



# Large drop in energy consumption and CO<sub>2</sub> emissions in 2008

## Less energy consumption

Danish energy consumption fell in by 3.0 per cent to 837 PJ. At the same time, emissions of CO<sub>2</sub> fell by 5.9 per cent. These figures are presented in the preliminary energy statistics for 2008 from the Danish Energy Agency. A contributory factor to this was that in 2008 Denmark was a net importer of electricity, while in 2007 Denmark saw net exports of electricity. This means there has been a drop in fuel consumption by power plants – especially coal. On the other hand the weather was colder in 2008 than in 2007.

Adjusted for fluctuations in climate and foreign trade in electricity, gross energy consumption fell in by 1.9 per cent. Given that the fall in energy consumption is greater than the fall in Danish gross domestic product (GDP) of 1.3 per cent, this means energy intensity continued to fall in 2008.

Consumption of oil and coal fell by 3.6 per cent and 2.5 per cent respectively, while consumption of natural gas grew by 0.8 per cent. 2008 saw an increase in consumption of natural gas at the central power plants.

Consumption of renewable energy remained almost unchanged. Wind power is an important part of Danish renewable energy, and this fell by 3.4 per cent because of poorer wind conditions in compared with the preceding year. Given that there was also a drop in total gross energy consumption of 1.9 per cent, renewable energy's share of adjusted gross energy consumption grew to 17.3 per cent in 2008 compared with 17.0 per cent in 2007. At the moment it is not possible to calculate the share of renewable energy in relation to the final energy consumption in the way the EU calculates the share. This information will be included in the final energy statistics in September. In recent years the renewable energy share pursuant to the EU method of calculation has been 1½-2 percentage points higher than in the national statement; most recently 2 percentage points higher in 2007.

When considered over a longer period, energy consumption has only changed

slightly. Adjusted gross energy consumption has only grown by 4.7 per cent from to 2008. Over the same period GDP has grown by 42.6 per cent. This means that today Denmark uses 3 units of energy to produce the same goods as required 4 units of energy in 1990.

Information from Energinet.dk indicates that domestic electricity consumption fell by about 1 per cent in . A final statement of changes in energy and electricity consumption, broken down by use, will be included in the final energy statistics.

### **Drop in CO2 and total greenhouse gases**

The actual emissions of CO2 fell in by 5.9 per cent. When adjusted for foreign trade in electricity and fluctuations in climate, CO2 emissions fell in 2008 by 2.5 per cent. Since 1990 adjusted CO2 emissions from energy-related activities have fallen by 15.5 per cent.

This year the preliminary energy statistics contain an estimate of the changes in Denmark's total emissions of greenhouse gases from to 2008.

For the actual emissions of greenhouse gases are estimated at 63.5 mill. tonnes CO2 equivalents against 66.6 mill. tonnes CO2 equivalents in 2007, corresponding to a drop of 4.7 per cent. When adjusted for fluctuations in climate and foreign trade in electricity, the total emissions of greenhouse gases fell by 2.0 per cent in 2008. Compared with 1990, the actual and the adjusted emissions of greenhouse gases fell by 8.3 per cent and 15.4 per cent respectively.

In relation to Danish compliance with its Kyoto climate commitments, under which Denmark must reduce emissions by 21 per cent in the period -12 compared with the base year of 1990/95, only changes in the emissions not covered by allowances are relevant. Division of activities into those covered by allowances and those not covered by allowances will not be available until the final statistics are published in September. In addition to emissions of greenhouse gases in Denmark, target achievement also includes the effects of uptake of CO2 by forests and soil as well as reductions through projects in other countries and purchases of allowances.

### **Drop in primary energy production**

Total Danish production of primary energy fell by 1.8 per cent in to 1117 PJ. Crude oil production fell by 7.5 per cent, while the production of natural gas rose by 9.1 per cent. Furthermore, production of renewable energy fell by 2.6

per cent in 2008. This fall was balanced by larger imports of wood pellets.

In the degree of self sufficiency was 130 per cent. This means that in 2008 Denmark produced 30 per cent more energy than it consumed. In 2008, Denmark was the only EU country where energy production exceeded energy consumption.

### **Increase in energy prices and drop in net currency revenues**

In , the price of crude oil, measured in terms of USD/barrel, rose by 34.1 per cent. Measured in terms of DKK, the average price of crude oil (Brent) rose from DKK 393 per barrel in 2007 to DKK 487 per barrel in 2008, corresponding to a 23.8 per cent rise. There were large variations in the price of crude oil in 2008. The average Nord Pool price of electricity in 2008 was DKK 0.425 per kWh in Denmark. This is almost 75 per cent higher than in 2007.

Net currency revenues from the total trade in energy in were DKK 22.5 bn., compared with DKK 25.8 bn. in 2007.

### **Table of facts**

A table of facts is attached of the preliminary statement for of energy production, energy consumption, CO2 emissions and total greenhouse gases as well as energy prices. Further information on the energy statistics is available on the website under FACTS & FIGURES.

 [Main figures from the DEA preliminary energy statistics for 2008 \(pdf\)](#)

Peter Dal  
Chefkonsulent  
Center for Energiressourcer  
Tlf.: 3392 7503  
[pd@ens.dk](mailto:pd@ens.dk)



Ture Falbe-Hansen  
Pressechef  
Center for Organisation  
Tlf.: 25 13 78 46  
[tfh@ens.dk](mailto:tfh@ens.dk)



## Contacts

Ture Falbe-Hansen

Head of Press (+45) 2513 7846 [tfh@ens.dk](mailto:tfh@ens.dk)