Statistical Press Release

UK Energy Statistics – 2018 provisional data

The Department for Business, Energy and Industrial Strategy today releases its December 2018 energy statistics that allow a provisional assessment to be made of trends in energy production and consumption in 2018. A more detailed analysis will be available in Energy Trends, published on 28 March 2019.

Primary energy production rose by 2.9 per cent on a year earlier to 130.4 million tonnes of oil equivalent (chart 1). This increase is the fourth in successive years. Energy production in 2018 was at the highest level since 2011.

Chart 1: UK energy production – annual growth
Oil production was up 9 per cent, reflecting the closure of the Forties pipeline for maintenance in December 2017, as well as the opening of new fields on the UKCS, whilst gas production was down 3.4 per cent, with production in the second half of the year impacted by the closure of the Theddlethorpe gas terminal in August 2018 (chart 2). Oil and gas accounted for 43 and 30 per cent respectively of production in 2018.

**Chart 2: UK oil and gas production**

Renewables energy production rose by 8.7 per cent, with an increase in bioenergy output of 7.2 per cent, and an increase in wind, solar and hydro output of 12 per cent due to increased wind and solar capacity. Nuclear output was down by 7.5 per cent due to outages in the fourth quarter of 2018 (chart 3). Production of coal fell by 15 per cent, to a new record low.

**Chart 3: Other UK energy production**
Primary energy consumption on a fuel input basis decreased by 0.2 per cent, and on a temperature adjusted basis, was down 1.2 per cent continuing the downward trend of the last ten years (chart 4). Consumption of coal decreased to a record low as generators made more use of renewable sources for generation in 2018, with bioenergy and wind, solar and hydro consumption at record high levels. Consumption of nuclear and oil fell, whilst gas rose marginally. Net imports also rose.

Estimates of final energy consumption, including detail by sector, will be published in the March edition of Energy Trends on 28 March 2019.

With GDP growth of 1.4 per cent in 2018, the energy ratio, a measure of energy efficiency (energy consumption per unit of economic output) is likely to have fallen by around 2.5 per cent between 2017 and 2018; the ratio has fallen at an average rate of 2.9 per cent per annum since 2000.

The majority of the fall in temperature adjusted primary consumption is due to the change in electricity generation, with fossil fuels (coal and gas) being displaced by renewable sources (bioenergy, wind and solar).

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 43.9 per cent of electricity supplied, down from 44.8 per cent in 2017, whilst coal accounted for 6.0 per cent, down from 7.8 per cent in 2017. Nuclear accounted for 22.1 per cent, down from 23.4 per cent in 2017. Renewables (bioenergy, wind, solar and hydro) accounted for a record high of 27.5 per cent of electricity supplied, up from 23.5 per cent in 2017 (chart 5).
Low carbon generation accounted for a record high of 49.6 per cent of supply, up from 46.9 per cent in 2017, following increased generation from wind, solar and bioenergy, due to increases in capacity for all three technologies.

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

Gas
In 2018, UK production of gas fell by 3.4 per cent, the first fall following four consecutive annual increases. The fall was due in part to the closure of the Theddlethorpe gas terminal in August 2018. Gas production is now down by 64 per cent compared to the peak production levels seen in 2000.

Although import volumes were broadly similar to 2018 (down less than 0.1 per cent, though with notably higher Liquefied Natural Gas imports), exports showed a fall, down 33 per cent on 2017, due in part to the long-term capacity contract for the UK-Belgium interconnector ending in October 2018.

Whilst exports fell, demand increased by 0.8 per cent on 2017. This is mainly due to the colder weather experienced during the ‘Beast from the East’ in the first quarter of 2018.

Crude oil and petroleum products
In 2018, UK production of crude oil & Natural Gas Liquids (NGL) rose by 9 per cent, with crude oil production up 11 per cent but NGL production down 3.7 per cent. The closure of the Forties Pipeline System for maintenance impacted upon production in December 2017, with crude oil production levels in December 2018 being 47 per cent more than the same month in 2017. In addition, the completion of multiple new projects at the end of 2017 and beginning of 2018 boosted production levels; these include the Western Isles Production, Storage and Offloading Vessel and the Catcher Area Field Development. Production is now down by 63 per cent compared to the peak production levels seen in 1999.
In 2018 crude oil & NGL imports fell by 1.1 per cent, whilst exports rose 16 per cent, reaching the highest level since 2008, as production from new fields was predominantly exported. UK refineries decreased their intake of crude from the UKCS to produce petroleum products by 26 per cent in 2018 due to the strong exports. Total refinery intake and production decreased by around 2.5 per cent following extensive maintenance in 2018. Demand for petroleum products was up 0.3 per cent on last year, balanced by a slight increase in imports and decrease in exports, and was the fifth consecutive annual increase. Motor spirit consumption fell by 1.1 per cent. Notably, DERV consumption fell by 1.0 per cent, the first annual decrease in the series. A special article in the June publication of Energy Trends will describe the recent change in demand trends in more depth, as the contraction in motor spirit has been reducing and demand for road diesel has been falling.

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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.