PRESS NOTICE

Department for Business, Energy & Industrial Strategy

Date: 26 March 2020

STATISTICAL PRESS RELEASE

UK Energy Statistics, 2019 & Q4 2019

Energy Trends and Energy Prices publications are published today 26 March 2020 by the Department for Business, Energy and Industrial Strategy. The publications cover new data for the fourth quarter of 2019 (October to December) and thus provisional annual data for 2019. This press release focuses mainly on the 2019 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.

The key points from 2019 are:

- Total energy production was 0.5 per cent lower than in 2018. This fall, the first since 2014, follows four consecutive annual rises, was due to rises in output from oil, bioenergy and waste, wind, solar and hydro being offset by falls from coal, gas and nuclear. The output from bioenergy and waste and wind, solar and hydro is now nearly 15 times higher than coal, notable as coal output was greater as recently as 2012.

- Total primary energy consumption for energy uses was 1.9 per cent lower than in 2018. However, when adjusted to take account of weather differences between 2018 and 2019, primary consumption fell by 1.3 per cent.

- Final energy consumption (excluding non-energy use) was 1.1 per cent lower than in 2018. On a seasonally and temperature adjusted basis it is estimated to have fallen by 0.8 per cent with falls in the domestic, industrial and transport sectors but a rise in the services sector.

- Of electricity generated in 2019, gas accounted for 40.9 per cent whilst coal accounted for only 2.1 per cent. Renewables’ share of electricity generation increased to 36.9 per cent in 2019 - a record high - with 119 TWh electricity generated from renewable sources, as a result of increased capacity. Nuclear generation’s share declined compared to 2018, due to reactor outages and required maintenance.
Renewable electricity capacity was 47.4 GW at the end of 2019, a 6.9 per cent increase (3.0 GW) on a year earlier.

Low carbon electricity’s share of generation increased from 52.6 per cent in 2018 to a record high of 54.2 per cent in 2019, driven by growth in renewable generation due to increased capacity.

Other highlights from 2019 include:

- Imports in 2019 were 2.1 per cent lower than in 2018, whilst exports fell by 0.3 per cent. As a result, net import dependency fell back from 36.0 per cent to 35.2 per cent.
- Demand for oil fell for the second consecutive year as a result of depressed demand for transport fuels, notably diesel.
- Supply of gas to the UK saw a shift in 2019 as pipeline flows fell to 60 per cent of total imports as volumes of Liquefied Natural Gas more than doubled. Exports remained low and 2019 was only the fourth year in the series that the UK exported less than 100 TWh.
- Coal production was 16 per cent lower than in 2018, and at a record low level, due to further contraction of surface mining and lower demand for electricity generation. Imports of coal in 2019 were 33 per cent lower compared to 2018. Coal stocks were broadly similar to last year.
- Gas demand in 2019 was stable on the year before at 876 TWh, with a small increase in gas use for electricity generation offset by a small decrease in final consumption.
- Total electricity generated in 2019 was 323.7 TWh, a decrease of 2.8 per cent compared to 2018 (332.9 TWh). More than a third (36.9 per cent) of UK generation came from renewable sources in 2019, driven by high generation from wind, solar and bioenergy sources, while coal generation decreased substantially, pushing fossil fuels to an all-time low share of the generation mix at 43.4 per cent.

Energy Prices covers prices to domestic and industrial consumers, prices of oil products and comparisons of international fuel prices.

The key points from 2019 are:

- Average annual household energy bills (based on updated fixed consumption figures of 3,600 kWh per annum for electricity and 13,600 kWh per annum for gas) across all payment types were £1,289 in 2019, an increase of £55 (up 4.4 per cent) compared to 2018. Average electricity bills were £39 higher and gas bills £16 higher than the previous year.
- Based on actual annual household consumption, combined energy bills increased by 5.0 per cent in cash terms (to £1,155 in 2019 from £1,100 in 2018) and increased by 3.1 per cent in real terms (to £987 in 2019 based on 2010 prices).

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 March 2020 edition of Energy Trends also includes articles on:

- Trends in trade of Liquefied Natural Gas in the UK and Europe
- Wind powered electricity in the UK
- International comparisons of household energy efficiency

The items below which previously would have been published in Energy Trends now form part of the March 2020 edition of the Energy Prices publication:

- Domestic energy bills in 2019: The impact of variable consumption
- Domestic prices: methodology note

The following energy and climate change statistics are also published today 26 March 2020, by the Department for Business, Energy and Industrial Strategy:

- Greenhouse Gas emissions, 2019 provisional figures

- Solar Photovoltaics deployment, February 2020
Total production in 2019 was 129.3 million tonnes of oil equivalent, 0.5 per cent lower than in 2018. This fall the first since 2014, follows four consecutive annual rises, is due to rises in output from oil, bioenergy and waste, wind, solar and hydro being offset by the continued decline in UK coal production and reduced output from gas and nuclear.

- Production of oil rose by 1.8 per cent to the highest level since 2011, due to new production from the Clair Ridge field which opened at the end of 2018, whilst gas fell by 2.2 per cent due to the closure of the Theddlethorpe terminal in 2018, as well as reduced output at several large gas terminals during 2019.

- Production of bioenergy & waste rose by 5.1 per cent between 2018 and 2019 to a record 14.1 million tonnes of oil equivalent, driven by an increase in plant biomass capacity.

- Primary electricity output fell by 6.2 per cent between 2018 and 2019, within which nuclear output fell by 14 per cent to the lowest level since 2008, due a series of prolonged outages throughout the year at Dungeness B and Huntserson B, reducing the UK’s operational nuclear capacity, whilst output from wind, solar and hydro rose by 10 per cent, to a record high level, due to increased wind and solar capacity.

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](http://www.gov.uk/government/statistics/total-energy-section-1-energy-trends)
Final energy consumption (excluding non-energy use) was 1.1 per cent lower than in 2018. Domestic consumption fell by 1.6 per cent with lower demand in quarter 1 as a result of warmer temperatures compared to 2018 during the ‘Beast from the East’ weather storm. On a temperature corrected basis, final energy consumption fell by 0.8 per cent, with domestic consumption also down by 0.8 per cent.

When examining seasonally adjusted and temperature corrected annualised rates:

- Total inland consumption on a primary fuel input basis was 190.4 million tonnes of oil equivalent in 2019, 1.3 per cent lower than in 2018.
- Between 2018 and 2019 coal consumption fell by 26 per cent to a record low, whilst oil consumption fell by 0.9 per cent but gas consumption rose by 0.5 per cent.
- Bioenergy and waste consumption rose by 6.8 per cent, whilst primary electricity consumption fell by 4.9 per cent, within which nuclear fell by 14 per cent but wind, solar and hydro rose by 10 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](http://www.gov.uk/government/statistics/total-energy-section-1-energy-trends)
Provisional figures for 2019, as a whole, show that coal production fell to a new record low of 2.2 million tonnes, 16 per cent down on 2018 due to further contraction of surface mining along with lower demand for electricity generation. Coal imports at 6.8 million tonnes were nearly 33 per cent lower compared to 2018.

Total demand for coal in 2019 was 7.9 million tonnes, 33 per cent lower than in 2018, with consumption by electricity generators down by 56 per cent to 2.9 million tonnes, a new record low.

Total stocks at the end of the fourth quarter of 2019 were 5.3 million tonnes, broadly similar to last year and 13 per cent lower than the third quarter of 2019.

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
Indigenous production of crude oil and Natural Gas Liquids increased by 1.8 per cent compared with 2018 due to continued production from existing developments and new flows from projects that opened late in 2018, such as Clair Ridge. Oil production stands at just over 52 million tonnes, just over a third of the peak production recorded in 1999.

Overall demand for primary oils in 2019 remained stable following stable refinery production. Net imports of petroleum products were 12.7 million tonnes in 2019.

Provisional data indicate that transport demand decreased by 1.5 per cent when compared to 2018, driven by a decrease in diesel sales over the year. Annual demand for petrol increased for the first time in the series as motorists switched away from diesel-engine vehicles. Fuel used for aviation transport increased by just 0.9 per cent.

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
In 2019 gross gas production decreased by 2.2 per cent compared to last year, opposing the increase in year-on-year production since 2013. However, the longer-term trend has been one of decline since the peak in 2000.

Gas imports were stable in 2019, but with a shift in patterns of supply. Pipeline imports were down by more than one-quarter as volumes of Liquefied Natural Gas more than doubled and formed 40 per cent of total imports. Exports were up 4.7 per cent from the near record low levels in 2018, but remained below 100 TWh, for the second successive year.

Gas demand in 2019 was stable on 2018 at 876 TWh. Demand for gas in electricity generation was down by 1.0 per cent, whilst final consumption was down 1.4 per cent following warmer weather compared to 2018.

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
Total electricity generated in 2019 dropped 2.8 per cent compared to 2018, while net imports increased by 11 per cent. The total electricity supplied was down 1.8 per cent on 2018.

Gas and coal generation accounted for 40.9 per cent and 2.1 per cent of generation respectively, as fossil fuelled generation was offset by higher renewable generation. Production favoured gas over coal, due to the carbon price per GWh being lower for gas.

Low carbon generation (nuclear and renewables) accounted for a record high of 54.2 per cent of generation in 2019. This was due to large increases in renewable generation, which was up 8.5 per cent; making up 36.9 per cent of electricity generated. Nuclear generation decreased by 13.6 per cent, with its share 2.2 percentage points lower than in 2018, due to outages.

Fuel used by generators in 2019 was 4.5 per cent lower than in 2018, as the fuel mix shifted to non-thermal renewables and more electricity was supplied from imports.

Final consumption of electricity was lower in 2019 than in 2018, down 1.8 per cent overall and down 1.8 per cent for the industrial sector, 1.3 per cent for the domestic sector and 2.3 per cent for other final users, including the commercial sector.

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
Renewable electricity generation was a record 119.3 TWh in 2019, an increase of 8.5 per cent on a year earlier. Onshore and offshore wind generation rose by 6.6 per cent and 20 per cent respectively, following increased capacity. Generation from solar photovoltaics decreased by 1.4 per cent, due to average sunlight hours being down, 2018 had been a record year for solar generation. Generation from bioenergy was up by 5.2 per cent on 2018, to a record 36.6 TWh, partly as a result of new capacity. Hydro generation increased 8.5 per cent, generation had been relatively low in 2018.

Renewables’ share of electricity generation was a record 36.9 per cent in 2019, an increase of 3.8 percentage points on a year earlier.

Renewable electricity capacity was 47.4 GW at the end of 2019, a 6.9 per cent increase (3.9 GW) on a year earlier.

Renewable transport: liquid biofuels accounted for 5.0 per cent of petrol and diesel consumed in road transport in 2019, up from 4.0 per cent in 2018.

MAIN POINTS FOR THE FOURTH QUARTER OF 2019

• Total energy production at 34.3 million tonnes of oil equivalent was 1.4 per cent higher when compared with the fourth quarter of 2018, and the highest level since the second quarter of 2011.

• Total primary energy consumption for energy uses rose by 3.8 per cent. However, when adjusted to take account of weather differences between the fourth quarter of 2018 and the fourth quarter of 2019, primary energy consumption rose by 1.2 per cent.

• Final energy consumption (excluding non-energy use) was 4.3 per cent higher than in the fourth quarter of 2018. Domestic consumption rose by 11 per cent driven by the cooler weather, particularly in November 2019. On a seasonally and temperature adjusted basis final energy consumption rose by 0.3 per cent; domestic consumption rose by 2.0 per cent.

Electricity generated

- Of electricity generated in the fourth quarter of 2019, gas accounted for 38.9 per cent, whilst coal accounted for 3.1 per cent. Nuclear generation accounted for 18.0 per cent of total electricity generated in the fourth quarter of 2019 as outages at two power plants were completed.

- Renewables’ share of electricity generation increased from 36.8 per cent in the fourth quarter of 2018 to 37.4 per cent in the fourth quarter of 2019, reflecting higher capacity for renewable generation, particularly for offshore wind.

- Low carbon electricity’s share of generation increased from 53.4 per cent in the fourth quarter of 2018 to 55.4 per cent in the fourth quarter of 2019, with increases in generation from both nuclear and renewable sources.

Quarterly tables are available on the BEIS section of the GOV.UK website at: www.gov.uk/government/organisations/department-for-business-energy-and-industrial-strategy/about/statistics
DOMESTIC PRICES: QUARTER 4 2019

Fuel price indices in the domestic sector in real terms

<table>
<thead>
<tr>
<th></th>
<th>2019 Q4</th>
<th>Percentage change on a year earlier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid fuels</td>
<td>106.2</td>
<td>+2.1</td>
</tr>
<tr>
<td>Gas</td>
<td>102.8</td>
<td>-10.3</td>
</tr>
<tr>
<td>Electricity</td>
<td>136.2</td>
<td>+1.5</td>
</tr>
<tr>
<td>Liquid fuels</td>
<td>94.7</td>
<td>-7.9</td>
</tr>
<tr>
<td>Total domestic fuel</td>
<td>120.3</td>
<td>-3.4</td>
</tr>
</tbody>
</table>

(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 3.4 per cent in real terms between Q4 2018 and Q4 2019, and by 4.5 per cent between Q3 and Q4 2019.
- Domestic electricity prices, including VAT, in Q4 2019 were 1.5 per cent higher in real terms than in Q4 2018.
- The prices of domestic gas, including VAT, fell by 10 per cent in real terms between Q4 2018 and Q4 2019 and by 8.9 per cent between Q3 and Q4 2019.

Switching levels

- The number of transfers made within the domestic electricity and domestic gas markets both increased between Q4 2019 and Q4 2018, with an estimated 1,501,000 electricity transfers being made in Q4 2019 and 1,227,000 gas transfers in Q4 2019. These transfers represent around 5.2 per cent of customers in both the electricity and gas domestic markets.

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

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>Percentage change, cash terms</th>
<th>Percentage change, real terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas</td>
<td>£594</td>
<td>£610</td>
<td>2.7</td>
<td>0.9</td>
</tr>
<tr>
<td>Electricity</td>
<td>£641</td>
<td>£679</td>
<td>6.0</td>
<td>4.1</td>
</tr>
<tr>
<td>Total</td>
<td>£1,235</td>
<td>£1,289</td>
<td>4.4</td>
<td>2.6</td>
</tr>
</tbody>
</table>

(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 estimated for the whole 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 since 2017 are based on an annual consumption of 13,600 kWh, prior to this they are based on 15,000 kWh

(4) Electricity bills are based on an annual consumption of 3,600 kWh from 2017, before this 3,800 kWh was used

(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.

- The average standard electricity bill in 2019 has increased by £39 (6.0 per cent) since 2018, from £641 to £679. Average gas bills for 2019 (across all payment types) increased by £16 (2.7 per cent) from £594 to £610. Overall, the average energy bill for households rose by £55. These bills are based on new standard consumptions of 3,600kWh per year for electricity and 13,600kWh per year for gas introduced in the March 2020 issue of the Quarterly Energy Prices release.

- Credit remains the most expensive method of payment at £1,399 (an increase of £56 since 2018). Direct Debit and Prepayment tie for the cheapest method; in 2019 average payments were £1,265. Direct Debit bills average £134 cheaper than Credit.

- UK domestic gas prices for medium consumers would be the second lowest comparing the countries in the former EU15 and electricity prices (including taxes) for medium consumers of electricity are equivalent to the eighth lowest.

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 4 2019

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

Fuel prices index in real terms\(^{(1)}\) 2010=100

<table>
<thead>
<tr>
<th></th>
<th>2019 Q4</th>
<th>Percentage change on a year earlier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal</td>
<td>108.5</td>
<td>-8.2</td>
</tr>
<tr>
<td>Heavy fuel oil</td>
<td>90.3</td>
<td>-7.9</td>
</tr>
<tr>
<td>Gas</td>
<td>101.2</td>
<td>-12.6</td>
</tr>
<tr>
<td>Electricity</td>
<td>129.3</td>
<td>+5.6</td>
</tr>
<tr>
<td>Total fuel</td>
<td>119.4</td>
<td>+0.8</td>
</tr>
</tbody>
</table>

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

- Average industrial gas prices including CCL were 13 per cent lower in real terms in Q4 2019 compared to Q4 2018, and prices excluding CCL were 15 per cent lower.

- Average industrial electricity prices including CCL were 5.6 per cent higher in real terms in Q4 2019 compared to Q4 2018 and prices excluding CCL were 3.5 per cent higher.

- Average coal prices including CCL were 8.2 per cent lower in real terms in Q4 2019 compared to Q4 2018 and prices excluding CCL were 8.5 per cent lower. Prices for heavy fuel oil (not subject to CCL) were 7.9 per cent lower in real terms than a year ago.

- For the period January to June 2019, UK prices for medium industrial electricity consumers including taxes were the second highest in the EU15 and were 48 per cent above the EU15 median. UK prices for medium industrial gas consumers including taxes were the second lowest in the EU15 and were 16 per cent below the median price.

Industrial prices tables are available on the BEIS section of the GOV.UK website at: www.gov.uk/government/collections/industrial-energy-prices
• Crude oil prices, the key driver of petrol and diesel prices, started the year at just under $64 per barrel but fell to $55 in February 2020. Prices started the month of March 2020 at $52 but fell sharply to $29 by the middle of the month due to the outbreak of the coronavirus and the collapse of the proposal by major oil producers to extend supply cuts.

• In mid-March 2020, a litre of unleaded petrol was on average 120.3 pence per litre, 0.1 per cent lower than a year earlier and 15 per cent lower than the high of April 2012.

• In mid-March 2020, diesel was on average 124.4 pence per litre, 4.9 per cent lower than a year earlier and 16 per cent lower than the high of April 2012.

• In February 2020, the average UK retail prices for petrol were mid-ranked in the EU15. UK diesel prices were the highest in the EU15, partly due to the high tax rates.

Road transport fuel prices tables are available on the BEIS section of the GOV.UK website at:
Notes to editors

1. More detailed figures of United Kingdom energy production and consumption and of energy prices, for the fourth quarter of 2019 and 2019 as a whole are given in the March 2020 editions of ENERGY TRENDS and ENERGY PRICES respectively, the Department's statistical bulletins on energy, released on 26 March 2020.


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