



Date: 22 December 2016

STATISTICAL PRESS RELEASE

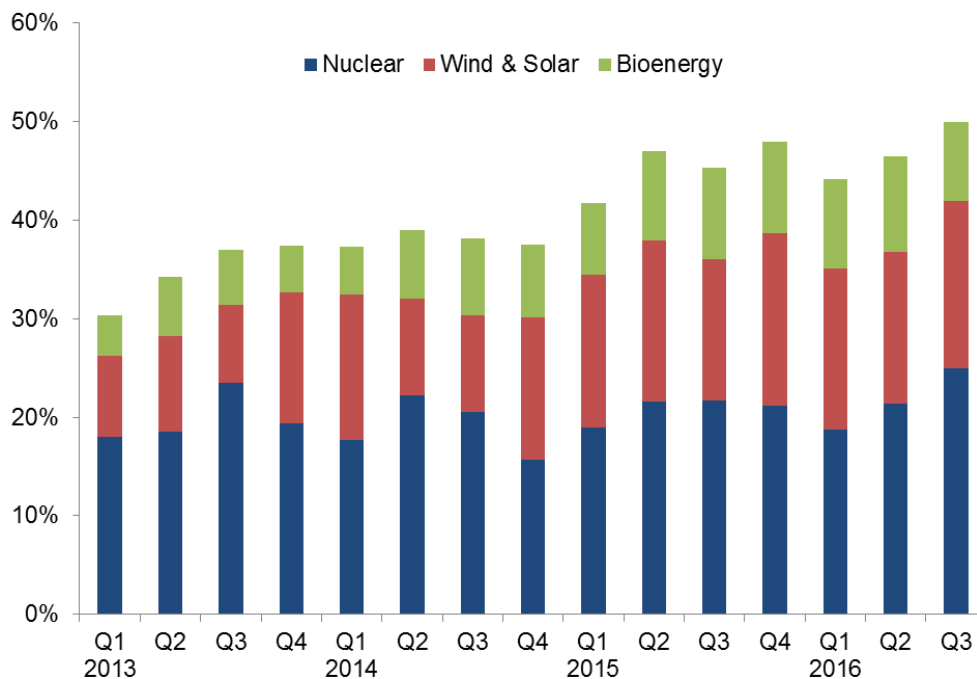
UK Energy Statistics, Q3 2016

Energy Trends and Energy Prices publications are published today 22 December 2016 by the Department for Business, Energy and Industrial Strategy.

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.

- Low carbon electricity's share of generation accounted for a record high 50.0 per cent in the third quarter of 2016, up from 45.3 per cent in the same period of 2015, with increased generation from renewables (wind and solar) and nuclear.

Low carbon electricity's share of generation



The main points for the third quarter of 2016 are:

- UK energy production rose by 8.0 per cent in the third quarter of 2016 compared with a year earlier. Production of oil increased by 7.8 per cent, mainly driven by lower maintenance activity along with increased production from the Balloch field and the new Solan field coming online. Production of gas rose by 10.8 per cent, boosted by production from the new Laggan field.
- Primary energy consumption for energy uses fell by 4.6 per cent, however when adjusted to take account of weather differences between the third quarter of 2015 and the third quarter of 2016, primary energy consumption fell by 5.0 per cent.
- Final energy consumption (excluding non-energy use) fell by 2.9 per cent compared to the third quarter of 2015. Domestic consumption fell by 11.9 per cent reflecting the warmer weather in the quarter, service sector consumption fell by 4.2 per cent, industrial consumption fell by 2.6 per cent, whilst transport consumption rose by 0.4 per cent. On a temperature corrected basis, final energy consumption fell by 1.1 per cent.
- Of electricity generated in the third quarter of 2016, gas accounted for 43.6 per cent, whilst coal's share fell to 3.6 per cent as a result of reduced capacity, including the closures of Ferrybridge C and Longannet in March 2016 and with the conversion of a unit at Drax from coal to high-range co-firing (85% to <100% biomass). Nuclear generation accounted for 25.0 per cent, whilst the share from renewables increased by 1.3 percentage points to 25.0 per cent.
- Provisional data for 2016 suggest that domestic energy bills decreased by 4.6 per cent. For fixed consumption levels of electricity of 3,800 kWh per annum, bills increased by £2 to £586; and for fixed consumption levels of gas of 15,000 kWh per annum, bills decreased by £62 to £652. The combined average domestic bill fell by £60 from £1,297 in 2015 to £1,237 in 2016.

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 BEIS section of the GOV.UK website at:

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

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

- Electricity generation and supply figures for Scotland, Wales, Northern Ireland and England, 2012 to 2015 (see commentary on page 15)
- Physical gas flows across Europe and diversity of gas supply in 2015
- Feed-in Tariff load factor analysis, 2011/12 to 2015/16
- Building Energy Efficiency Survey

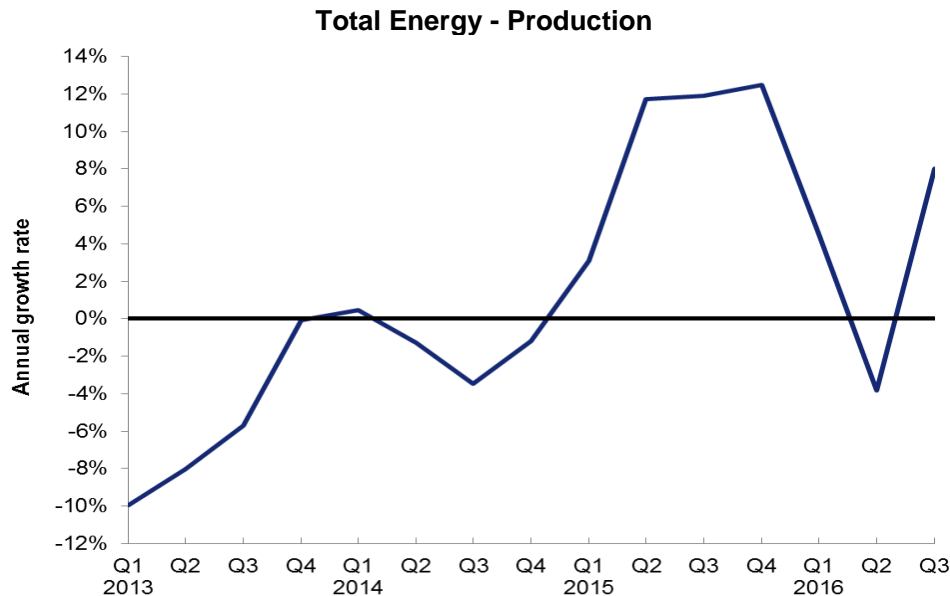


The following statistics are also published today, 22 December 2016, by the Department for Business, Energy and Industrial Strategy:

- Feed-in Tariff commissioned installations, November 2016
www.gov.uk/government/statistics/monthly-small-scale-renewable-deployment
- Household Energy Efficiency headline release
www.gov.uk/government/statistics/household-energy-efficiency-national-statistics-headline-release-december-2016
- RHI deployment, November 2016
www.gov.uk/government/statistics/rhi-deployment-data-november-2016
- Smart meters installations, Q3 2016
www.gov.uk/government/statistics/statistical-release-and-data-smart-meters-great-britain-quarter-3-2016
- Solar photovoltaics deployment, November 2016
www.gov.uk/government/statistics/solar-photovoltaics-deployment
- Sub-national electricity consumption, 2015
www.gov.uk/government/collections/sub-national-electricity-consumption-data
- Sub-national gas consumption, 2015
www.gov.uk/government/collections/sub-national-gas-consumption-data



TOTAL ENERGY: QUARTER 3 2016



	2016 Q3 <i>Million tonnes of oil equivalent</i>	Percentage change on a year earlier
Total production	29.9	+8.0
Oil	12.3	+8.1
Natural gas	9.8	+10.8
Primary electricity ⁽¹⁾	5.2	+14.4
Bioenergy & waste	1.9	-3.2
Coal	0.6	-27.9

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

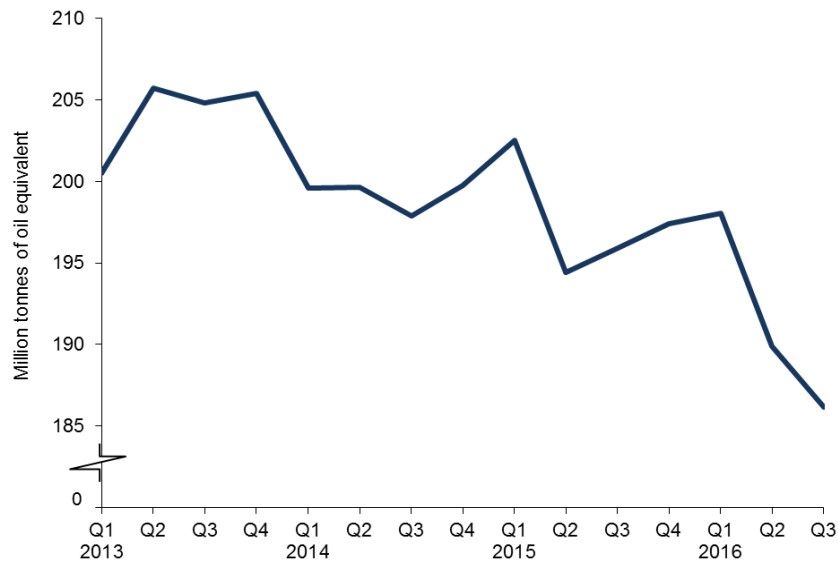
- Total energy production in the third quarter of 2016 was 29.9 million tonnes of oil equivalent, 8.0 per cent higher than in the third quarter of 2015.
- Production of oil rose by 8.1 per cent compared to the third quarter of 2015, due to less maintenance activity and new fields coming online. Production of gas rose by 10.8 per cent compared to the third quarter of 2015, boosted by production from the new Laggan field.
- Primary electricity output in the third quarter of 2016 was 14.4 per cent higher than in the third quarter of 2015, within which nuclear electricity output was 13.9 per cent higher following outages in 2015, whilst output from wind, solar and natural flow hydro was 16.4 per cent higher than the same period in 2015, due to improved weather conditions for renewable generation, higher wind speeds, more sun hours and increased rainfall levels.
- Production of bioenergy and waste was 3.2 per cent lower than in the third quarter of 2015.
- In the third quarter of 2016 production of coal and other solid fuels was 28 per cent lower than the corresponding period of 2015. This was mainly due to the last deep mine in operation at Kellington in North Yorkshire closing in December 2015.

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



TOTAL ENERGY: QUARTER 3 2016

Total Energy – consumption⁽¹⁾



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

	2016 Q3 Million tonnes of oil equivalent	Percentage change on a year earlier
Total consumption		
<i>Unadjusted</i>	39.3	-4.6
<i>Seasonally adjusted and temperature corrected – annual rate</i>	186.1	-5.0
Final consumption: unadjusted	27.6	-2.9
temperature corrected	34.8	-1.1

When examining seasonally adjusted and temperature corrected annualised rates:

- Total inland consumption on a primary fuel input basis was 186.1 million tonnes of oil equivalent in the third quarter of 2016, 5.0 per cent lower than the same quarter in 2015.
- Between the third quarter of 2015 and the third quarter of 2016, coal and other solid fuel consumption fell by 59 per cent driven by decreased coal use in electricity generation.
- Oil consumption rose by 0.4 per cent, whilst gas consumption rose by 2.2 per cent.
- Primary electricity consumption rose by 11.9 per cent, with rises in wind, solar and hydro of 18.4 per cent and in nuclear of 14.2 per cent.

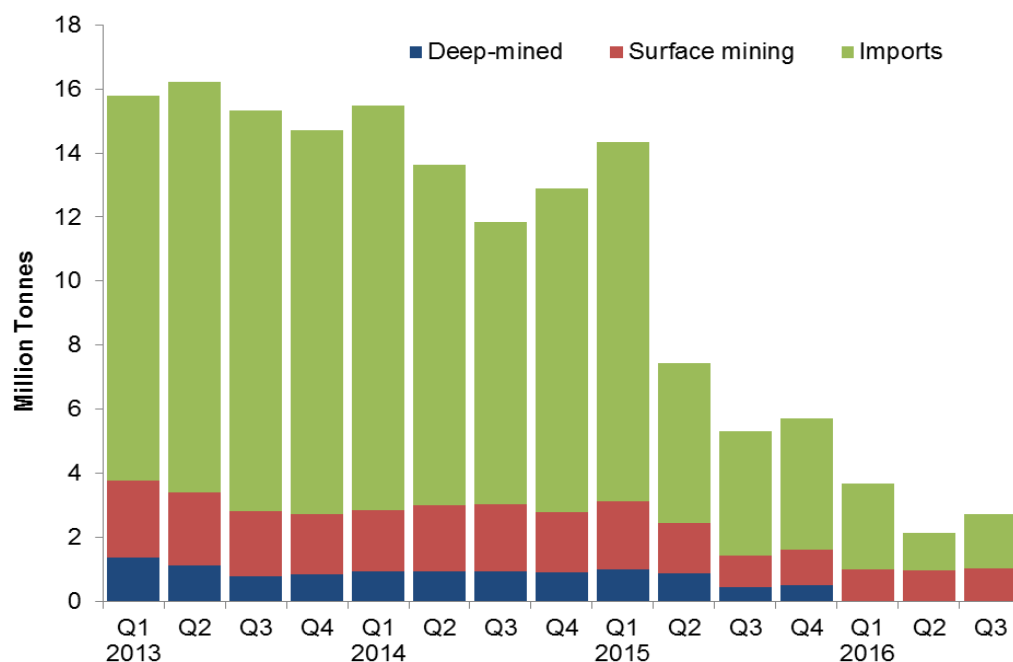
Final consumption was 2.9 per cent lower in the third quarter of 2016 compared to the same quarter a year earlier. The average temperature in the third quarter of 2016 was 1.6 degrees Celsius warmer than the same period a year earlier. On a temperature corrected basis, final energy consumption was 1.1 per cent lower over the same period.

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



COAL: QUARTER 3 2016

Coal production and imports



	2016 Q3 Thousand tonnes	Percentage change on a year earlier
Coal production	1,027	-27.9
Coal imports	1,694	-56.5
Coal demand	2,607	-62.4
- Power stations	1,198	-76.1
- Coke ovens & blast furnaces	810	-33.1
- Final users	513	-15.9

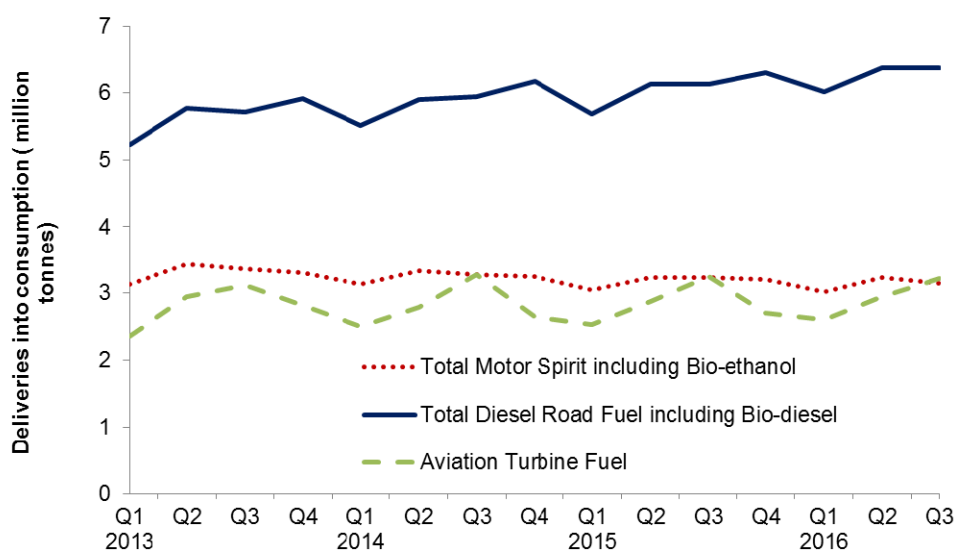
- Provisional figures for the third quarter of 2016 show that coal production fell to 1.0 million tonnes, 28 per cent lower than the third quarter of 2015, with deep mine output falling to a new record low, due mainly to Kellingley, the last large deep mine in operation, closing on 18 December 2015. Surface mine production was up by 1.8 per cent to 1.0 million tonnes.
- Imports of coal in the third quarter of 2016 were 1.7 million tonnes, which was 56 per cent lower than in the third quarter of 2015. This was due to lower demand for coal overall.
- Total demand for coal in the third quarter of 2016 was 2.6 million tonnes, 62 per cent lower than in the third quarter of 2015, with consumption by electricity generators down by 76 per cent to 1.2 million tonnes, a new record low.
- Total stocks at the end of the third quarter of 2016 were 9.2 million tonnes (a new record low). This was a 0.2 per cent decrease when compared to the second quarter of 2016 and 45 per cent lower than the third quarter of 2015 (16.9 million tonnes).

Coal quarterly tables ET 2.1 – 2.4 are available on the BEIS section of the GOV.UK website at: www.gov.uk/government/statistics/solid-fuels-and-derived-gases-section-2-energy-trends



OIL: QUARTER 3 2016

Demand for key transport fuels



	2016 Q3 Thousand tonnes	Percentage change on a year earlier
Primary oil production	10,515	+6.3
Refinery throughput	15,334	-6.1
Net imports (all oil)	6,321	-8.7
Petroleum demand	16,249	+1.5
- Motor spirit (including biofuels)	3,150	-2.6
- DERV fuel (including biofuels)	6,366	+3.8
- Aviation turbine fuel	3,223	-0.9

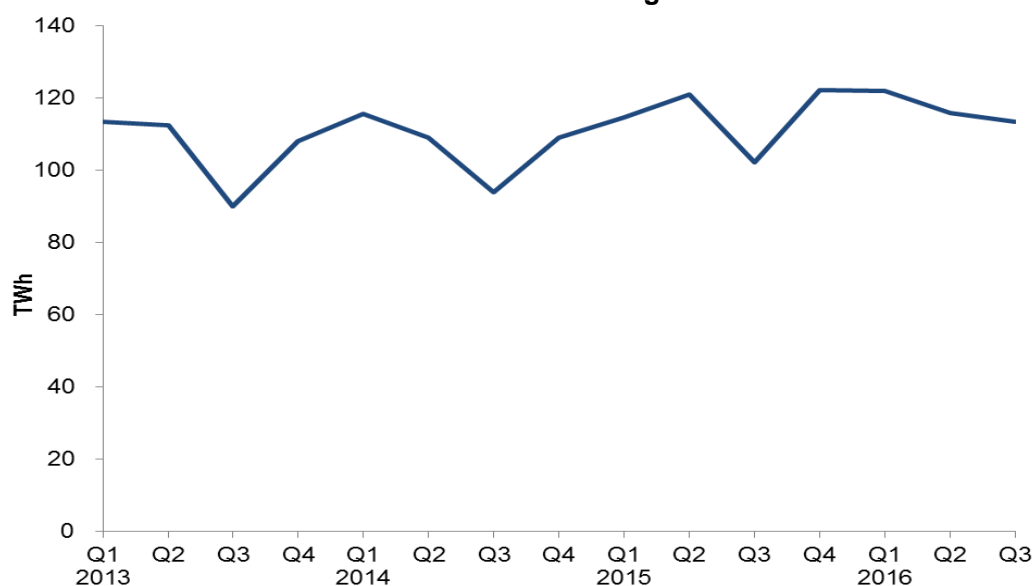
- Total indigenous UK production of crude oil and Natural Gas Liquids in Q3 2016 was 6.3 per cent higher than 2015. The increase in production is mainly driven by fewer maintenance activities compared to last year along with increased production from the Balloch field and the new Solan oil field coming online, despite the delay of scheduled maintenance at the Buzzard field towards the end of the quarter. In the year to date production is up 8.3 per cent.
- Refinery production in Q3 2016 was down 6.5 per cent on the same quarter of last year, partly because of planned maintenance at some refineries. Production remains robust compared to last year, down 1.3 per cent on the year to date. Longer term, there is an ongoing decline in UK refinery production. Trade was relatively flat - imports of petroleum products were up on Q3 2015 by around 3 per cent and exports were down 1.5 per cent.
- The UK was a net importer of oil and oil products in the third quarter of 2016 by 2.2 million tonnes. In the same period of 2015 the UK was a net importer by 1.9 million tonnes.
- Overall demand for petroleum products was up by 1.5 per cent on last year, driven by demand for transport fuels, particularly road diesel.

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



GAS: QUARTER 3 2016

Production of natural gas



	2016 Q3 TWh	Percentage change on a year earlier
Gas production	113.4	10.8
Gas imports	87.0	-14.9
Gas exports	54.9	4.6
Gas demand	140.5	3.5
- Electricity generation	68.2	23.3
- Domestic	20.1	-21.1

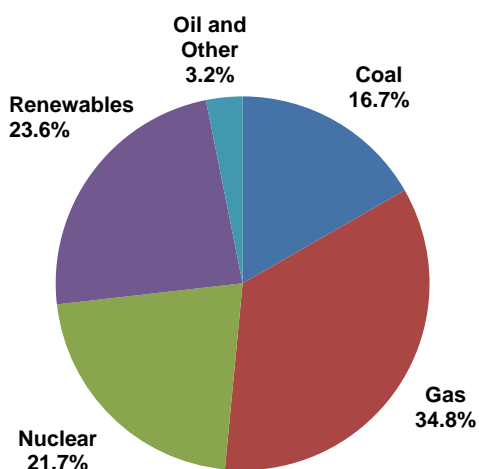
- Total indigenous UK production of natural gas in the third quarter of 2016 was 113.4 TWh, 10.8 per cent higher than a year before.
- Imports in Q3 2016 were down 14.9 per cent in comparison to the same quarter in 2015. This was largely driven by imports from Norway, which was down 19.7 per cent. Exports increased by 4.6% over the same time frame, driven by increases in exports to Belgium via the interconnector up 18.8 per cent. Combined these lead to net imports increasing by 35.5 per cent.
- UK gas demand was up 3.5 per cent compared to Q3 2016, with a notable increase in demand for electricity generation, which was up 23.3 per cent on the same quarter last. In contrast final consumption has decreased by 13.0 per cent with domestic, other final users and other industry all decreasing by 21.1, 9.3 and 4.7 per cent. These decreases were partly as a result of warmer temperatures, particularly in September

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

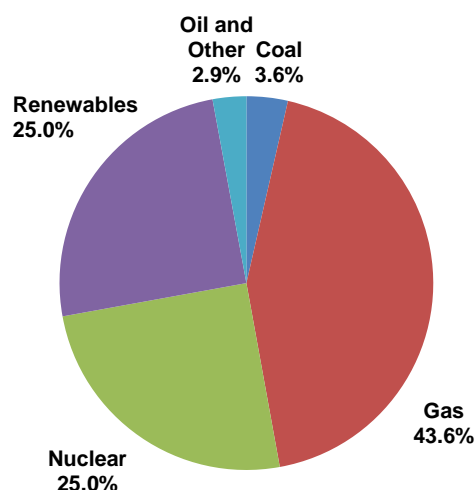


ELECTRICITY: QUARTER 3 2016

Q3 2015



Q3 2016



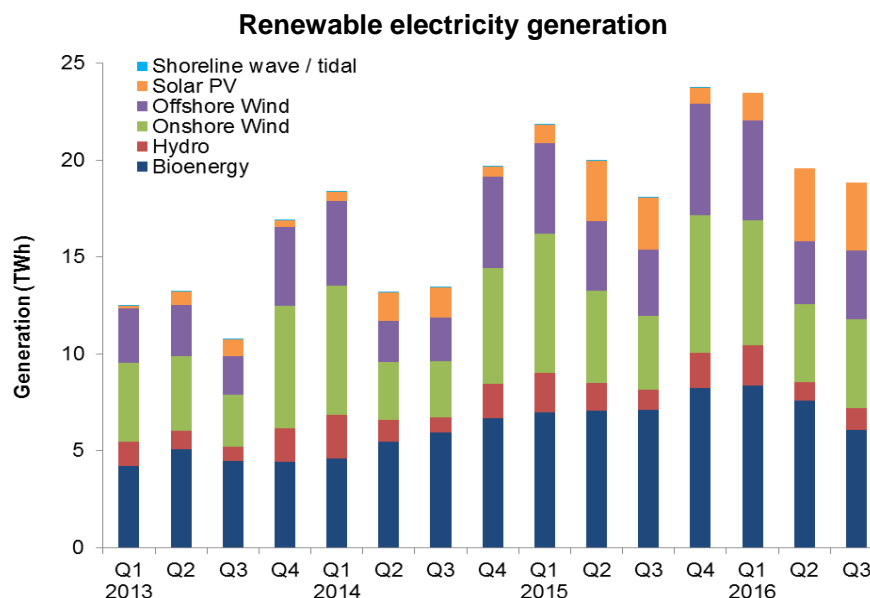
	2016 Q3 <i>TWh</i>	Percentage change on a year earlier
Electricity Generated from		
Coal	2.7	-78.9
Nuclear	18.9	+13.9
Gas	32.9	+23.6
Renewables	18.8	+4.3
Total	75.4	-1.2
Supplied to		
Industry	23.1	+0.1
Domestic	21.6	-2.9
Other final consumers	23.1	-3.1
All	68.9	-1.9

- Fuel used by generators in the third quarter of 2016 was 5.9 per cent lower than in the third quarter of 2015.
- Generation from coal in the third quarter of 2016 fell by 79 per cent as a result of reduced capacity due to the conversion of a unit at Drax from coal to high-range co-firing (85% to <100% biomass) and the reduction in generation at some plants due to market conditions. Gas increased by 24 per cent compared with a year earlier. Nuclear rose by 14 per cent. Renewables generation was up 4.3 per cent, mainly due to increased wind and solar capacity.
- Low carbon generation (including renewables) accounted for 50.0 per cent, a record high, of generation in Q3 2016, up from 45.3 per cent from the same period of 2015.
- Total electricity generated in the third quarter of 2016 was 1.2 per cent lower than a year earlier, as was imports which fell by 19.5 per cent and accounted for 6.2 per cent of electricity supply.
- Final consumption of electricity was 1.9 per cent lower than in the third quarter of 2015.

Electricity quarterly tables ET 5.1, 5.2 & 5.6 are available on the BEIS section of the GOV.UK website at: www.gov.uk/government/statistics/electricity-section-5-energy-trends



RENEWABLES: QUARTER 3 2016



	2016 Q3 <i>TWh</i>	Percentage change on a year earlier
Renewable electricity generation		
Onshore wind	4.6	+19.4
Offshore wind	3.5	+3.8
Hydro	1.1	+10.8
Solar PV	3.5	+30.3
Bioenergy (inc. co-firing)	6.1	-14.5
All renewables	18.8	+4.3

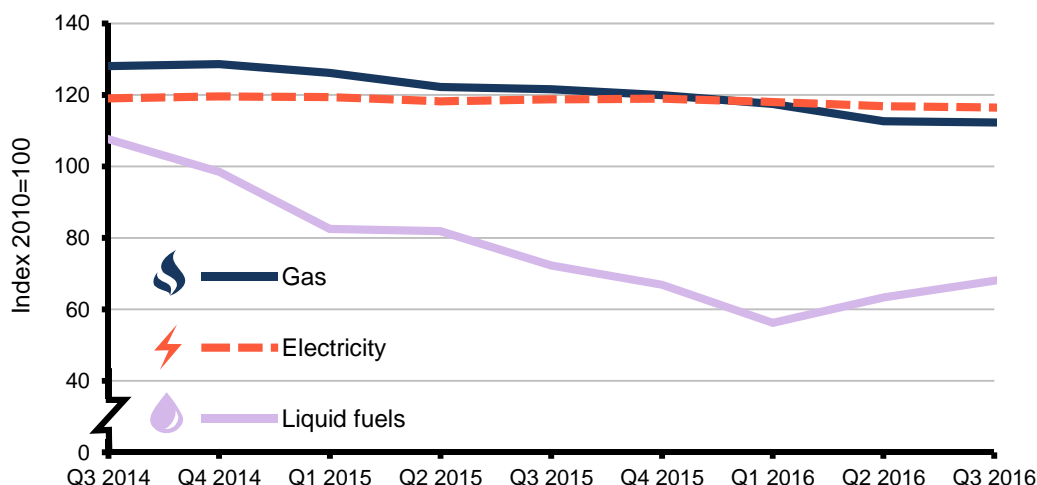
- Renewables' share of electricity generation increased from 23.6 per cent in the third quarter of 2015, to 25.0 per cent in the third quarter of 2016.
- Renewable electricity generation was 18.8 TWh in 2016 Q3, an increase of 0.7 TWh (4.3 per cent) compared to 2015 Q3, but 21 per cent lower than the record of 23.7 TWh in 2015 Q4. Generation from solar PV increased by 30 per cent compared to 2015 Q3, from 2.7 TWh to 3.5 TWh, due to increased capacity. Bioenergy in 2016 Q3 fell by 14.5 per cent on a year earlier, from 7.1 TWh to 6.1 TWh, mainly due to maintenance outages at Drax's converted biomass units. Generation from both onshore and offshore wind rose by 19.4 per cent and 3.8 per cent respectively, due to a combination of higher wind speeds compared to last year and also increased onshore wind capacity. Generation from hydro rose by 10.8 per cent, with 56 per cent higher levels of rainfall on a year earlier.
- Renewable electricity capacity totalled 33.4 GW at the end of the third quarter of 2016, a rise of 11.3 per cent (3.4 GW) on a year earlier, with 2.5 GW of this increase from, mainly, large-scale, solar, mostly installed in 2016 Q1.
- Renewable transport: The share of liquid biofuels of petrol and diesel consumed in road transport was 3.4 per cent, 0.1 percentage point higher than 2015 Q3's share. Biodiesel consumption was 21 per cent higher than a year earlier, while bioethanol consumption decreased by 7.3 per cent.

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



DOMESTIC PRICES: QUARTER 3 2016

Fuel price indices in the domestic sector in real terms



Consumer price index fuel components in real terms ⁽¹⁾ 2010=100	2016 Q3	Percentage change on a year earlier
Solid fuels	101.6	-2.4
Gas	112.3	-7.6
Electricity	116.5	-1.9
Liquid fuels	68.0	-6.0
Total domestic fuel	113.3	-4.5

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

- The price paid for all domestic fuels by household consumers has fallen by 4.5 per cent in real terms between Q3 2015 and Q3 2016, and by 0.1 per cent between Q2 and Q3 2016.
- Domestic electricity prices, including VAT, in Q3 2016 were 1.9 per cent lower in real terms than in Q3 2015. Prices were 0.3 per cent lower than in Q2 2016.
- The price of domestic gas, including VAT, fell by 7.6 per cent in real terms between Q3 2015 and Q3 2016 and by 0.3 per cent between Q2 and Q3 2016.
- The price of liquid fuels fell by 6.0 per cent between Q3 2015 and Q3 2016 but increased by 7.3 per cent between Q2 and Q3 2016.
- For the period January to June 2016, prices for medium domestic gas and electricity consumers, including tax, were the third lowest and seventh lowest in the EU15 respectively.

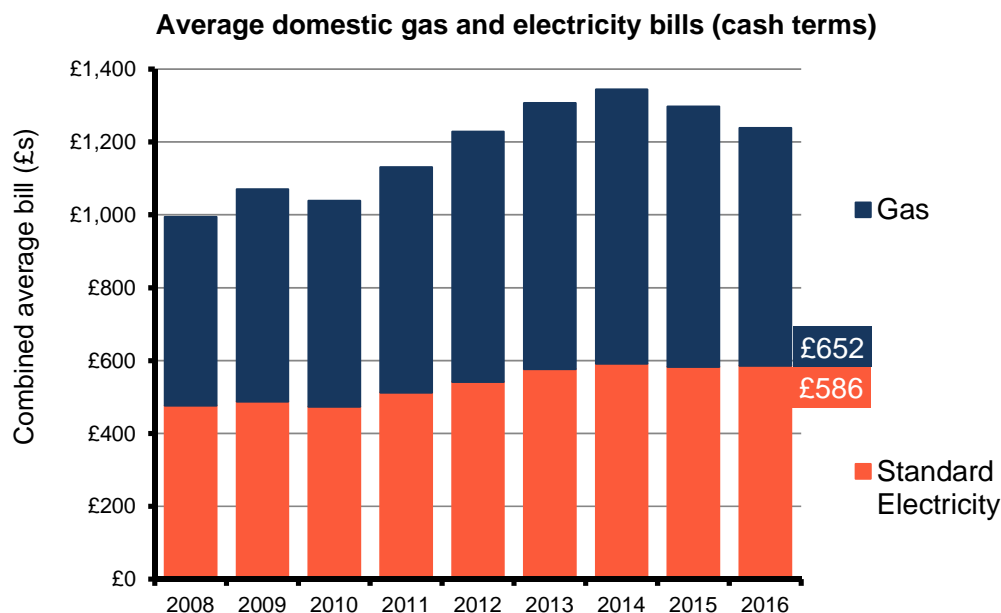
Switching levels

- Switching rates amongst consumers rose by 24 per cent for electricity and 14 per cent for gas between Q3 2015 and Q3 2016. For both electricity and gas, these transfers represent around 3.4 and 3.3 per cent, respectively, of each of their domestic customers.

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



DOMESTIC ENERGY BILLS: 2016



Average annual domestic fuel bills ⁽¹⁾

	2015	2016 (p)	Percentage change, cash terms	Percentage change, real terms ⁽²⁾
Gas ⁽³⁾	£714	£652	-8.7	-9.8
Electricity ⁽⁴⁾	£583	£586	0.4	-0.8
Total ⁽⁵⁾	£1,297	£1,237	-4.6	-5.8

(1) Average annual bills for domestic customers are 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.

(p) Provisional bills only – final bills will be available in the March 2017 edition of 'Quarterly Energy Prices'.

- Provisional 2016 figures for household bills show that the average standard electricity bill, based on a fixed consumption level of 3,800 kWh, increased by £2 compared with 2015, to £586. The provisional average direct debit bill for 2016 was £559, while average provisional standard credit and pre-payment bills were £624 and £623 respectively.
- For gas, provisional 2016 figures show that the average domestic gas bill, based on a fixed consumption level of 15,000 kWh, fell by £62 compared with 2015, to £652. Average provisional direct debit bills in 2016 were £615, whilst average standard credit and prepayment bills were £703 and £712 respectively.
- The combined average domestic bill fell by £60 from £1,297 in 2015 to £1,237 in 2016.

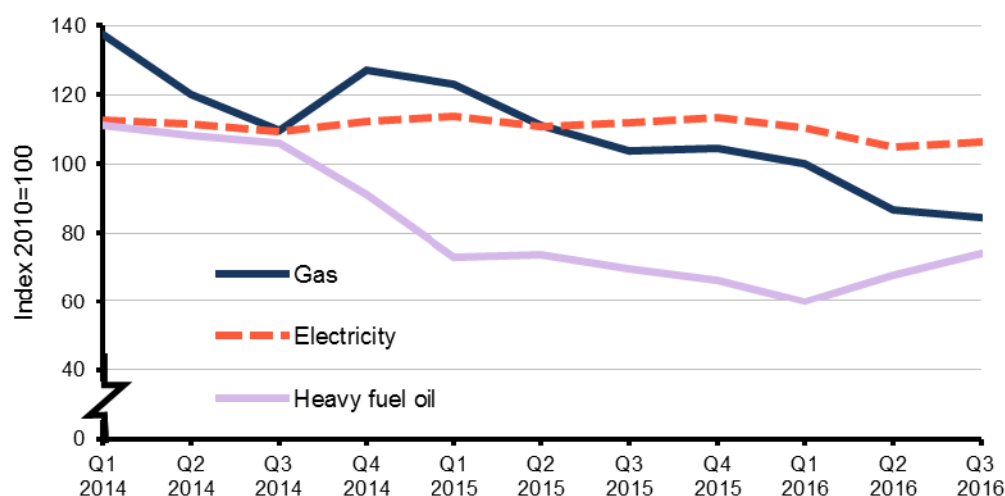
Domestic prices tables are available on the BEIS section of the GOV.UK website at:

www.gov.uk/government/collections/domestic-energy-prices



INDUSTRIAL PRICES: QUARTER 3 2016

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



Fuel prices index in real terms ⁽¹⁾ 2010=100	2016 Q3	Percentage change on a year earlier
Coal	94.5	+1.9
Heavy fuel oil	74.2	+6.3
Gas	84.4	-18.5
Electricity	106.4	-5.0
Total fuel	97.3	-6.1

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

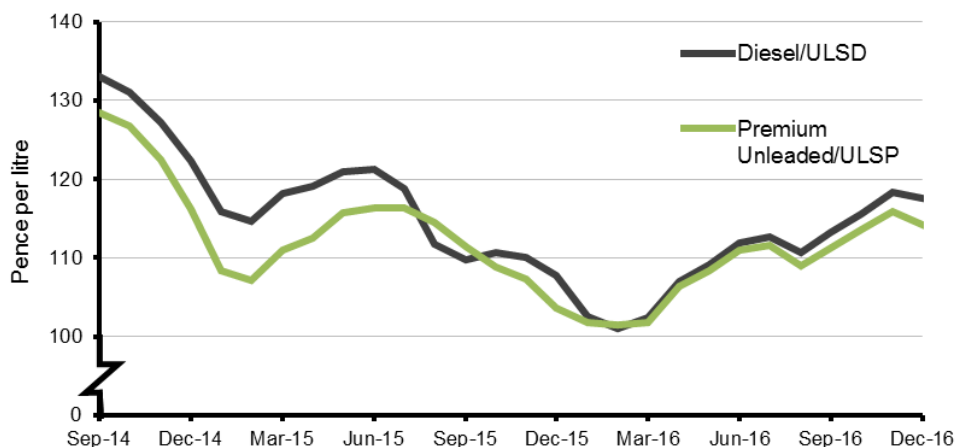
- Average industrial gas prices, including CCL, were 18.5 per cent lower in real terms in Q3 2016 compared to Q3 2015, whilst prices excluding CCL were 18.8 per cent lower.
- Average industrial electricity prices were 5.0 per cent lower including CCL and 6.0 per cent lower excluding CCL, in real terms, in Q3 2016 compared to Q3 2015.
- Average coal prices were 1.9 per cent higher in real terms including CCL and 2.0 per cent higher excluding CCL in Q3 2016 compared to Q3 2015. Heavy fuel oil prices were 6.3 per cent higher in real terms than a year ago.
- For the period January to June 2016, UK prices for industrial electricity consumers including taxes were generally above the EU15 median. UK industrial gas prices including tax were amongst the lowest in the EU15 for all size bands of consumer.

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



ROAD TRANSPORT FUEL PRICES: QUARTER 3 2016

Typical retail prices of road transport fuels



Retail prices of petroleum products	Mid December 2016 ⁽¹⁾ Pence per litre	Percentage change on a year earlier
Unleaded petrol ⁽²⁾	114.2	+10.2
Diesel ⁽²⁾	117.5	+9.0

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

(2) Prices are provisional estimates.

- Crude oil prices have followed a slow upward trend since the beginning of the year, reaching \$56/barrel in mid-December 2016 compared to \$38/barrel in December 2015.
- In mid-December 2016, a litre of unleaded petrol was on average 114.2 pence, 11 pence per litre higher than a year earlier but 28 pence per litre lower than the high reached in April 2012.
- In mid-December 2016, diesel was on average 117.5 pence per litre, 10 pence per litre higher than a year earlier but 30 pence per litre below the peak seen in April 2012.
- Annual prices in 2016 were 2.0 per cent lower for petrol and 4.1 per cent lower for diesel than in 2015.
- In November 2016, the UK retail price for petrol was ranked seventh highest in the EU. The UK diesel price was ranked highest in the EU.

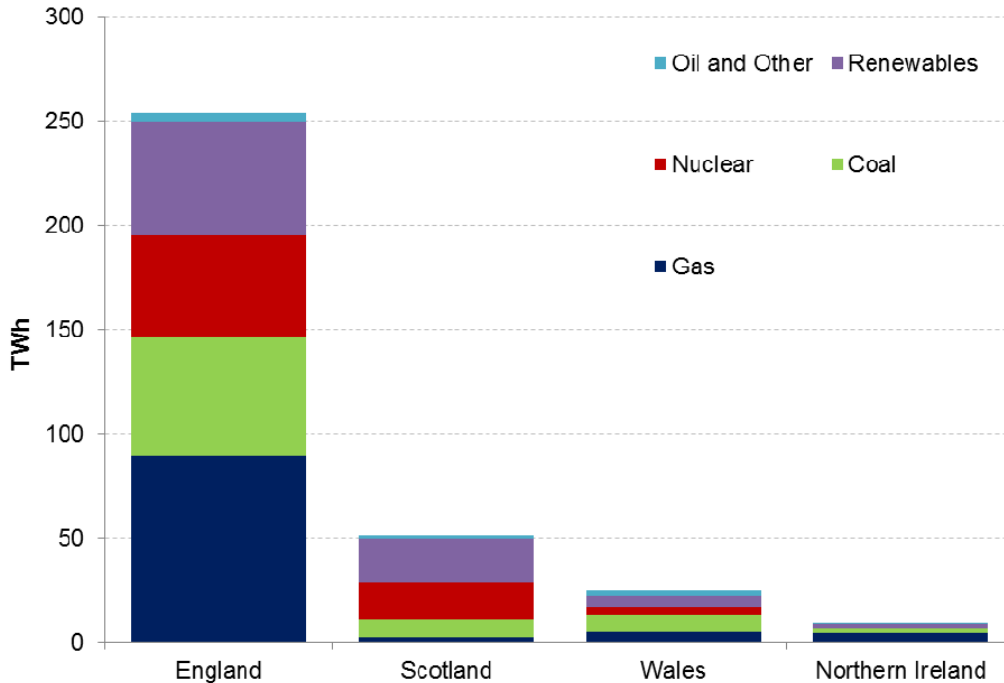
Road transport fuel prices tables are available on the BEIS section of the GOV.UK website at:
www.gov.uk/government/collections/road-fuel-and-other-petroleum-product-prices



ELECTRICITY GENERATION AND SUPPLY

This article updates the detailed electricity figures for Scotland, Wales, Northern Ireland and England that were provided in December 2015's Energy Trends. The data are for 2012 to 2015 and cover generation, supply, internal and external trade and consumption. The role of renewables in each area is also shown.

Generation by country and fuel type in 2015



- Scotland exported a record high 29 per cent of generated electricity to other countries in the UK, with virtually all of these net exports going to England.
- The fuel mix for generation varied across the UK. Gas had the largest generation share in both England (35 per cent) and Northern Ireland (49 per cent). In Scotland renewables had the largest share at 42 per cent, while in Wales coal had the largest share at 33 per cent.
- A record high percentage of generation share came from renewables in each country; 21 per cent in England, 42 per cent in Scotland, 20 per cent in Wales and 26 per cent in Northern Ireland.
- Scotland's renewable electricity interim target (renewable electricity generation to reach 100 per cent of gross consumption by 2020, within an interim target of 31 per cent) is expressed as generation as a proportion of gross electricity consumption (defined as generation plus transfers into Scotland less transfers out of Scotland). This target was passed in 2011, where 36.0 per cent of gross electricity consumption came from renewable electricity generation, continuing to rise to 49.7 per cent in 2014. The next interim target was to reach 50 per cent by 2015 and that has now been exceeded by reaching 59.4 per cent in 2015.



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Notes to editors

1. More detailed figures of United Kingdom energy production and consumption and of energy prices, for the third quarter of 2016 are given in the December 2016 editions of ENERGY TRENDS and ENERGY PRICES respectively, the Department's statistical bulletins on energy, released on 22 December 2016.
2. Energy Trends and the Energy Prices bulletins, published quarterly, are available on the BEIS section of the GOV.UK website at: www.gov.uk/government/collections/energy-trends and www.gov.uk/government/collections/quarterly-energy-prices
3. Articles featured in Energy Trends are also available on the BEIS 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 2011 to 2015 are available in the DIGEST OF UNITED KINGDOM ENERGY STATISTICS 2016, published on 28 July 2016. All information contained in the Digest is available on the BEIS section of the GOV.UK website at: www.gov.uk/government/collections/digest-of-uk-energy-statistics-dukes

