

# Energy supply and consumption

2011, 2nd quarter

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## Total energy consumption decreased by 2 per cent from January to June

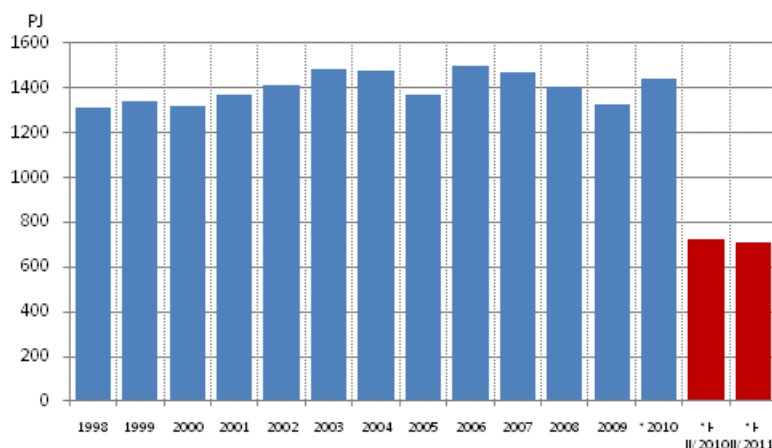
*Corrected on 20 October 2011*

*Preliminary data on energy consumption concerning the first and second quarters of 2010 and 2011 have been corrected. The corrections concern the consumption of the energy sources of natural gas, coal, peat, wood fuels and the group others. The figures regarding nuclear energy, hydro power and wind power have changed only a little. The above-mentioned changes also have an effect on the annual changes of energy use. In the following, preliminary change percentages will be reported as integers. The corrections have also changed the volume of total energy consumption. Changes in the use of fossil fuels and peat also have an impact on the energy sector's carbon dioxide emissions, the data concerning which have been corrected accordingly.*

[Further information](#) *about the correction*

According to Statistics Finland's preliminary data, in the first two quarters of 2011 total energy consumption amounted to nearly 712 PJ (petajoule), or about 198 TWh (terawatt hours), which was 2 per cent less than in the corresponding period of 2010. Total electricity consumption amounted to 44.6 TWh, which was 0.3 per cent less than one year earlier. Carbon dioxide emissions from energy production and use went down by 3 per cent.

## Total energy consumption, PJ



Among individual energy sources, the largest reduction of 5 per cent was seen in the consumption of oil, while the second largest reduction of 4 per cent was recorded in the consumption of wood fuels. Respectively, the consumption of natural gas grew by 1,8 PJ, or 2 per cent, and that of peat by 5,1 PJ, or 10 per cent, in the first half of the year between January and June.

Domestic production of electricity decreased by 2 per cent. In Finland 16 per cent less electricity was produced with hydro power than one year earlier and the production of condensate power went down by six per cent. However, combined heat and power production went up by five per cent, and the growth was biggest in industry's combined power plants. Eleven per cent of the electricity consumed in Finland was covered with imported electricity. Net imports of electricity to Finland went up by 13 per cent in all. Electricity was also produced for exporting to the Nordic market. The exports decreased to Nordic Market by 7 per cent. The production of wind power grew by over 80 per cent. Energy produced with wind power accounted for 0.1 per cent of total energy production in the first half of 2011.

## Total energy consumption by source (TJ) and CO<sub>2</sub> emissions (Mt)

Energy source <sup>4)</sup>	I-II/2010*	I-II/2011*	Annual change-%*	Percentage share of total energy consumption*
Oil	171,215	163,264	-5	23
Coal <sup>1)</sup>	100,091	98,036	-2	14
Natural gas	77,046	78,876	2	11
Nuclear Energy <sup>2)</sup>	118,322	119,306	1	17
Net Imports of Electricity <sup>3)</sup>	15,367	17,334	13	2
Hydro and Wind Power <sup>3)</sup>	24,639	21,020	-15	3
Peat	51,396	56,475	10	8
Wood fuels	149,502	144,328	-4	20
Others	18,342	17,925	-2	3
<b>Energy total consumption</b>	<b>725,921</b>	<b>712,094</b>	<b>-2</b>	<b>100</b>
Bunkers	14,878	17,414	17	
CO <sub>2</sub> emissions from energy sector	31	30	-3	

1) Coal: includes hard coal, coke, blast furnace gas and coke oven gas.

2) Conversion of electricity generation into fuel units: Nuclear power: 10.91 TJ/GWh (33% total efficiency)

3) Conversion of electricity generation into fuel units: Hydro power, wind power and net imports of electricity: 3.6 TJ/GWh (100%)

4) \*Preliminary

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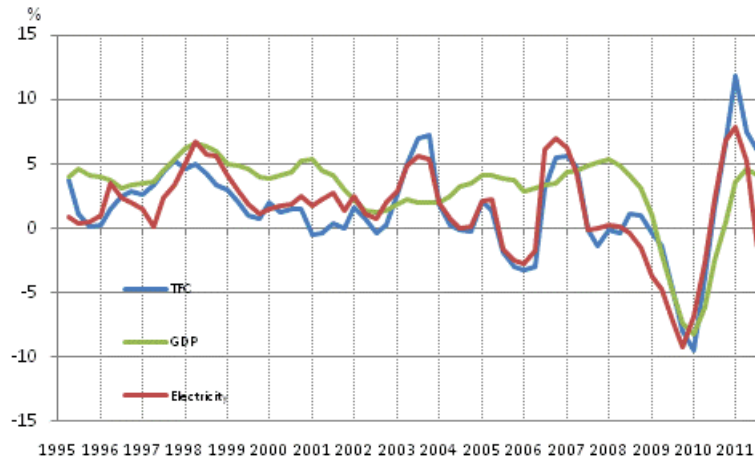
## Figures

### Appendix figures

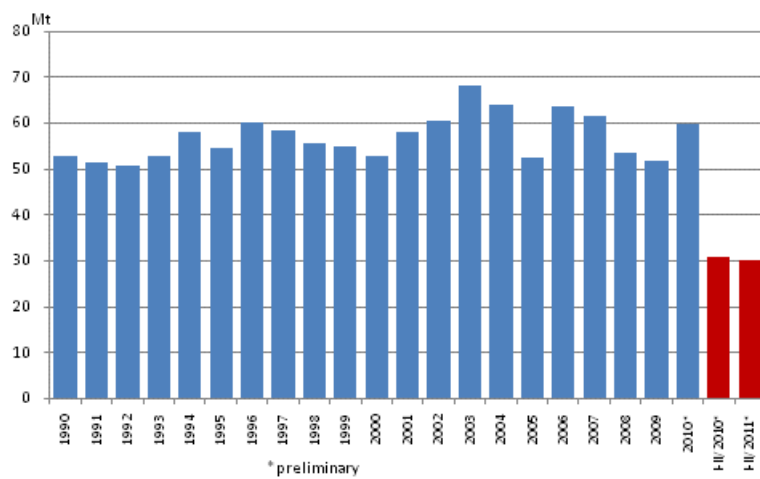
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## Appendix figures

**Appendix figure 1. Changes in GDP, Final energy consumption and electricity consumption**

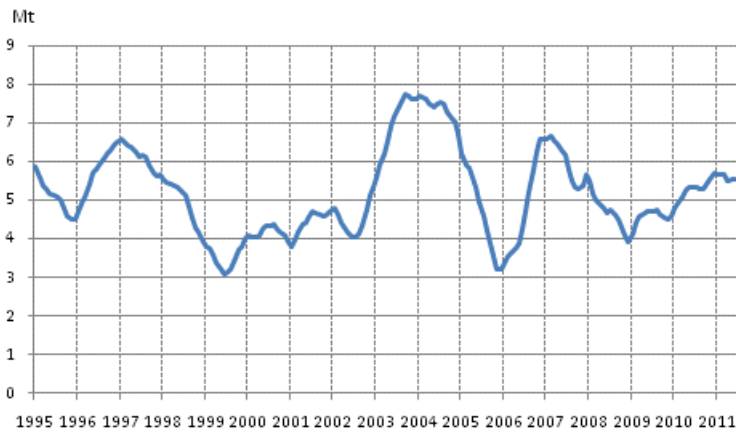


**Appendix figure 2. Carbon dioxide emissions from fossil fuels and peat use**



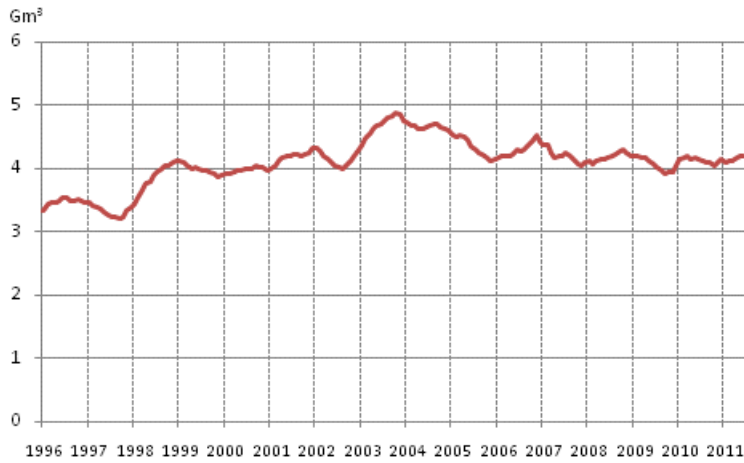
Source: Statistics Finland, 12-month moving total

### Appendix figure 3. Coal consumption



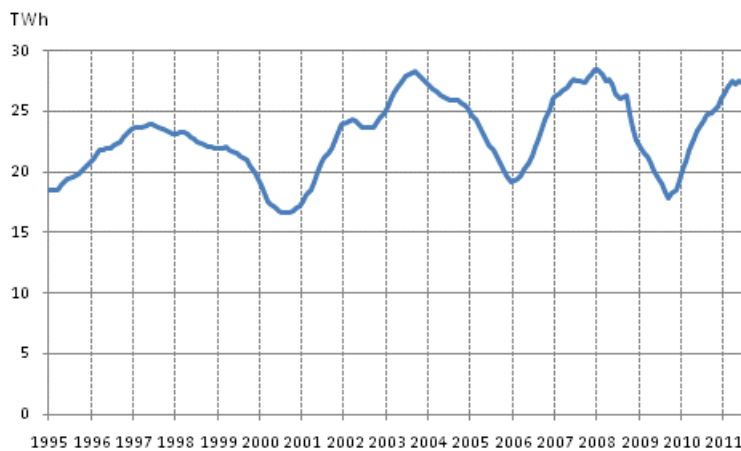
Source: Statistics Finland, Finnish Energy Industries Federation, 12-month moving total

### Appendix figure 4. Consumption of natural gas



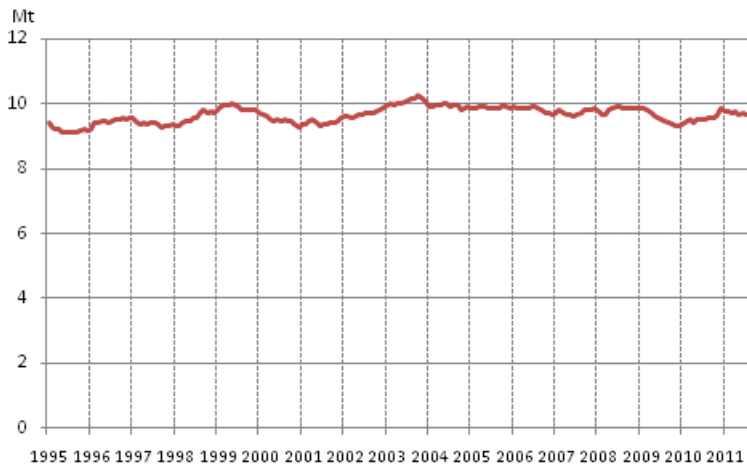
Source: Finnish Petroleum Federation, 12-month moving total

### Appendix figure 5. Peat consumption



Source: Association of Finnish Peat Industries 12-month moving total

### Appendix figure 6. Domestic oil deliveries



Source.: Finnish Petroleum Federation, 12-month moving total

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Source: Statistics Finland, Energy supply and consumption