

Energy supply and consumption

2011, 1st quarter

Total energy consumption fell by 3 per cent in the first quarter

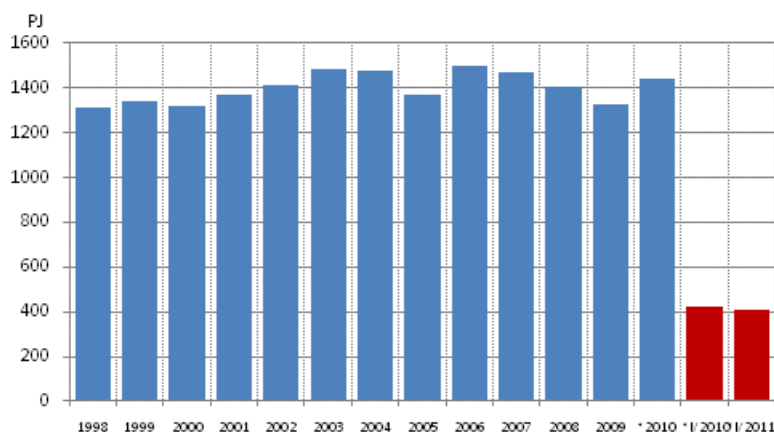
Corrected on 20 October 2011

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, total energy consumption in the first quarter of 2011 amounted to nearly 410 PJ (petajoule), or 114 TWh (terawatt hours), which was 3 per cent less than in the corresponding period of 2010. Consumption of electricity amounted to 25.4 TWh, down by 0.1 per cent. Carbon dioxide emissions from energy production and use remained on level with the previous year.

Total energy consumption, PJ



Of individual energy sources, the consumption of oil decreased the most in absolute terms, by 8 per cent and that of wood fuels diminished the second most, by 4 per cent. The consumption of coal went down by 0,9 PJ, or by one per cent. The consumption of peat went up by 5.3 PJ, or by 16 per cent in the first quarter of the year. The consumption of natural gas in turn fell by 2 per cent. Combined heat and power production went up by 4 per cent.

Domestic production of electricity remained on the same level as last year. Eight per cent of the electricity consumed in Finland was covered with imported electricity. In all, 3 per cent more electricity than in the previous year was also produced for exports to the Nordic market. The increase in electricity exports is partly explained by the lower than average water supply in the Nordic countries, particularly in Sweden and Norway, which has reduced the production of electricity with hydro power. In Finland 12 per cent less electricity was produced with hydro power. Net imports of electricity to Finland declined by 3 per cent in all. The production of wind power grew by over 80 per cent. Energy produced with wind power accounted for 0.1 per cent of energy consumption in the first quarter of 2011.

Total energy consumption by source (TJ) and CO₂ emissions (Mt)

Energy source ⁴⁾	I/2010*	I/2011*	Annual change-%*	Percentage share of total energy consumption*
Oil	91,577	84,627	-8	21
Coal ¹⁾	67,669	66,743	-1	16
Natural gas	50896	50,054	-2	12
Nuclear Energy ²⁾	64,078	64,113	0	16
Net Imports of Electricity ³⁾	7,494	7,257	-3	2
Hydro and Wind Power ³⁾	10,846	9,776	-10	2
Peat	33,098	38,348	16	9
Wood fuels	85,573	82,449	-4	20
Others	10,926	10,617	-3	3
Energy total consumption	422,157	410,362	-3	100
Bunkers	7,559	8,628	14	
CO ₂ emissions from energy sector	19	19	0	

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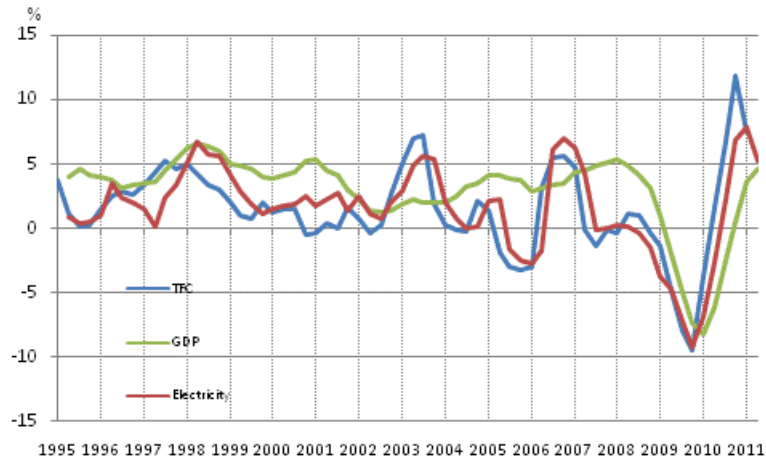
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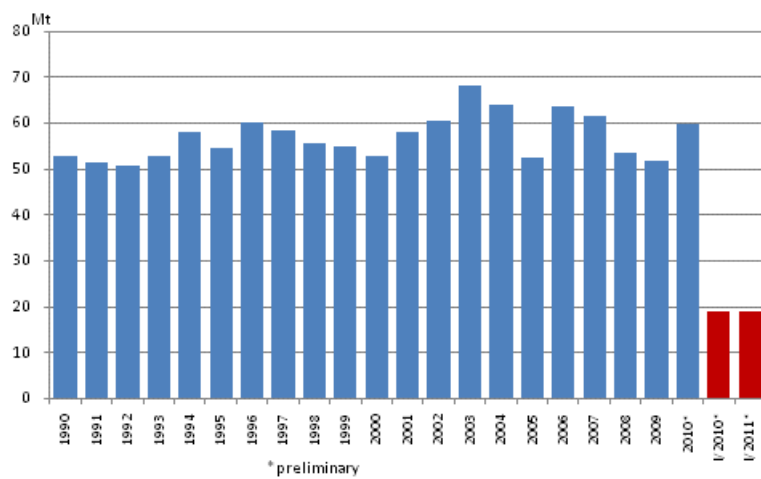
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Appendix figure 1. Changes in GDP, Final energy consumption and electricity consumption

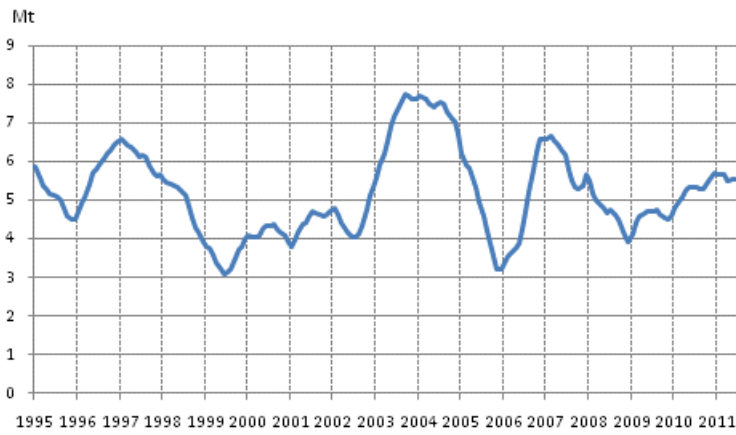


Appendix figure 2. Carbon dioxide emissions from fossil fuels and peat use



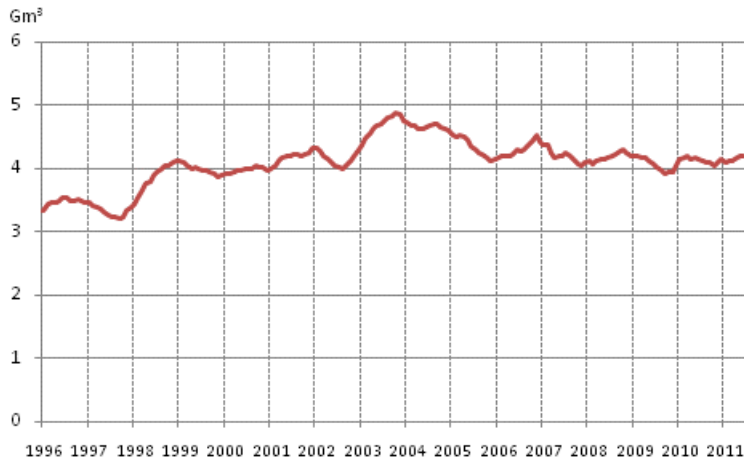
Source: Statistics Finland, 12-month moving total

Appendix figure 3. Coal consumption



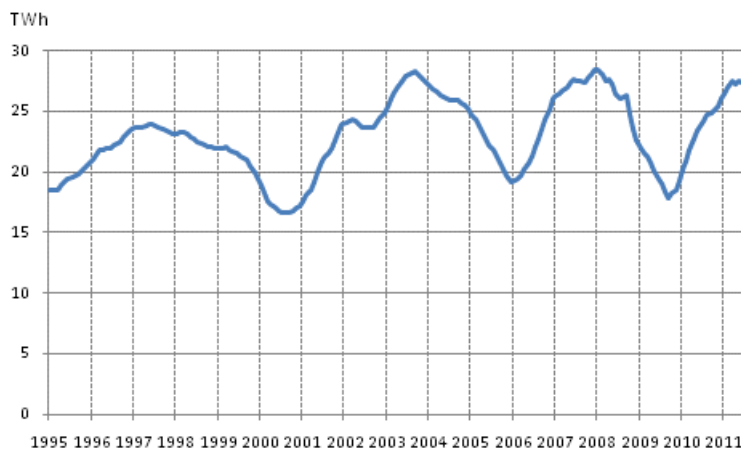
Source: Statistics Finland, Finnish Energy Industries Federation, 12-month moving total

Appendix figure 4. Consumption of natural gas



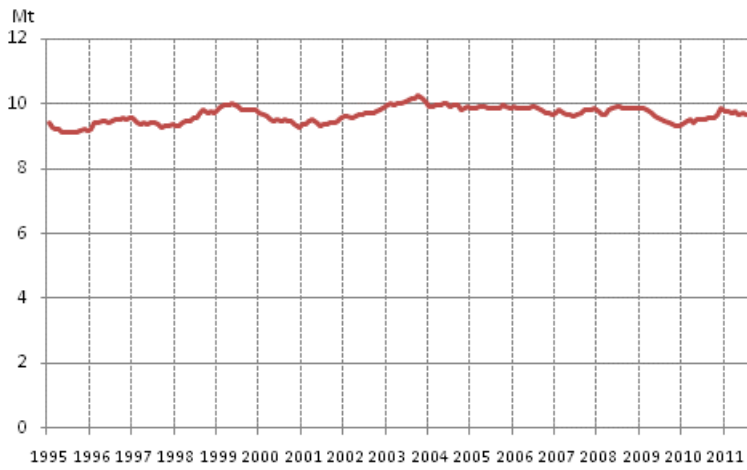
Source: Finnish Petroleum Federation, 12-month moving total

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