Key results show:

**Provisional 2019**

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. Oil output rose, up 1.8 per cent, and together with gas, which fell 2.2 per cent, accounts for 73 per cent of UK production. Coal output fell to a record low level, whilst output from nuclear also fell, due to outages. 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. *(Chart 1.1)*

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 energy consumption fell by 1.3 per cent. *(Chart 1.3)*

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. *(Chart 1.5)*

Net import dependency was 35.2 per cent in 2019. Imports and exports both fell in 2019. Fossil fuel dependency was at a record low in 2019 at 79.0 per cent. *(Charts 1.6 & 1.7)*

**Quarter 4 2019**

Total energy production was 1.4 per cent higher than in the fourth quarter of 2018, boosted by strong growth in gas, nuclear and bioenergy and waste output. *(Chart 1.2)*

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. *(Chart 1.3)*

Final consumption rose by 3.3 per cent compared to the fourth quarter of 2018, with the cooler weather in the quarter, notably in November 2019, a significant factor, resulting in domestic consumption rising by 11 per cent. *(Chart 1.4)*

**Relevant tables**

1.1: Indigenous production of primary fuels  
1.2: Inland energy consumption: primary fuel input basis  
1.3: Supply and use of fuels, and Seasonally adjusted and temperature corrected final energy consumption

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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, and 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. Output from bioenergy and waste and wind, solar and hydro is now nearly 15 times that of coal, when as recently as 2012 coal output was greater.

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 Hunterston 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.

Production of coal fell by 13 per cent, to a new record low.
Total production in the fourth quarter of 2019 at 34.3 million tonnes of oil equivalent was 1.4 per cent higher than in the fourth quarter of 2018, and the highest level since the second quarter of 2011.

Production of oil fell by 4.3 per cent driven by a fall in NGL output following flaring at the Mossmorran plant, whilst gas rose by 4.7 per cent due to increased output from several of the larger terminals compared to the fourth quarter of 2018.

Primary electricity output in the fourth quarter of 2019 was 4.6 per cent higher than in the fourth quarter of 2018, within which nuclear electricity output was 7.4 per cent higher following outages, whilst output from wind, solar and hydro was broadly unchanged with increases in capacity offset by less favourable weather conditions for electricity generation.

Production of bioenergy and waste was 12 per cent higher compared to the fourth quarter in 2018, driven by an increase in plant biomass capacity.

In the fourth quarter of 2019 production of coal was 8.2 per cent lower than the corresponding period of 2018.
Total Energy

**Chart 1.3 Total inland consumption (primary fuel input basis)** (1) *(Table 1.2)*

![Graph showing total inland consumption](image)

(1) Seasonally adjusted and temperature corrected annual rates

Total inland consumption on a primary fuel input basis (temperature corrected, seasonally adjusted annualised rate), was 190.4 million tonnes of oil equivalent in 2019, a fall of 1.3 per cent from 2018. On an unadjusted basis, consumption was down 1.9 per cent. The average temperature in 2019 was broadly similar to 2018, and BEIS estimate that the number of heating degree days decreased by 0.4 per cent from 1,992 to 1,983.

Between 2018 and 2019 (on a seasonally adjusted and temperature corrected basis) oil consumption fell by 0.9 per cent, whilst gas rose by 0.5 per cent and bioenergy rose by 6.8 per cent. 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, whilst coal consumption fell by 26 per cent to a record low.

Total inland consumption on a primary fuel input basis (temperature corrected, seasonally adjusted annualised rate), was 193.5 million tonnes of oil equivalent in the fourth quarter of 2019, a rise of 1.2 per cent compared to the fourth quarter of 2018. On an unadjusted basis, consumption rose by 3.8 per cent. Average temperatures in the fourth quarter of 2019 were 1.0 degrees Celsius cooler than the equivalent quarter in 2018; in November 2019 the daily average temperature was 6.5 degrees Celsius, 1.8 degrees Celsius lower than November 2018.

Consumption of coal fell by 22 per cent on an unadjusted basis in the fourth quarter of 2019 compared to a year earlier, oil consumption fell by 1.0 per cent whilst gas consumption rose by 8.4 per cent. Primary electricity consumption rose by 6.5 per cent, within which nuclear rose by 7.4 per cent but wind, solar and hydro fell marginally by 0.1 per cent. Bioenergy consumption rose by 10 per cent.
In 2019, total final consumption (including non-energy use) was 1.4 per cent lower than in 2018.

Total final energy consumption rose by 3.3 per cent between the fourth quarter of 2018 and the fourth quarter of 2019.

Domestic sector energy consumption rose by 11 per cent between the fourth quarter of 2018 and the fourth quarter of 2019 reflecting the cooler weather in the quarter; annually it fell by 1.6 per cent reflecting the warmer weather in the first quarter of 2019 when temperatures were 1.9 degrees Celsius warmer than a year earlier when the UK was in the midst of the ‘Beast from the East’ weather storm.

Service sector energy consumption rose by 7.7 per cent between the fourth quarter of 2018 and the fourth quarter of 2019; annually it fell by 0.2 per cent.

Industrial sector energy consumption fell by 1.3 per cent between the fourth quarter of 2018 and the fourth quarter of 2019; annually it fell by 1.8 per cent.

Transport sector energy consumption fell by 0.9 per cent between the fourth quarter of 2018 and the fourth quarter of 2019; annually it fell by 0.8 per cent.
Total unadjusted final energy consumption (excluding non-energy use) fell by 1.1 per cent between 2018 and 2019.

On a seasonally and temperature adjusted basis final energy consumption (excluding non-energy use) is estimated to have fallen by 0.8 per cent driven by falls in all sectors except the services sector.

Total unadjusted final energy consumption (excluding non-energy use) rose by 4.3 per cent between the fourth quarter of 2018 and the fourth quarter of 2019. On a seasonally and temperature adjusted basis final energy consumption (excluding non-energy use) is estimated to have risen by 0.3 per cent between the fourth quarter of 2018 and the fourth quarter of 2019.
Annually, total imports fell by 2.1 per cent to 150.9 million tonnes of oil equivalent, whilst exports fell by 0.3 per cent to 81.1 million tonnes of oil equivalent. As a result, net import dependency fell 0.8 percentage points from 2018 to 35.2 per cent.

In the fourth quarter of 2019, imports rose by 0.5 per cent, whilst exports fell by 1.0 per cent. As a result, net import dependency fell 0.4 percentage points from the fourth quarter of 2018 to 38.0 per cent.
Annually fossil fuel dependency was at a record low of 79.0 per cent, down 0.4 percentage points from 2018.

Dependency on fossil fuels in the fourth quarter of 2019 was 79.1 per cent, down 0.8 percentage points from the fourth quarter of 2018.