



Department for
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& Industrial Strategy



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STATISTICAL PRESS RELEASE

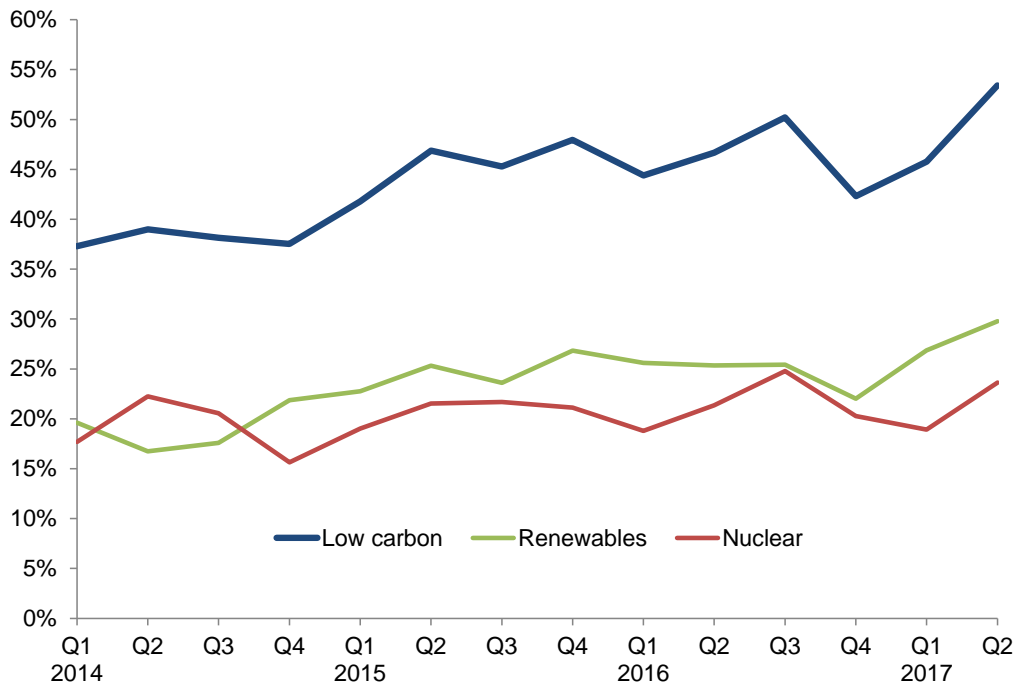
UK Energy Statistics, Q2 2017

Energy Trends and Energy Prices publications are published today 28 September 2017 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. **The main points for the second quarter of 2017 are:**

- Low carbon electricity's share of electricity generation reached a record high of 53.4 per cent in the second quarter of 2017, compared to 46.7 per cent in the second quarter of 2016, with renewables' share of electricity generation also at a record high of 29.8 per cent in the second quarter of 2017.

Low carbon share of electricity generation



Main points (continued):

- Total energy production was 2.5 per cent higher than in the second quarter of 2016.
- Total primary energy consumption for energy uses fell by 3.6 per cent. However, when adjusted to take account of weather differences between the second quarter of 2016 and the second quarter of 2017, total primary energy consumption fell by 1.9 per cent to a new record low. The main driver for the low level is the switch by electricity generators from using coal to low carbon sources (nuclear and renewables), as well as improvements in energy efficiency.
- Final energy consumption (excluding non-energy use) was 4.1 per cent lower than in the second quarter of 2016. The average temperature in the second quarter of 2017 was 1.1 degrees Celsius warmer than the same period a year earlier, with all months in the quarter warmer than in 2016. On a temperature adjusted basis, final energy consumption fell by 0.7 per cent.
- Of electricity generated in the second quarter of 2017, gas accounted for 41.3 per cent, whilst coal accounted for a record low of only 2.1 per cent. Nuclear generation accounted for 23.6 per cent of total electricity generated in the second quarter of 2017.
- Renewables' share of electricity generation was a record 29.8 per cent in 2017 Q2, up 4.4 percentage points on the share in 2016 Q2, reflecting both increased wind capacity and wind speeds, as well as lower overall electricity generation.
- Renewable electricity generation was 22.5 TWh in 2017 Q2, an increase of 13.6 per cent on the 19.8 TWh in 2016 Q2. Renewable electricity capacity was 38.0 GW at the end of 2017 Q2, a 13.2 per cent increase (4.4 GW) on a year earlier, with over half of the annual increase coming from onshore wind.
- Switching rates increased in Q2 2017, up by 16 per cent compared to the levels of a year earlier for electricity and up by 20 per cent for gas, based on data provided by Ofgem. An average of 410,000 households per month switched electricity supplier, with 320,000 households per month switching their gas supplier in the quarter.

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 September 2017 edition of Energy Trends also includes articles on:

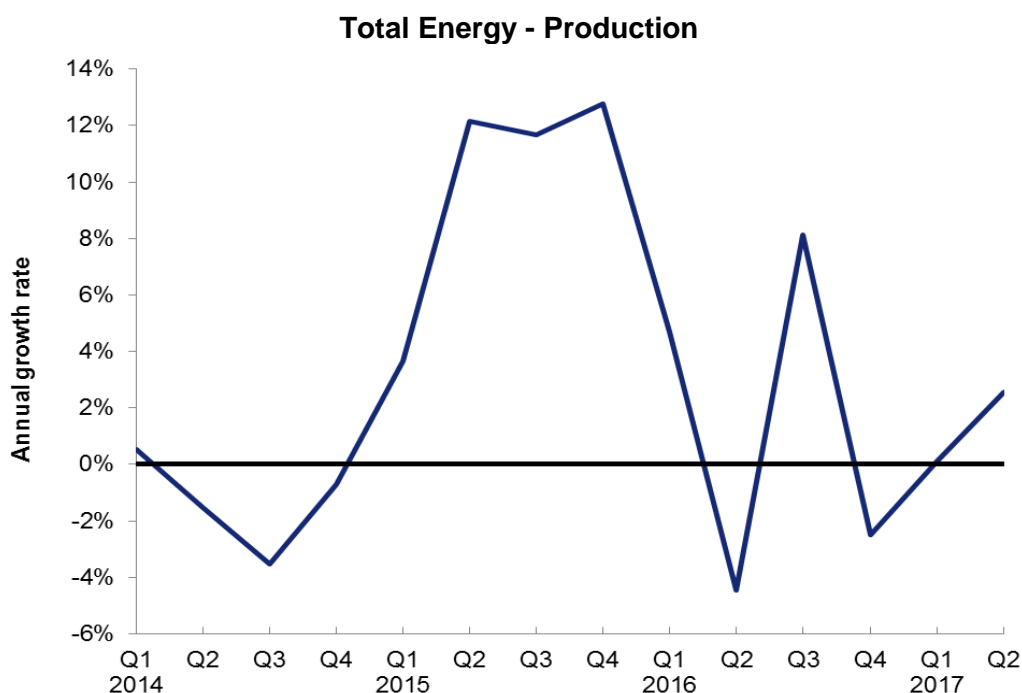
- Renewable electricity in Scotland, Wales, Northern Ireland and the regions of England in 2016
- Combined Heat and Power in Scotland, Wales, Northern Ireland and the regions of England in 2016
- Diversity of supply for oil and oil products in OECD countries in 2016
- Competition in gas supply
- Competition in UK electricity markets
- International energy price comparisons
- Aggregated energy balances showing proportion of renewables in supply and demand

The following statistics are also published today 28 September 2017 by the Department for Business, Energy and Industrial Strategy:

- Feed-in Tariff commissioned installations, August 2017
www.gov.uk/government/statistics/monthly-small-scale-renewable-deployment
- Solar photovoltaics deployment, August 2017
www.gov.uk/government/statistics/solar-photovoltaics-deployment
- Sub-national residual fuel use, 2015
www.gov.uk/government/collections/sub-national-consumption-of-other-fuels
- Sub-national total energy use, 2015
www.gov.uk/government/collections/total-final-energy-consumption-at-sub-national-level
- Sub-national electricity consumption in Northern Ireland, 2015
www.gov.uk/government/collections/northern-ireland-electricity-consumption-data



TOTAL ENERGY: QUARTER 2 2017



	2017 Q2 <i>Million tonnes of oil equivalent</i>	Percentage change on a year earlier
Total production	31.2	+2.5
Oil	13.0	-1.8
Natural gas	10.2	+6.5
Primary electricity ⁽¹⁾	5.1	+10.6
Bioenergy & waste	2.4	+3.0
Coal	0.4	-28.2

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

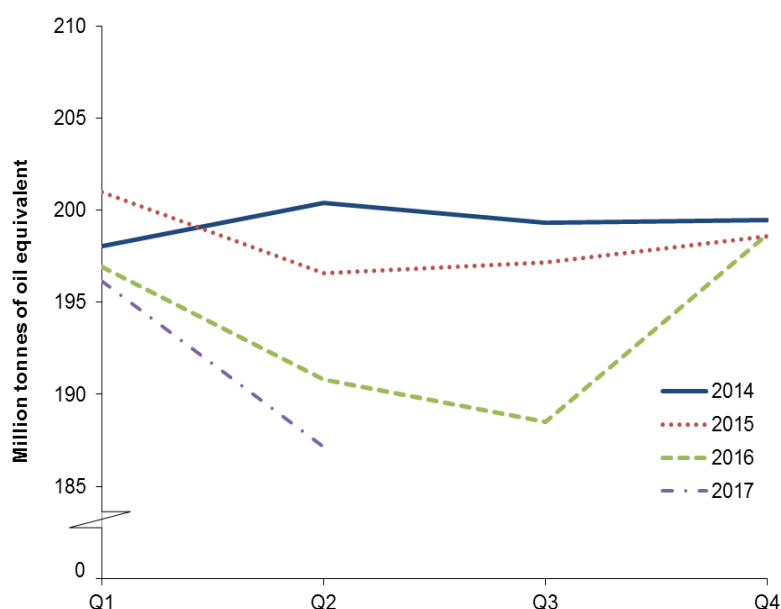
- Total energy production in the second quarter of 2017 was 31.2 million tonnes of oil equivalent, 2.5 per cent higher than in the second quarter of 2016.
- Production of oil fell by 1.8 per cent, despite strong growth in the production of Natural Gas Liquids (NGLs), whilst production of natural gas rose by 6.5 per cent following the start-up of the Laggan gas field in mid-2016 and the Cygnus gas field in December 2016.
- Primary electricity output in the second quarter of 2017 was 10.6 per cent higher than in the second quarter of 2016. Nuclear electricity output was 7.1 per cent higher due to fewer outages, whilst output from wind, hydro and solar pv was 23 per cent higher, due to a combination of increased wind speeds and sun hours and increased wind and solar capacity.
- Production of bioenergy and waste was 3.0 per cent higher compared to the second quarter in 2016, whilst coal production fell by 28 per cent to a record low level.

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 2 2017

Total Energy – consumption⁽¹⁾



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

	2017 Q2 Million tonnes of oil equivalent	Percentage change on a year earlier
Total consumption		
<i>Unadjusted</i>	42.3	-3.6
<i>Seasonally adjusted and temperature corrected – annual rate</i>	187.2	-1.9
Final consumption: <i>unadjusted</i>	30.4	-4.1
<i>temperature corrected</i>	35.5	-0.7

When examining seasonally adjusted and temperature corrected annualised rates:

- Total inland consumption on a primary fuel input basis was 187.2 million tonnes of oil equivalent in the second quarter of 2017, a record low, 1.9 per cent lower than the same quarter in 2016. The main driver for the low level is the switch by electricity generators from using coal to low carbon sources (nuclear and renewables), as well as improvements in energy efficiency.
- Coal and other solid fuel consumption fell by 30 per cent, driven by decreased coal use in electricity generation, whilst gas consumption fell by 3.1 per cent, due to an increase in other fuel sources used for electricity generation, particularly in June 2017, such as nuclear and wind.
- Nuclear consumption rose by 7.1 per cent and consumption from wind, hydro and solar pv rose by 28 per cent.

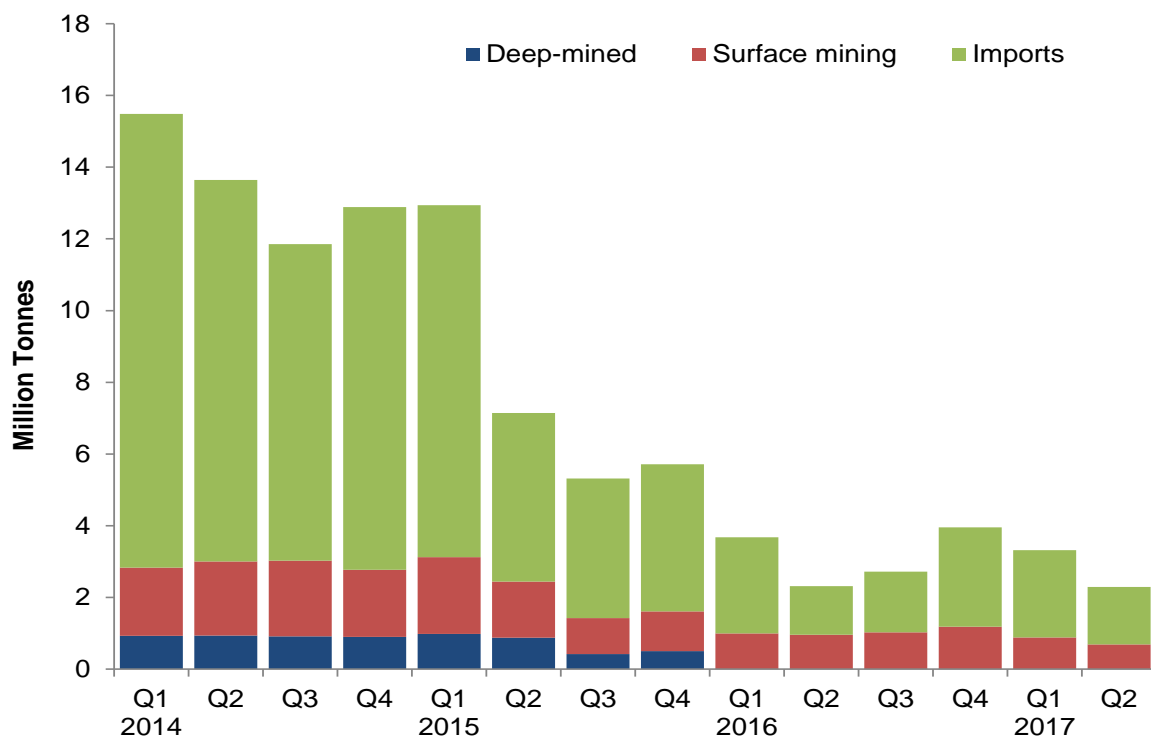
Final energy consumption (excluding non-energy use) was 4.1 per cent lower in the second quarter of 2017 compared to the same quarter a year earlier. The average temperature in the second quarter of 2017 was 1.1 degrees Celsius warmer than a year earlier, with all months in the quarter warmer than in 2016. On a temperature corrected basis, final energy consumption was down 0.7 per cent.

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 2 2017

Coal production and imports



	2017 Q2 Thousand tonnes	Percentage change on a year earlier
Coal production	691	-28.2
Coal imports	1,601	+18.0
Coal demand	2,034	-36.6
- Power stations	632	-65.1
- Coke ovens & blast furnaces	824	+5.2
- Final users	488	-6.9

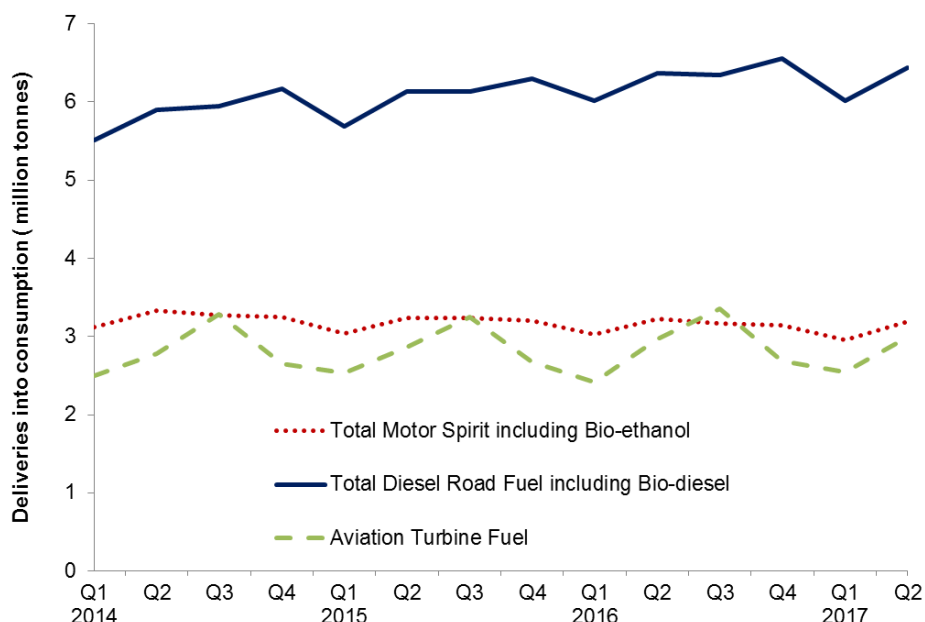
- Provisional figures for the second quarter of 2017 show that coal production fell to a new record low of 0.7 million tonnes, 28 per cent lower than the second quarter of 2016. The decrease was due to lower demand, particularly for electricity generation.
- Imports of coal in the second quarter of 2017 were 18 per cent higher than in the second quarter of 2016 at 1.6 million tonnes.
- Total demand for coal in the second quarter of 2017 was 2.0 million tonnes, 37 per cent lower than in the second quarter of 2016, with consumption by electricity generators down by 65 per cent to 0.6 million tonnes, a new record low.

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 2 2017

Demand for key transport fuels



	2017 Q2 Thousand tonnes	Percentage change on a year earlier
Primary oil production	11,977	-1.9
Primary oil demand	15,279	+0.8
Net imports (primary oil)	4,047	+6.2
Net imports (oil products)	2,060	-27.8
Refinery production	15,826	+0.2
Petroleum demand	17,352	+0.1
- Motor spirit (including biofuels)	3,188	-1.2
- DERV fuel (including biofuels)	6,436	+1.1
- Aviation turbine fuel	2,998	+1.0

- Primary oil production was down 1.9 per cent in Q2 2017 compared to last year, with a decrease in crude oil production partially offset by increases in Natural Gas Liquids production.
- The UK was a net importer for all oil products in the second quarter of 2017 by 6.1 million tonnes, lower than the 6.7 million tonnes in the same period of 2016. This is driven primarily by the increase in the exports of crude oil and the decrease in product imports.
- Production of petroleum products in Q2 2017 was unchanged on last year (up just 0.2 per cent). Imports were down 13 per cent, likely due to stable production combined with lower exports resulting in less need for imports to meet stable demand.
- Overall demand for petroleum products in the second quarter of 2017 was similar to last year (up 0.1 per cent), within which sales of Motor Spirit including biofuels (unleaded) decreased by 1.2 per cent in the second quarter of 2017 while sales of DERV including biofuels (diesel) increased by 1.1 per cent.

Oil quarterly tables ET 3.1 – 3.6 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 2 2017

Production of natural gas



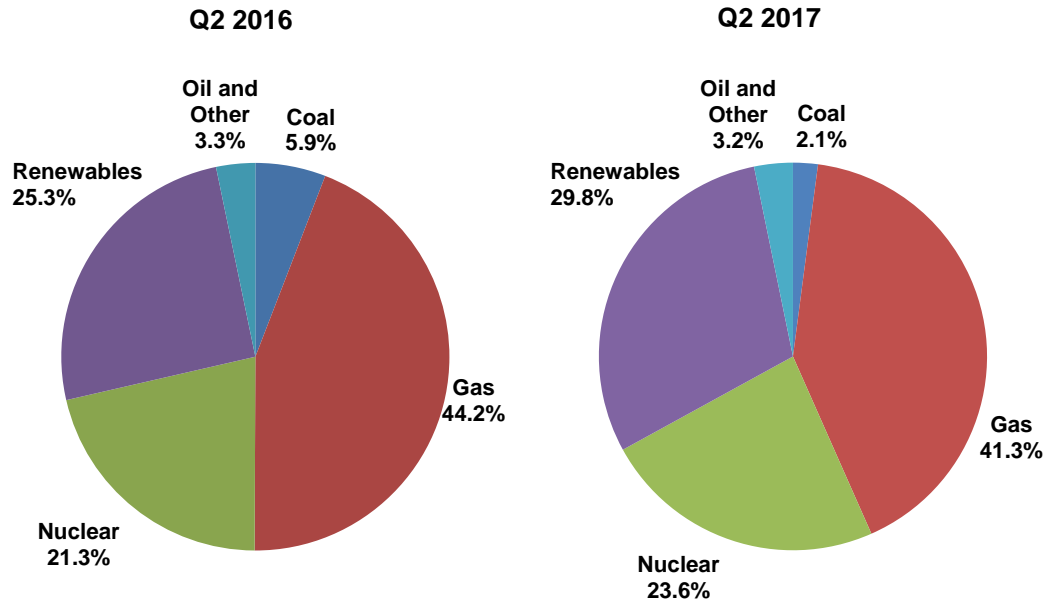
	2017 Q2 TWh	Percentage change on a year earlier
Gas production	118.8	+6.5
Gas imports	95.0	-17.3
Gas exports	41.8	+49.2
Gas demand	174.0	-7.6
- Electricity generation	67.4	-5.3
- Domestic	46.4	-15.7

- Total indigenous UK production of natural gas in the second quarter of 2017 was 118.8 TWh, 6.5 per cent higher than a year before.
- Imports in Q2 2017 were 17 per cent lower in comparison to the same quarter in 2016. In contrast exports increased by 49 per cent over the same time frame, the highest quarterly figure since 2011. The increase in exports was driven by volumes of gas exported to Belgium more than doubling in Q2 2017 in comparison to Q2 2016. Combined, these falls in exports lead to net imports decreasing by 39 per cent.
- UK gas demand was down 7.6 per cent compared to Q2 2016, with demand for electricity generation and domestic usage both down, by 5.3 and 16 per cent respectively.

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 2 2017



	2017 Q2 <i>TWh</i>	Percentage change on a year earlier
Electricity Generated from		
Coal	1.56	-66.0
Nuclear	17.83	+7.1
Gas	31.18	-9.6
Renewables	22.47	+13.6
Total	75.46	-3.3
Supplied to		
Industry	22.0	-2.0
Domestic	22.4	-6.6
Other final consumers	23.7	-3.0
All	68.1	-3.9

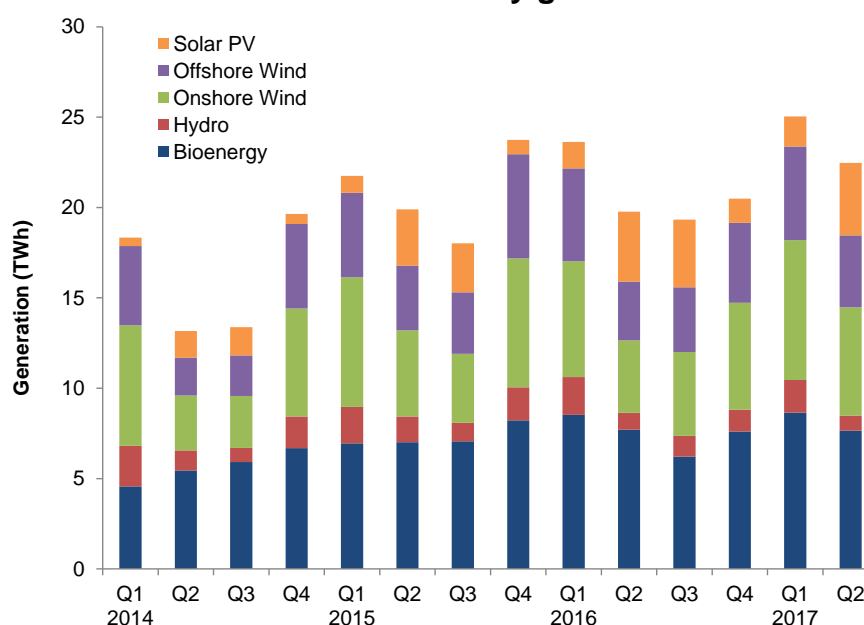
- Fuel used by generators in the second quarter of 2017 was 4.6 per cent lower than in the second quarter of 2016.
- Generation from coal in the second quarter of 2016 fell by 66 per cent, while gas decreased by 9.6 per cent when compared with a year earlier. Nuclear rose by 7.1 per cent. Renewables generation increased by 13.6 per cent.
- Low carbon generation accounted for 53.4 per cent of generation in Q2 2017, a 6.7 percentage point increase from the same period last year, a record high.
- Total electricity generated in the second quarter of 2017 was 3.3 per cent lower than a year earlier.
- Final consumption of electricity fell by 3.9 per cent in the second quarter of 2017, with domestic use down by 6.6 per cent, due to relatively warmer temperatures.

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 2 2017

Renewable electricity generation



	2017 Q2 TWh	Percentage change on a year earlier
Renewable electricity generation		
Onshore wind	6.00	+49.6
Offshore wind	3.98	+22.4
Hydro	0.82	-12.4
Solar PV	4.00	+3.4
Bioenergy (inc. co-firing)	8.47	+1.7
All renewables	23.28	+14.1

- Renewables' share of electricity generation was a record 29.8 per cent in 2017 Q2, up 4.4 percentage points on the share in 2016 Q2
- Renewable electricity generation was 22.5 TWh in the second quarter of 2017, an increase of 13.6 per cent on the 19.8 TWh in the second quarter of 2016. Onshore wind generation increased by 50 per cent, the highest increase across the technologies, to 6.0 TWh, while offshore wind rose by 22 per cent, to 4.0 TWh. Generation from hydro fell by 12.4 per cent on a year earlier, due to lower rainfall. In 2017 Q2, generation from bioenergy was down slightly, 0.5 per cent, on a year earlier, with increased generation from biodegradable waste offset by reduced generation from landfill gas and plant biomass. Solar PV increased, by 3.4 per cent, to a record 4.0 TWh, due to increased capacity.
- Renewable electricity capacity was 38.0 GW at the end of the second quarter of 2017, a 13 per cent increase (4.4 GW) on a year earlier.
- Renewable transport: Liquid biofuels decreased by 6.1 per cent, and represented 3.2 per cent (by volume) of petrol and diesel consumed in road transport in the second quarter of 2017.

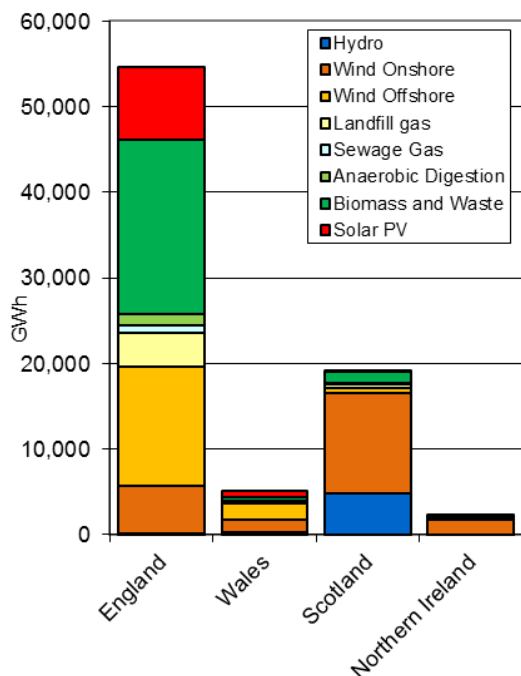
Renewables quarterly tables ET 6.1 – 6.2 are available on the BEIS section of the GOV.UK website at: www.gov.uk/government/statistics/energy-trends-section-6-renewables



RENEWABLE ELECTRICITY IN THE REGIONS

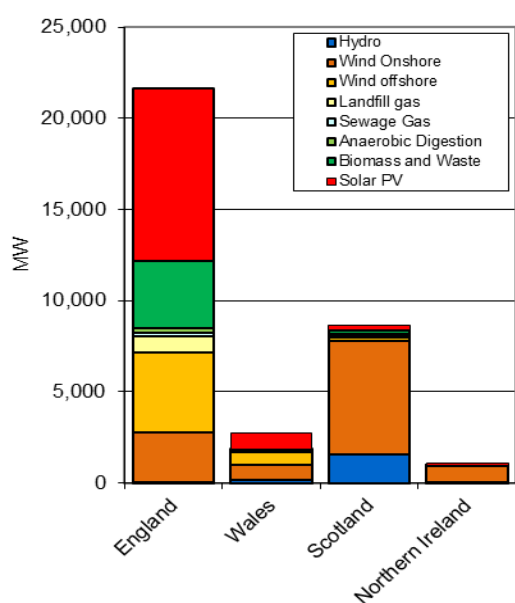
A special feature in the September 2017 edition of Energy Trends looks at renewable electricity in Scotland, Wales, Northern Ireland and the regions of England in 2016. The article covers all renewables including those that are not eligible for the Renewables Obligation or Feed in Tariffs. It updates a similar article that was published in September 2016. The main features of the latest statistics are:

Renewable generation by country, 2016



- At the end of 2016, England had 61 per cent of UK capacity, with 24 per cent in Scotland. Similarly, England had 66 per cent of UK generation, reflecting the high share of bioenergy, with 23 per cent in Scotland.
- Of English regions, Yorkshire and the Humber has the largest share of both capacity (18 per cent) and generation (35 per cent), largely due to the three units of Drax power station. Following is the East of England, with 17 per cent of capacity, and 15 per cent of generation, with wind (mainly offshore) being the largest contributor.
- During 2016, capacity in England increased by 14 per cent, including a 21 per cent (1.7 GW) increase in PV capacity, and a 15 per cent (0.4 GW) increase in onshore wind capacity. Generation rose by 1.5 per cent (0.8 TWh). A 29 per cent (1.9 TWh) increase in solar generation was offset by a 7.0 per cent (1.4 TWh) fall in wind generation.

Renewable capacity, by country, 2016

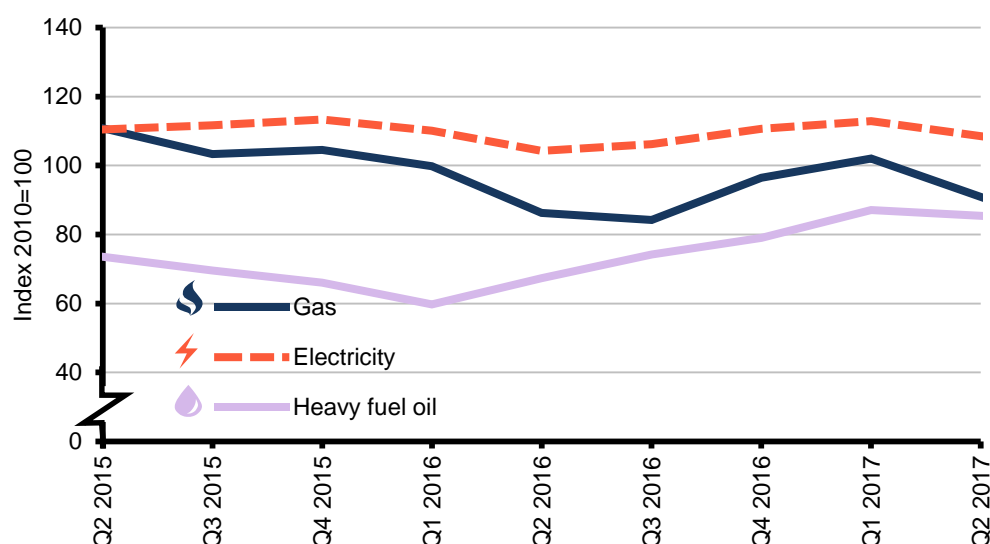


- Capacity in Northern Ireland increased by 22 per cent (0.2 GW), with onshore wind contributing about three quarters. Generation increased by 3.9 per cent (0.1 TWh), with a 0.2 TWh increase in biomass generation offsetting a 0.1 TWh decrease in onshore wind generation.
- Capacity in Scotland rose by 13 per cent (1.0 GW), with 0.9 GW of the increase due to new onshore wind capacity. Generation in Scotland decreased by 11 per cent (2.4 TWh), with wind down 1.5 TWh and hydro down 1.0 TWh.
- Capacity in Wales increased by 18 per cent (0.4 GW), with around half of this from solar PV. Generation fell by 0.7 per cent (0.04 TWh), with a 0.2 TWh increase in solar generation offset by decreases in onshore wind, hydro and bioenergy generation.



INDUSTRIAL PRICES: QUARTER 2 2017

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



Fuel prices index in real terms ⁽¹⁾ 2010=100	2017 Q2	Percentage change on a year earlier
Coal	94.1	9.2
Heavy fuel oil	85.4	26.8
Gas	90.9	5.4
Electricity	108.5	4.0
Total fuel	102.0	6.7

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

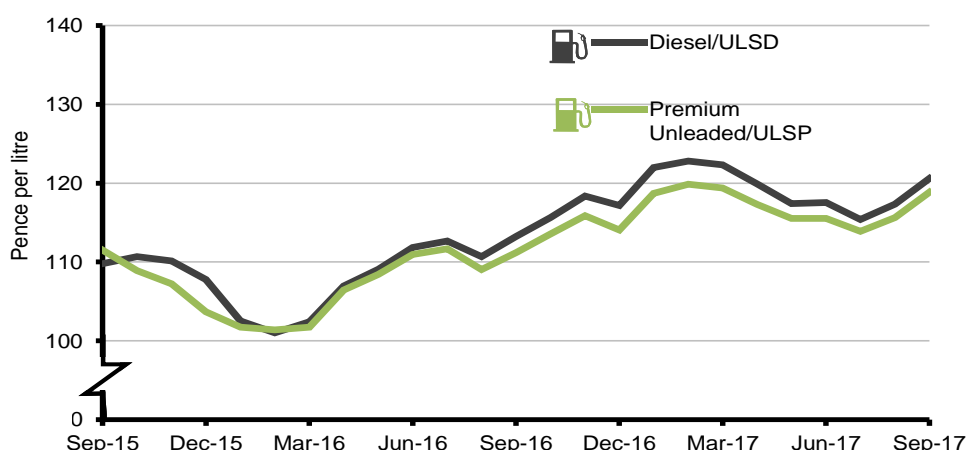
- Average industrial gas prices, including CCL were 5.4 per cent higher in real terms in Q2 2017 compared to Q2 2016, prices excluding CCL were 5.8 per cent higher.
- Average industrial electricity prices were 4.0 per cent higher including CCL in real terms and 3.9 per cent higher excluding CCL in real terms, in Q2 2017 compared to Q2 2016.
- Average coal prices were 9.2 per cent higher in real terms including CCL and 10 per cent higher excluding CCL in Q2 2017 compared to Q2 2016.
- Heavy fuel oil prices were 27 per cent higher in real terms than a year ago.
- For the period July to December 2016, UK industrial electricity prices for medium consumers including taxes were the third highest in the EU15 whilst UK industrial gas prices for medium consumers including taxes were the lowest in the EU15.

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 2 2017

Typical retail prices of road transport fuels



Retail prices of petroleum products	Mid September 2017 ⁽¹⁾ Pence per litre	Percentage change on a year earlier
Unleaded petrol ⁽²⁾	118.9	6.9
Diesel ⁽²⁾	120.6	6.5

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

(2) Prices are provisional estimates.

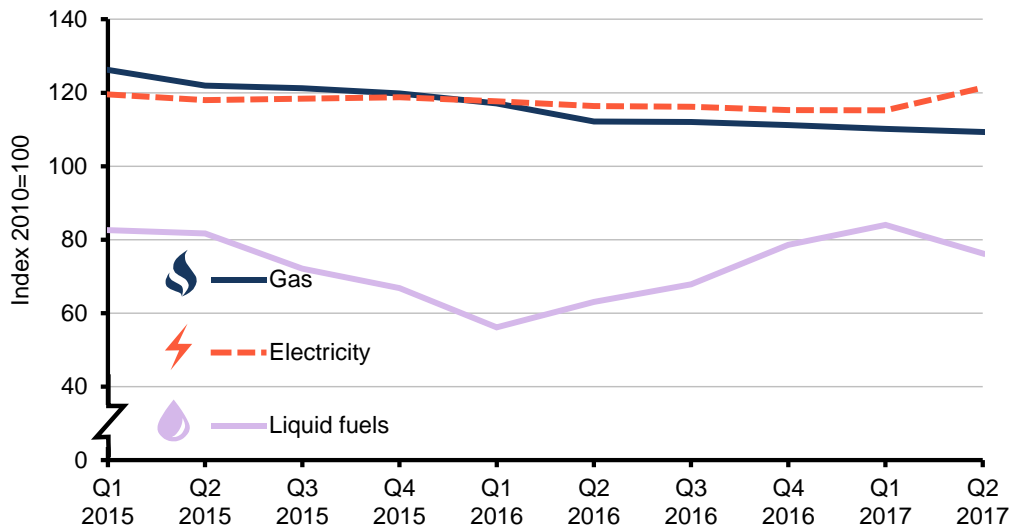
- In mid-September 2017, unleaded petrol was on average 118.9 pence per litre, 7.6 pence per litre (6.9 per cent) higher than a year earlier but 16 per cent lower than the high reached in April 2012.
- In mid-September 2017, diesel was on average 120.6 pence per litre, 7.4 pence per litre (6.5 per cent) higher than a year earlier but 18 per cent lower than the high reached in April 2012.
- In August 2017, the UK retail price for petrol was ranked thirteenth highest in the EU. UK diesel prices were the third highest in the EU.
- In August 2017 the price of crude oil acquired by refineries, in £ sterling terms, was 13 per cent higher than a year ago, 6.4 per cent higher than the previous month but 6.9 per cent lower than the peak price seen in February 2017.

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



DOMESTIC PRICES: QUARTER 2 2017

Fuel price indices in the domestic sector in real terms



Consumer price index fuel components in real terms ⁽¹⁾ 2010=100	2017 Q2	Percentage change on a year earlier
Solid fuels	103.0	0.0
Gas	109.3	-2.5
Electricity	121.4	+4.3
Liquid fuels	76.3	+20.9
Total domestic fuel	114.9	+1.8

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

- Q2 2017 data shows that the price paid for all domestic fuel by household consumers increased by 1.8 per cent in real terms between Q2 2016 and Q2 2017, and by 2.0 per cent between Q1 and Q2 2017.
- Domestic electricity prices, including VAT, in Q2 2017 were 4.3 per cent higher in real terms than in Q2 2016. Prices were 5.3 per cent higher than in Q1 2017.
- The price of domestic gas, including VAT, fell by 2.5 per cent in real terms between Q2 2016 and Q2 2017, and by 0.8 per cent between Q1 and Q2 2017.
- The price of liquid fuels increased by 21 per cent between Q2 2016 and Q2 2017. However, between Q1 and Q2 2017, the price decreased by 9.2 per cent.

Switching levels

- Switching rates increased in Q2 2017, up by 16 per cent compared to the levels of a year earlier for electricity and up by 20 per cent for gas, based on data provided by Ofgem. An average of 410,000 households per month switched electricity supplier, with 320,000 households per month switching their gas supplier in the quarter.

Domestic prices tables are available on the BEIS section of the GOV.UK website at: www.gov.uk/government/collections/domestic-energy-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 second quarter of 2017 are given in the September 2017 editions of ENERGY TRENDS and ENERGY PRICES respectively, the Department's statistical bulletins on energy, released on 28 September 2017.
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 2012 to 2016 are available in the DIGEST OF UNITED KINGDOM ENERGY STATISTICS 2017, published on 27 July 2017. 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

