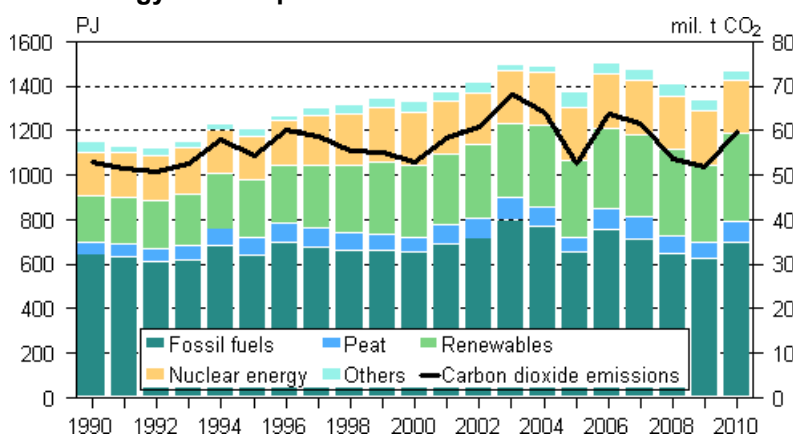


Energy consumption 2010

Total consumption of energy increased by 10 per cent in 2010

According to Statistics Finland, total consumption of energy in Finland amounted to 1.46 million terajoules (TJ) in 2010, which was 10 per cent more than in 2009. Eight per cent more electricity was used than in the previous year, totalling 87.7 terawatt hours (TWh). The use of renewable energy sources increased by 16 per cent and that of fossil fuels by 11 per cent. Carbon dioxide emissions from the production and use of energy grew by 15 per cent from 2009 and amounted to 59.6 million tonnes of carbon dioxide.

Total energy consumption and carbon dioxide emissions



The recovery of industrial output increased energy consumption in 2010. The rise in consumption was particularly caused by increased production in energy-intensive industries, e.g. the forest industry, chemical industry and manufacture of basic metals. The forest industry is the biggest user of electricity in manufacturing and the most significant user of renewable energy. Increased use of the black liquor generated in pulp production was one of the reasons why the use of renewable energy grew. The share of renewable energy of total energy consumption was at 27 per cent. EU targets for renewable energy are calculated relative to final energy consumption and in Finland this share has been four to five percentage points higher than the share calculated from total energy consumption. Finland's target for the share of renewable energy is 38 per cent of final energy consumption in 2020.

Total energy consumption 2009–2010, terajoule

	2009	2010	Change %
Oil	335 495	353 295	5
Wood fuels	269 261	319 663	19
Nuclear energy	246 555	238 789	-3
Coal	151 267	188 500	25
Natural gas	134 568	148 680	10
Peat	71 978	94 545	31
Hydro power	45 263	45 875	1
Net imports of energy	43 504	37 802	-13
Wind power	996	1 060	6
Others	32 441	35 639	10
Total	1 331 328	1 463 846	10

The use of fossil fuels went up by 11 per cent from the year before. Of fossil fuels, the consumption of coal (including hard coal, coke, and blast furnace and coke oven gas) increased by 25 per cent. The use of coal went up significantly in separate production of condensing power. The use of peat increased by over 31 per cent from the year before.

The worsened water situation in the Nordic countries, which had started in the previous year, persisted, but in Finland the production of hydro power continued as normal and grew by good one per cent. The production of wind power increased by six per cent, but it still accounted for only 0.4 per cent of all electricity produced.

The production of nuclear power decreased by three per cent from its high level in the previous year. In all, 28 per cent of Finland's electricity production was covered by nuclear energy.

Imports of electricity increased by two per cent. The largest amount of electricity was imported from Russia, from where imports totalled 11.6 TWh. By contrast, Finland continued to be a net seller on the Nordic electricity market. Altogether 55 per cent more electricity was exported than in the previous year, as exports to Sweden, in particular, increased notably. Electricity exports to Sweden went up due to the poor water situation in the Nordic countries and maintenance shutdowns of nuclear power plants in Sweden. Net imports of electricity covered 12 per cent of total electricity consumption.

Electricity consumption went up by eight per cent in 2010. The use of electricity in manufacturing and for heating use grew, due to the recovered industrial output and colder than average winter weather. Consumption of electricity totalled 87.7 terawatt hours.

Consumption of district heat grew due to the colder than average weather. The amount of district heat consumed totalled 38.3 TWh. In 2010, the average price for district heat was EUR 54.8/ MWh, which was 2.5 per cent lower than in 2009.

Energy consumption in transport grew by some three per cent from 2009. According to Statistics Finland's statistics on energy prices, the prices of transport fuels, especially diesel and petrol, went up.

Carbon dioxide emissions from the production and use of energy increased by nearly 15 per cent from 2009, to 59.6 million tonnes of carbon dioxide.

CO2-emissions from fuel combustion 2009–2010, million tonnes

	2009	2010 ¹⁾	Change %
CO2-emissions ²⁾	51,9	59,6	14,9

1) preliminary data

2) includes emissions from fuel combustion of fossil fuels and peat (CRF 1.A)

According to Statistics Finland's statistics on Production of electricity and heat production, the use of fuels in heat and power production increased by 19 per cent in 2010. The growth in the emissions was especially due to increased use of peat and coal in heat and power production. Carbon dioxide emissions in the energy sector accounted for 79 per cent of all greenhouse gas emissions in Finland in 2010.

Link to [Statistical release on greenhouse gas emissions](#) (13 Dec. 2011)

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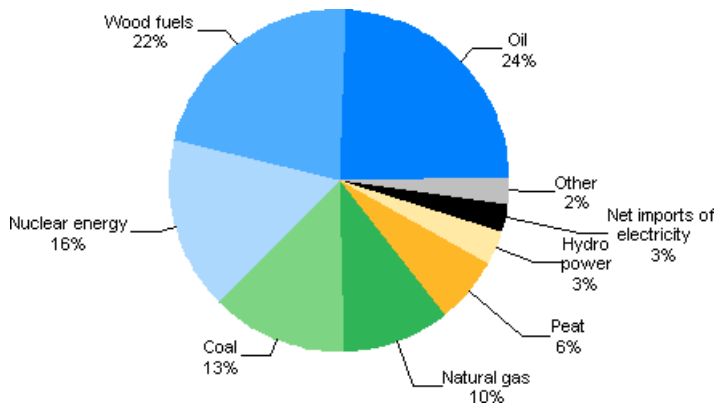
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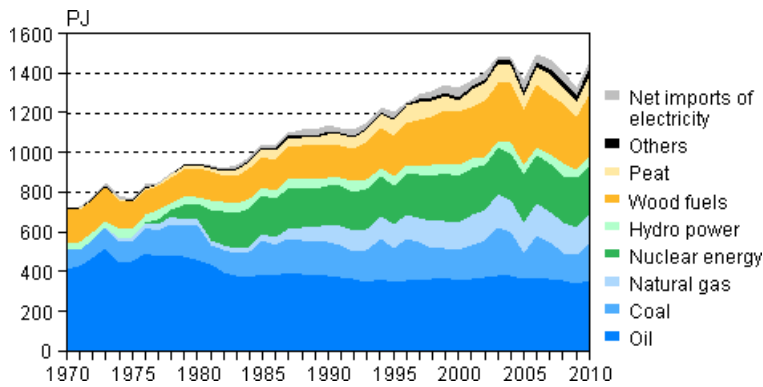
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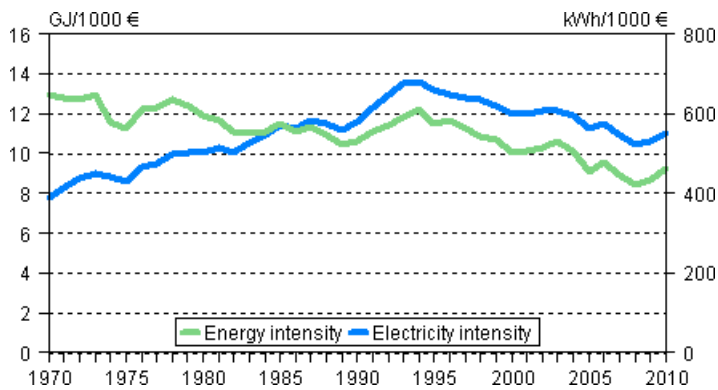
Appendix figure 1. Total energy consumption 2010



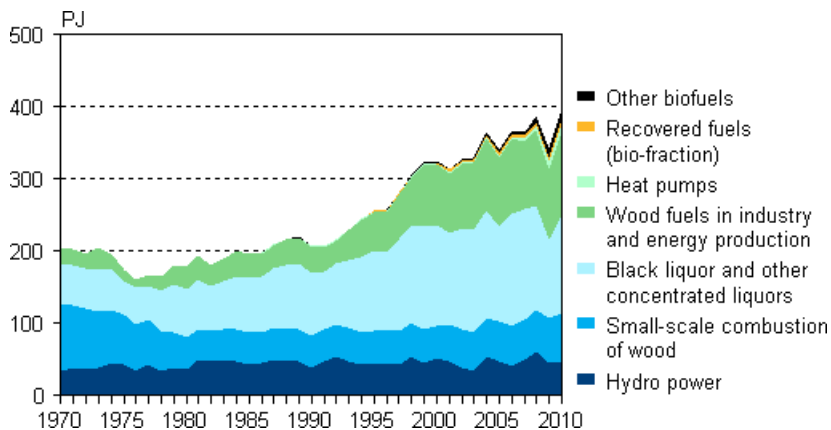
Appendix figure 2. Total energy consumption 1970–2010



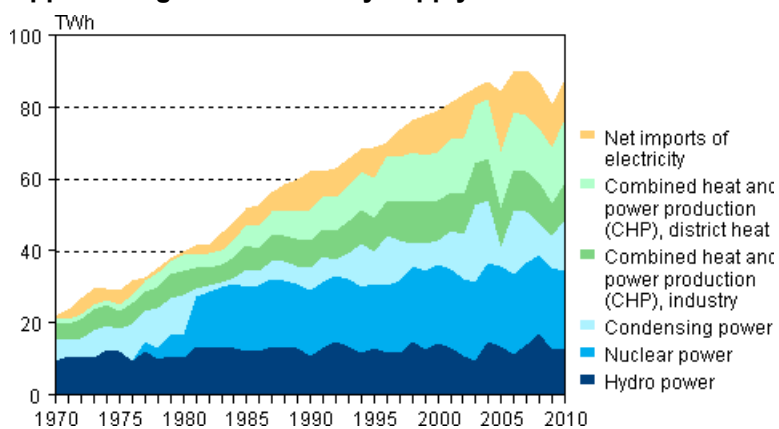
Appendix figure 3. Energy and electricity intensity 1970–2010



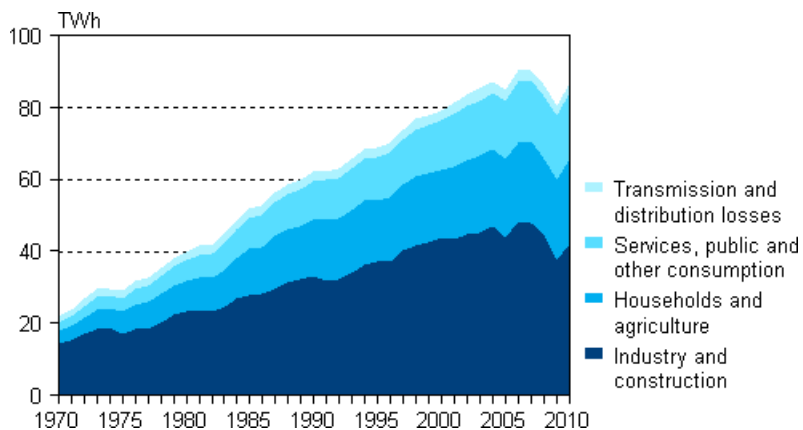
Appendix figure 4. Renewable energy sources 1970–2010



Appendix figure 5. Electricity supply 1970–2010



Appendix figure 6. Electricity consumption by sector 1970–2010



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Finlands officiella statistik
Official Statistics of Finland

Energy 2011

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Source: Yearbook of Energy Statistics 2011. Statistics Finland (due out in early 2012).