

PRESS NOTICE



Department for
Business, Energy
& Industrial Strategy



23 February 2017

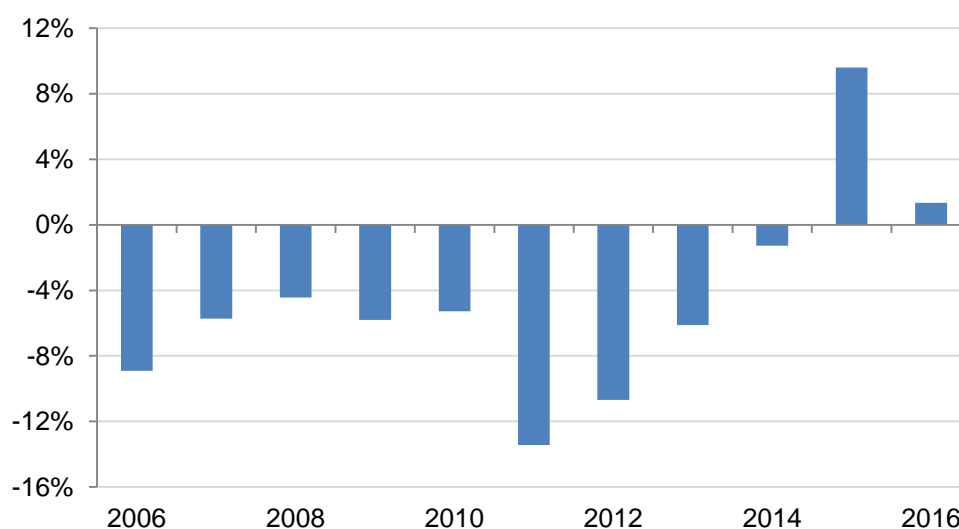
Statistical Press Release

UK Energy Statistics – 2016 provisional data

The Department for Business, Energy and Industrial Strategy today releases its December 2016 energy statistics that allow a provisional assessment to be made of trends in energy production and consumption in 2016. A more detailed analysis will be available in Energy Trends, published on 30 March 2017.

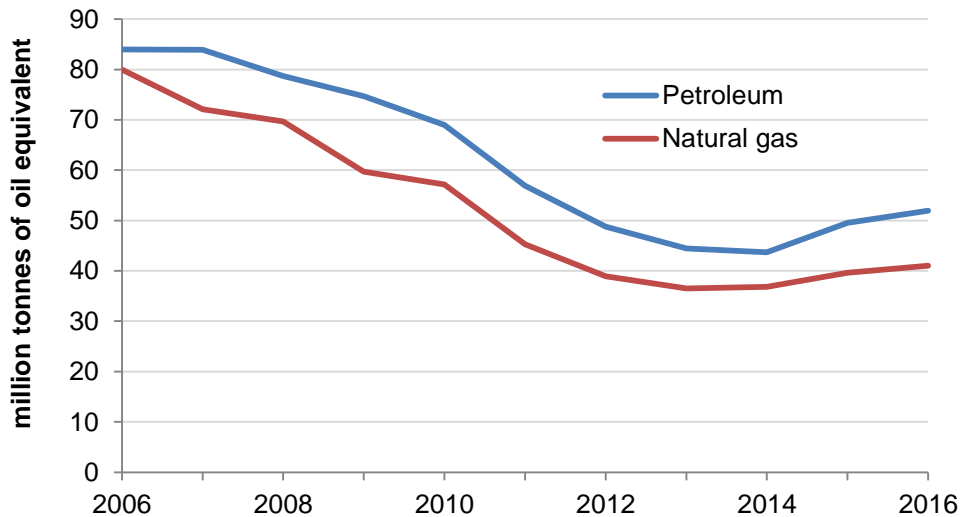
Primary energy production rose by 1.4 per cent on a year earlier to 126.2 million tonnes of oil equivalent (chart 1). This increase, the second since 1999, was due to rises in oil and gas output. Energy production in 2016 was marginally above the levels of 2012.

Chart 1: UK energy production – annual growth



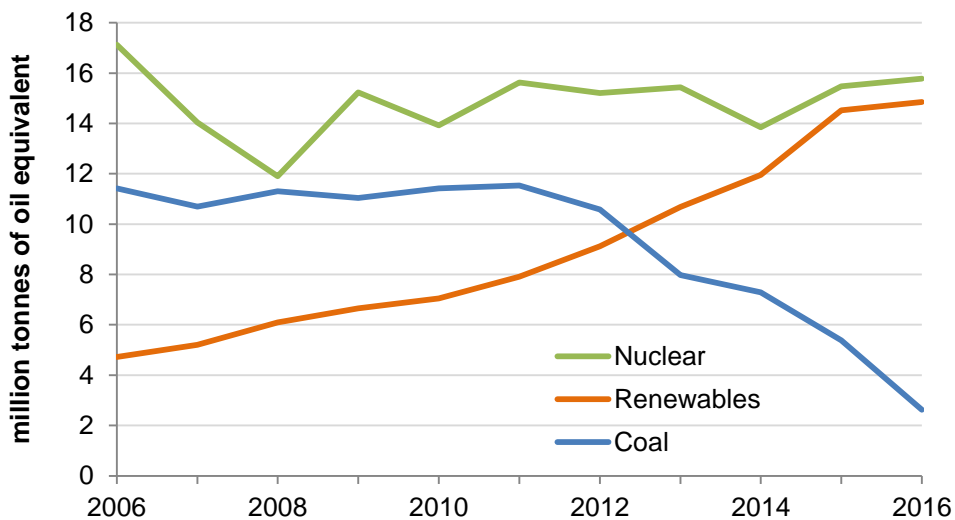
Oil production was up 4.8 per cent with strong output from fields that flow into the Flotta and Forties terminals. Gas production was up 3.6 per cent following the start up of the Laggan field (chart 2).

Chart 2: UK oil and gas production



Renewables energy production rose by 2.3 per cent, with an increase in bioenergy output, with nuclear output up 2.0 per cent (chart 3). Production of coal fell by 51 per cent, to a new record low, due to the closure of all large deep mines, and the remaining mines producing less coal as they come to the end of their operational life. In the last five years coal output has declined by 77 per cent.

Chart 3: Other UK energy production



Primary energy consumption on a fuel input basis decreased by 1.1 per cent, and on a temperature adjusted basis, was down 1.8 per cent continuing the downward trend of the last ten years (chart 4). The daily average temperatures for 2016 were broadly similar to 2015, though there was a small increase in the number of heating degree days. Consumption of gas increased sharply up 12 per cent to help offset the reduction in coal

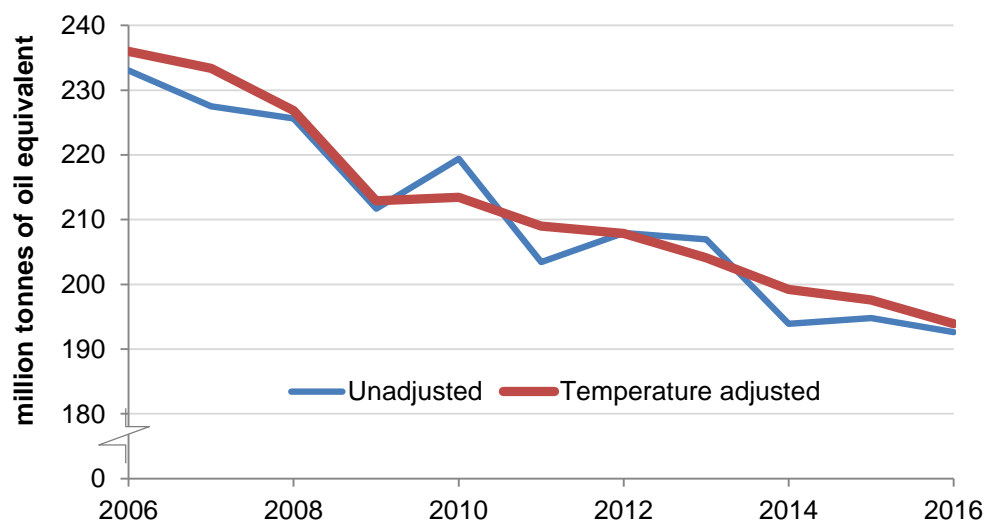


use which halved in 2016. Consumption of bioenergy, nuclear and petroleum all rose with a small fall in the use of wind, solar and hydro. Net imports were also down on the year. Estimates of final energy consumption, including detail by sector, will be published in the March edition of Energy Trends.

With GDP growth of 2.0 per cent in 2016, the energy ratio, a measure of energy efficiency (energy consumption per unit of economic output) is likely to have fallen by around 3.8 per cent between 2015 and 2016; the ratio has fallen at an average rate of 3.0 per cent per annum since 2000.

The majority of the fall in temperature adjusted primary consumption is due to the change in electricity generation, from the less efficient coal to gas, with less gas needed to produce the same amount of electricity than coal.

Chart 4: Primary energy consumption

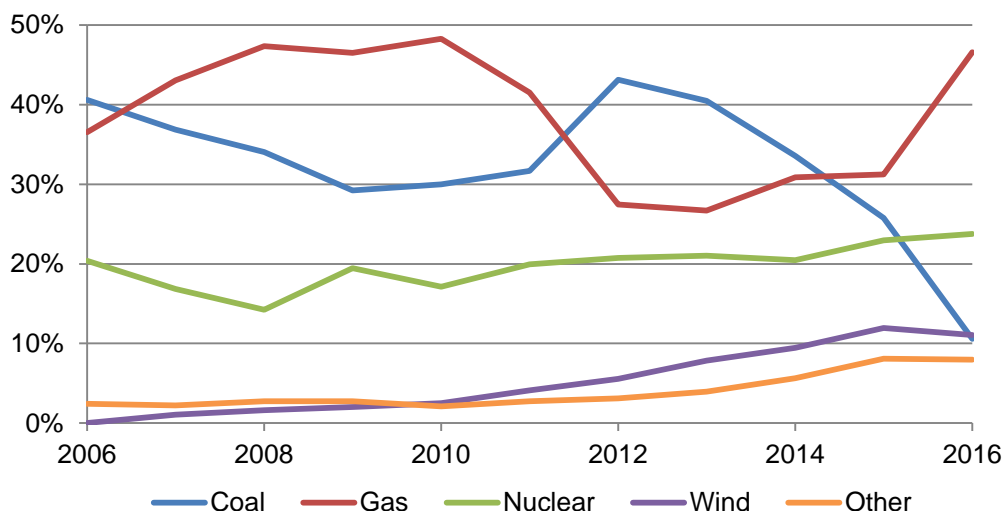


Electricity

At this stage only complete annual estimates are available for Major Power Producers (MPPs), which exclude auto-producers and some renewable sources. Gas accounted for 46.7 per cent of electricity supplied, up from 31.3 per cent in 2015. Coal accounted for 10.6 per cent in 2016, down from 25.8 per cent in 2015 as a result of reduced capacity due to a third unit at Drax being converted to biomass, along with the closures of Ferrybridge C and Longannet. The carbon price floor increase in April 2015 continued to make coal-fired generation more expensive relative to gas-fired generation, depressing coal-fired demand. Nuclear accounted for 23.8 per cent, up slightly from 23.0 per cent in 2015.



Chart 5: Electricity – share of generation from major power producers



Low carbon generation accounted for 42.7 per cent of supply, down marginally from 42.9 per cent in 2015, following lower generation from wind (due to an 11 per cent fall in average wind speed) and hydro (due to a 19 per cent fall in average rainfall), as well as outages at Drax resulting in a fall in bioenergy supply despite an increase in capacity.

Gas

In 2016, UK production of gas rose by 3.6 per cent, the third consecutive annual increase. This is due in the main to production from the new Laggan field to the west of the Shetland Isles. Whilst gas production has increased, this century has been characterised by year-on-year decreases and gas production is now less than 40 per cent of the peak production seen in 2000.

Although import volumes were broadly similar to 2015 (up 6.1 per cent, though with notably fewer Liquefied Natural Gas imports), exports showed a substantial drop, down over a fifth on 2015. Exports to Ireland were down significantly (over a third, due in part to Ireland now sourcing some gas from the Corrib field off the West of Ireland), and exports to Belgium and the Netherlands also saw sharp contractions.

The drop in exports coincided with an increase in demand, up 13.7 per cent on 2015. This is mainly due to gas use for electricity generation displacing coal-fired generation but also because of increased domestic demand in the spring and a particularly cold November.

Crude oil and petroleum products

In 2016, UK production of crude oil & Natural Gas Liquids (NGL) rose by 4.8 per cent, the second consecutive annual increase, the growth mainly arising from fields that feed into the Flotta and Forties terminals. Although these recent increases contrast with the year-

on-year contraction seen since 1999, production is now down to just over a third of that peak.

Whilst crude oil & NGL trade volumes have remained relatively stable, UK refineries increased their intake of UK crude in producing petroleum products. Despite significant rationalisation of the UK's refining capacity over the last few years refinery production was similar to last year, down 2.4 per cent. Demand for petroleum products though was up 2.5 per cent on last year, the third consecutive annual increase. Particularly notable was the overall growth in road fuel demand alongside increased requirements for petroleum products to use as feedstocks in the petrochemical industry.

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Notes to editors

1. [Monthly Energy Statistics](#) are compiled by the Department for Business, Energy and Industrial Strategy (BEIS), and are available for download on the BEIS section of the GOV.UK website. They contain tables and commentary on highlights, and technical notes.
2. More detailed estimates of 2016 will be available on 30 March 2017 when BEIS publish the quarterly editions of Energy Trends and Energy Prices. The Digest of UK Energy Statistics (DUKES) will be published on 27 July 2017.

