



Department for
Business, Energy
& Industrial Strategy



Date: 27 June 2019

STATISTICAL PRESS RELEASE

UK Energy Statistics, Q1 2019

Energy Trends and Energy Prices publications are published today 27 June 2019 by the Department for Business, Energy and Industrial Strategy. The publications cover new data for the first quarter of 2019 (January to March).

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 first quarter of 2019 are:

- Total **energy production** was 0.1 per cent higher than in the first quarter of 2018.
- Total **primary energy consumption** for energy uses fell by 7.8 per cent. However, when adjusted to take account of weather differences between the first quarter of 2018 and the first quarter of 2019, total primary energy consumption fell by 3.2 per cent.
- **Final energy consumption** (excluding non-energy use) was 7.0 per cent lower than in the first quarter of 2018. Domestic consumption fell by 16 per cent due to warmer weather. Temperatures in the first quarter of 2019 were on average 1.9 degrees Celsius warmer than the same period a year earlier, when the UK was in the midst of the 'Beast from the East' weather storm, with average temperatures in February and March 2019 being notably warmer than a year earlier. On a temperature corrected basis, final energy consumption was down 1.2 per cent over the same period.
- Of **electricity generated** in the first quarter of 2019, coal accounted for a record low of 3.5 per cent, whilst gas accounted for 41.9 per cent. Nuclear generation accounted for 16.0 per cent of total electricity generated in the first quarter of 2019.
- **Renewables' share of electricity generation** (wind, solar, hydro and other renewables) increased to 35.8 per cent in 2019 Q1, compared to 30.5 per cent in 2018 Q1, mostly due to increased capacity and higher wind speeds in March 2019. Wind and solar combined accounted for a record high of 23.6 per cent of electricity generation in 2019 Q1.
- **Renewable electricity generation** was 31.1 TWh in the first quarter of 2019, an increase of 9.2 per cent on the same period a year earlier.

main points continued:

- **Renewable electricity capacity** was 45.0 GW in the first quarter of 2019, an increase of 7.9 per cent on the same period a year earlier.
- Provisional calculations show that 11.0 per cent of final energy consumption in 2018 came from renewable sources, up from 9.9 (revised) per cent in 2017, as measured against the **UK's 15 per cent target under the 2009 EU Renewable Directive**. The latest data shows that the UK has met its fourth interim target.
- **Average annual household energy bills** data for 2018, originally published in March 2019, has been revised. Electricity bills data has been amended but gas data remains the same. 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 2018 increased by £69 (up 5.5 per cent to £1,318) compared to 2017. Average electricity bills were £53 higher and gas bills £16 higher than the previous year.

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 June 2019 edition of Energy Trends also includes articles on:

- Change to method of estimating sector demand for oil products
- Experimental statistics on whole UK energy flow incorporating end use energy efficiency
- Road fuel consumption and the UK motor vehicle fleet

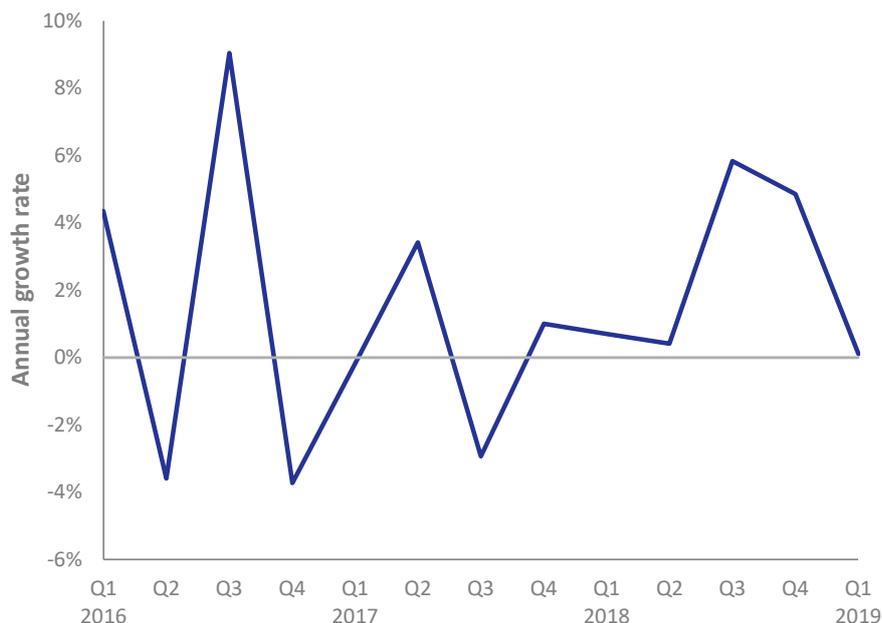
The following statistics are also published today 27 June 2019 by the Department for Business, Energy and Industrial Strategy:

- Local authority carbon dioxide emissions, 2017
www.gov.uk/government/collections/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics.
- National Energy Efficiency Data-framework
www.gov.uk/government/collections/national-energy-efficiency-data-need-framework.
- Solar photovoltaics deployment, May 2019
www.gov.uk/government/statistics/solar-photovoltaics-deployment
- Sub-national road transport consumption, 2017
www.gov.uk/government/collections/road-transport-consumption-at-regional-and-local-level



TOTAL ENERGY: QUARTER 1 2019

Total Energy - Production



	2019 Q1 <i>Million tonnes of oil equivalent</i>	Percentage change on a year earlier
Total production	33.7	+0.1
Oil	14.9	+9.2
Natural gas	9.7	-5.7
Primary electricity ⁽¹⁾	4.9	-8.4
Bioenergy & waste	3.8	-3.9
Coal	0.4	-8.5

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

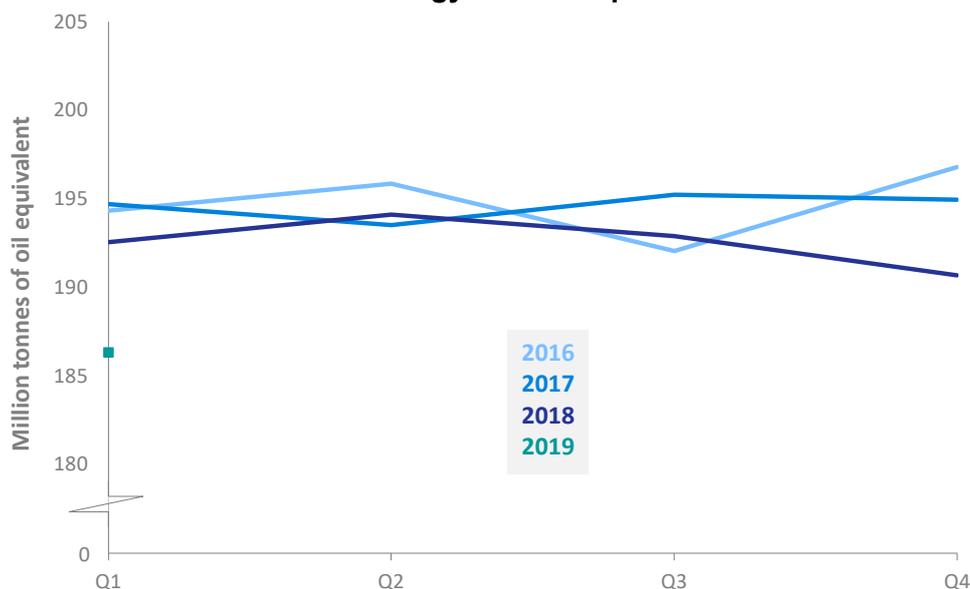
- Total production in the first quarter of 2019 stood at 33.7 million tonnes of oil equivalent, broadly similar to the level in the first quarter of 2018.
- Production of oil rose by 9.2 per cent compared to the first quarter of 2018 due to new fields that came online at the end of 2017 ramping up production, whilst production of natural gas fell by 5.7 per cent driven by the closure of the Theddlethorpe terminal in August 2018.
- Primary electricity output in the first quarter of 2019 was 8.4 per cent lower than in the first quarter of 2018, within which nuclear electricity output was 16 per cent lower due to maintenance outages at the major reactors at Hunterston B and Dungeness B, whilst output from wind, solar and natural flow hydro was 7.7 per cent higher mainly due to increased wind and solar capacity.
- Production of bioenergy and waste was 3.9 per cent lower compared to the first quarter in 2018.
- Coal production fell by 8.5 per cent compared to the first quarter in 2018 due to falling demand, particularly for electricity generation.

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 1 2019

Total Energy – consumption⁽¹⁾



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

	2019 Q1 Million tonnes of oil equivalent	Percentage change on a year earlier
Total energy consumption		
Unadjusted	53.1	-7.8
Seasonally adjusted and temperature corrected – annual rate	186.3	-3.2
Final consumption: unadjusted	40.9	-7.0
temperature corrected	35.9	-1.2

Final consumption (excluding non-energy use) was provisionally 7.0 per cent lower than in the first quarter of 2018, with domestic consumption down 16 per cent, reflecting warmer weather (the average temperature in the first quarter of 2019 was 1.9 degrees Celsius warmer than the same period last year). On a temperature corrected basis, final energy consumption was down 1.2 per cent over the same period, within which domestic consumption was down 4.1 per cent.

When examining seasonally adjusted and temperature corrected annualised rates:

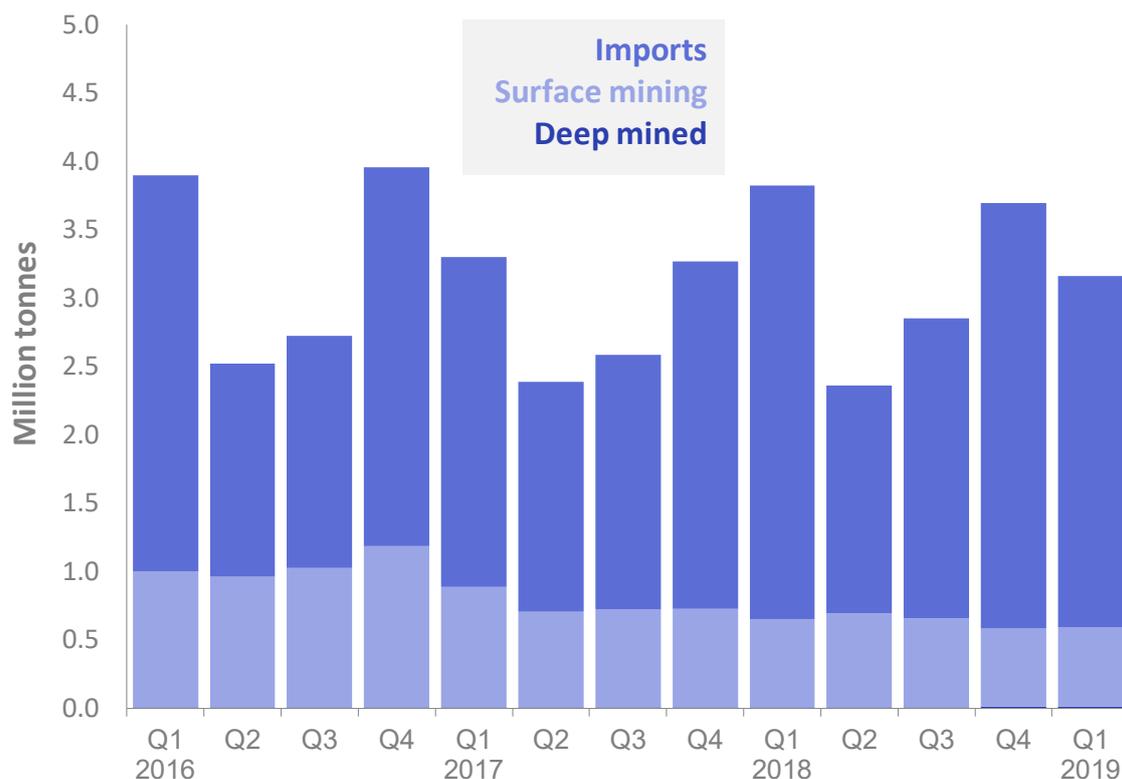
- Total inland energy consumption on a primary fuel input basis was 186.3 million tonnes of oil equivalent in the first quarter of 2019, 3.2 per cent lower than the same quarter in 2018.
- Between the first quarter of 2018 and the first quarter of 2019, coal and other solid fuel consumption fell by 42 per cent as demand fell from electricity generators.
- Oil consumption rose by 1.8 per cent, whilst gas consumption fell by 2.8 per cent.
- Bioenergy consumption rose by 4.2 per cent.
- Primary electricity consumption fell by 6.9 per cent, despite a record quarterly high from net imports boosted by the England-Belgium 'Nemo Link' interconnector becoming fully operational at the end of January 2019.

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 1 2019

Coal production and imports



	2019 Q1 Thousand tonnes	Percentage change on a year earlier
Coal supply	2,492	-47.4
Coal production	592	-8.9
Coal imports	2,571	-18.9
Coal demand	2,501	-47.2
- Power stations	1,254	-62.8
- Coke ovens & blast furnaces	697	-2.3
- Final users	514	-12.0

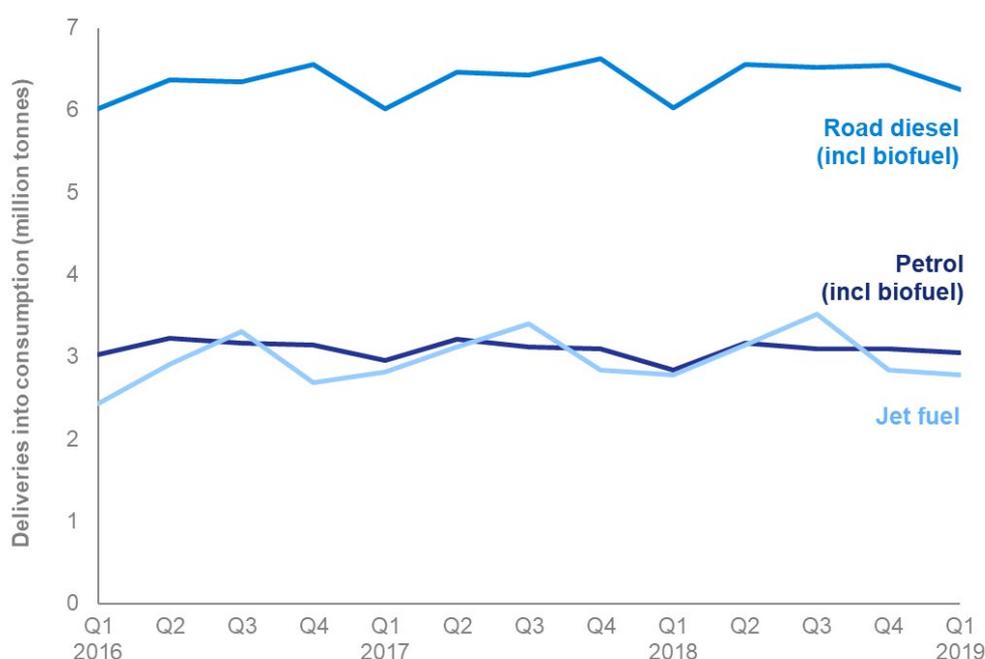
- Provisional figures for the first quarter of 2019 show that coal production fell to 0.6 million tonnes, 8.9 per cent lower than the first quarter 2018. This is as a result of mine closures and falling demand for coal for electricity generation.
- Imports of coal in the first quarter of 2019 were 19 per cent lower than in the first quarter of 2018 at 2.6 million tonnes.
- Total demand for coal in the first quarter of 2019 was 2.5 million tonnes, 47 per cent lower than in the first quarter of 2018, with consumption by electricity generators down by 63 per cent to 1.3 million tonnes.
- Coal stocks showed a seasonal rise of 0.5 million tonnes during the first quarter of 2019 and stood at 5.8 million tonnes, 1.7 million tonnes higher than at the end of March 2018.

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 1 2019

Demand for key transport fuels



2019 Q1	Thousand tonnes	Percentage change on a year earlier
Primary oil production	13,759	+9.3
Primary oil demand	14,689	+11.2
Net imports (primary oil)	1,581	(+)
Net imports (oil products)	2,747	-30.0
Refinery production	15,163	+11.5
Petroleum demand	17,049	+1.6
- Motor spirit (including biofuels)	3,054	+7.6
- DERV fuel (including biofuels)	6,253	+3.8
- Aviation turbine fuel	2,786	+0.3

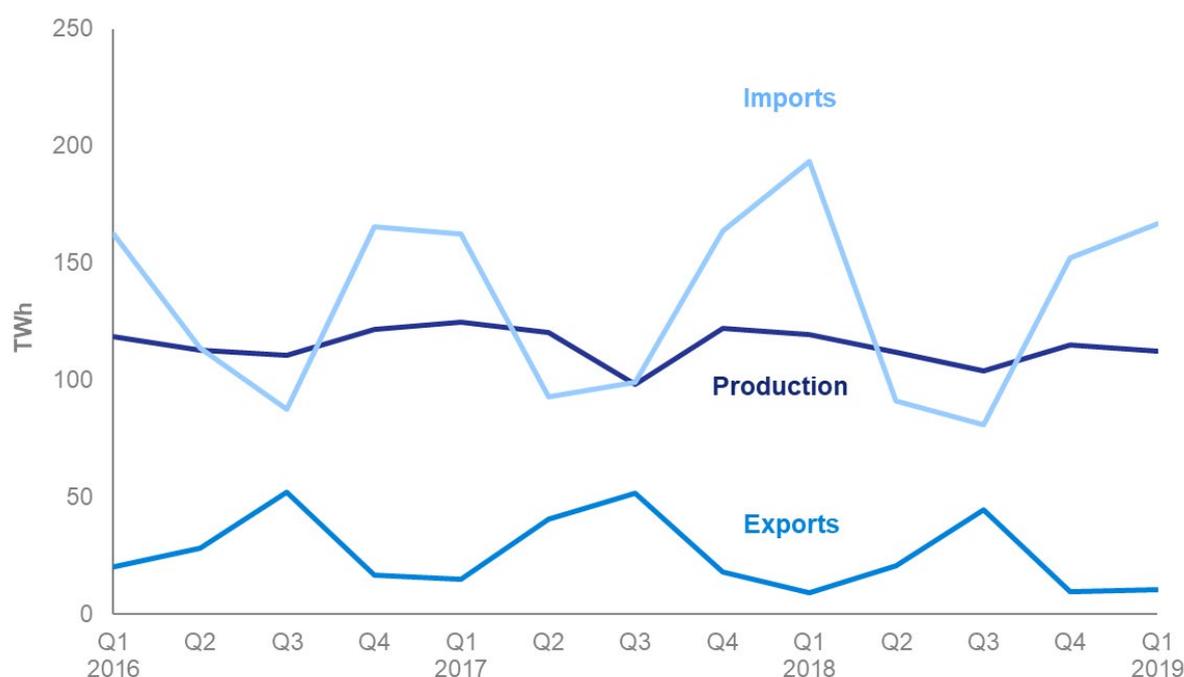
- Indigenous production of primary oils reached 13.8 million tonnes in Q1 2019, the highest quarterly volume since 2011. New projects that opened in late 2017 and ramped up production through 2018 contributed both to the increase in production as well as to robust exports, which increased to around 11 to 12 million tonnes through 2018 and 2019.
- The UK was a net importer of petroleum products by 2.7 million tonnes in Q1 2019, down by nearly one-third as imports reduced from record levels to meet demand during an extensive period of refinery maintenance this time last year. Following this maintenance, refining of petroleum products was up 12 per cent in Q1 2019.
- Demand increased by 1.6 per cent in Q1 2019, with demand for generation down by 10 per cent resulting from the increase in renewables. Demand for transport fuels was higher by 3.5 per cent. Bucking recent trends, petrol was up a notable 7.8 per cent and diesel by 3.0 per cent. The difference between the increase for each fuel type can be related to patterns of miles driven by vehicle types; cars, which tend to be used for discretionary travel, increased by 2.6 billion vehicle miles compared to last year where Heavy Goods and Light Goods vehicles, used for business, remained relatively stable.

Oil quarterly tables ET 3.1 & 3.2 and 3.4 – 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 1 2019

Production and trade of natural gas



	2019 Q1 TWh	Percentage change on a year earlier
Gas production	112.4	-5.7
Gas imports	166.7	-13.7
Gas exports	10.4	+15.3
Gas demand	283.6	-10.5
- Electricity generation	75.2	-2.9
- Domestic	116.1	-18.6

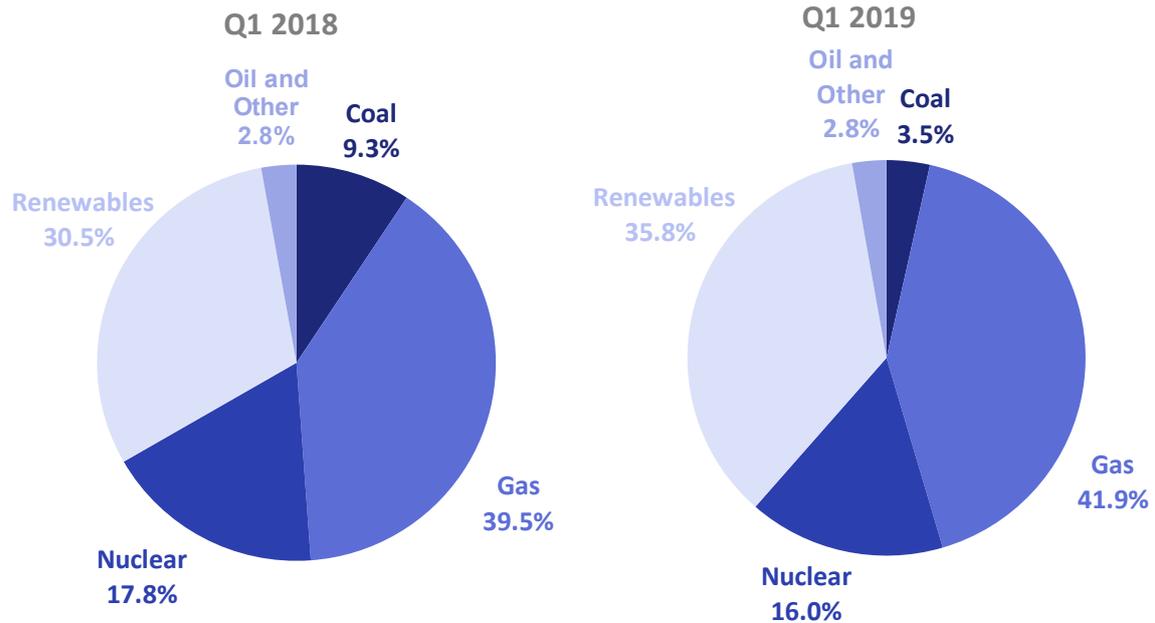
- Total indigenous UK production of natural gas in the first quarter of 2019 was 112.4 TWh, 5.7 per cent lower than a year.
- Increased temperatures this year meant reduced demand and an overall 14 per cent decrease in imports in Q1 2019. Within this, pipeline imports fell by one-third but in contrast, Liquefied Natural Gas (LNG) imports increased five-fold due to a decreased demand in Asia and increased diversification of the LNG market. Production comprised 40 per cent of supply, with imports from Norway remaining a close second at 37 per cent.
- Meanwhile, exports increased by 15 per cent, driven by increased trade with Ireland despite lower exports to the Netherlands. Subsequently, net imports decreased by 15 per cent.
- Demand for gas fell by 10 per cent in the first three months of 2019, attributed to high temperatures in February and March 2019 contrasted with very low temperatures brought over by 'Beast from the East' in this period in 2018. This resulted in a 19 per cent decrease in domestic gas use, which underpinned a 15 per cent reduction in total final consumption.
- Demand for gas for electricity generation continued to fall, down 2.9 per cent, compared to Q1 2018 as increased output from renewable energy continues to displace demand.

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 1 2019

Electricity generated



	2019 Q1 <i>TWh</i>	Percentage change on a year earlier
Electricity Generated from		
Coal	3.1	-65.0
Nuclear	13.9	-16.5
Gas	36.4	-1.3
Renewables	31.1	+9.2
Total	86.9	-6.9
Supplied to		
Industry	23.3	-0.7
Domestic	29.8	-7.9
Other final consumers	25.7	-5.5
All	78.8	-5.0

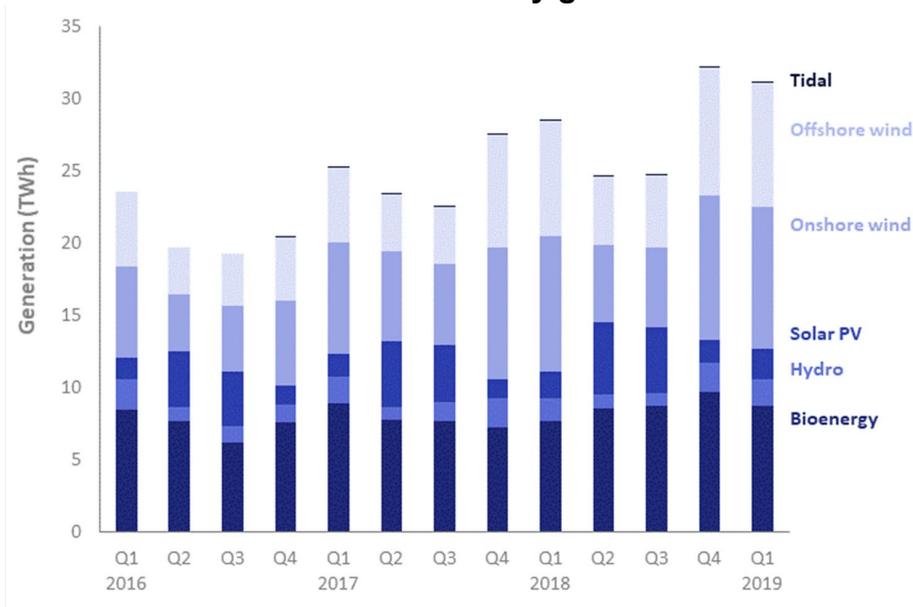
- Final consumption in Q1 2019 was 5.0 per cent lower than in Q1 2018, largely due to significantly warmer temperatures reducing demand. Domestic consumption decreased most significantly by 7.9 per cent.
- This demand reduction drove a 6.9 per cent reduction in generation compared to Q1 2018.
- Low carbon's share increased to 51.8 per cent in Q1 2019, compared to 48.3 per cent in Q1 2018. This was driven by an increase in renewables generation, which accounted for 35.8 per cent of generation in Q1 2019. Both were record highs for the first quarter of a year.
- Fossil fuels share of generation decreased to 45.8 per cent in Q1 2019, as the fuel mix continued to move towards renewable sources.
- Fuel used by generators in the first quarter of 2019 was 8.9 per cent lower than in Q1 2018.

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 1 2019

Renewable electricity generation



	2019 Q1 TWh	Percentage change on a year earlier
Renewable electricity generation		
Onshore wind	9.84	+4.8
Offshore wind	8.56	+7.3
Hydro	1.81	+14.6
Solar PV	2.12	+18.7
Bioenergy	8.76	+13.3
All renewables	31.09	+9.2

- Renewable electricity generation was 31.1 TWh in 2019 quarter 1, an increase of 9.2 per cent on the 28.5 TWh recorded a year earlier and down 3.4 per cent on the record set in Q4 2018. Compared to Q1 2018, electricity generated from onshore wind rose by 4.8 per cent to 9.8 TWh and generation from offshore wind increased to 8.6 TWh, mainly due to increased capacity which more than offset lower wind speeds. Generation from hydro increased by 15 per cent compared to 2018 quarter 1. Generation from solar photovoltaics increased by 19 per cent to 2.1 TWh. This can be attributed to both a 6.1 per cent increase in solar PV capacity alongside an increase of 0.6 average daily sun hours. Generation from bioenergy increased by 13.3 per cent to 8.8 TWh, largely due to the opening of Lynemouth Biomass plant in 2018 Q2 and the conversion of a unit from coal to biomass at Drax in 2018 Q3.
- Renewables' share of total generation in 2019 Q1 was 35.8 per cent, an increase of 5.3 percentage points on 2018 Q1, reflecting increased capacity.
- Renewable electricity capacity was 45.0 GW at the end of the first quarter of 2019, a 7.9 per cent increase on a year earlier, and a 1.4 per cent increase on 2018 Q4.
- Liquid biofuels represented 4.0 per cent of petrol and diesel consumed in road transport in 2019 Q1, 0.4 percentage points up on a year earlier. Biofuel figures are provisional and are subject to revision.

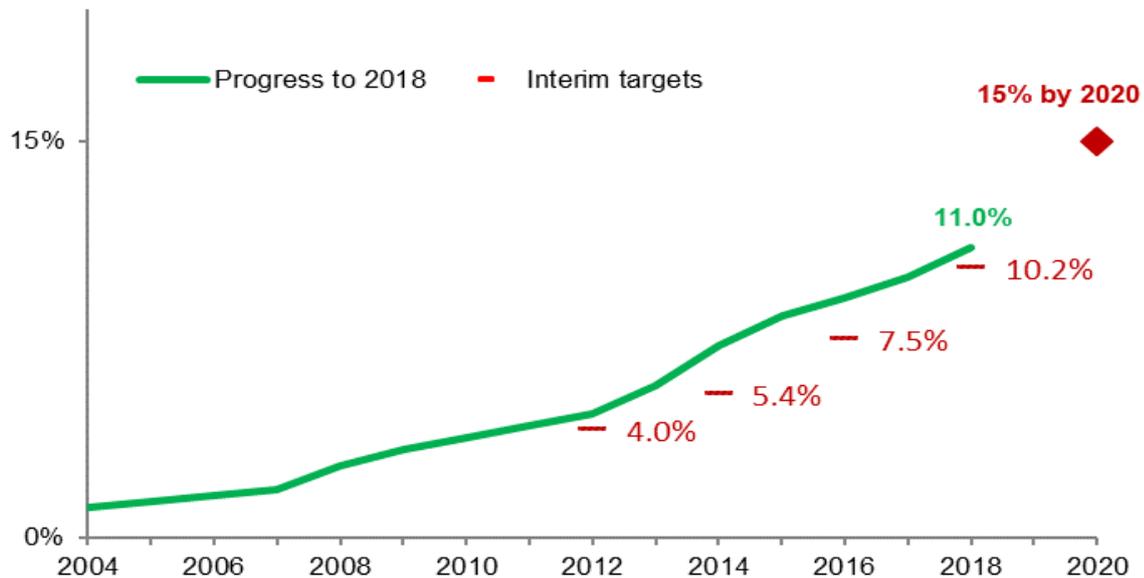
Renewables quarterly tables ET 6.1 – 6.2 are available on the BEIS section of the GOV.UK website at: www.gov.uk/government/statistics/energy-trends-section-6-renewables



UK progress against the Renewable Energy Directive

An update on the progress made against **the UK's 15 per cent target under the 2009 EU Renewable Directive** is provided within Energy Trends. Provisional calculations show that 11.0 per cent of final energy consumption in 2018 came from renewable sources, up from 9.9 (revised) per cent in 2017.

The UK has met its fourth interim target; averaged across 2017 and 2018, achieving 10.4 per cent renewable energy compared to the 10.2 per cent interim target.

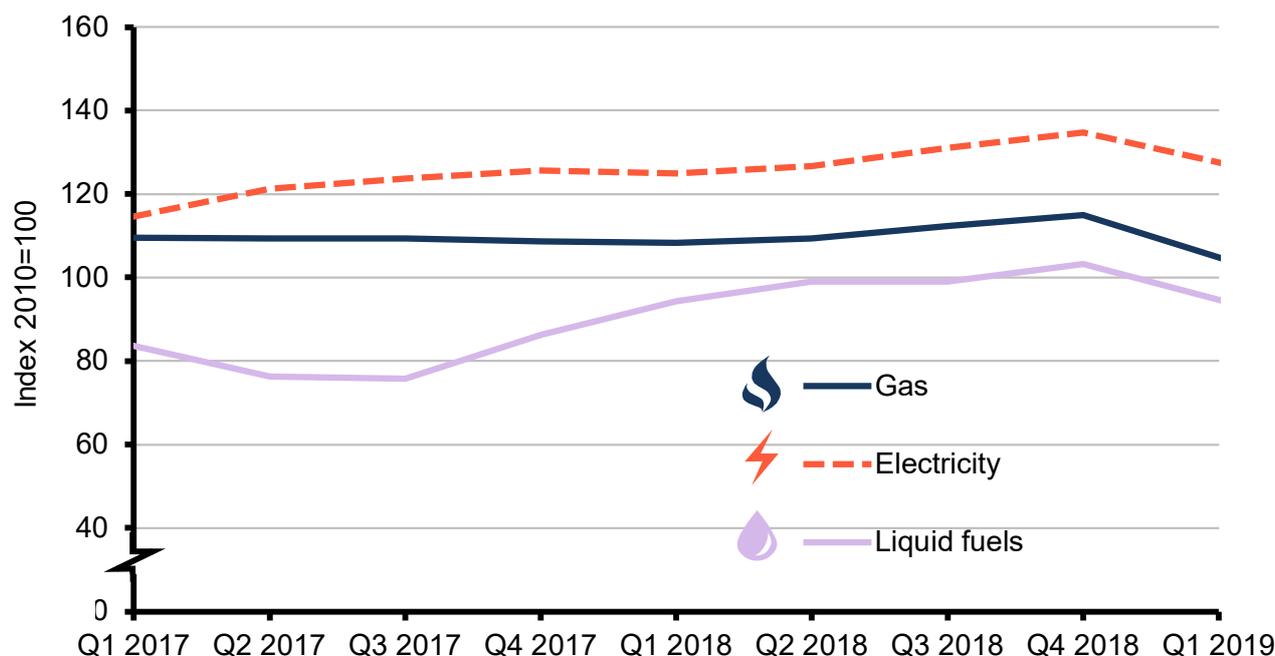


In addition, in 2018 compared to 2017:

- Renewable electricity accounted for 31.1 per cent of total generation (as measured using the RED methodology), an increase of 3.3 percentage points,
- Renewable heat accounted for 7.3 per cent of total heat consumption, an increase of 0.4 percentage points, and
- Renewable energy for transport accounted for 6.2 per cent of total transport energy, an increase of 1.3 percentage points.

DOMESTIC PRICES: QUARTER 1 2019

Fuel price indices in the domestic sector in real terms



Consumer price index fuel components in real terms ⁽¹⁾ 2010=100	2019 Q1	Percentage change on a year earlier
Solid fuels	105.1	0.8
Gas	104.8	-3.3
Electricity	127.6	2.1
Liquid fuels	94.7	0.3
Total domestic fuels	116.8	-0.1

(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 decreased by 0.1 per cent in real terms between Q1 2018 and Q1 2019, and by 6.6 per cent between Q4 2018 and Q1 2019.
- Domestic electricity prices, including VAT, in Q1 2019 were 2.1 per cent higher in real terms than in Q1 2018. Prices were 5.3 per cent lower than in Q4 2018.
- The price of domestic gas, including VAT, fell by 3.3 per cent in real terms between Q1 2018 and Q1 2019, and was 8.9 per cent lower between Q4 2018 and Q1 2019.
- For the period July to December 2018, prices for medium domestic gas consumers, including taxes, were the second lowest in the EU15 and for electricity consumers prices including taxes, were mid-ranked.

Switching levels

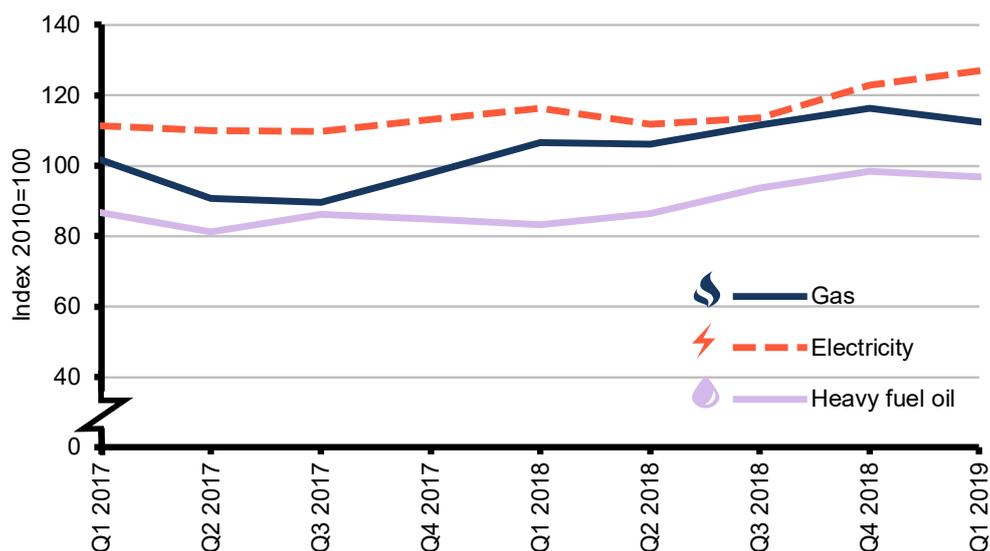
- The rates of switching in the electricity and gas market increased by 16 per cent between 2018 quarter 1 and 2019 quarter 1. Generally switches peak around March (Quarter 1), however in 2018 the same trend was not observed. March 2019 was in line with the previous trend which creates a higher percentage increase than reported in previous quarters.

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 1 2019

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



Fuel prices index in real terms ⁽¹⁾ 2010=100	2019 Q1	Percentage change on a year earlier
Coal	97.5	-13.1
Heavy fuel oil	96.8	16.4
Gas	112.5	5.6
Electricity	126.9	9.1
Total fuel	119.1	9.2

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

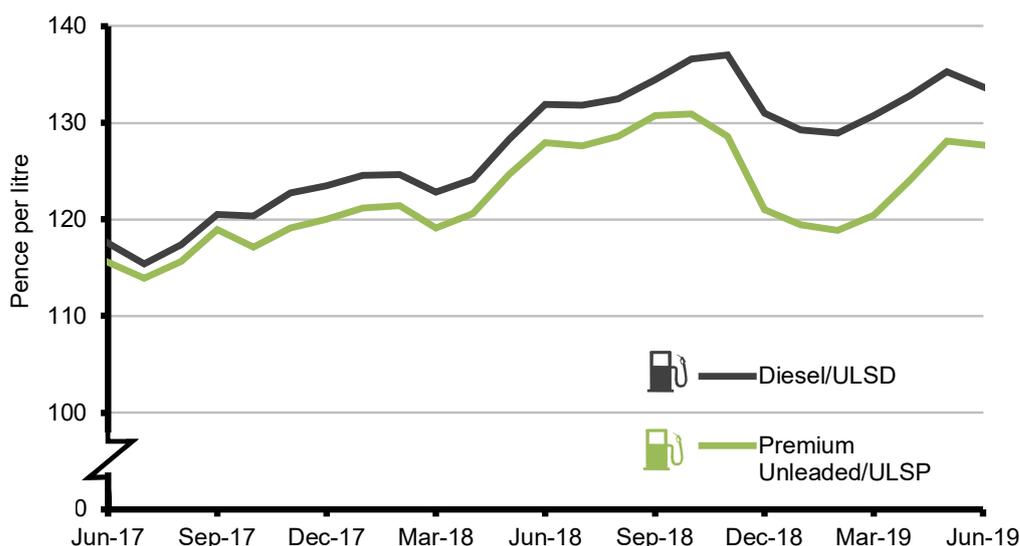
- Average industrial gas prices, including CCL were 5.6 per cent higher in real terms in Q1 2019 compared to Q1 2018, whilst prices excluding CCL were 5.5 per cent higher.
- Average industrial electricity prices were 9.1 per cent higher including CCL and 9.4 per cent higher excluding CCL, in real terms, in Q1 2019 compared to Q1 2018.
- Average coal prices were 13.1 per cent lower in real terms including CCL and 13.6 per cent lower excluding CCL in Q1 2019 compared to Q1 2018.
- Heavy fuel oil prices were 16 per cent higher in real terms than a year ago.
- For the period July to December 2018, UK industrial electricity prices for medium consumers including tax were the highest in the EU15, whilst industrial gas prices for medium consumers including tax were the second 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

Typical retail prices of road transport fuels



Retail prices of petroleum products	Mid-June 2019 ⁽¹⁾ Pence per litre	Percentage change on a year earlier
Unleaded petrol ⁽²⁾	127.7	-0.2
Diesel ⁽²⁾	133.8	1.4

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

(2) Prices are provisional estimates.

- In mid-June 2019, unleaded petrol was on average 127.7 pence per litre, 0.3 pence per litre lower than a year earlier, and 9.9 per cent lower than the high reached in April 2012.
- In mid-June 2019, diesel was on average 133.8 pence per litre, 1.9 pence per litre higher than a year earlier, and 9.5 per cent below the peak seen in April 2012.
- In May 2019, the average UK retail prices for petrol, including taxes, were sixth lowest in the EU15. Average UK diesel prices were the highest in the EU15.
- In May 2019 the price of crude oil acquired by refineries, in £ sterling terms, was 2.8 per cent lower than a year earlier but only 0.8 per cent higher than in the previous month.

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



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Notes to editors

1. More detailed figures of United Kingdom energy production and consumption and of energy prices, for the first quarter of 2019 are given in the June 2019 editions of ENERGY TRENDS and ENERGY PRICES respectively, the Department's statistical bulletins on energy, released on 27 June 2019.
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 2013 to 2017 are available in the DIGEST OF UNITED KINGDOM ENERGY STATISTICS 2018, published on 26 July 2018. The 2019 edition of the Digest will be published on 25 July 2019. 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

