioethanol	436	462	*+5.8*	111	110	114	107	114	126	114	108	116	*+1.5*
Biodiesel	518	629	*+21.4*	141	89	92	105	157	182	186	160	212	*+35.1*
Total biofuels for transport	955	1,091	*+14.3*	252	199	206	212	271	308	300	268	328	*+20.9*
Shares of road fuels													
Bioethanol as per cent of Motor Spirit	4.1%	4.5%		4.1%	4.2%	4.3%	4.4%	4.3%	4.9%	4.5%	4.5%	4.5%	
Biodiesel as per cent of DERV	2.4%	2.8%		2.6%	1.6%	1.6%	2.1%	2.8%	3.2%	3.2%	3.0%	3.7%	
Total biofuels as per cent of road fuels	3.1%	3.5%		3.2%	2.7%	2.7%	3.0%	3.4%	3.9%	3.7%	3.6%	4.0%	

1. Percentage change between the most recent quarter and the same quarter a year earlier.
Source: HM Revenue and Customs Hydrocarbon Oils Bulletin, available a
www.uktradeinfo.com/Statistics/Pages/TaxAndDutybulletins.aspx

Renewable electricity in Scotland, Wales, Northern Ireland and the regions of England in 2013

Background

This article updates the one published in the September 2013 edition of *Energy Trends* on the amount of electricity from renewable sources disaggregated below UK level. As before, it has been necessary to combine some renewable sources into categories so that information about individual sites provided to Ricardo-AEA and the Department of Energy and Climate Change (DECC) in confidence is not disclosed.

Figures in Tables 2 and 3 correspond to the totals shown in Table 6.4 of the Digest of United Kingdom Energy Statistics 2014 (DUKES). Thus the data in this article cover all renewables, including renewables that are not eligible for the Renewables Obligation (RO) or Feed in Tariff (FIT), such as large-scale hydro commissioned before 1 April 2002. Offshore wind has been allocated to the region to which its output is connected[1]. Wave and Tidal has been separated out for the first time this year from wind.

What the figures show

Table 1 and Chart 1 show that there were 4,031 non-PV sites in England generating electricity from renewable sources, with 2,843 non-PV sites in Scotland, 568 in Wales and 629 in Northern Ireland. In addition there were 390,650 PV sites in England, 33,065 in Wales and 31,427 in Scotland. PV uptake for Northern Ireland (5,046) is based on data from the Microgeneration Certification Scheme and the Renewables Obligation. No geographical information was available for a further 48,128 PV schemes, 291 wind schemes and four other bioenergy schemes.

In capacity terms, including PV, England had 69 per cent more renewable electricity capacity than Scotland (Table 2 and Chart 3). This is because of England's considerable bioenergy resource (93 per cent of the UK's total bioenergy capacity). Hydro accounted for 26 per cent of generation from renewables in Scotland (Table 3 and Chart 7). However, because bioenergy based capacity was used more intensively than hydro (which is subject to seasonal precipitation variation in the catchment areas), generation from renewable sources in England during 2013 was 91 per cent higher than generation in Scotland.

[1] With the exception of Robin Rigg which comes ashore at Seaton, Cumbria but whose generation is associated with Scotland

Table 1: Number of sites generating electricity from renewable sources, 2013[1]

	Hydro	Wind[2]	Wave and tidal	Landfill gas	Sewage gas	Other bioenergy[3]	Total excluding PV	Solar PV	**Total**
England	**228**	**3,032**	**1**	**358**	**160**	**252**	**4,031**	**390,650**	**394,681**
East Midlands	22	305	-	39	13	27	406	45,769	46,175
East	5	760	-	69	13	31	878	50,618	51,496
North East	9	205	-	20	8	11	253	21,194	21,447
North West	43	353	-	54	24	42	516	41,279	41,795
London	-	27	-	1	4	12	44	12,759	12,803
South East	15	101	-	69	34	29	248	64,695	64,943
South West	89	562	-	39	20	33	743	74,604	75,347
West Midlands	16	136	-	29	20	37	238	36,191	36,429
Yorkshire and the Humber	29	583	1	38	24	30	705	43,541	44,246
Wales	**129**	**388**	**-**	**24**	**16**	**11**	**568**	**33,065**	**33,633**
Scotland	**358**	**2,398**	**8**	**45**	**7**	**27**	**2,843**	**31,427**	**34,270**
Northern Ireland	**55**	**541**	**1**	**8**	**2**	**22**	**629**	**5,046**	**5,675**
Other Sites	-	291	-	-	-	4	295	48,128	48,423
UK Total	**770**	**6,650**	**10**	**435**	**185**	**312**	**8,366**	**508,316**	**516,682**

Components may not add exactly to totals because of rounding.

For notes to Tables 1 and 2 see Table 3 below.

Table 2: Installed capacity of sites generating electricity from renewable sources, 2013[1]

	Hydro	Wind[2]	Wave and tidal	Landfill gas	Sewage gas	Other bioenergy	Solar PV	**MW Total**
England	**31.7**	**5,154.6**	**0.1**	**869.5**	**179.1**	**2,565.9**	**2,336.7**	**11,137.7**
East Midlands	4.6	678.0	-	65.4	17.3	57.1	266.3	**1,088.6**
East	0.1	1,361.9	-	201.6	26.3	125.6	338.9	**2,054.3**
North East	7.6	403.1	-	43.9	11.6	118.6	69.4	**654.1**
North West	6.3	981.8	-	149.6	25.5	99.9	152.6	**1,415.7**
London	-	4.4	-	0.3	23.4	169.5	49.1	**246.8**
South East	0.7	1,104.4	-	171.7	28.5	230.2	423.7	**1,959.2**
South West	9.5	194.4	-	96.1	14.0	33.3	698.2	**1,045.5**
West Midlands	0.8	3.5	-	60.3	23.1	1,011.4	165.8	**1,264.9**
Yorkshire and the Humber	2.3	423.2	0.1	80.5	9.5	720.3	172.7	**1,408.5**
Wales	**151.3**	**771.0**	**-**	**45.5**	**13.1**	**38.4**	**143.6**	**1,162.9**
Scotland	**1,501.0**	**4,701.2**	**5.9**	**114.3**	**5.6**	**143.1**	**119.1**	**6,590.1**
Northern Ireland	**8.5**	**579.3**	**1.2**	**12.4**	**0.2**	**14.5**	**28.2**	**644.3**
Other Sites	0.0	2.9	0.0	0.0	0.0	0.0	152.3	**155.2**
Total	**1,692.6**	**11,209.0**	**7.2**	**1,041.7**	**198.0**	**2,761.9**	**2,779.8**	**19,690.2**
UK Total	**1,692.6**	**11,209.0**	**7.2**	**1,041.7**	**198.0**	**2,761.9**	**2,779.8**	**19,690.2**
Co-firing[4]						35.2		**35.2**

Components may not add exactly to totals because of rounding.

Table 3: Generation of electricity from renewable sources, 2013[1]

	Hydro	Wind[2]	Wave and tidal	Landfill gas	Sewage gas	Other bioenergy[5]	Solar PV	GWh Total
England	**83.5**	**14,233.9**	**0.2**	**4,344.8**	**685.3**	**11,349.1**	**1,720.6**	**32,417.4**
East Midlands	12.4	1,551.4	-	319.5	70.8	289.0	191.9	**2,435.0**
East	0.2	4,126.6	-	1,031.9	56.1	3,878.1	225.8	**9,318.9**
North East	24.5	785.1	-	172.5	52.2	418.2	50.1	**1,502.5**
North West	15.1	3,201.7	-	658.3	115.5	317.5	118.1	**4,426.2**
London	-	11.5	-	2.3	60.2	706.3	39.7	**820.1**
South East	1.4	3,335.7	-	965.2	115.8	813.7	317.9	**5,549.7**
South West	20.9	405.0	-	465.8	64.3	151.9	521.2	**1,629.0**
West Midlands	2.5	7.2	-	331.3	118.4	1,125.6	124.5	**1,709.6**
Yorkshire and the Humber	6.4	809.7	0.2	397.9	31.9	3,648.8	131.4	**5,026.4**
Wales	**227.5**	**1,702.0**	**-**	**200.5**	**45.1**	**373.4**	**115.3**	**2,663.8**
Scotland	**4,366.0**	**11,145.3**	**2.5**	**562.8**	**30.2**	**768.2**	**92.4**	**16,967.4**
Northern Ireland	**21.1**	**1,345.2**	**3.1**	**60.5**	**0.7**	**73.3**	**26.9**	**1,530.7**
Other Sites	-	7.2	-	-	-	-	80.5	**87.7**
Total	**4,698.1**	**28,433.6**	**5.9**	**5,168.5**	**761.2**	**12,564.1**	**2,035.6**	**53,666.9**
UK Total	**4,698.1**	**28,433.6**	**5.9**	**5,168.5**	**761.2**	**12,564.1**	**2,035.6**	**53,666.9**

Notes to Tables 1 to 3
- Nil or less than half the final digit shown.
1 At 31 December 2013.
2 Offshore wind is allocated to regions/countries according to where the cabling comes ashore. Wave and Tidal has been separated out from wind for the first time this year.
3 Eight of these sites are sites that co-fire renewables with fossil fuels (see also note 4, below).
4 This is the proportion of non-fossil fuelled capacity used for co-firing of renewables based on the proportion of generation accounted for by the renewable source. This estimate has not been disaggregated into region values because to do so could disclose data that relate to individual companies.
5 Includes bioenergy sources co-fired with fossil fuels.
6 Generation data for wave and tidal schemes are from publically available monthly Renewables Obligation Certificates data (or DECC estimates where this is not available); therefore, where there are regions with less than three sites, no company data are being disclosed.

In England the number of sites (excluding PV) in each region varies from 44 in London to 878 in the East of England (Table 1 and Chart 2). The highest capacity in England (including PV) is in the East of England, followed by the South East, the North West followed closely by Yorkshire and the Humber (Table 2 and Chart 4). In the East of England, 66 per cent of capacity is from wind (most from offshore wind farms), 10 per cent is from landfill and 16 per cent from PV. In the South East, 56 per cent of capacity is from wind and 12 per cent from other biomass and 22 per cent from PV. In the North West, 69 per cent of capacity is from wind and 11 per cent from landfill gas and 11 per cent from PV. In Yorkshire and the Humber, 30 per cent of capacity is from wind, 51 per cent from other biomass and 12 per cent from PV. The East of England has 19 per cent of the UK's landfill gas capacity, 13 per cent of the UK's sewage gas capacity and 12 per cent of the PV. The South East (with 16 per cent of the UK's landfill gas capacity), and the North West (with 14 per cent of the UK's landfill gas capacity), are the other English regions with notably large shares. The South West has 25 per cent of UK PV capacity, and is the only region where PV has the largest share of its capacity, at 67 per cent. The East of England, North West and the South East regions together accounted for 51 per cent of UK generation from landfill gas.

Chart 1: Number of sites by country[1]

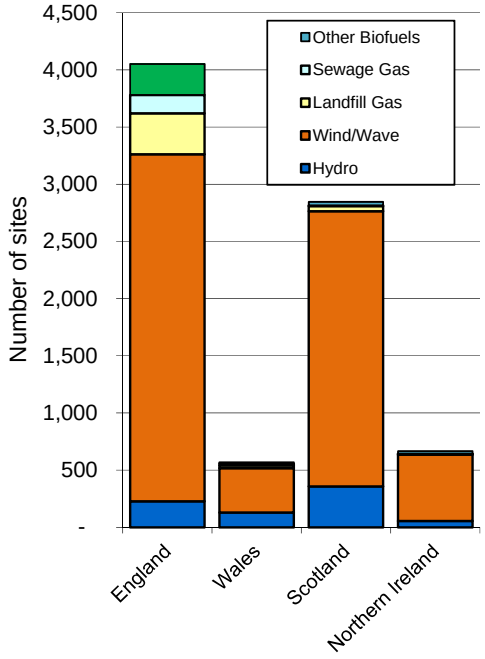
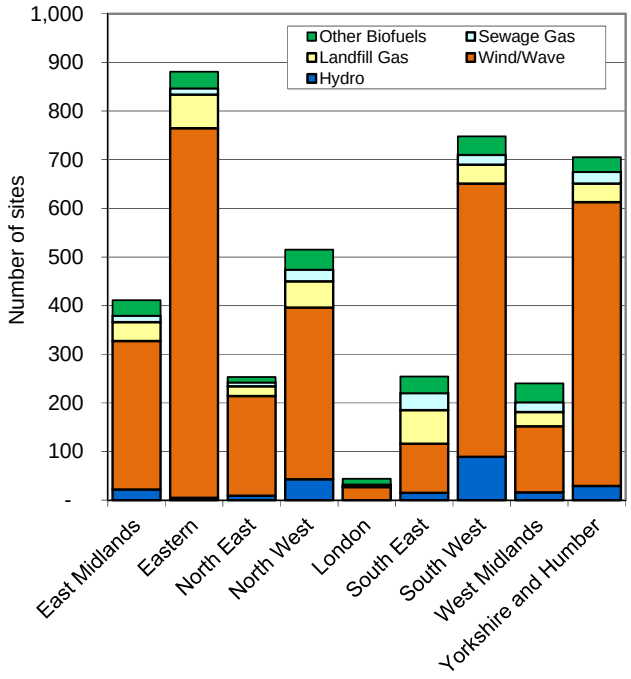


Chart 2: Number of sites by English region[1]



1. Excludes the large numbers of small Solar PV schemes as the inclusion of these would swamp all other technologies and misrepresent its overall contribution to UK renewables

In 2013, Scotland had 42 per cent of the UK's wind capacity and produced 39 per cent of the output (Tables 2 and 3; Charts 5 and 9). The East has the next largest wind share (12 per cent of capacity and 15 per cent of generation) followed by the South East (10 per cent of the capacity and 12 per cent of the output), the North West (9 per cent of capacity and 11 per cent of generation) and Wales (7 per cent of capacity and 6 per cent of generation (Tables 2 and 3; Charts 3 to 10)[2]. England as a whole accounts for 46 per cent of wind capacity and 50 per cent of generation.

[2] A map of wind farm installed capacities in the UK at the end of 2013 was published in the renewables chapter of the 2014 edition of the Digest of UK Energy Statistics, available at: www.gov.uk/government/statistics/renewable-sources-of-energy-chapter-6-digest-of-united-kingdom-energy-statistics-dukes

Chart 3: Renewable capacity by country

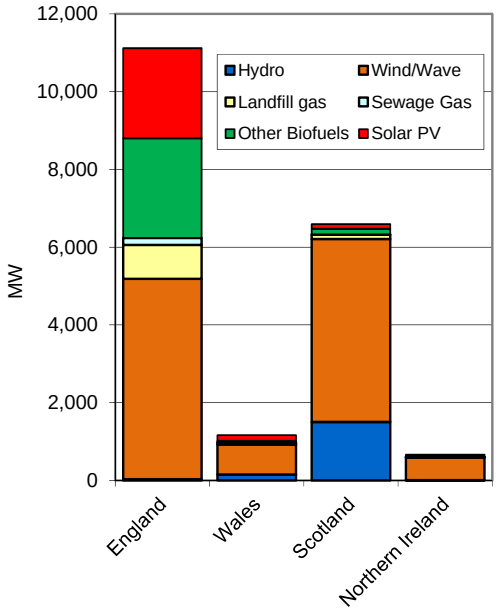


Chart 4: Renewable capacity by English region

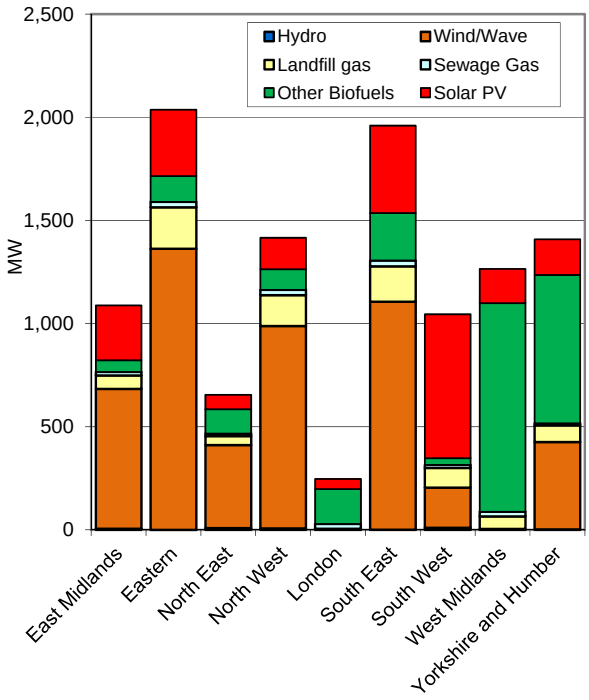


Chart 5: Wind capacity by country

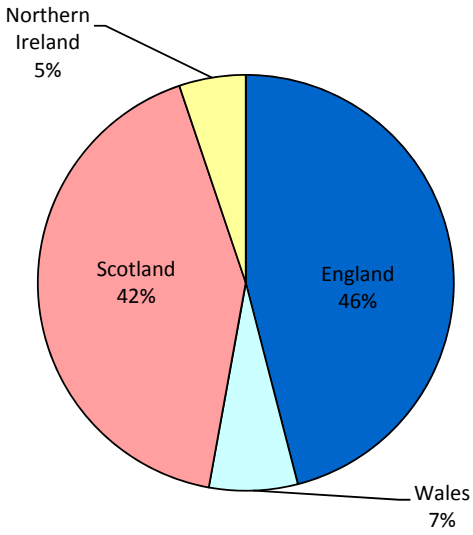


Chart 6: Wind capacity by English region

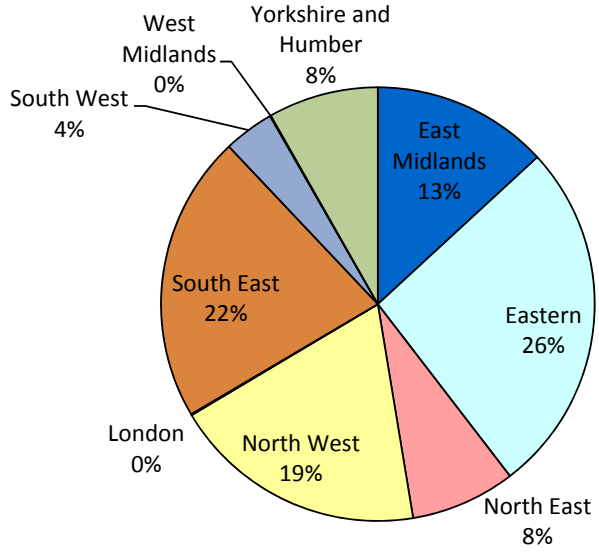


Chart 7: Renewable generation by country

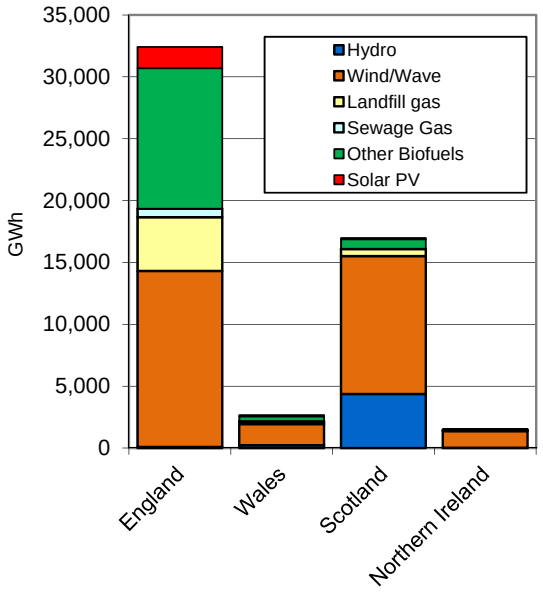


Chart 8: Renewable generation by English region

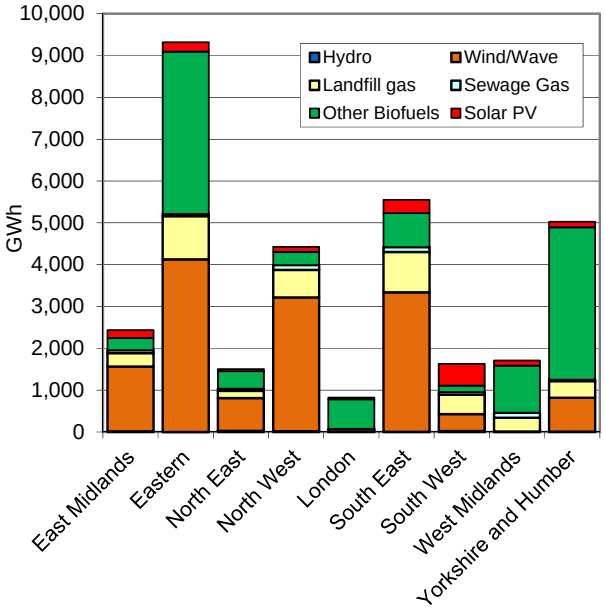


Chart 9: Wind generation by country

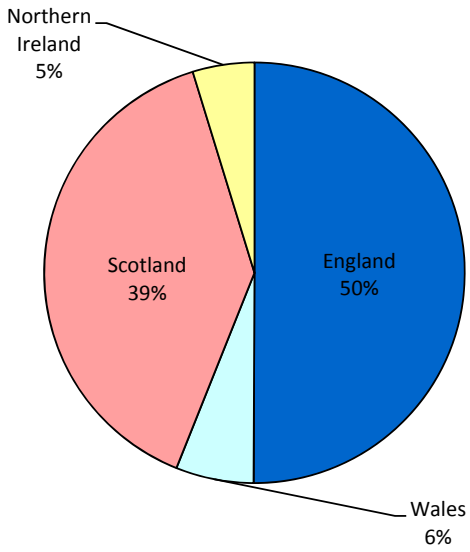
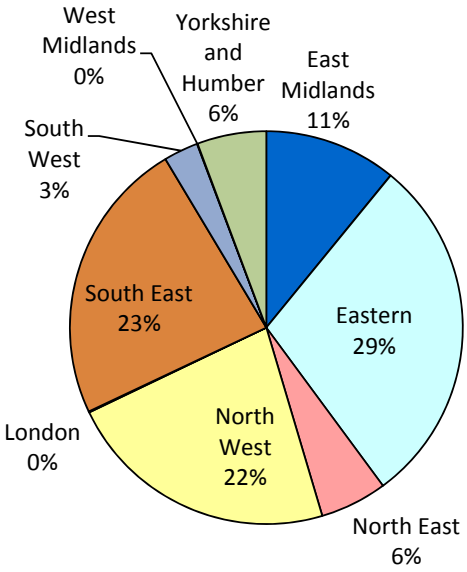


Chart 10: Wind generation by English region



Ninety per cent of the generation from sewage and 90 per cent of the generation from other bioenergy (including that used for co-firing) took place in England. The West Midlands (16 per cent), South East (15 per cent) and North West (15 per cent each) and East Midlands (9 per cent) were the major sewage gas areas. In the other bioenergy category, East of England (31 per cent) had the largest share, closely followed by Yorkshire and the Humber (29 per cent) (mostly from the biomass converted unit, as well as some co-firing at other units, at Drax power station), the West Midlands (9 per cent), then followed jointly by Scotland, London and the South East (6 per cent each).

Excluding bioenergy sources used for co-firing (which cannot be allocated to regions – see note 4

to Table 2), the West Midlands has the largest capacity to generate from bioenergy (37 per cent of the UK total, and mostly from the 900 MW Ironbridge biomass conversion, followed by Yorkshire and the Humber (26 per cent, mostly from the 645 MW converted unit at Drax), and the South East (8 per cent).

In terms of change to total renewables generating capacity, West Midlands (+954 MW), Yorkshire and the Humber (+909 MW), the Scotland (+808 MW), the South East (+482 MW), East Midlands (+429 MW), the North East (+355 MW) have all shown considerable growth this year. However, the East of England shows a net decrease of 529 MW, as a result of the closure of Tilbury Power Station in August 2013.

The growth in overall renewables capacity has primarily come from: biomass in the West Midlands (+905 MW, mostly from the Ironbridge conversion); biomass and wind in Yorkshire and the Humber (+648 and +217 MW, respectively, including the Drax unit conversion); wind in Scotland (+773 MW); wind and solar in the South East (+322 MW and +157 MW, respectively, with over 300 MW from the completion of London Array Phase 1 offshore wind farm); wind and solar in the East Midlands (+322 MW and +102 MW, respectively, mostly from the completion of the Lincs offshore wind farm); and solar in the South West (+308 MW).

Comparison with economic activity

Economic activity in each country or region can be measured in terms of Gross Value Added (GVA). Table 4 shows that Scotland continues to show the largest generating capacity from renewables in terms of capacity per unit of GVA and generation per unit of GVA. Among the English regions, the East of England is highest in generating capacity per unit of GVA terms followed by the North East then very closely by the Yorkshire and the Humber. In terms of Generation/GVA, East of England is the highest followed by Yorkshire and the Humber and the North East.

Table 4: Density of renewables generation in different areas

	Electrical generating capacity from renewable sources kW/GVA (£million)[1,2]	Electricity generated from renewable sources kWh/GVA (£million)[1]
England	**9.49**	**27,624**
East Midlands	13.66	30,553
East	17.69	80,249
North East	15.62	35,881
North West	10.84	33,886
London	0.80	2,651
South East	9.67	27,393
South West	10.29	16,038
West Midlands	12.86	17,383
Yorkshire and the Humber	15.09	53,851
Wales	**24.56**	**56,265**
Scotland	**61.97**	**159,555**
Northern Ireland	**21.91**	**52,046**
UK average	**14.12**	**38,739**

1. GVA is Gross Value Added as published as Total GVA in Regional Gross Value Added (Income Approach), December 2013 at: www.ons.gov.uk/ons/dcp171778_345191.pdf

2. Excludes capacity attributable to co-firing of bioenergy which has not been allocated to regions (see footnote 4 to Table 2).

Comparison with earlier years

DECC and Ricardo-AEA have compiled, for each year since 2003, data on the number, installed capacity and generation comparable to that shown in Tables 1 to 3. These data are available for download as Excel spreadsheets at: www.gov.uk/government/collections/renewables-statistics. The *Energy Trends* articles in previous editions were snapshots of the position as seen at the time and so the headline data in those articles do not constitute a time series. This is because in each year there have been revisions due to an improved statistical base as well as later information on generation and capacity.

Between 2003 and 2013 there was a 407 per cent increase in generation from renewables in the UK, but faster rates of growth were recorded in Northern Ireland (1,368 per cent), Yorkshire and The Humber (672 per cent), South East (600 per cent), Eastern (511 per cent), North East (483 per cent), East Midlands (463 per cent), North West (416 per cent) and Scotland (356 per cent) (see charts 11 and 12). For the individual technology groups some of the very large percentage increases are because in 2003 there was very little use of some of the technologies in various regions.

Chart 11: Trends in generation from renewables by country

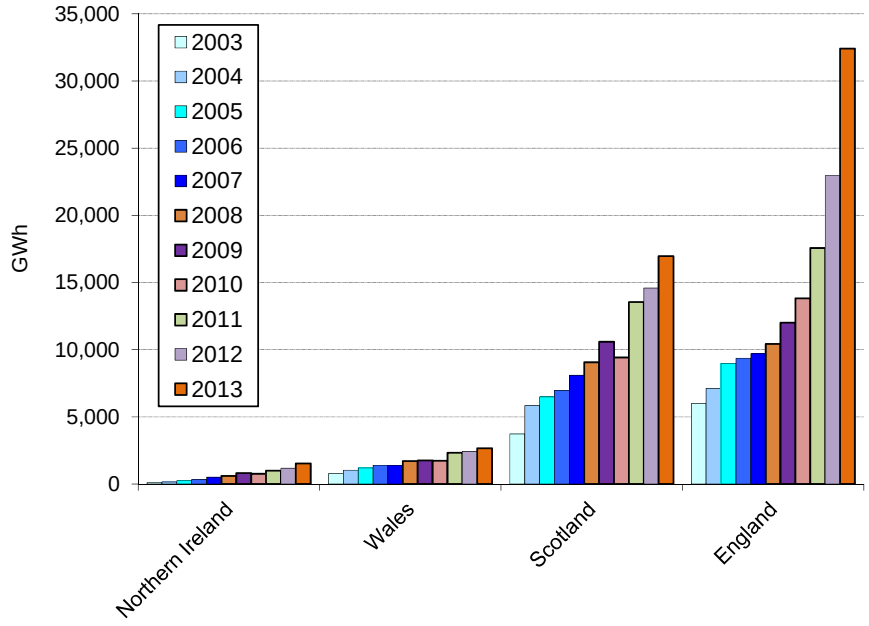
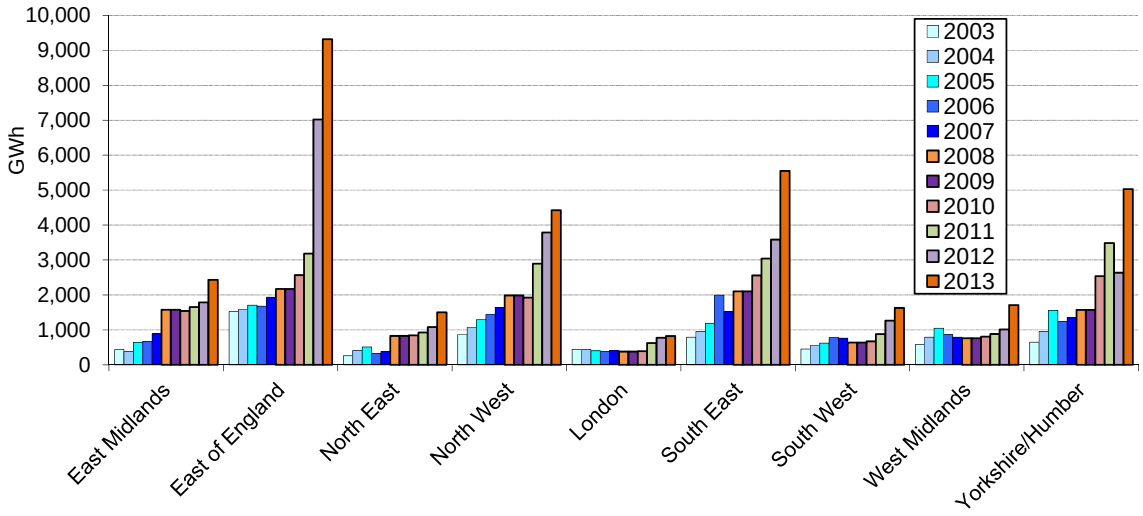


Chart 12: Trends in generation from renewables by English region



Load factors

Load factors for the various technologies are shown in Table 5 from data used in Tables 2 and 3 of this article. These are presented on an unchanged configuration basis.

Previously, load factors were presented in terms of installed capacity and express the average hourly quantity of electricity generated as a percentage of the average capacity at the beginning and end of the year. These can still be found in the load factor time-series spreadsheets, available at: www.gov.uk/government/collections/renewables-statistics. However, this method does not take into account the impact of new schemes being constructed but not operating fully in the year, so the unchanged configuration basis is used in this article.

The term "load factor on an unchanged configuration basis" describes the amount of electricity generated from schemes that have been operating throughout the whole of the calendar year with the same installed capacity configuration. The formula for calculating this is:

$$\frac{\text{Electricity generated during the year (MWh)}}{\text{Installed capacity of schemes operating throughout the year with an unchanged capacity configuration (MW) x hours in year}}$$

In view of the interest shown nationally in this measure, this is now calculated for several renewable technologies. These data are only reported where the region contains three or more operational schemes. The England figure includes data from all English schemes regardless of how many were operational within each region of England.

These data show that, for onshore wind, the unchanged configuration load factors range from 24.7 per cent in Wales, to 31.3 per cent in London, with Scotland occupying the median position at 28.2 per cent[3]. For offshore wind, load factors varied from 11.7 per cent (largely due to problems at Blyth) in the North East to 41.1 per cent in the North West.

[3] It is recognised that one of the shortcomings of the differences in the reporting periods for the data contained in the Digest of UK Energy Statistics and in this article (end of calendar year) and Ofgem's finalised ROCs data (end of financial year), is that the finalised Ofgem figures are not available for use during the compilation process for the former analysis. The Digest and this article utilise ROCs data as reported in April 2014, when 2013 data were still provisional. In particular this can have an impact on the schemes included in the unchanged configuration definition as new data could include or remove particular schemes. This should be kept in mind if users wish to reanalyse these results.

Table 5: Regional load factors on an unchanged configuration basis, 2013

	Wind Offshore	Wind Onshore	Landfill gas	Sewage gas	Other bioenergy (ex cofiring, sewage, LFG)	Hydro (large scale)	Hydro (small scale)	Hydro
England	**37.8%**	**27.6%**	**57.6%**	**50.7%**	**64.0%**	**27.2%**	**38.5%**	**33.8%**
East Midlands	34.0%	26.9%	55.1%	52.6%	57.8%		39.9%	39.9%
East of England	38.1%	26.0%	60.0%	39.7%	72.6%			
North East	11.7%	27.2%	45.5%	51.8%	64.8%	27.2%	74.1%	34.0%
North West	41.1%	28.7%	50.1%	56.0%	31.7%		35.8%	35.8%
London		31.3%	81.0%	32.6%	71.2%			
South East	33.1%	28.4%	65.1%	51.9%	58.0%			
South West		27.1%	56.2%	42.3%	75.5%		27.4%	27.4%
West Midlands			64.2%	63.2%	65.0%			
Yorkshire and the Humber		28.3%	53.8%	42.0%	67.7%		48.1%	48.1%
Wales	**35.9%**	**24.7%**	**50.2%**	**39.1%**	**91.5%**	**15.1%**	**25.9%**	**16.2%**
Scotland	**34.8%**	**28.2%**	**59.1%**	**70.8%**	**68.2%**	**32.6%**	**36.0%**	**32.8%**
Northern Ireland		**29.6%**	**54.3%**		**66.3%**		**40.1%**	**40.1%**
UK AVERAGE	**37.5%**	**27.9%**	**57.3%**	**50.2%**	**65.1%**	**31.3%**	**35.2%**	**31.6%**
MEDIAN	34.8%	28.2%	55.6%	51.8%	67.0%	27.2%	37.9%	34.9%

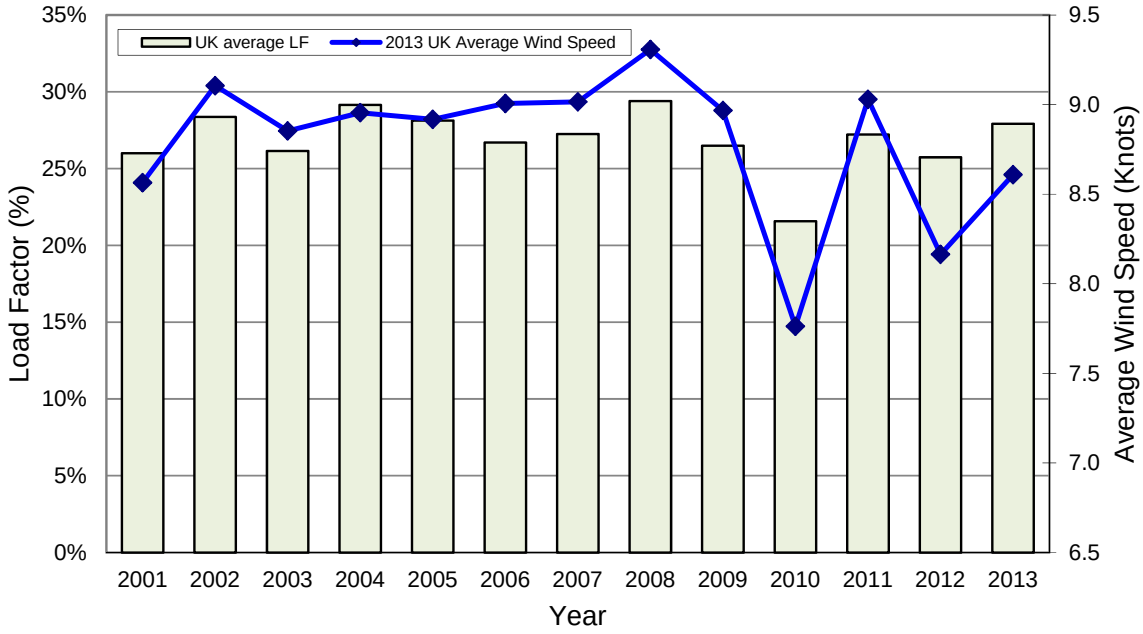
The load factors for hydro range from 16.2 per cent in Wales to 48.1 per cent in Yorkshire and the Humber, with UK average (mean) and median values of 31.6 and 34.9 per cent, respectively. For landfill gas, the load factors vary from 45.5 per cent in the North East to 81.0 per cent in London, with UK mean and median values of 57.3 and 55.6 per cent, respectively.

Chart 13 also shows the annual variation in load factor and wind speed. This uses a wind speed index[4] that provides an indication of the mean wind speed relative to that of the long-term average across the UK.

Over the 13-year period from 2001 to 2013, 2008 was the windiest year, with 2010 being the least windy year. Average wind speeds increased in 2013, making it the fourth windiest year in the period, and the windiest year since 2008.

[4] Based on data provided by the Meteorological Office. Regional wind speed data are aggregated according to wind electricity generating capacity. Further information on the methodology used is given in Energy Trends Special feature article, March 2006, page 28: www.gov.uk/government/uploads/system/uploads/attachment_data/file/338330/et7_2.xls

Chart 13: Annual variation in load factor on an unchanged configuration basis and wind speed



Further information

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Combined Heat and Power in Scotland, Wales, Northern Ireland and the regions of England in 2013

Background

Combined Heat and Power (CHP) is the simultaneous generation of usable heat and power (usually electricity) in a single process. CHP data for the UK as a whole are updated annually and published in the Digest of United Kingdom Energy Statistics (DUKES), the latest edition of which was published in July 2014. This article updates statistics published in the September 2013 edition of Energy Trends and provides a breakdown of total UK CHP data for the Devolved Administrations and English regions in 2013[1].

The data presented originates from a CHP database maintained by Ricardo-AEA on behalf of DECC. Data relating to the overwhelming majority of CHP electrical capacity (about 99 per cent of total capacity) is received annually from the reliable sources of the Combined Heat and Power Quality Assurance (CHPQA) programme, the Iron and Steel Statistics Bureau (ISSB) and from Ofgem's Renewable Obligations Certificates (ROCs) returns. Another source of data is the sales databases of the Combined Heat and Power association (CHPA). Data from CHP schemes not covered by the above sources are extrapolated from historic data. There is an ongoing data proving exercise in respect of these schemes.

Between 2012 and 2013 there was a net increase of 59 in the number of CHP schemes in the database (68 new schemes and the removal of 9 schemes), but a net decrease of 5 MWe in capacity. Good Quality CHP[2] capacity in the UK fell from 6,175 MWe (revised 2012 figure) to 6,170 MWe in 2013.

Regional Trends[3]

Tables 1 and 1B show a comparison of the number of schemes, electrical capacity, electricity generated and heat generated in the Devolved Administrations and English regions for the period 2011 to 2013. During this time, the total number of schemes increased from 1,791 to 2,014, while capacity increased from 5,969 MWe to 6,170 MWe. The number of schemes increased in all regions over the period 2011 to 2013. Over this period, the electrical capacity increased in all regions except in the Eastern, East Midlands and Wales regions. There was a significant decrease in the capacity between 2012 and 2013 in the East Midlands region due largely to the closure of one scheme serving the Chemicals sector.

[1] Similar articles on CHP have appeared in previous Energy Trends publications from 2001 to 2013. The figures within any one article are a snapshot of the position as seen at the time and therefore figures between articles do not constitute a time series.

[2] Good Quality CHP denotes schemes that have been certified as being highly efficient through the UK's CHP Quality Assurance (CHPQA) programme.

[3] Note: The figures for previous years are revised on an annual basis to account for late information submitted after the publication date of the article. This is to ensure that the true trends are captured in the data. The figures herein therefore supersede the previous articles published.

Table 1: Number and electrical capacity of CHP schemes, 2011 to 2013

	Number of Schemes			Electrical Capacity (MWe)		
	2011	**2012**	**2013**	**2011**	**2012**	**2013**
England	**1,513**	**1,658**	**1,699**	**5,206**	**5,405**	**5,392**
East Midlands	97	102	104	211	209	130
Eastern	153	158	165	296	299	290
London	213	273	275	149	172	180
North East	97	108	109	828	852	843
North West	251	266	271	743	787	839
South East	268	283	295	852	940	963
South West	116	129	135	73	82	83
West Midlands	154	163	166	98	100	102
Yorkshire/Humberside	164	176	179	1,957	1,965	1,961
Scotland	**113**	**119**	**127**	**494**	**496**	**510**
Wales	**108**	**117**	**121**	**216**	**219**	**210**
Northern Ireland	**57**	**61**	**67**	**53**	**55**	**59**
UK Total	**1,791**	**1,955**	**2,014**	**5,969**	**6,175**	**6,170**

Table 1B: Electrical and heat generated, 2011 to 2013

	Electricity Generated (GWh)			Heat Generated (GWh)		
	2011	**2012**	**2013**	**2011**	**2012**	**2013**
England	**18,995**	**19,584**	**17,532**	**38,206**	**39,023**	**37,940**
East Midlands	982	946	546	2,030	1,949	1,296
Eastern	1,254	1,222	1,226	1,852	1,848	1,958
London	438	476	496	1,080	1,184	1,195
North East	2,208	2,450	1,889	6,268	7,130	6,590
North West	3,151	3,440	3,734	9,584	9,671	10,101
South East	3,821	4,007	3,783	8,175	7,711	7,373
South West	310	358	363	596	620	633
West Midlands	389	403	417	706	714	720
Yorkshire/Humberside	6,442	6,283	5,078	7,916	8,197	8,075
Scotland	**2,653**	**2,274**	**2,338**	**6,649**	**6,000**	**5,713**
Wales	**945**	**873**	**812**	**2,876**	**2,720**	**2,544**
Northern Ireland	**174**	**220**	**210**	**453**	**500**	**503**
UK Total	**22,767**	**22,950**	**20,891**	**48,184**	**48,244**	**46,701**

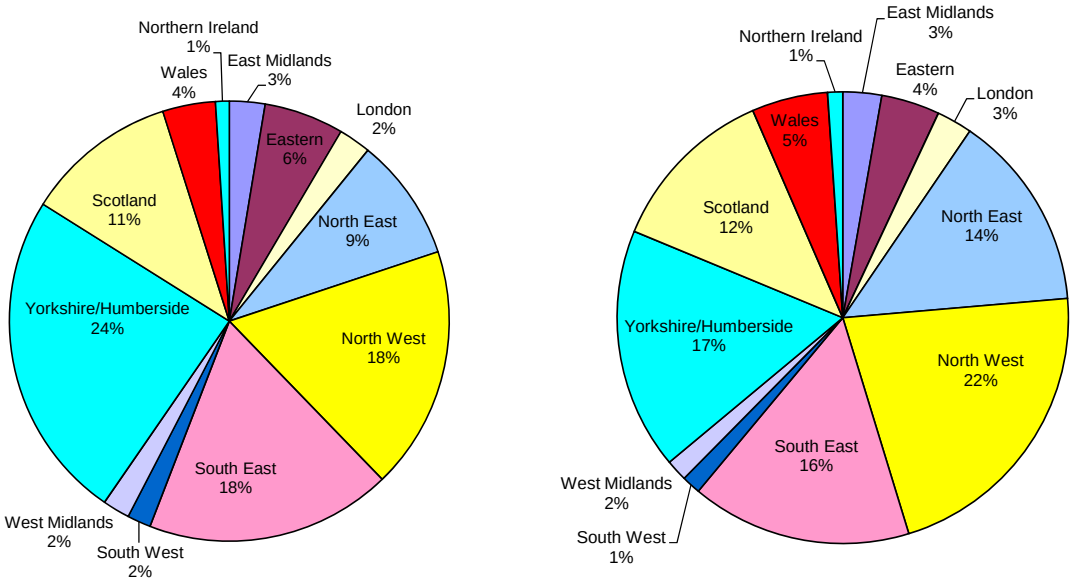
The region with the highest proportion of the UK's electrical capacity was the Yorkshire and Humberside region with a 39 per cent share, but only 9 per cent of the total number of schemes, due to the large capacity schemes in this region.

Chart 1 shows the distribution of electricity and heat generation from CHP in 2013 across the English regions and the Devolved Administrations. The largest contribution to electricity generation comes from the Yorkshire and the Humber region (24 per cent), followed by the South East (18 per cent), the North West (18 per cent), Scotland (11 per cent) and the North East (9 per cent). With the exception of Scotland and the North East, this ranking is the same as in 2012. However, there has been noticeable growth in electricity generation in the North West region between 2011 and 2013. This is substantially due to new capacity in the Paper sector in this region. In the

Yorkshire/Humber and North East regions, against a background of more of less steady generating capacity, there have been appreciable falls in electricity generated between 2012 and 2013. These falls reflect lower generation in the Oil Refineries and Oil and Gas terminals sector in the Yorkshire/Humber region and the in the Chemicals sector in the North East Region.

The region with the greatest share of heat generation in 2013 was the North West (22 per cent), followed by Yorkshire and Humberside (17 per cent.) the South East (16 per cent) and then the North East (14 per cent).

Chart 1: CHP generation by area in 2013



By Electricity Generation **By Heat Generation**

Table 2 shows an overview of CHP plant data broken down between the English regions and Devolved Administrations. CHP capacity utilisation can be expressed by the Load Factor (LF), the actual generation of electricity as a proportion of the theoretical maximum power that can be generated for a given total installed capacity (TPC). The power output that is actually generated is called the total power output (TPO). For 2013, the TPC was 8,977 MWe and the TPO was 41,439 GWh, giving a LF of 53 per cent, consistent with 2012 figures.

Higher LF values tend to be found in industrial uses where the demand for heat extends over a greater proportion of the year than for space heating applications (where the heat demanded from the CHP is mostly confined to the heating season).

Table 2: Overview of CHP schemes in 2013

	Number of Schemes	Electrical Capacity (QPC)* MWe	Electrical Capacity (TPC) MWe	Heat Capacity MWth	Fuel Used* GWh	Electricity Generated (QPO)* GWh	Total Electricity Generated (TPO) GWh	Heat Generated GWh	Load Factor** (%)
England	**1,699**	**5,392**	**7,968**	**18,447**	**78,732**	**17,532**	**36,249**	**37,940**	51.9%
East Midlands	104	130	161	426	2,693	546	570	1,296	40.4%
Eastern	165	290	290	821	5,270	1,226	1,255	1,958	49.3%
London	275	180	180	741	2,388	496	541	1,195	34.2%
North East	109	843	937	2,175	12,303	1,889	3,096	6,590	37.7%
North West	271	839	943	3,926	18,034	3,734	4,639	10,101	56.2%
South East	295	963	2,197	5,140	15,930	3,783	9,130	7,373	47.4%
South West	135	83	82	214	1,174	363	378	633	52.3%
West Midlands	166	102	168	533	1,810	417	574	720	38.9%
Yorkshire/Humberside	179	1,961	3,009	4,472	19,131	5,078	16,066	8,075	61.0%
Scotland	127	510	650	2,708	11,424	2,338	3,176	5,713	55.8%
Wales	121	210	301	921	4,899	812	1,791	2,544	67.9%
Northern Ireland	67	59	59	148	1,000	210	224	503	43.6%
UK Total	**2,014**	**6,170**	**8,977**	**22,225**	**96,056**	**20,891**	**41,439**	**46,701**	**52.7%**

∗This represents Good Quality CHP capacity, Good Quality CHP power output and the fuel associated with the Good Quality CHP outputs.

** These load factors are based on the total power output (TPO) and total power capacity (TPC) of the CHP (for partially and fully qualified schemes). This gives the true utilisation of the power generating plant.

Importance of CHP in the Regional Economies

Chart 1 is derived from Table 1 and portrays only a limited picture as it does not account for the varying size of each region. To allow for this, CHP heat capacity and electrical capacity have been compared with the level of economic activity in each region as measured by Gross Value Added (in £ million) in Table 3. Chart 2 maps the heat capacity per unit of GVA for the different regions.

When comparing the heat capacities presented in Table 3 with versions of this table before 2012, it should be noted that these figures are based on a revision to the way in which heat capacities are worked out for each CHP scheme[4]. This has produced a reordering of the regions in terms of Heat Capacity per unit of GVA. CHP continues to be a very important part of the economies of the North East, Yorkshire/Humber and North West regions, as evidenced by the large heat capacities per unit of GVA in these regions. This is due to the prominence of the chemicals and oil refining sectors in these regions, which are heat intensive sectors.

Table 3: Density of CHP in different areas, ordered by heat capacity

	Heat capacity kWt/GVA (£million)*	Electrical capacity kWe/GVA (£million)*
North East	51.94	20.14
Scotland	**25.47**	**4.80**
Yorkshire/Humberside	47.91	21.01
North West	30.06	6.43
South East	25.37	4.75
Wales	**19.45**	**4.43**
England	**15.72**	**4.59**
East Midlands	5.35	1.63
Northern Ireland	**5.02**	**1.99**
Eastern	7.07	2.50
London	2.39	0.58
West Midlands	5.42	1.04
South West	2.10	0.81
UK total	**16.07**	**4.46**

*GVA is provisional gross value added in 2012 (workplace based)[5]

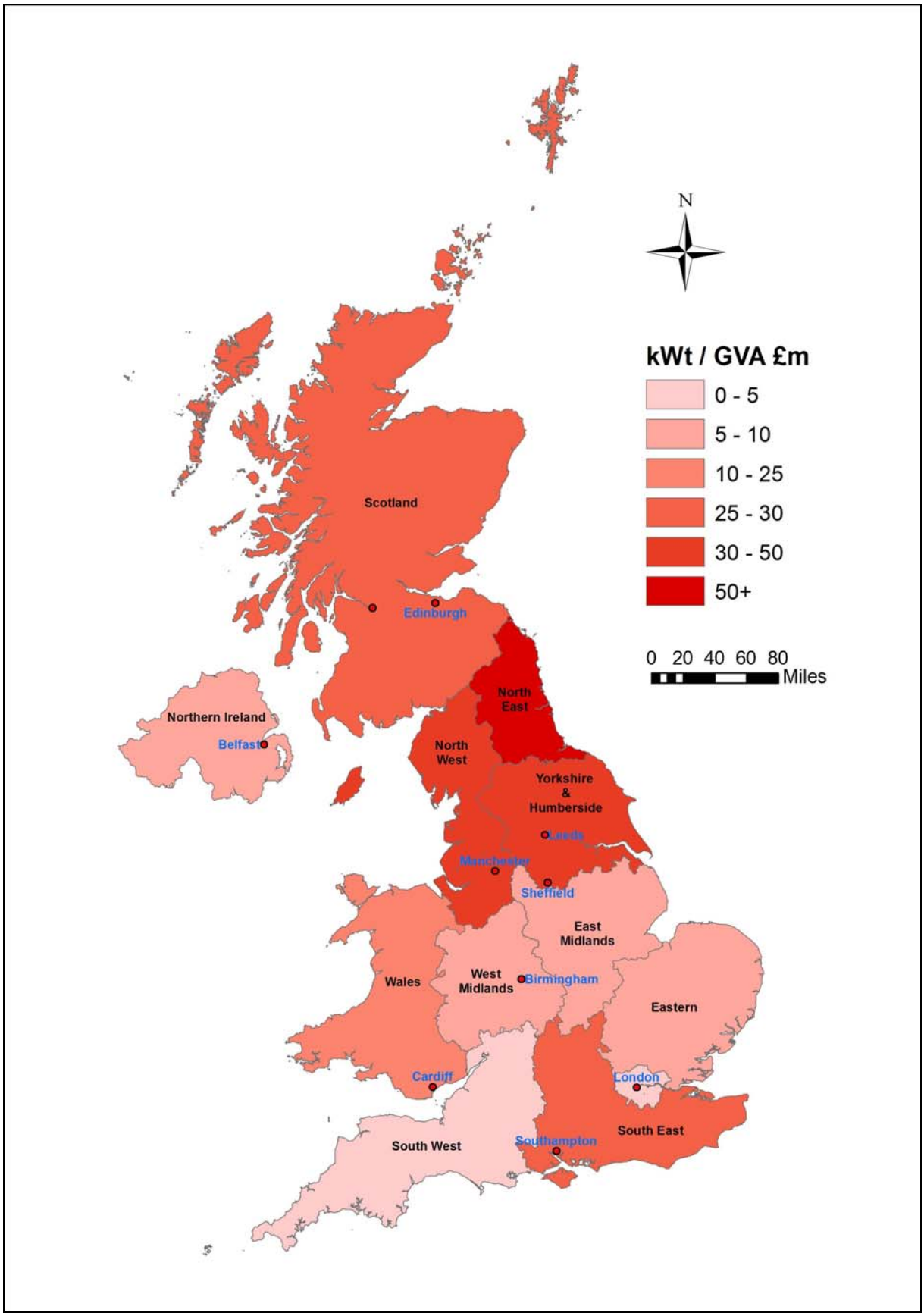
The distribution of CHP capacity across the regions and economic sectors is summarised in Table 4, which shows the proportion of total CHP capacity in a particular economic sector in each region. More than half of all CHP capacity in the oil refineries and oil and gas terminals sector can be found in the Yorkshire and Humber region and about 85 per cent of capacity in the chemicals sector is to be found in three regions: North East, Yorkshire/Humber and the North West. Almost half of the capacity in the Paper, Publishing and Printing sector is located in the South East region. The Eastern region is the single largest region for CHP capacity in the Food, Beverages and Tobacco sector (43 per cent), which is substantially explained by the heavy concentration of the heat intensive sugar beet industry in this region.

[4] See Chapter 7 para 7.44, Digest of United Kingdom Energy Statistics, 2013
[5] www.ons.gov.uk/ons/dcp171778_345191.pdf (Regional Gross Value Added (Income Approach), December 2013

Table 4: Distribution of CHP capacity across the regions and economic sectors

Region	Sector									
	Iron and steel and non-ferrous metals	Chemicals	Oil Refineries and Oil and Gas Terminals	Paper, Publishing and Printing	Food, Beverages and Tobacco	Metal Products, Machniery and Equipment	Mineral Products	Other Industrial Branches	Transport, Commerce and Administration	Other
England	**80.2%**	**92.4%**	**85.0%**	**84.7%**	**88.2%**	**88.2%**	**100.0%**	**76.2%**	**83.8%**	**92.5%**
East Midlands	0.0%	0.9%	0.0%	0.0%	7.0%	42.3%	6.5%	3.8%	5.1%	5.6%
Eastern	7.2%	0.7%	0.0%	0.0%	43.4%	0.0%	0.0%	11.6%	6.0%	9.2%
London	3.6%	0.7%	0.0%	0.0%	7.2%	8.9%	0.0%	9.7%	16.5%	10.4%
North East	50.5%	38.3%	4.1%	0.0%	0.0%	0.0%	23.6%	5.6%	8.9%	2.6%
North West	0.0%	23.2%	4.6%	31.8%	18.7%	3.5%	46.2%	9.8%	10.5%	4.0%
South East	0.0%	4.5%	18.1%	48.3%	5.2%	4.0%	0.0%	13.1%	14.6%	27.9%
South West	0.0%	0.5%	0.0%	1.2%	1.9%	4.1%	13.5%	5.1%	4.4%	5.5%
West Midlands	0.0%	0.0%	0.0%	1.9%	0.1%	25.4%	0.0%	13.6%	8.0%	3.2%
Yorkshire and Humber	18.9%	23.6%	58.2%	1.4%	4.7%	0.0%	10.1%	3.8%	9.8%	24.1%
Scotland	**0.0%**	**4.7%**	**12.0%**	**9.2%**	**4.9%**	**0.3%**	**0.0%**	**11.8%**	**9.5%**	**4.1%**
Wales	**18.0%**	**2.1%**	**3.0%**	**6.1%**	**1.4%**	**5.7%**	**0.0%**	**11.9%**	**4.5%**	**1.3%**
Northern Ireland	**1.7%**	**0.7%**	**0.0%**	**0.0%**	**5.5%**	**5.8%**	**0.0%**	**0.1%**	**2.2%**	**2.1%**
UK Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Chart 2: Map of CHP density in terms of heat capacity and gross value added



Technology type and size

Tables 5 and 6 show the regional split of installed electrical capacity (that qualifies as Good Quality CHP capacity) by prime mover type and by size range, respectively. In a number of regions, disaggregation of the data by prime mover type or size category could result in the disclosure of confidential information and so, for these areas, only totals are shown. The following conclusions can be drawn from the tables:

- Gas turbines, whether on their own or as part of Combined Cycle Gas Turbines (CCGT), continue to dominate the CHP market. In 2013, CCGT accounted for about 70 per cent of total CHP capacity but less than 3 per cent of the total number of CHP schemes.

- The North East and North West regions continue to be the regions with the most significant presence of steam turbine-based CHP plant. These regions have correspondingly high heat to power ratios (H:P > 2.7).

- As CCGT CHP plant has the lowest heat to power ratios of all the CHP technologies, the large proportion of total CCGT capacity in the Yorkshire/Humber region (40 per cent of the total) explains why that region has the lowest heat to power ratio of all regions. Yorkshire/Humber region generated over 24 per cent of all CHP power but only about 17 per cent of all of the heat.

Table 5: CHP electrical capacity (MWe) by area and prime mover in 2013

	Gas Turbines*	Steam Turbines	Reciprocating Engines	Total
England	**4,193**	**354**	**844**	**5,392**
East Midlands	85		44	130
Eastern	195		95	290
London	61		119	180
North East	713	67	63	843
North West	551	178	111	839
South East	772	0	191	963
South West	24		59	83
West Midlands	27		75	102
Yorkshire/Humberside	1,810	63	88	1,961
Scotland	**401**	**57**	**53**	**510**
Wales	**166**		**43**	**210**
Northern Ireland	**15**		**44**	**59**
UK Total	**4,725**	**461**	**984**	**6,170**

*Includes combined cycle gas turbines

The CHP market is dominated by large-scale (>10MWe) plant, with about 80 per cent of all installed capacity in this size range. The regional distribution of CHP by capacity tranche is given in Table 6.

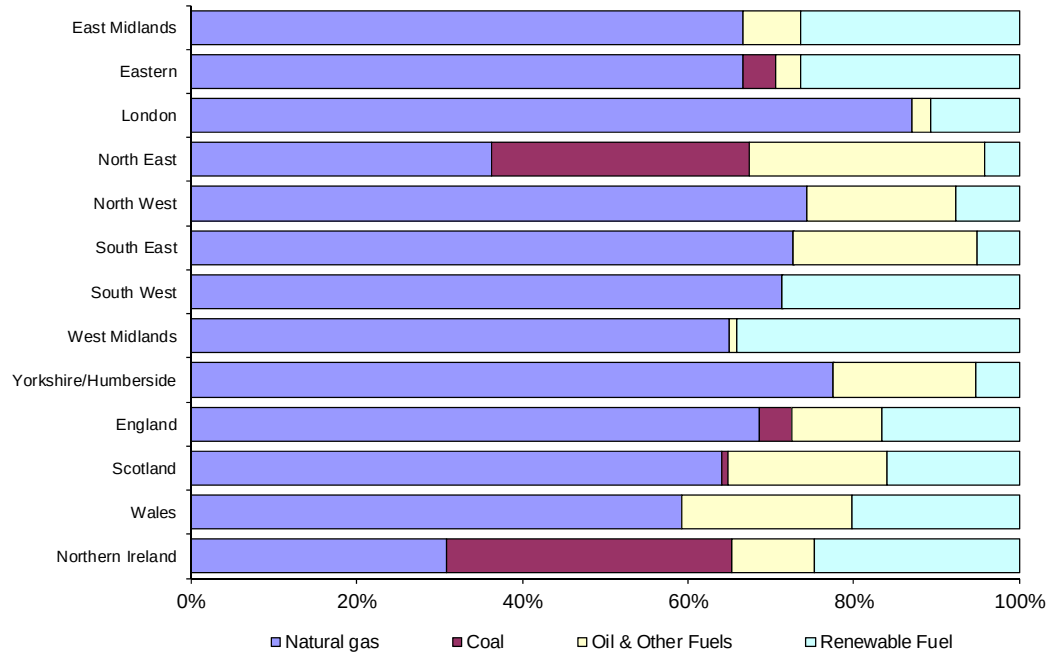
Table 6: CHP electrical capacity (MWe) by area and size in 2013

	<= 100 kWe	> 100 kWe to 1 MWe	>1 MWe to 2 MWe	> 2 MWe to 10 MWe	> 10 MWe +	Total
England	**33**	**225**	**143**	**612**	**4,378**	**5,392**
East Midlands	2	14	7	35	72	130
Eastern	3	26	17	59	185	290
London	6	38	10	67	60	180
North East	3	8	10	48	774	843
North West	4	36	31	91	677	839
South East	5	41	30	130	758	963
South West	3	21	6	53	0	83
West Midlands	3	21	16	62	0	102
Yorkshire/Humberside	4	20	16	67	1,853	1,961
Scotland	2	16	10	69	412	510
Wales	3	15	4	39	148	210
Northern Ireland	1	13	3	15	27	59
Grand Total	**39**	**270**	**160**	**736**	**4,965**	**6,170**

The fuel mix

The proportion of coal, gas, renewable fuels and 'oil and other fuels' (comprising oil products, refinery gases, blast furnace gas and other industrial wastes) in the fuel mix for each region is shown in Chart 3.

Chart 3: Proportion of different fuels in the fuel mix for CHP in 2013 for each region



Natural gas represented about 67 per cent of all fuel burned in CHP in 2013, which is lower than in 2012 when the share was 71 per cent. Natural gas made up more than half of fuel burned in every region/country except Northern Ireland and the North East. The fall in the share of total fuel that was natural gas was substantially due to large absolute falls in natural gas consumption in the Yorkshire/Humberside and East Midland regions. The former was due mainly to a large fall at one large scheme and the latter due to the closure of one large scheme in 2012. Northern Ireland continues to be the region with the lowest share of total fuel consumed in the form of natural gas. Although the long term trend is for increasing proportions of natural gas to be used in Northern Ireland, the proportion in 2013 was slightly lower than in 2012. The share of total fuel that was natural gas in the North East is showing a trend of long term decline.

With the exception of Northern Ireland and the North East regions, where the share of total fuel that was coal was 35 per cent and 21 per cent, respectively, coal continues to play a minor overall role. Coal was not consumed at all in six regions (West Midlands, Wales, South West, North West, London and East Midlands).

The share of total renewable fuel use in CHP plant rose from 7 per cent in 2012 (revised) to about 10 per cent in 2013. An important part of this increase is due to the initiation in 2013 of a large, new renewable CHP scheme in the North West region. In 2013 the region with the largest absolute quantity of renewable fuel consumption was Scotland and the region with renewable fuel constituting the largest share of CHP fuel input was the West Midlands, where renewables accounted for 34 per cent of total fuel used in the region.

Summary

The Yorkshire and the Humberside region continues to be the region of the UK with the greatest level of installed CHP capacity and electricity generation, accounting for 32 per cent of all capacity and 24 per cent of all electricity generated. Other regions with high levels of CHP capacity are the South East, North East and the North West regions where there is a significant presence of heat intensive industry, such as oil refining, chemicals production and paper and printing. About 88 per cent of all refinery CHP capacity is located in the regions of Yorkshire and the Humber, the South East and Scotland, while about 85 per cent of CHP capacity at chemical works is located in the three regions of the North East, the North West and Yorkshire and Humber. Over 80% of the paper and printing CHP capacity is to be found in just two regions: South East and North West and a large proportion of Food and Drink related capacity (43 per cent) is to be found in the Eastern region.

The continuing importance of the heat-intensive oil refining and the chemicals sectors in the Yorkshire and Humber, North East and North West regions explain the higher values of CHP heat and electrical capacities per unit of GVA in these regions than any of the other regions. However, there has been a significant decrease in CHP electricity generated in the Yorkshire and Humber and North East regions between 2012 and 2013 and a significant increase in the North West region in the period 2011-2013.

The region consuming the largest quantity of renewable fuel in 2013 was Scotland and the region with renewable fuel making up the largest proportion of CHP fuel input was the West Midlands.

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Running hours during winter 2013/14 for plants opted-out of the Large Combustion Plant Directive (LCPD)

The Large Combustion Plant Directive (LCPD) is a European directive aimed at controlling emissions of sulphur dioxide, nitrogen oxides and dust from large combustion plants. The directive imposes emissions limits on new plants (those licensed after 1st July 1987). Plants licensed before this date have three options.

1) Meet new emission limits which will require retrofitting of flue gas treatment equipment (i.e. opt-in).
2) Opt out limited life derogation – 20,000 hours of operation between 1st Jan 2008 and 31st Dec 2015.
3) Close before 1st Jan 2008.

Data on the running hours of plants opted-out of the LCPD can be downloaded from the following website www.bmreports.com/bsp/bes.php?prefix=LCPD.

Of the 17 coal fired power stations operating in Great Britain at the beginning of 2012, six opted out, along with the three oil fired stations. A list of these plants and a summary of their current operational status is given in table 1. The total capacity of the coal plants originally opted-out totalled 8 GW and comprised just over one-quarter of the coal capacity in Great Britain at that time. Two of the coal plants that opted-out (Tilbury and Ironbridge) have since converted to run on biomass but must still close once their hours have been run.

Table 1: Capacity and current operating status of plants opted-out of LCPD

Plant	Capacity[1] (MW)	Current Status
Cockenzie units 1 & 2	1,152	Closed March 2013
Cockenzie units 3 & 4		
Didcot A	1,958	Closed March 2013
Ferrybridge (1&2)	980[2]	Closed April 2014
Ironbridge	940[3]	Unit 1 closed February 2014 Unit 2 open
Kingsnorth	1,940	Closed December 2012
Tilbury (7 & 8)	750	Closed August 2013
Tilbury (9 &10)		
Total (coal)	**7,720**	
Fawley*	1,036	Closed March 2013
Grain*	1,300	Closed December 2012
Littlebrook*	1,370	Open
Total (oil)	**3,706**	

* These plants are oil fired and have taken the option of limiting running hours to 10,000. Under this option plants only need to provide sample measurements of SO2 rather than continuous measurements.

Table 2 shows the hours run during winter 2013/14 by the remaining plants which chose to opt-out of the directive (winter is defined as beginning October 2013 – end March 2014). The data are shown in chart form in chart 1. Of the plants that opted out of the LCPD only Ferrybridge (1&2), Ironbridge and Littlebrook were operational during winter 2013/14, with a capacity of 3.3 GW.

[1] Source: DUKES 2014, table 5.10, at: www.gov.uk/government/publications/electricity-chapter-5-digest-of-united-kingdom-energy-statistics-dukes

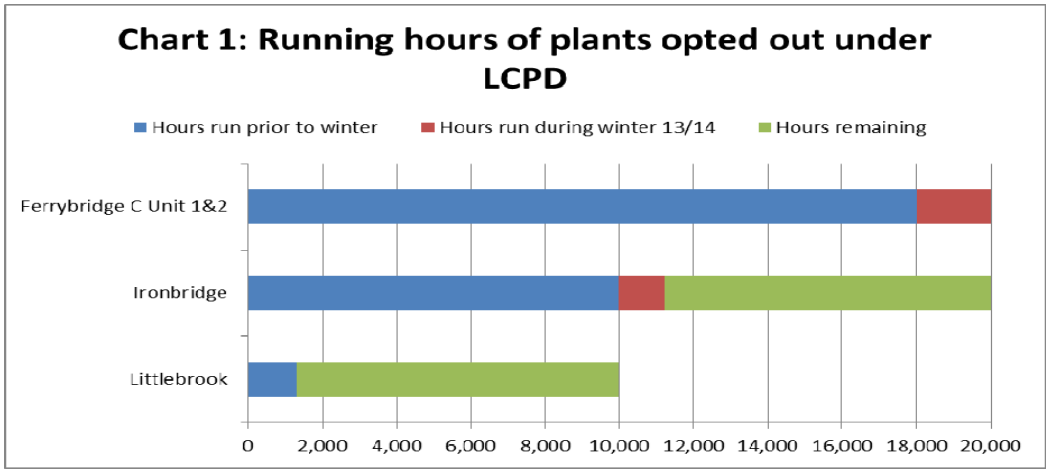
[2] Ferrybridge units 3 and 4 (which also have a combined capacity of 980 MW) are opted in to the LCPD and will continue to run after 2015.

[3] Converted from coal to dedicated biomass in 2013 (at 900 MW), before reducing to 360 MW in April 2014 following the fire which closed unit 1 in February.

Table 2: Hours run during winter 2013/14 by plants opted-out of LCPD

Plant	Hours run during winter 12/13	Hours run during winter 13/14	Hours remaining	Hours remaining (%)
Ferrybridge (1&2)	2,292	1,987	0	0%
Ironbridge	104	1,242	8,764	44%
Total (coal)[4]	**2,396**	**3,229**	**8,764**	**44%**
Littlebrook*	13	2	8,693	87%
Total (oil)	**13**	**2**	**8,693**	**87%**

The 6 coal plants that originally opted out of the LCPD had a total of 160,000 hours available to run before the end of 2015. Table 2 shows that 8,764 hours remain at Ironbridge (5% of the original hours). The 3 oil plants had 30,000 allocated, the 8,693 remaining at Littlebrook comprises 29% of the original total. However, Fawley and Grain power stations closed after having only used 2,116 of their allocated hours.



In total the plants opted-out of the LCPD ran for 3,231 hours during winter 2013/14. This compares to 2,409 hours during the winter of 2012/13.

Ferrybridge (1&2) ran for the most hours during the winter using up its allowance of 20,000 hours leading to its closure in April 2014. Ironbridge is now the only coal fired station that opted out of the LCPD still operational, with 44% of its allowance remaining.

As oil fired power stations tend to be used infrequently, Littlebrook still has a high proportion of its hours remaining despite only having an allowance of 10,000 hours.

From 1st January 2016 the remaining large combustion plants will be subject to more stringent emissions controls outlined in the Industrial Emissions Directive (IED). Plants that chose to opt-out of this directive will be limited to 17,500 hours between 2016 and 2023.

User feedback

We welcome all feedback from users; therefore, if you have any comments or queries regarding this analysis, please contact either Kayley Vanlint or Alison Judd using the contact details below.

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[4] Coal total includes Ironbridge, which converted from coal to biomass during 2013 and continues to be opted-out. Although biomass produces almost no CO2 emissions, the plant will not be exempt from closure at the end of 2015 as the LCPD relates to particulate matter and sulphur dioxide/nitrogen oxide emissions.

Coal in 2013

Introduction

This article gives an overview of UK coal and manufactured fuel production and consumption over the last four decades. It shows that UK coal production and the demand for coal has generally decreased since 1970. In 2013 coal production fell to 13 million tonnes, which was the lowest value ever recorded, whilst demand for coal fell to 60 million tonnes as more renewables were used in electricity generation.

Background

Until the late 1960s, coal was the main source of energy produced in the UK, peaking at 228 million tonnes in 1952. Ninety-five per cent of this came from around 1,334 deep-mines that were operational at the time, with the rest from around 92 surface mines. As UK energy started to become more diverse from the early 1970s (initially, through primary electricity via hydro schemes followed by natural gas and crude oil and renewable & waste in later years), production of home produced coal has significantly declined. However, there was (and still is) a significant demand for coal in this country. Before 1970, it was used as a fuel source in the industrial sector, for fuelling trains and used within households for cooking and heating. Since 1970, it has mainly been used by electricity generators, who on average consume around 70 per cent of total UK coal supply[1] each year. Therefore, to meet this demand during the last 40 years the UK has become increasingly reliant on coal imported from other countries, more specifically, steam coal, which is used at coal-fired power stations to generate electricity. A series of miner's strikes in the early 1970s and 1980s impacted on coal production and consumption, with large temporary falls as a result, especially in 1984.

Deep mined production

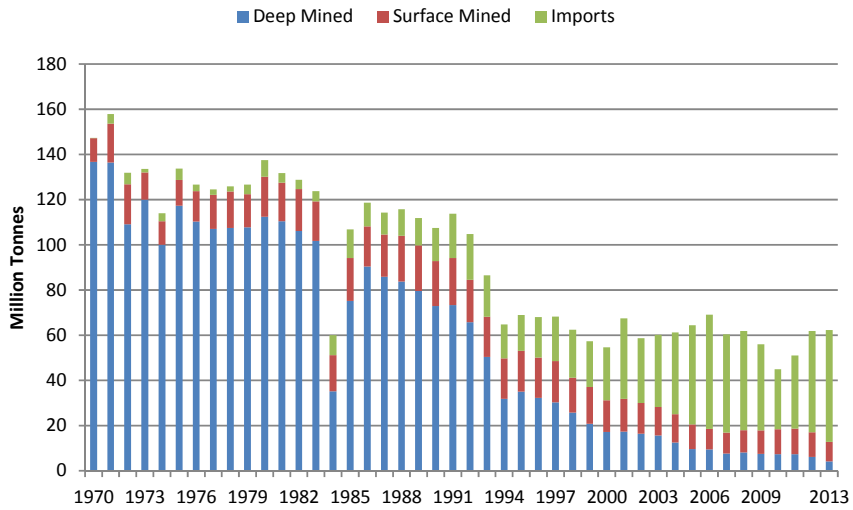
Since the peak levels reported in 1954 (217 million tonnes), deep mined production fell by an average of 2.6 per cent each year between 1954 and 1983 (102 million tonnes). Although, the 1984 miners' strike had a substantial effect on the amount of coal produced in the UK, as deep-mined production fell by 66 million tonnes (65 per cent), the UK coal industry recovered and returned to the long term trend in 1985 producing more than double the levels of 1984 (an increase of 40 million tonnes). Thereafter, deep-mined production decreased on average by 10 per cent a year, falling to a record low of 4 million tonnes in 2013, 98 per cent less than the post-war peak during 1954 and a 34 per cent decrease on 2012 (6 million tonnes). This was due to the closure of a number of mines in 2013 and geological conditions at some of the remaining mines. **(Chart 1)**

Surface mine production

Surface mine production (including recovered coal) increased on average by 3 per cent a year between the late 1940s and late 1980s, with production peaking in 1991, to stand at 21 million tonnes. Thereafter, although surface mine production declined by an average of 4.5 per cent between 1991 and 2005, it exceeded deep-mined production for the first time in 2005, accounting for 53 per cent of total production (21 million tonnes). This share continues to grow as deep mined production has declined. Surface mine production fell by 20 per cent in 2013 compared to a year earlier due to some mines going into liquidation during the year and geological conditions at remaining mines. However, its share of coal production rose to 68 per cent as there was a larger fall in production for deep mines. **(Chart 1)**

[1] Coal Supply is calculated as sum of production, net imports and stock

Chart 1: UK Coal Supply, 1970 to 2013



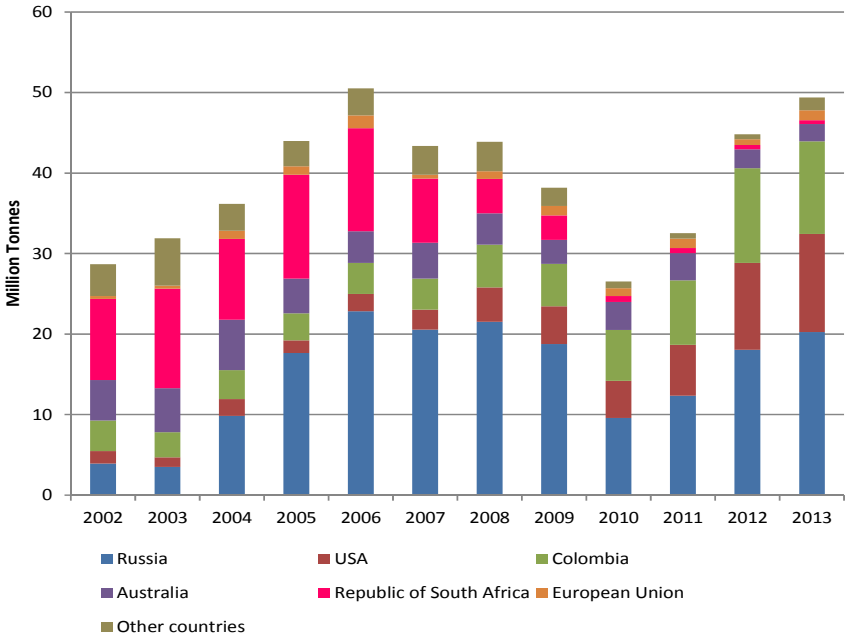
Coal Imports

Imports, initially of coal types in short supply in this country, started in 1970 and grew steadily to reach 20 million tonnes a year by the late 1990s. The very rapid expansion of imports in 2001 meant that imports exceeded the level of UK production for the first time. As annual levels of UK coal production continued to fall, imports continued to grow rapidly and in 2006 reached a new record of 51 million tonnes, representing 75 per cent of total UK coal supply. From this point on, UK imports fell, mainly as a result of less demand by electricity generators, rather than higher indigenous production. However, from 2011 to 2013, due to a greater demand by electricity generators and with UK production at an all-time low, imports increased again and in 2013 imports were 49 million tonnes, which was close to the record high of 2006. **(Chart 2)**

Steam coal (used mainly by electricity generators) represents on average around 80 per cent of total UK imports each year and represented 87 per cent of total imports in 2013 (43 million tonnes). Russia has been the UK's main source of imports since 2004 replacing South Africa as the largest provider, contributing 45 per cent of steam coal imports in 2013. Steam coal is also imported in large volumes from Colombia and the USA, which together contributed 49 per cent of total steam coal imported in 2013.

Thirteen per cent of coal imported during 2013 was coking coal (6 million tonnes), which has been used in coke ovens and similar carbonising processes within the industrial sector. Over two thirds of this total, originated from two countries alone, USA (43 per cent) and Australia (33 per cent). Imports of anthracite (mainly used in the domestic sector) are negligible, in comparison to steam and coking coal.

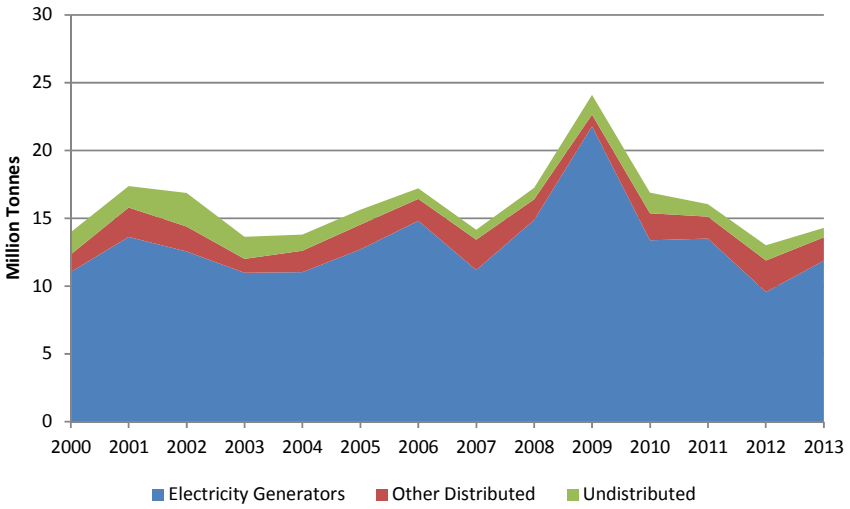
Chart 2: Total UK coal imports by country of origin, 2002 to 2013



Coal Stocks

Most coal stocks in the UK are those held by electricity generators since this sector represents the largest share of the total demand for coal. Coal stocks generally fluctuated in the years 2000 to 2008, between 13 and 18 million tonnes. However, in 2009, coal stocks, increased by 7 million tonnes (largest year on year increase) on 2008 to reach a record high of 24 million tonnes. In contrast, stocks decreased during 2010 by 7 million tonnes to 17 million tonnes as generators used their stocks as opposed to importing coal. This fall continued into 2012, where total coal stocks decreased to 13 million tonnes, the lowest level on record, of which 10 million tonnes were held by generators. In 2013 coal stocks increased to 14 million tonnes due to less consumption from generation. **(Chart 3)**

Chart 3: Total UK Coal Stocks 2000 to 2013



Coal Consumption

Coal consumption fell gradually from 157 million tonnes in 1970. In 2013, consumption of coal was 60 million tonnes, 61 per cent lower than in 1970. **(Chart 4)**

Consumption by the electricity generators increased from 77 million tonnes in 1970 to a peak of 90 million tonnes in 1980 and continued in the 80 to 90 million tonnes range until 1991. Coal consumed by generators fell steadily after 1991 until 1999, as the UK's energy mix became more diverse, environmental regulations and high coal prices made natural gas more attractive to purchase for generation use. Coal consumption by generators became more stable after 1999 as the higher price of gas encouraged generation from coal in some years. In 2011 and 2012, there has been higher coal use due to higher gas prices making generation from coal more attractive, although the demand fell slightly in 2013, as overall demand for electricity fell and more renewables and nuclear power were used in electricity generation. **(Chart 5)**

Other energy industries consumption has also fallen gradually from 1970. However, consumption increased by 14 per cent in 2013 compared with 2012 mainly due to coking coal used in blast furnaces increasing by 43 per cent to 1.4 million tonnes in 2013. This increase was due to the re-opening of Teesside steelworks in April 2012, (which gradually increased operations over the next year) and a newly opened blast furnace at Port Talbot in February 2013.

Final consumption has fallen fairly continually from 1970, as gas has taken over as the main heating fuel in the UK, and the demand from industry has also declined (particularly from 1986). However, industry's share of final consumption has risen from 45 per cent in 1970 to 76 per cent in 2013, while the domestic sector share has fallen from 46 per cent to 23 per cent and the service sector's share of final consumption has fallen from 9 per cent to under 2 per cent.

Chart 4: Coal consumption 1970 to 2013

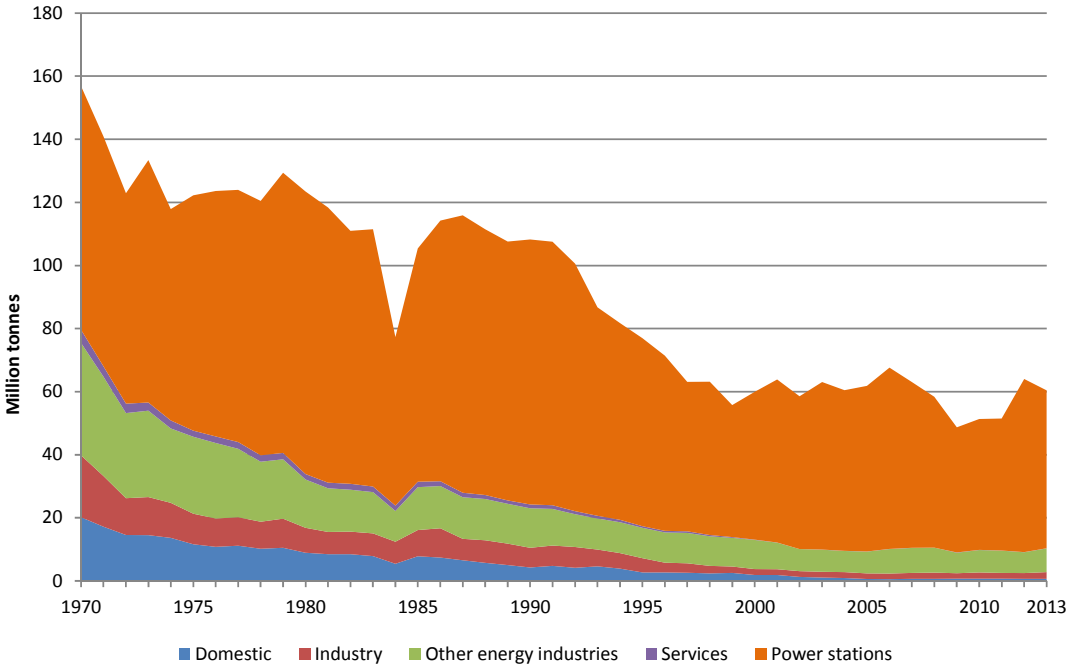
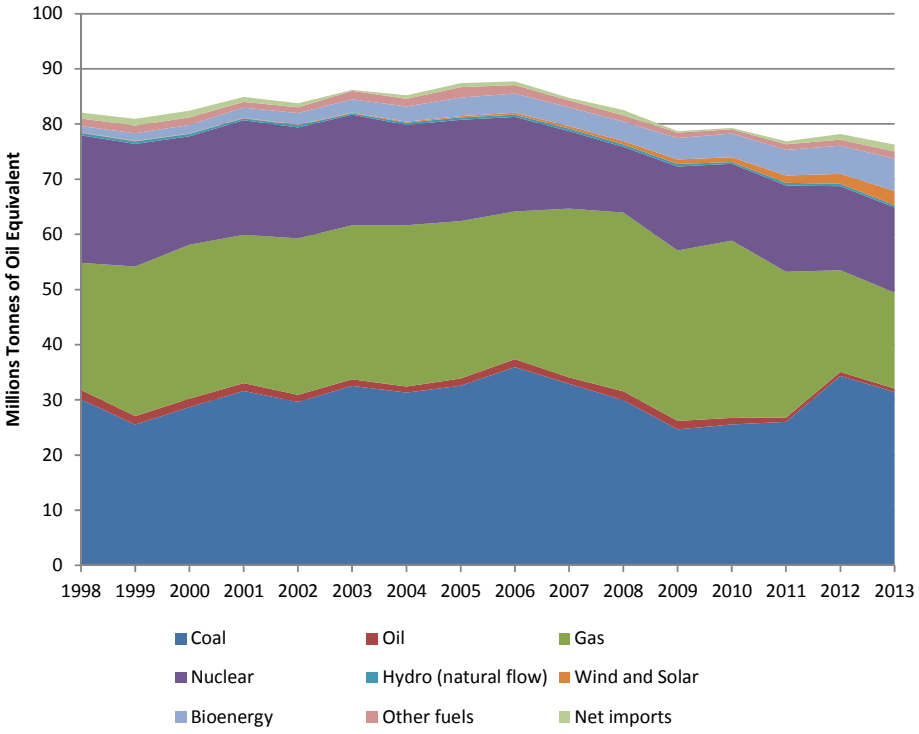


Chart 5: Fuel used in electricity generation



Manufactured Solid Fuels

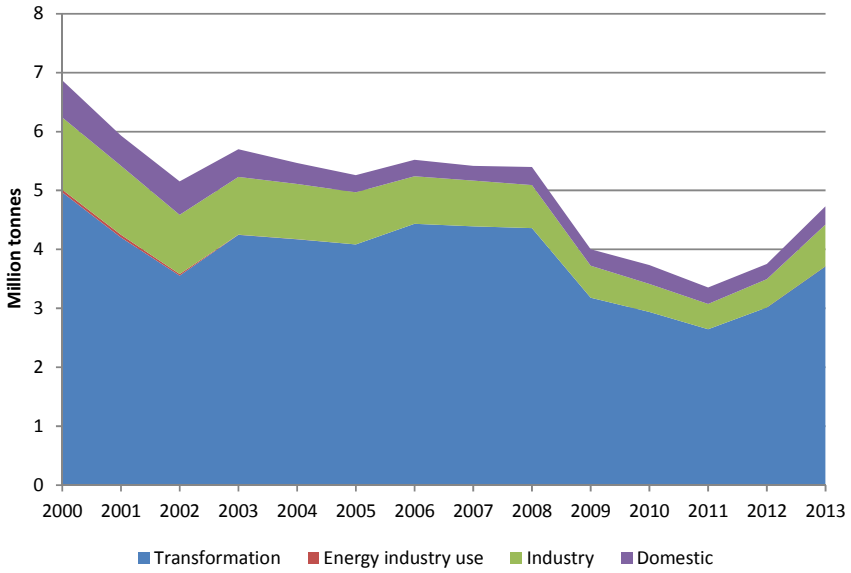
Since 1970 there has been a general fall in manufactured solid fuels consumption due to the decline in industrial (iron and steel) demand. Consumption increased in 2012 and 2013 due to the re-opening of Teesside steelworks in April 2012 and the newly opened furnace at Port Talbot in February 2013. In 2013, around 91 per cent of manufactured solid fuel production was coke oven coke, a proportion that has remained the same for the past 15 years. **(Chart 6)**

The main purpose of coke oven coke is for use in blast furnaces in the UK iron and steel industry. In 2013, this represented 97 per cent of total demand (3.2 million tonnes), and was 22 per cent higher than in 2012 (2.7 million tonnes).

Most of the supply of coke breeze is from re-screened coke oven coke, with direct production accounting for only 3.0 per cent of total supply in 2013. In 2013, 41 per cent of coke breeze was used in blast furnaces (0.4 million tonnes) for transformation and 59 per cent used for final consumption (Chart 2.5).

Other manufactured solid fuels (patent fuels) are manufactured smokeless fuels, produced mainly for the domestic market. A small amount of these fuels (only 4.8 per cent of total supply in 2013) was imported, but exports generally exceed this.

Chart 6: Total Manufactured Solid Fuels Consumption in the UK 2000 to 2013



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Analysis of Feed-in Tariff generation data

Introduction

The Feed-in Tariff scheme (FiTs) was launched in April 2010 and is a financial support scheme for eligible low-carbon electricity technologies, aimed at small-scale installations with a capacity of less than 5 Megawatts (MW). FiTs support new anaerobic digestion (AD), solar photovoltaic (PV), small hydro and wind, by requiring electricity suppliers to make payments (generation tariffs) to these generators based on the number of kilowatt hours (kWh) they generate. An additional guaranteed export tariff is paid for electricity generated that is not used on site and exported to the grid. The scheme also supports micro combined heat and power installations with an electrical capacity of 2 kW or less.

Since the start of the scheme DECC has published timely data on the number and capacity of installations installed under the scheme. However, little data was available centrally on the actual electricity generated by the installations. In 2013 DECC obtained the meter readings from the energy suppliers for each FIT installation in Great Britain. The data collected covered meter readings submitted in the first 3 years of the FIT scheme (i.e. up 31st March 2013). Meter readings are usually sent to the energy suppliers every 3 months so this resulted in the collection of over 1.5 million meter readings.

The initial analysis carried out on the meter readings produced annual load factors for each technology for FIT year 2 and FIT year 3 (i.e. 2011/12 and 2012/13 financial years) . Analysis has not been carried out for FIT year 1 as the number of installations running for the whole of the year is very small.

The data should be treated as provisional, although basic QA has been carried out, a more detailed look at the data needs to carried out, especially on the larger schemes as their data has a bigger impact on the weighted mean load factor.

Methodology

The meter readings provided were matched to the Ofgem's Central FIT Register (CFR). This contains information on the size and technology of the scheme as well as details such as location.

In order to calculate a load factor for the whole year a meter reading would be required in March of the relevant years (for example for FIT year 3 a meter reading would be required in March 2012 and March 2013). As generators can submit meter readings during any month of the year, selecting just those with March meter readings removes a large number of installations from the analysis. However, given the large number of installations registered on the FIT scheme the number of schemes remaining still provided useful analysis.

Table 1 shows how many installations were registered on the scheme at the beginning of FIT year 2 and how many installations had meter readings in March of the relevant years. Table 2 shows the same data for FIT year 3.

Table 1: Installations included in analysis by technology – FIT year 2

Technology	Commissioned by 1st April 2011	Generation data reported[1]	Valid load factor	% remaining in analysis
Anaerobic Digestion	12	4	4	33
Hydro	226	96	87	38
Micro CHP	183	48	48	26
Solar PV	39,715	12,424	12,165	31
Wind	1602	578	560	35

1 Meter reading reported in March 2011 and March 2012.

Table 2: Installations included in analysis by technology – FIT year 3

Technology	Commissioned by 1st April 2012	Generation data reported[2]	Valid load factor	% remaining in analysis
Anaerobic Digestion	25	16	10	40
Hydro	328	143	127	39
Micro CHP	383	80	80	21
Solar PV	295,378	109,104	107,829	37
Wind	3,068	1,478	1,443	47

2 Meter reading reported in March 2012 and March 2013.

Load factors were calculated in the usual way by comparing generation and capacity. However, for most of the installations the meter readings were not taken exactly 12 month apart therefore the load factor was calculated by taking the reported generation and dividing by the installed capacity multiplied by the number of hours that the installations was operating for. Rather than multiplying by the standard 8,760 hours.

Extreme values were calculated for some installations which can have a large impact when calculating the mean. As such, for each technology a filter was created to remove installations that had extreme values recorded. Table 3 sets out the limits within which the load factor must fall to be included in the analysis. This resulted in the removal of a small number of installations. In 2011/12 286 installations (2%) were removed due to invalid load factors and in 2012/13 1,332 installations (1%) were removed. The 'valid load factor' column in tables 1 and 2 show how many installations were included in the final analysis for each technology.

Table 3: Load factor limits applied to remove extreme values from the analysis

Technology	Lower limit (%)	Upper limit (%)
Anaerobic Digestion	1	100
Hydro	1	90
MicroCHP	1	100
Solar PV	1	25
Wind	1	60

Main Findings

Tables 4 and 5 give the median load factors and the associated percentiles for each technology. These percentiles are also shown in chart 1. Anaerobic digestion is not shown given the small number of installations but had a median load factor of 59.3 in 2012/13.

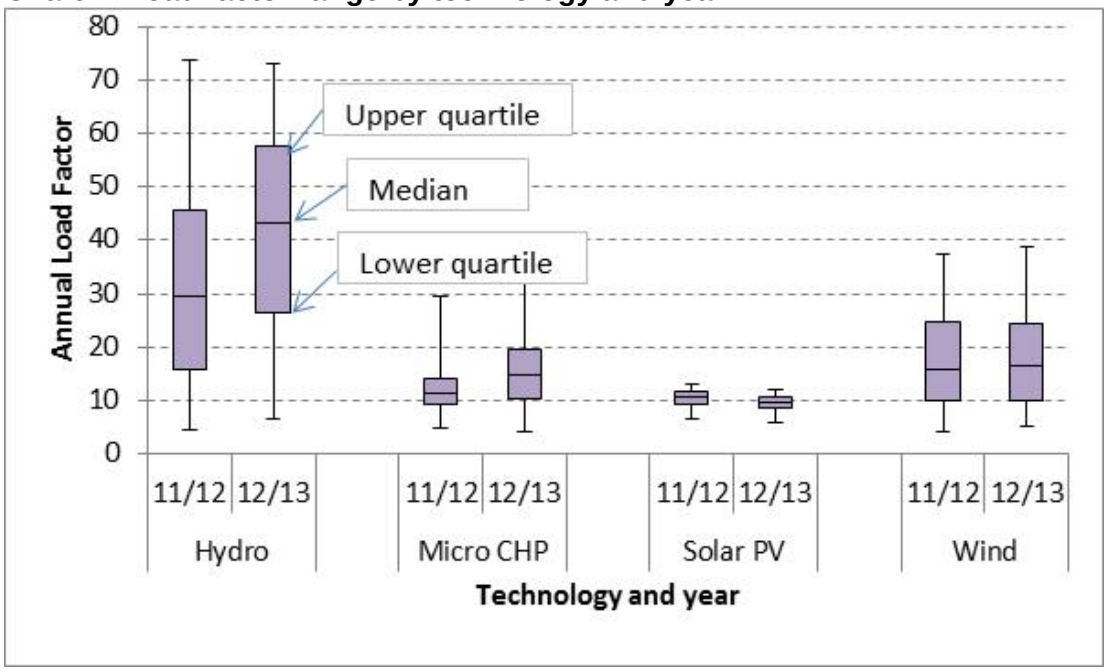
Table 4: FIT Year 2 (2011/12) load factors by technology

		Percentile				
Technology	Count	5th	25th	50th (median)	75th	95th
Hydro	87	4.6	15.9	29.6	45.5	92.9
MicroCHP	48	5.0	9.4	11.2	14.1	29.6
Solar PV	12,165	6.7	9.3	10.5	11.5	13.1
Wind	561	4.3	10.1	15.9	24.7	37.4

Table 5: FIT Year 3 (2012/13) load factors by technology

		Percentile				
Technology	Count	5th	25th	50th (median)	75th	95th
Hydro	127	6.7	26.5	43.1	57.5	72.9
MicroCHP	80	4.2	10.4	14.9	19.4	32.3
Solar PV	107,829	6.0	8.6	9.6	10.5	11.9
Wind	1,443	5.1	10.1	16.3	24.4	38.6

Chart 1: Load factor range by technology and year



Hydro installations had a large range in load factors, although the small numbers mean that these load factors should be treated with caution (along with MicroCHP figures).

The range of load factors for Solar PV schemes was a lot smaller. In 2012/13 90 per cent of schemes had a load factor between 6 and 11.9 per cent and 50 per cent of the schemes

had a load factor between 8.6 and 10.5 per cent. The median load factor in 2011/12 was slightly higher than that seen in 2012/13 (10.5 per cent compared to 9.6 per cent). This ties in with the weather statistics published by DECC[1] where in 2011/12 the average number of sun hours per month was 4.5 compared to 3.7 in 2012/13.

Wind schemes had a larger range with 90 per cent of the load factors falling between 5.1 per cent and 38.6 per cent in 2012/13. The load factors for wind were slightly higher in 2012/13 than in 2011/12.

Table 6 gives the mean load factor for each technology. A weighted mean was also calculated (where the load factor was weighted by the installed capacity).

Table 6: Mean load factor by technology

	2011/12		2012/13	
Technology	Mean	Weighted mean	Mean	Weighted mean
Anaerobic Digestion	-	-	56.5	59.6
Hydro	32.7	25.0	40.9	46.1
MicroCHP	13.6	13.6	15.9	16.1
Solar PV	10.4	10.3	9.5	9.2
Wind	18.0	18.3	18.3	22.3

The median and mean load factors are similar for Solar PV (9.6 and 9.5 respectively in 2012/13) suggesting the data have a normal distribution. The weighted mean for solar PV is also similar to the unweighted mean suggesting large and small sites have similar load factors.

For wind in 2012/13 the weighted mean was higher than the unweighted mean suggesting that larger wind site had higher load factors. This was also true in 2011/12 but the difference between the two measures was very small, largely because the number of larger wind schemes in the analysis was a lot smaller in this year.

Checking how representative the sample is

As seen in tables 4 and 5 the median load factor for Solar PV was almost 1 per cent lower in 2012/13 compared to 2011/12. The number of schemes in the analysis increase substantially between the 2 years and whilst the findings tie-in with the weather statistics it is possible that the change in load factor is due to schemes installed at a later date being installed in less favourable locations. Too check whether this is the case analysis was carried out just on schemes that were present in the analysis for both years. These schemes had a median load factor of 10.5 per cent in 2011/12 and 9.5 per cent in 2012/13, which is in-line with the overall analysis.

Table 7 below shows the proportion of installations from each region included in the analysis. There is a good representation of schemes from all the regions, although the South-West has a slightly higher proportion of their schemes included in the analysis (46 per cent were included in the 2012/13 figures compared to a national average of 37 per cent). The East Midlands and Yorkshire and the Humber were slightly under-represented.

[1] www.gov.uk/government/statistics/energy-trends-section-7-weather

Table 7: Regional distribution

Region	Percent from each region included in analysis	
	2011/12	2012/13
East Midlands	28%	28%
East of England	28%	32%
London	29%	36%
North East	28%	32%
North West	32%	35%
South East	34%	38%
South West	37%	46%
West Midlands	34%	34%
Yorkshire and The Humber	19%	28%
Scotland	38%	43%
Wales	30%	43%
Unknown	6%	12%
Total	**31%**	**37%**

Further Analysis

Quarterly load factors for Solar PV installations have been calculated and can be found on the following webpage www.gov.uk/government/collections/feed-in-tariff-statistics under 'Analysis'.

The analysis of FIT generation data can be expanded further and it is planned that regional load factors will be produced. We also intend to use the load factors calculated to produce annual generation figures for each technology.

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Imports, exports and transfers of electricity

Introduction

DECC collect half-hourly readings from National Grid[1] on the volume of electricity imported and exported between Great Britain and France; Great Britain and Netherlands; and Wales and Ireland. Similar data is also collected from the Single Electricity Market Operator[2], for trade between Northern Ireland (NI) and the Republic of Ireland. Currently, DECC uses this information to publish aggregate statistics on overall UK electricity trade. From September 2014, DECC will publish this information by interconnector, and will separately show, in the same table, any transfers within the UK. The statistics will be published as quarterly totals in a new online table 'ET5.6' at www.gov.uk/government/statistics/electricity-section-5-energy-trends in line with the Energy Trends publication timetable.

Background

The interconnectors allow imports and exports of electricity between countries in order to help meet industrial and customer demands for electricity.

The first of the four interconnectors, which went into service during 1986, was the France and UK interconnector, with a capacity of 2,000MW, representing 49 per cent of the total capacity available through the UK interconnectors to date. The next significant change occurred during 2011, when the Netherlands and UK interconnector opened with a capacity of 1,000MW, representing 24 per cent of the total UK interconnector capacity. The remaining 27 per cent were from the Ireland and NI cable (600MW), which opened in 1995 and the Ireland and Wales cable (500MW), which opened more recently in 2012.

There are also two additional interconnectors within the UK, to facilitate the transfer of electricity within the UK, between Scotland and NI; and England and Scotland.

Latest Statistics

Since Q1 2010, the UK has been a net importer of electricity. Total net imports in Q2 2014, were 5.1 TWh, the highest levels reported in the quarterly time series and accounted for 6 per cent of total electricity supply. Net imports accounted for their greatest share of electricity supply reflecting both higher imports and lower UK generation. In Q2 2014, 78.8 TWh of electricity was generated in the UK, this was 6 per cent lower than the levels in the same period during 2013, and the lowest levels recorded in the quarterly time series.

The UK temporarily became net exporters of electricity for 6 months, between Q4 2009 and Q1 2010 (Chart 1), with higher levels of electricity being exported to France as during this period, there were higher levels of home produced electricity (208 TWh), and slightly lower levels of UK electricity demand in comparison (205 TWh)[3].

[1] Figures are taken from the demand data available on the National Grid website at www.nationalgrid.com/UK/Industryinformation/Electricity-transmission-operational-data/Data-Explorer/
[2] Figures are taken from data available on the SEMO website at www.semo.com/marketdata/pages/energysettlement.aspx.
[3] Figures are taken from ET5_2 at www.gov.uk/government/statistics/electricity-section-5-energy-trends.

Chart 1: UK Net Electricity Trade

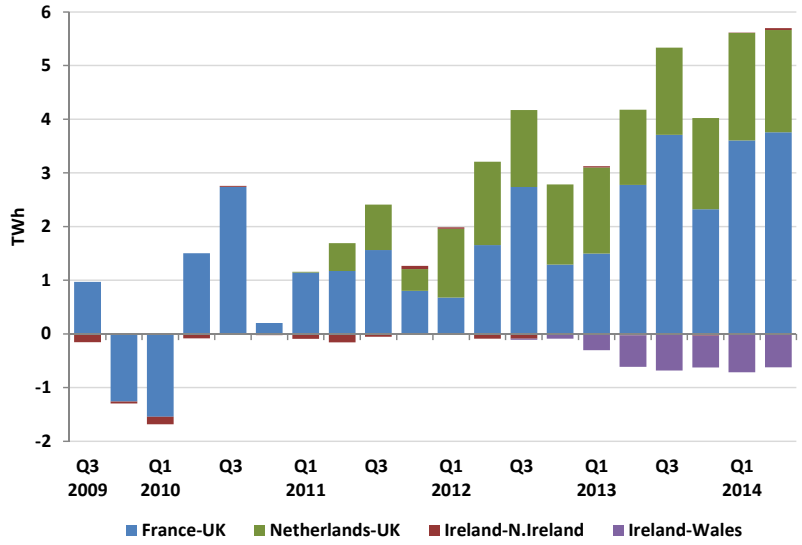

Table 1: Imports by interconnector

Interconnector	Imports Q2 2013 (GWh)	Share of total imports in Q2 2013 (%)	Imports Q2 2014 (GWh)	Share of total imports in Q2 2014 (%)	Change between Q2 2013 and Q2 2014 (%)
France-UK	2,818	65%	3,761	65%	33%
Netherlands-UK	1,469	34%	1,906	33%	30%
Ireland-Wales	19	0%	36	1%	89%
Ireland-N.Ireland	35	1%	68	1%	94%
Total Imports	**4,341**	**100%**	**5,771**	**100%**	**33%**

Imports in Q2 2014 were 5.8 TWh, 33 per cent higher than the same period a year earlier. Imports from continental Europe (France and the Netherlands) represented 98 per cent share (5.7 TWh) of this total, with the French interconnector providing 65 per cent of this share (3.8 TWh) and the Netherland interconnector providing 33 per cent (1.9 TWh) (Table 1).

Since the Ireland and Wales interconnector came into service during 2012, it has continued to be a net exporter of electricity and in Q2 2014, represented 95 per cent of total UK exports (0.7 TWh).

Transfers

The electricity transfer statistics cover electricity trade within the UK. Scotland and NI began transferring electricity in early 2002 in order to incorporate NI into the larger electricity systems in Great Britain and to help increase security of electricity supply.

Table 2: Transfers by interconnector

Interconnector	Transfers Q2 2013 (GWh)	Share of total transfers in Q2 2013 (%)	Transfers Q2 2014 (GWh)	Share of total transfers in Q2 2014 (%)	Change between Q2 2013 and Q2 2014 (%)
Scotland-England	3,772	90%	3,044	91%	-19%
England-Scotland	12	0%	6	0%	-53%
Scotland-NI	415	10%	295	9%	-29%
NI-Scotland	3	0%	9	0%	(+)
Total Transfers	**4,202**	**100%**	**3,354**	**100%**	**-20%**

The vast majority of the transfers within the UK involve transfers out of Scotland. In Q2 2014 transfers from Scotland to England represented 91 per cent share (3.0 TWh) of the total transfers compared with transfers from England to Scotland, which were negligible. Transfers from Scotland to NI also represented 9 per cent share of the total in Q2 2014 (Table 2).

User feedback

We welcome all feedback from users; therefore, if you have any comments or queries regarding this new monthly table, please contact Kayley Vanlint or Mita Kerai using the contact details below.

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Energy Trends revisions policy

Energy statistics contained in the annual Digest of UK Energy Statistics (DUKES) and in the quarterly and monthly editions of Energy Trends are classified as National Statistics. This means that they are produced to the high professional standards as set out in the UK Statistics Authority's (UKSA) Code of Practice for Official Statistics. Each organisation responsible for producing National Statistics is required, by the code, to publish a Revisions Policy for those outputs that are subject to scheduled revisions.

DECC's revisions policy for these core energy statistics is published on the DECC section of the gov.uk website at: www.gov.uk/government/statistics/energy-statistics-revisions-policy. DECC is currently working on updating our revisions policy for all of our statistical releases with the intention of re-publishing the document referred to above by the end of October 2014.

Energy Trends revisions policy

As part of DECC's review of our revisions policy, DECC are introducing clearer guidance for users of Energy Trends to explain which data periods have been revised in any given publication month. Table 1 below shows for each publication month which data periods can be revised for both the monthly and quarterly editions of Energy Trends.

Table 1: Energy Trends data revisions permissible by month of publication

Publication Month	Data to be revised
January	October data of prior year.
February	All data in prior year given first publication of provisional annual data.
March*	All quarterly data of previous two years, so that both levels and growth rates are as accurate as possible for the latest year.
April	January data of current year.
May	January and February data of current year.
June*	Q1 data of current year. For those fuels (oil, gas and renewables) reconciling data with annual DUKES balances the data in prior year(s) may also be revised.
July	Q1 and April data of current year. For those fuels (coal and electricity) reconciling data with annual DUKES balances the data in prior year(s) may also be revised.
August	April and May data of current year.
September*	Q1 and Q2 data of current year.
October	July data of current year.
November	July and August data of current year.
December*	Q1, Q2 and Q3 data of current year.

*Monthly and Quarterly editions of Energy Trends produced.

In exceptional circumstances significant revisions outside of the data periods specified above may be allowed – if made these revisions will be detailed by DECC on the highlights worksheet of the relevant Energy Trends table Excel workbook, and in the quarterly editions of the Energy Trends publications.

Revision Triangles

DECC will continue to publish revisions triangles for total energy statistics in respect of Production, Supply, Demand, Final Consumption and Seasonally Adjusted Inland Consumption at the same time as the quarterly editions of Energy Trends (March, June, September and December) at: www.gov.uk/government/statistics/quarterly-total-energy-data-revisions, so as to allow users to further analyse past revisions.

Greenhouse Gas Emissions and Energy Price statistics revisions

As mentioned previously, similar clarifications to DECC's revisions policy for other statistical releases, including those for Greenhouse Gas Emissions and Energy Price statistics will be published in due course on the webpage www.gov.uk/government/collections/decc-statistics-governance, which contains documents that detail DECC's compliance with the UK Statistics Authority's Code of Practice for Official Statistics.

User feedback

We welcome all feedback from users; therefore, if you have any comments regarding this article, please contact Kevin Harris using the contact details below.

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Future of Energy Trends and Quarterly Energy Prices: printed publications

Energy Trends

Energy Trends (ET) which was first published in the 1960s, is a quarterly DECC statistical publication covering all major aspects of energy. It provides a comprehensive picture of energy production and use and contains analysis of data and articles covering energy issues.

Quarterly Energy Prices

Quarterly Energy Prices (QEP) which began in mid-2001, is a quarterly DECC statistical publication covering energy prices to domestic and industrial consumers, as well as presenting comparisons of fuel prices in the European Union and G7 countries.

Publication schedule

Energy Trends and Quarterly Energy Prices are normally published concurrently on the last Thursday of March, June, September and December. In addition PDF versions of both publications and data tables in Excel format are made available free of charge on the DECC section of the gov.uk website from 9.30am on the day of publication.

Subscriptions

Annual subscriptions to printed editions of both publications run from June to March and are available at £40 for UK subscribers, £45 for the rest of the world (surface email) and £60 for the rest of the world (airmail) subscribers.

Future plans

Since 2007-08, when there were 107 subscribers, there has been a year on year decline in the number of subscribers purchasing printed editions of the publications, and in 2014-15 there are now only 26 subscribers. This decline reflects the fact that most users now access the publications and associated data for free on the internet. Data from gov.uk shows that in the past year the webpages for both publications received on average around 1,400 hits per month.

As a result of the fall in the number of subscribers DECC have decided that the last printed editions of the publications will be released on Thursday 26 March 2015. From June 2015 onwards the publications will only be available on the DECC section of the gov.uk website at:
www.gov.uk/government/collections/energy-trends and
www.gov.uk/government/collections/quarterly-energy-prices.

Whilst the publications will continue to be made available in PDF format, with data tables in Excel, DECC are keen to explore with users how we could improve both the accessibility of the publications and the presentation of data in the future.

User feedback

DECC would be interested to hear from users how DECC could develop the publications from June 2015 onwards. Therefore, if you have any suggestions, please contact Kevin Harris using the contact details below.

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Recent and forthcoming publications of interest to users of energy statistics

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 June 2014, was published on 18 September 2014 at: www.gov.uk/government/collections/smart-meters-statistics

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 23 September 2014 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: June 2014, was published on 23 September 2014 at:
www.gov.uk/government/collections/green-deal-and-energy-company-obligation-eco-statistics

Sub-national residual fuel use, 2012

This factsheet presents the findings of the residual fuels sub–national energy consumption analysis in the UK for the period covering 1 January to 31 December 2012. Residual fuels are defined as non-gas, non-electricity and non-road transport fuels, and cover consumption of coal, petroleum, manufactured solid fuels and bioenergy and waste not used for electricity generation or road transport. The release will be published on 25 September 2014 at:
www.gov.uk/government/collections/sub-national-consumption-of-other-fuels

Sub-national total energy use, 2012

This factsheet presents the findings of the sub–national energy consumption analysis in the UK for all fuels, for the period covering 1 January to 31 December 2012. The release will be published on 25 September 2014 at:
www.gov.uk/government/collections/total-final-energy-consumption-at-sub-national-level

UK Energy Sector Indicators

This annual publication aims to provide a headline overview of some of the key developments in the UK energy system: how energy is produced and used and the way in which energy use influence greenhouse gas emissions. The 2014 edition will be released at 9.30am on Thursday 30 October 2014 at: www.gov.uk/government/collections/uk-energy-sector-indicators

Energy Trends and Quarterly Energy Prices: December 2014

Energy Trends and Quarterly Energy Prices are normally published concurrently on the last Thursday of March, June, September and December. Given that the last Thursday of December 2014 will be Christmas Day (25 December) it has been decided that the publication date for the December 2014 editions of the publications will be brought forward to Thursday 18 December 2014. Hard copies of the publications will be posted to subscribers on the day of publication, but there is a possibility that subscribers may not receive their copies until after Christmas due to the high level of post over the holiday period. PDF versions of the publications and data in excel format will however be available to download from the DECC section of the gov.uk website from 9.30am on Thursday 18 December 2014.

Electricity consumption at local authority level

This factsheet looks at electricity consumption by consuming sector for Great Britain, and Regional/devolved administration areas, together with some commentary relating to local authority trends. The data analysed in this factsheet are based on the aggregation of Meter Point Administration Number (MPAN) readings throughout Great Britain as part of DECC's annual meter point electricity data exercise. The data cover the electricity year between 26 January 2013 and 25 January 2014. These data follow on from the results produced from similar exercises carried out for 2005 to 2012. The latest release will be published on 18 December 2014, at:
www.gov.uk/government/collections/sub-national-electricity-consumption-data.

Gas consumption at local authority level

This factsheet looks at gas consumption by consuming sector for Great Britain, and Regional/devolved administration areas, together with some commentary relating to local authority trends. The data analysed in this factsheet are based on the aggregation of Meter Point Reference Number (MPRN) readings throughout Great Britain as part of DECC's annual meter point gas data exercise. The data cover the gas year between 1 October 2012 and 30 September 2013 and are subject to a weather correction factor. In the domestic sector, gas consumption is predominately used for heating purposes and as a result usage is driven by external temperatures and weather conditions. The weather correction factor enables comparisons of gas use over time, controlling for weather changes. These data follow on from the results produced from similar exercises carried out for 2005 to 2012. The latest release will be published on 18 December 2014, at:
www.gov.uk/government/collections/sub-national-gas-consumption-data.

Northern Ireland electricity consumption

This publication presents estimates of the latest analysis of electricity consumption in Northern Ireland at District Council level. Domestic electricity and non-domestic electricity consumption data for 2012 (originally scheduled for publication on 25 September 2014) and 2013, will now be published on 24 September 2015 at:
www.gov.uk/government/collections/sub-national-electricity-consumption-in-northern-ireland. This publication has been delayed due to quality issues with the time series data which are currently being investigated with Northern Ireland Electricity (NIE).

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.

Symbols used in the tables

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

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.

Conversion factors

1 tonne of crude oil =	7.55 barrels
1 tonne =	1,000 kilograms
1 gallon (UK) =	4.54609 litres
1 kilowatt (kW) =	1,000 watts
1 megawatt (MW) =	1,000 kilowatts
1 gigawatt (GW) =	1,000 megawatts
1 terawatt (TW) =	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.

To:	**Thousand toe**	**Terajoules**	**GWh**	**Million therms**
From	**Multiply by**			
Thousand toe	1	41.868	11.630	0.39683
Terajoules (TJ)	0.023885	1	0.27778	0.0094778
Gigawatt hours (GWh)	0.085985	3.6000	1	0.034121
Million therms	2.5200	105.51	29.307	1

To:	**Tonnes of oil equivalent**	**Gigajoules**	**kWh**	**Therms**
From	**Multiply by**			
Tonnes of oil equivalent	1	41.868	11,630	396.83
Gigajoules (GJ)	0.023885	1	277.78	9.4778
Kilowatt hours (kWh)	0.000085985	0.003600	1	0.034121
Therms	0.0025200	0.105510	29.307	1

Note that all factors are quoted to 5 significant figures

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

Sectoral breakdowns

The categories for final consumption by user are defined by the Standard Industrial Classification 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

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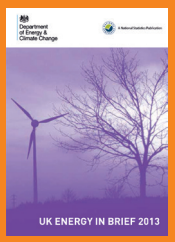

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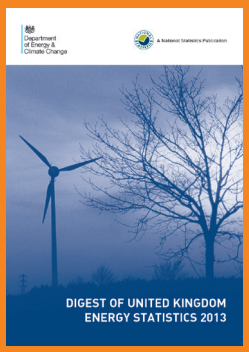

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Energy Consumption in the UK

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