PRESS NOTICE





STATISTICAL PRESS RELEASE

Date: 31 March 2016

UK Energy Statistics, 2015 & Q4 2015

Energy Trends and Energy Prices publications are published today 31 March 2016 by the Department of Energy and Climate Change. The publications cover new data for the fourth quarter of 2015 and thus provisional annual data for 2015. This press release focuses mainly on the 2015 annual data.

Energy Trends covers statistics on energy production and consumption, in total and by fuel, and provides an analysis of the year on year changes. Energy Prices covers prices to domestic and industrial consumers, prices of oil products and comparisons of international fuel prices.

The key points from 2015 are:

- Total energy production was 9.5 per cent higher than in 2014. This increase, the first since 1999 was due to rises in output from oil, gas, bioenergy and primary electricity. Coal output though fell to a record low level.
- Total primary energy consumption for energy uses rose by 0.5 per cent from 2014. When adjusted to take account of weather differences between 2014 and 2015, primary consumption fell by 0.8 per cent.
- Final energy consumption (excluding non-energy use) was 1.9 per cent higher than in 2014, with rises in the domestic, transport and services sectors but with a fall in the industrial sector. On a seasonally and temperature adjusted basis final energy consumption was 0.3 per cent higher than in 2014. The rise in consumption was due to increased transport demand likely due to lower petroleum prices. Average temperatures in 2015 were 0.6 degrees cooler than in 2014.
- Low carbon electricity's share of generation increased from 37.9 per cent in 2014 to a record high of 45.5 per cent in 2015, due to an increase in nuclear generation and higher renewables generation following increases in capacity.
- Of electricity generated in 2015, gas accounted for 29.5 per cent (a decrease of 0.3 percentage points on 2014) and coal accounted for 22.6 per cent (a decrease of 7.1 percentage points on 2014) due to plant closures and conversions. Nuclear's share of generation increased by 2.0 percentage points on 2014, to 20.8 per cent.

- Renewable electricity generation was 83.3 TWh in 2015, an increase of 28.9 per cent on the 64.7 TWh in 2014, with bioenergy up by 27.8 per cent and wind generation up 26.4 per cent. Renewables' share of electricity generation was a record 24.7 per cent in 2015, an increase of 5.6 percentage points on the 19.1 per cent in 2014. Renewable electricity capacity was 30.0 GW at the end of 2015, a 21.9 per cent increase (5.4 GW) on a year earlier.
- Average annual household energy bills (based on fixed consumption of 3,800 kWh per annum for electricity and 15,000 kWh per annum for gas) across all payment types in 2015 decreased by £46 (down 3.5 per cent to £1,298) compared to 2014. Average electricity bills were £8 lower, with gas bills down £38.

Other highlights from 2015 include:

- Imports in 2015 were 5.4 per cent lower than in 2014, whilst exports rose by 8.3 per cent. As a result, net import dependency fell back from 46.2 per cent to 38.6 per cent.
- Oil production was 13.4 per cent higher than in 2014 in contrast with the steady decline that had been observed since the peak in 1999. New fields came online in 2014, including Golden Eagle, which have contributed to the increase in production in 2015. Production of petroleum products increased slightly by 0.7 per cent. Low prices of crude oil and low levels of maintenance in 2015 were key factors.
- Natural gas production was 7.8 per cent higher than in 2014 by far the largest year-on-year increase in production since production peaked in 2000. This was due to the development of some new gas fields and lower maintenance levels than 2014. With strong production, gas imports were relatively steady on 2014 but gas exports were up by nearly a quarter.
- Coal production was 27 per cent lower than in 2014 mainly due to the closure of a number of mines. Output was at a record low level. Coal imports were 39 per cent lower as generators' demand for coal fell by 24 per cent to a record low. Coal stocks fell and were 23 per cent lower, as a result of generators using more stocks for electricity generation while purchasing less coal from the UK and overseas.
- Gas demand was up slightly on 2014, by 2.4 per cent overall. Gas used for electricity generation was down by 3.1 per cent but gas demand amongst domestic and other users was up nearly 6 per cent, driven by colder weather during several months in the year.
- Electricity generation in 2015 fell by 0.4 per cent, from 338.9 TWh a year earlier to 337.7 TWh, with a large fall in generation from coal.

For more detailed information on methodology, quality assurance and use of the data, please refer to the methodology notes available by energy sector on the DECC section of the GOV.UK website at: www.gov.uk/government/organisations/department-of-energy-climate-change/about/statistics



The March 2016 edition of Energy Trends also includes articles on:

- Domestic energy bills in 2015: The impact of variable consumption
- Understanding growth rates in primary energy consumption
- Consultation on DECC's oil and gas statistical tables
- Analysis of UK greenhouse gas emissions and economic growth
- UKCS Capital Expenditure Survey 2015
- Summary results of the domestic wood use survey

The following statistics are also published today 31 March 2016, by the Department of Energy and Climate Change:

- Feed-in Tariff commissioned installations, February 2016 www.gov.uk/government/statistics/monthly-small-scale-renewable-deployment
- Greenhouse Gas Emissions, 2015 provisional figures
 <u>www.gov.uk/government/collections/provisional-uk-greenhouse-gas-emissions-national-statistics</u>
- Greenhouse Gas Emissions, Q4 2015
 <u>www.gov.uk/government/collections/uk-greenhouse-gas-emissions-quarterly-official-statistics</u>
- Smart meters installations, Q4 2015 www.gov.uk/government/collections/smart-meters-statistics
- Solar photovoltaics deployment, February 2016 www.gov.uk/government/statistics/solar-photovoltaics-deployment



TOTAL ENERGY: 2015



	2015 Million tonnes of oil equivalent	Percentage change on a year earlier
Total production	123.9	+9.5
Oil	49.5	+13.4
Natural gas	39.7	+7.8
Primary electricity ⁽¹⁾	20.0	+14.3
Coal	5.3	-27.1

(1)Nuclear and wind, solar & natural flow hydro electricity

- Total energy production in 2015 was 123.9 million tonnes of oil equivalent, 9.5 per cent higher than in 2014. This increase, the first since 1999, was due to rises in output from most fuels, though coal production continued to fall to a record low level.
- Production of oil and gas rose by 13.4 and 7.8 per cent respectively between 2014 and 2015 due to the opening of new fields and less maintenance activity being undertaken than a year earlier.
- Primary electricity output in 2015 was 14.3 per cent higher than in 2014, within which nuclear electricity output was 10.3 per cent higher due to improved availability, whilst output from wind, solar and natural flow hydro was 30 per cent higher, due to strong growth in wind generation in 2015.
- Production of coal in 2015 fell by 27 per cent, to a record low, due to mines closing and some other mines producing less coal as they are come to the end of their operational life.

Total energy quarterly tables ET 1.1 – 1.3 are available on the DECC section of the GOV.UK website at: www.gov.uk/government/publications/total-energy-section-1-energy-trends



TOTAL ENERGY: 2015





(1) Total inland consumption on a primary fuel input basis (seasonally adjusted and temperature corrected annual rates).

	2015 Million tonnes of oil equivalent	Percentage change on a year earlier
Total energy consumption Unadjusted	194.6	+0.5
Seasonally adjusted and temperature corrected –annual rate	197.4	-0.8
Final energy consumption	137.8	+1.9

When examining seasonally adjusted and temperature corrected annualised rates:

- Total inland consumption on a primary fuel input basis was 197.4 million tonnes of oil equivalent in 2015, 0.8 per cent lower than in 2014.
- Between 2014 and 2015 coal consumption fell by 23 per cent as less coal was used in electricity generation, whilst oil consumption rose by 1.4 per cent, and gas consumption rose by 0.6 per cent.
- Bioenergy and waste consumption rose by 19.2 per cent, reflecting higher use in electricity generation, whilst primary electricity consumption also rose by 13.2 per cent.

Final energy consumption (excluding non-energy use) was 1.9 per cent higher than in 2014, with average temperatures in 2015 being 0.6 degrees Celsius cooler than 2014. Domestic consumption rose by 4.1 per cent. On a temperature corrected basis, final energy consumption rose by 0.3 per cent, with domestic consumption down 0.4 per cent. The rise in consumption was due to increased transport demand likely due to lower petroleum prices.

Total energy quarterly tables ET 1.1 – 1.3 are available on the DECC section of the GOV.UK website at: www.gov.uk/government/publications/total-energy-section-1-energy-trends



COAL: 2015

Coal production and imports



	2015 Million tonnes	Percentage change on a year earlier
Coal production	8.53	-26.8
Coal imports	25.48	-39.0
Coal demand	37.93	-21.6
- Power stations	29.34	-23.6
 Coke ovens & blast furnaces 	5.14	-20.8
- Final users	2.70	-0.9

- Provisional figures for 2015, as a whole, show that coal production fell to a new record low of 8.5 million tonnes, 27 per cent down on 2014. Deep mined production was down 24 per cent at 2.8 million tonnes, the lowest on record. This was due to the closure of Hatfield and Thoresby collieries in early July 2015. (In addition, Kellingley the largest deep mine operational closed in December 2015). Surface mine production was down by 28 per cent to 5.7 million tonnes, also a record low. This was due to a number of collieries/companies closing, and some other mines producing less coal as they near the end of operation.
- Imports of coal in 2015 as a whole were 39 per cent down on 2014 at 25.5 million tonnes. This was due to lower demand.
- Total demand for coal in 2015 was 37.9 million tonnes, 22 per cent lower than in 2014, with consumption by electricity generators down by 24 per cent (-9.1 million tonnes).
- Coal stocks showed a seasonal fall of 2.5 million tonnes during the fourth quarter of 2015 and stood at 14.5 million tonnes, 4.1 million tonnes lower than at the end of December 2014.

Coal quarterly tables ET 2.1 – 2.3 are available on the DECC section of the GOV.UK website at: www.gov.uk/government/publications/solid-fuels-and-derived-gases-section-2-energy-trends





Production and trade of crude oil and NGLs



2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015

	2015 Million tonnes	Percentage change on a year earlier
Primary oil production	45.3	13.4
Primary oil demand	61.0	0.2
Net imports (primary oil)	13.4	-29.7
Net Imports (oil products)	9.3	48.0
Refinery production	63.0	0.7
Petroleum demand	68.1	2.9
 Motor spirit (unleaded, including biofuels) 	12.7	-2.0
- DERV (diesel, including biofuels)	24.3	3.1
- Aviation turbine fuel	11.4	1.2

(+) percentage change greater than 100 per cent

- Indigenous production of primary oils (crude, NGLs and feedstocks) increased by 13.4 per cent (5.4 million tonnes) compared with 2014 in contrast with the general long term decline. New fields came online in 2014 which have boosted production.
- Overall demand for primary oils in 2014 was 0.2 per cent higher than last year, reflecting higher refinery demand as refinery production has slightly increased. Indigenous production of petroleum products was 0.7 per cent higher in 2015 compared with 2014. Low crude prices and lower maintenance in 2015 have been contributory factors.
- Net imports of petroleum products were 9.3 million tonnes in 2015, the highest annual figure since 1984 when industrial action in the coal sector led to greater demand for oil products.
- Transport final demand increased by 1.6 per cent , likely due to lower prices.

Oil quarterly tables ET 3.1 – 3.7 are available on the DECC section of the GOV.UK website at: <u>www.gov.uk/government/publications/oil-and-oil-products-section-3-energy-trends</u>



GAS: 2015





	2015 TWh	Percentage change on a year earlier
Gas production	461.1	+7.8
Gas imports	489.3	+2.6
Gas exports	158.5	+24.0
Gas demand	793.7	+2.4
 Electricity generation 	210.3	-3.5
- Domestic	294.2	+5.8

- In 2015, gross production of natural gas was 7.8 per cent higher than in 2014, and by far the largest increase since production peaked in 2000. This was due to both reduced maintenance and downtime in 2015, along with new fields coming on line.
- Gas exports were 24 per cent higher than 2014, whilst imports remained relatively steady despite an increase in LNG volumes on last year. At 159 TWh, gas exports in 2015 are notably high, a result of relatively steady UK demand against increased production and imports. Net imports are down 5.3 per cent on last year.
- Gas demand was up on last year, albeit slightly at 2.4 per cent, and still low against the average in recent years. Gas demand for electricity was down by 3.5 per cent but final consumption was up 4.7 per cent driven in the main by increased domestic demand and demand for heating by other final users, including commercial premises, reflecting the cooler temperatures in 2015.

Gas quarterly table ET 4.1 is available on the DECC section of the GOV.UK website at: www.gov.uk/government/publications/gas-section-4-energy-trends



ELECTRICITY: 2015



	2015 <i>TWh</i>	Percentage change on a year earlier
Electricity		
Generated from		
Coal	76.3	-24.3
Nuclear	70.3	+10.3
Gas	99.8	-1.2
Renewables	83.3	+28.9
Total	337.7	-0.4
Supplied to		
Industry	92.1	-1.3
Domestic	108.8	-0.1
Other final consumers	103.1	+1.9
All	304.0	+0.2

- Generation from coal in 2015 fell by 24 per cent and gas fell by 1.2 per cent compared with a year earlier. Generation from renewables was up 29 per cent, mainly due to increased wind and bioenergy capacity.
- In 2015, coal accounted for 22.6 per cent of generation. Gas's share fell to 29.5 per cent. Nuclear's share increased to 20.8 per cent, with renewables accounting for 24.7 per cent of generation.
- Low carbon generation (including renewables) accounted for 45.5 per cent of generation in 2015, compared to 37.9 per cent in 2014.
- Total electricity generated in 2015 was 0.4 per cent lower than a year earlier due to falling demand, whilst imports made up 6.2 per cent of electricity supplied.
- Fuel used by generators in 2015 was 2.4 per cent lower than in 2014.
- Final consumption of electricity increased slightly by 0.2 per cent in 2015. Domestic use fell slightly by 0.1 per cent.

Electricity quarterly tables ET 5.1 – 5.2 are available on the DECC section of the GOV.UK website at: www.gov.uk/government/publications/electricity-section-5-energy-trends



RENEWABLES: 2015

Renewable electricity generation



	2015 TWh	Percentage change on a year earlier
Renewable electricity generation		
Onshore wind	23.0	+23.7
Offshore wind	17.4	+29.9
Hydro	6.3	+7.4
Solar PV	7.6	+86.6
Bioenergy (inc. co-firing)	29.0	+27.8
All renewables	83.3	+28.9

- Renewable electricity generation was 83.3 TWh in 2015, an increase of 29 per cent on the 64.6 TWh recorded in 2014. Offshore wind generation rose by 30 per cent and onshore wind by 24 per cent. These increases were due to increased capacity and high wind speeds, with average wind speeds in 2015 the highest in the last fifteen years, and 0.6 knots (7.2 per cent) higher than a year earlier. Generation from solar photovoltaics increased by 87 per cent, to a record 7.6 TWh, due to increased capacity. Hydro rose by 7.4 per cent compared with a year earlier to a record 6.3 TWh, due to 2015 rainfall levels in the main hydro areas being 18 per cent higher than those of 2014, the highest for four years. Generation from bioenergy was up 28 per cent, largely due to the conversion of a third unit at Drax to biomass in July 2015.
- Renewables' share of electricity generation increased from 19.1 per cent in 2014 to 24.7 per cent in 2015.
- Renewable electricity capacity was 30.0 GW at the end of 2015, a 22 per cent increase (5.4 GW) on a year earlier.
- Renewable transport: liquid biofuels accounted for 3.2 per cent of petrol and diesel consumed in road transport in 2015, a 0.7 percentage point fall on the share in 2014.

Renewables quarterly tables ET 6.1 – 6.2 are available on the DECC section of the GOV.UK website at: www.gov.uk/government/publications/renewables-section-6-energy-trends



MAIN POINTS FOR THE FOURTH QUARTER OF 2015



Electricity generated

- Total energy production was 13.2 per cent higher than in the fourth quarter of 2014.
- Total primary energy consumption for energy uses fell by 3.5 per cent. However, when adjusted to take account of weather differences between the fourth quarter of 2014 and the fourth quarter of 2015, primary energy consumption fell by 1.0 per cent.
- Final energy consumption (excluding non-energy use) fell by 3.0 per cent compared to the fourth quarter of 2014, with the record warmer weather a factor, on a temperature corrected basis it is estimated to have risen by 0.6 per cent.
- Of electricity generated in the fourth quarter of 2015, gas accounted for 29.7 per cent, whilst coal accounted for 19.9 per cent. Nuclear generation accounted for 21.2 per cent of total electricity generated in the fourth quarter of 2015, up from the 15.6 per cent share in the fourth quarter of 2014, due to an increase in generation after outages in the fourth quarter of 2014.
- Renewables' share of electricity generation increased to a new record of 26.9 per cent from the 21.8 per cent share in the fourth quarter of 2014, reflecting high renewable generation on low overall generation. Renewable electricity generation was a record 23.8 TWh in the fourth quarter of 2015, an increase of 21 per cent on the 19.7 TWh in the fourth quarter of 2014.

Quarterly tables are available on the DECC section of the GOV.UK website at: www.gov.uk/government/organisations/department-of-energy-climate-change/about/statistics



DOMESTIC PRICES: QUARTER 4 2015



Consumer price index fuel components in real terms ⁽¹⁾ 2010=100	2015 Q4	Percentage change on a year earlier
Solid fuels	105.8	-0.6
Gas	119.7	-6.5
Electricity	118.7	-0.3
Liquid fuels	66.8	-31.9
Total domestic fuel	117.5	-4.1

(1) Deflated using the GDP implied deflator. The original source of the indices is ONS.

- The price paid for all domestic fuel by household consumers fell by 4.1 per cent in real terms between Q4 2014 and Q4 2015, and by 0.3 per cent between Q3 and Q4 2015.
- Domestic electricity prices, including VAT, in Q4 2015 were 0.3 per cent lower in real terms than in Q4 2014.
- The price of domestic gas, including VAT, fell by 6.5 per cent in real terms between Q4 2014 and Q4 2015 and by 1.1 per cent between Q3 and Q4 2015.
- All six of the major domestic energy suppliers decreased gas prices at the beginning of 2015 reflecting falls in wholesale gas prices. One of these suppliers again reduced gas prices in the middle of the year. There were no price changes from the six major domestic energy suppliers for electricity customers in 2015. Overall, the changes reflect an average decrease in gas prices of around 5 per cent while electricity prices fell marginally on 2014 as prices of fixed deals fell.

Switching levels

• Switching rates amongst consumers rose by 13 per cent for electricity and for gas between Q4 2014 and Q4 2015. For both electricity and gas, these transfers represent around 3.6 per cent of domestic customers.

Domestic prices tables are available on the DECC section of the GOV.UK website at: www.gov.uk/government/collections/domestic-energy-prices



DOMESTIC ENERGY BILLS: 2015

Average domestic gas and electricity bills (cash terms) $\pounds^{1,400}$ $\pounds^{1,200}$ $\pounds^{1,000}$ \pounds^{800} \pounds^{600} \pounds^{600} \pounds^{400}

Electricity

Average annual domestic fuel bills (1)

£200

£0

2007

Combined average bill (£s)

	2014	2015	Percentage change, cash terms	Percentage change, real terms ⁽²⁾
Gas ⁽³⁾	£752	£714	-5.2	-5.5
Electricity ⁽⁴⁾	£592	£584	-1.4	-1.7
Total ⁽⁵⁾	£1,344	£1,298	-3.5	-3.8

2008 2009 2010 2011 2012 2013 2014 2015

(1) Average annual bills for domestic customers weighted by the proportion of customers on the different payment methods, which include standard credit, direct debit and pre-payment meter. Bills relate to the total bill received in the calendar year and are in cash terms.

(2) To estimate the percentage change in real terms bills were deflated using the GDP (implied) deflator.

(3) Gas bills are based on an annual consumption of 15,000 kWh.

(4) Electricity bills are based on an annual consumption of 3,800 kWh.

(5) The average total gas and electricity bill presented should be taken as broadly indicative only. It is not based on individual customers, but is simply the sum of the averages for electricity and gas.

- (6) In Q4s of both 2014 and 2015 a £12 Government rebate was applied to electricity bills for all customers in Great Britain. This is included in the figures above.
 - The average domestic electricity bill in 2015, based on a fixed consumption level of 3,800 kWh/year, decreased by £8 to £584. Bills for customers paying by standard credit averaged £615. For those paying by direct debit, it was £559, and on pre-payment, £618.
 - For domestic gas, the average 2015 annual bill, based on a fixed consumption level of 15,000 kWh/year, fell by £38 to £714. For customers paying by standard credit the average bill was £760. For those paying by direct debit, it was £681, and for those on pre-payment, £760.
 - For the period July to December 2015, prices for medium domestic gas and electricity consumers, including tax, were the fourth and the seventh lowest in the EU15 respectively.

Domestic prices tables are available on the DECC section of the GOV.UK website at: www.gov.uk/government/collections/domestic-energy-prices



Industrial fuel price indices in real terms including the Climate Change Levy



Fuel prices index in real terms ⁽¹⁾ 2010=100	2015 Q4	Percentage change on a year earlier
Coal	92.4	-0.7
Heavy fuel oil	67.0	-26.1
Gas	104.4	-17.4
Electricity	111.8	0.0
Total fuel	100.8	-8.2

(1) Deflated using the GDP implied deflator. Includes estimates of the average Climate Change Levy (CCL) paid.

- Average industrial gas prices, including CCL, were 17 per cent lower in real terms in Q4 2015 compared to Q4 2014.
- Average industrial electricity prices were unchanged in real terms, in Q4 2015 compared to Q4 2014.
- Average coal prices were 0.7 per cent lower in real terms in Q4 2015 compared to Q4 2014. Heavy fuel oil prices were 26 per cent lower in real terms than a year ago.
- For the period July to December 2015, prices for industrial electricity consumers including taxes were above the EU15 median for all consumers. UK industrial gas prices were amongst the lowest in the EU15 for all sizebands of consumer including tax.

Industrial prices tables are available on the DECC section of the GOV.UK website at: www.gov.uk/government/collections/industrial-energy-prices



ROAD TRANSPORT FUEL PRICES: QUARTER 4 2015



Retail prices of petroleum products	Mid-March 2016 ⁽¹⁾ Pence per litre	Percentage change on a year earlier
Unleaded petrol ⁽²⁾	101.7	-8.4
Diesel ⁽²⁾	102.5	-13.3

(1) Prices are for ultra low sulphur versions of these fuels.

(2) Prices are provisional estimates.

- Crude oil prices have fallen considerably in recent months, reaching a low of under \$30/barrel in January 2016 before increasing to around \$40/barrel in March.
- In mid-March 2016, a litre of unleaded petrol was on average 101.7 pence per litre, 8.4 per cent lower than a year earlier and 28 per cent lower than the high of April 2012.
- In mid-March 2016, diesel was on average 102.5 pence per litre, 13 per cent lower than a year earlier and 31 per cent lower than the high of April 2012.
- In February 2016, the UK retail price for petrol was seventh highest in the EU. UK diesel prices were the highest in the EU.
- The price difference between diesel and petrol in March 2016 is 0.8 pence per litre. In recent months, diesel prices have occasionally dipped below petrol prices for the first time since 2001.

Road transport fuel prices tables are available on the DECC section of the GOV.UK website at: www.gov.uk/government/collections/road-fuel-and-other-petroleum-product-prices



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Notes to editors

1. More detailed figures of United Kingdom energy production and consumption and of energy prices, for the fourth quarter of 2015 and 2015 as a whole are given in the March 2016 editions of ENERGY TRENDS and ENERGY PRICES respectively, the Department's statistical bulletins on energy, published on 31 March 2016.

2. Energy Trends and the Energy Prices bulletins, published quarterly, are available on the DECC section of the GOV.UK website at: www.gov.uk/government/collections/quarterly-energy-prices and www.gov.uk/government/collections/quarterly-energy-prices

3. Articles featured in Energy Trends are also available on the DECC section of the GOV.UK website at: www.gov.uk/government/collections/energy-trends-articles.

4. More detailed annual data on energy production and consumption for the years 2010 to 2014 are available in the DIGEST OF UNITED KINGDOM ENERGY STATISTICS 2015, published by the Stationery Office on 30 July 2015, priced £75. The 2016 edition of the Digest will be published on 28 July 2016. All information contained in the Digest is available on the DECC section of the GOV.UK website at: www.gov.uk/government/collections/digest-of-uk-energy-statistics-dukes

