

Mar 20, 2012 01:00 CET

Large drop in energy consumption and CO₂ emissions in 2011

Warmer weather, imports of electricity as well as more wind power, led to a drop in energy consumption in 2011 of 5.8% and a drop in emissions of CO₂ of 10.3%. Continued increase in consumption of renewables.

Observed Danish energy consumption fell by 5.8% to 797 PJ in 2011, compared with the previous year. This development covers a drop in oil consumption of 2.7%, while consumption of natural gas and coal fell by 16.2% and 16.7% respectively. At the same time, consumption of renewable energy rose by 4.8%. This appears from the Danish Energy Agency's preliminary energy statistics for 2011.

The change in energy consumption reflects the fact that the weather in 2011 was considerably milder than in 2010 and that, in contrast to 2010, in 2011 Denmark was a net importer of electricity. Furthermore, in 2011 there was a significant increase in electricity production from wind turbines, and this contributed to a fall in fuel consumption of coal and natural gas in particular at large-scale and small-scale CHP plants. The change in energy consumption also reflects the fact that economic activity, measured as the gross domestic product (GDP), grew by 1.0% from 2010 to 2011.

Adjusted for fluctuations in climate (degree days) and foreign trade in electricity, gross energy consumption fell in 2011 by 0.3% to 812 PJ. The energy intensity in the Danish economy is therefore still falling. Adjusted gross energy consumption fell by 0.8% from 1990 to 2011. Over the same period GDP grew by 38.1%. Therefore, in 2011 each unit of GDP accounted for 28% less energy than in 1990.

Higher percentage of renewables

Renewable energy's share of adjusted gross energy consumption rose from

20.2% in 2010 to 22.1% in 2011.

The EU calculates this percentage 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 2 percentage points higher than in the national statement based on adjusted gross energy consumption.

Fall in CO2 emissions

Observed emissions of CO2 from energy consumption fell in 2011 by 10.3%. When adjusted for foreign trade in electricity and fluctuations in climate, CO2 emissions fell in 2011 by 2.4%. Since 1990, adjusted CO2 emissions from energy consumption have fallen by 25.0%.

The preliminary energy statistics contain an estimate of the changes in Denmark's total emissions of greenhouse gases from 2010 to 2011. For 2011, observed emissions of greenhouse gases are estimated at 56.1 million tonnes CO2 equivalent, against 61.1 million tonnes CO2 equivalent in 2010, corresponding to a fall of 8.3%. When adjusted for fluctuations in climate and foreign trade, emissions fell by 1.9% in 2011. Compared to the base year (1990/1995), observed and adjusted emissions of greenhouse gases fell by 19.1% and 25.5%, respectively.

The breakdown between greenhouse gas emissions from ETS and non-ETS activities will be available in the final statistics, which the Danish Energy Agency will publish in the autumn. This statement is relevant in order to assess how well Denmark is satisfying its Kyoto climate commitment.

Drop in energy production

Total Danish production of primary energy fell by 9.4% to 890 PJ in 2011. Production of crude oil and natural gas fell by 10.1% and 14.0%, respectively, while production of renewable energy grew by 2.4% in 2011.

In 2011 the degree of self sufficiency was 110%. In other words, in 2011, Danish energy production was 10% higher than Danish energy consumption. The degree of self sufficiency was 121% in 2010.

Rising energy prices and lower trade surplus in energy products

In 2011, the price of crude oil, measured in terms of USD/barrel, rose by 40.1%. Measured in terms of DKK, the average price of crude oil (Brent) rose from DKK 447 per barrel in 2010 to DKK 596 per barrel in 2011,

corresponding to a 33.2% rise. The average Nord Pool price of electricity in Denmark fell in 2011 by 6.1% to DKK 0.363 per kWh.

The trade surplus from foreign trade in energy halved in 2011 to DKK 5.9 billion, against DKK 11.9 billion in 2010. The value of imports and exports grew by DKK 14.3 billion and DKK 8.3 billion respectively.

Table of facts

Attached is a [table of facts](#) showing the preliminary statement for 2011 of energy production, energy consumption, CO2 emissions and total greenhouse gas emissions as well as energy prices.

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[Table of Facts - Key Figures](#)

The Danish Energy Agency is responsible for tasks linked to energy production, supply and consumption, as well as Danish efforts to reduce carbon emissions. The Agency is also responsible for supporting the economical optimisation of utilities that in addition to energy includes water, waste and telecommunication.

We are also responsible for user conditions, supply obligation and telecommunication statistics, as well as water supply and waste management.

The Danish Energy Agency was established in 1976, and is an agency under the Ministry of Climate, Energy and Utilities.

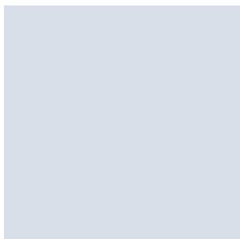
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