



2015: Denmark hits the lowest energy consumption in more than 40 years

Press release

Observed energy consumption decreased again in 2015 to the lowest level within the last four decades. At the same time, coal consumption dropped significantly, and emissions of CO₂ dropped 6.6 %. The development is attributable to large net imports of electricity and an increase in wind power. The figures are from the Danish Energy Agency's preliminary energy statistics for 2015.

Observed Danish energy consumption decreased by 1.0 % to 712 PJ in 2015, compared with the previous year. This is the lowest level recorded by the Danish Energy Agency since recording started up in the 70's. The development can be explained primarily by the highest figure for net imports of electricity since 1991, as well as a record high wind power production.

The large net imports of electricity and the increased production of wind power resulted in a smaller percentage of electricity consumption covered by domestic power plants in 2015. As a result, consumption of coal dropped 31.0 % in 2015, compared with 2014, to a level matching the level observed in the 1970's. However, consumption of oil, natural gas and renewable energy increased by 3.5 %, 1.4 % and 2.1 %, respectively.

Updated calculation adjusting for foreign trade in electricity

The Danish Energy Agency calculates both observed energy consumption and gross energy consumption adjusted for fluctuations in climate and fuel consumption linked to foreign trade in electricity. Adjusted gross energy consumption shows the long-term trend based on an average number of degree days and on a scenario in which Danish electricity production matches the Danish electricity demand. As a result of developments in the Danish energy system, the Danish Energy Agency has updated the distribution key used to adjust for fuel consumption linked to foreign trade in electricity.

[Read more about the reason for updating the distribution key for adjusting for trade in electricity here \(in Danish only\)](#)

Adjusted gross energy consumption decreased by 1.1 % in 2015 compared with 2014, using the new distribution key for calculating the adjustment. Using the adjustment factor applied previously, gross energy consumption dropped 0.4 %.

Drop in CO₂ emissions and greenhouse gas emissions

The increased net imports of electricity and the large drop in coal consumption meant that observed emissions of CO₂ dropped 6.6 % in 2015 compared with 2014. Adjusted for fuel consumption linked to foreign trade in electricity and fluctuations in climate, CO₂ emissions fell by 4.5% last year. Using the distribution key applied previously, the drop in emissions would have been 1.7 %.

On the basis of the preliminary energy statistics, total observed Danish emissions of greenhouse gases are estimated to have decreased by 4.8 % in 2015, whereas emissions adjusted for climate and fuel consumption linked to foreign trade in electricity are estimated to have dropped 3.4 % (1.3 % using distribution key applied previously) The official statement of greenhouse gas emissions is published by the Danish Centre for Environment and Energy (DCE).

Continued increase in the use of renewable energy

Renewable energy's share of energy consumption continues to increase. Renewable energy's share of adjusted gross energy consumption increased from 26.0% in 2014 to 27.2% in 2015.

The EU calculates the percentage of renewable energy differently, taking final energy consumption as the point of departure. It is currently not possible to calculate this percentage, but it will be included in the final energy statistics to be published by the Danish Energy Agency in the autumn. In recent years, the renewable energy share according to the EU calculation method has been around 1-2 percentage points higher than in the national statement based on adjusted gross energy consumption using the old distribution key.

The degree of self-sufficiency is still falling

The degree of self-sufficiency for energy dropped from 90 % in 2014 to 89 %

in 2015. This means that the total Danish production of energy in the form of oil, natural gas and renewable energy corresponded to 89 % of Denmark's gross energy consumption in 2015.

The degree of self-sufficiency is a measure of the ratio between primary energy production and consumption of oil, natural gas, coal, renewable energy and waste in Denmark. Looking at the ratio between consumption and production of oil and gas, Denmark continues to be a net exporter, with a degree of self-sufficiency of 120 % in 2015.

Total primary energy production in Denmark dropped 2.4 % to 664 PJ in 2015. Production of crude oil and natural gas dropped 5.4 % and 0.6 % last year, respectively, while production of renewable energy grew 2.8 % in 2015 relative to 2014.

Table of facts

[See table of facts of the preliminary energy statistics of Danish energy production, energy consumption and CO₂ emissions in 2015](#)

[The reason for updating the distribution key for adjusting for trade in electricity here, Annual Energy Statistics](#)

[Key figures from DEA's Preliminary Energy Statistics 2015](#)

Contacts

Ture Falbe-Hansen

Head of Press (+45) 2513 7846 tfh@ens.dk