

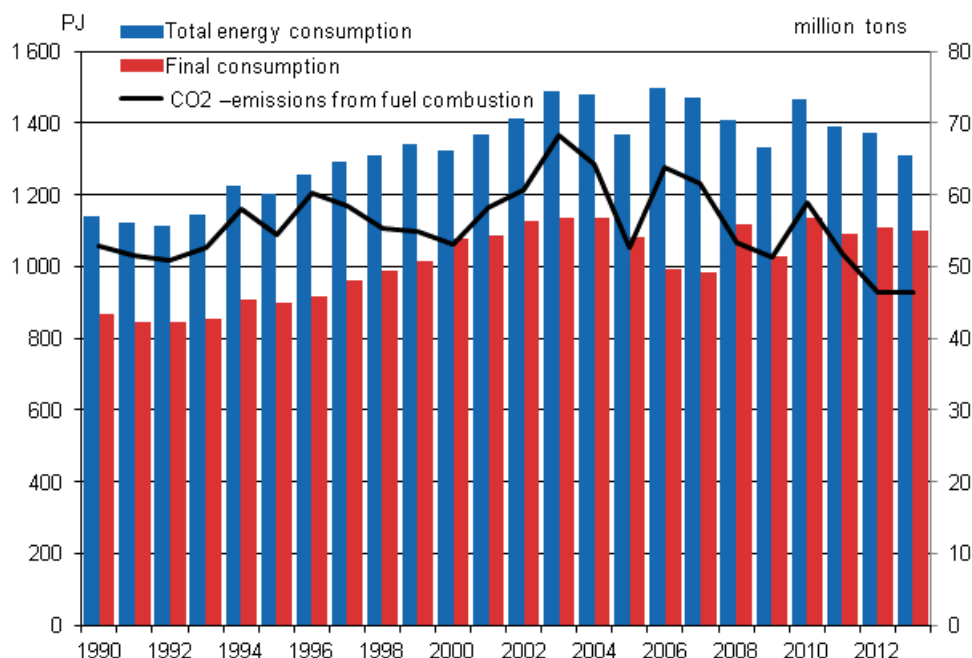
Energy supply and consumption

2013, 4th quarter

Total energy consumption fell by 2 per cent last year

According to Statistics Finland's preliminary data, total energy consumption in 2013 amounted to approximately 1,341 PJ (petajoule), or around 373 TW (terawatt hours), which was more than two per cent less than in 2012. Of energy sources, the use of peat declined most, by over 25 per cent. The decrease in the availability of hydro power and net imports of electricity increased the use of coal by 17 per cent. The warm latter part of the year diminished consumption of heating energy. According to preliminary data for 2013, the share of renewable energy in total energy consumption diminished.

Total energy consumption, final consumption and carbon dioxide emissions 1990–2013*



The use of wood fuel went down by over two per cent. The use of nuclear energy, wind power and recycled fuels grew last year. The share of wind power was 0.2 per cent of total energy consumption.

Consumption of electricity amounted to 83.9 TWh, down by 1.5 per cent year-on-year. Close on 19 per cent of the electricity consumed in Finland was covered with imported electricity. Net imports of electricity to Finland went down by ten per cent. Imports of electricity from the Nordic markets decreased by 15 per cent. Last autumn, a small amount of electricity was exported for the first time to Russia.

Diverse energy products were imported to Finland to the value of around EUR 13.8 billion in 2013, which was three per cent more than in 2012. Correspondingly, energy products were exported from Finland to the value of nearly EUR 7.0 billion, which was over ten per cent more than one year previously. Imports of energy products from Russia accounted for 66 per cent. In December, stocks of coal amounted to some 26 TWh, which was over 33 per cent less than one year earlier. Stocks of peat amounted to around 17.6 TWh in December, or some 137 per cent more than the year before. It is estimated that more energy peat will remain in stocks this spring 2014 than in the previous years.

Carbon dioxide emissions from the production and use of energy remained unchanged in 2013. The use of coal increased carbon dioxide emissions and the lower use of oil, natural gas and peat decreased them.

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

Energy source, TJ ⁴⁾	2013*	Annual change-%*	Percentage share of total energy consumption*
Oil	314,478	-3	23
Coal ¹⁾	146,804	17	11
Natural gas	107,057	-7	8
Nuclear energy ²⁾	247,618	3	18
Net imports of electricity ³⁾	56,574	-10	4
Hydro and wind power ³⁾	48,574	-21	4
Peat	48,652	-25	4
Wood fuels	324,000	-2	24
Others	47,687	7	4
TOTAL ENERGY CONSUMPTION	1,341.443	-2	100
Bunkers	45,456	47	.
CO ₂ emissions from energy sector	46	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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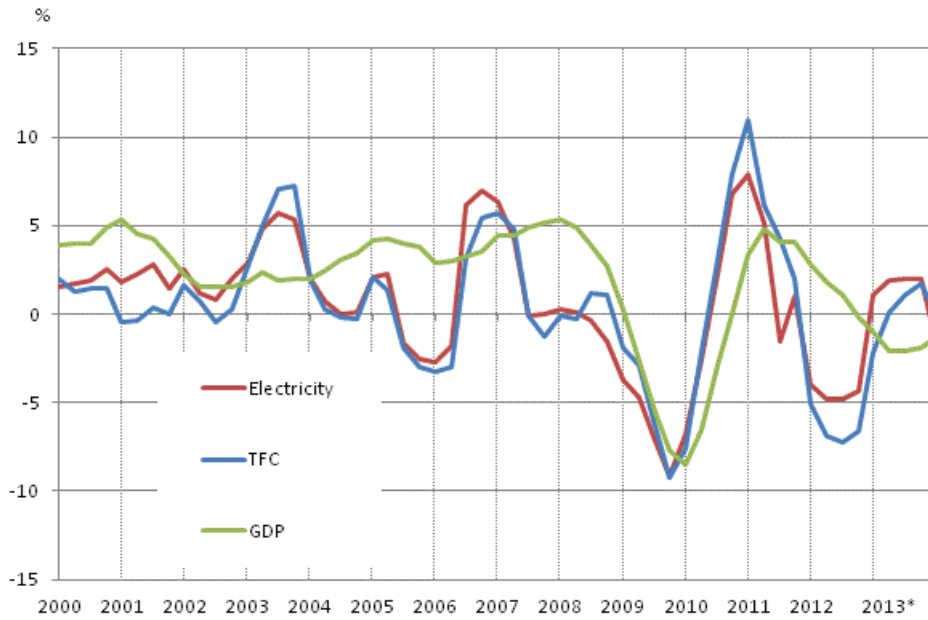
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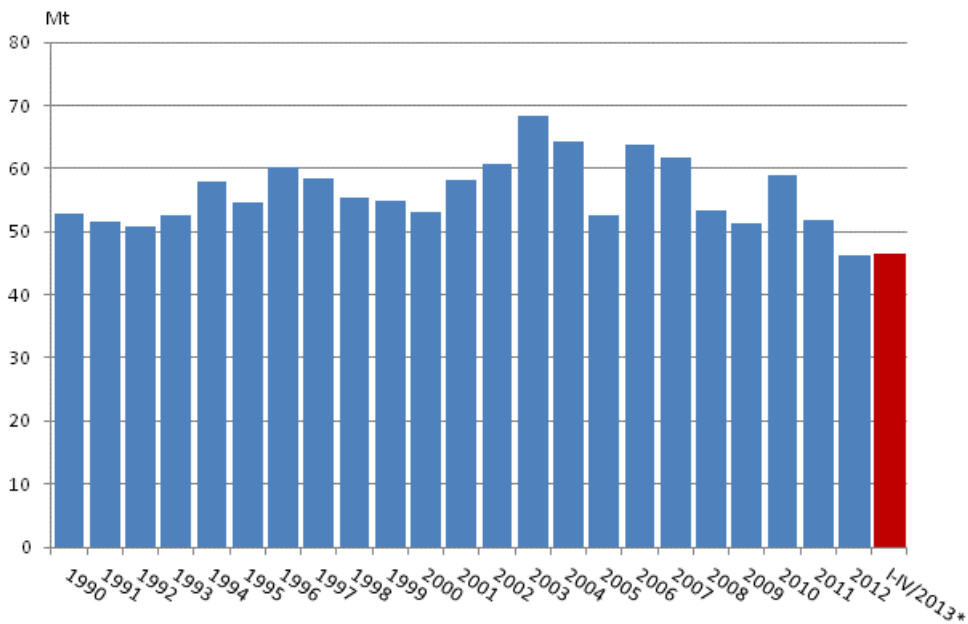
Appendix figures

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

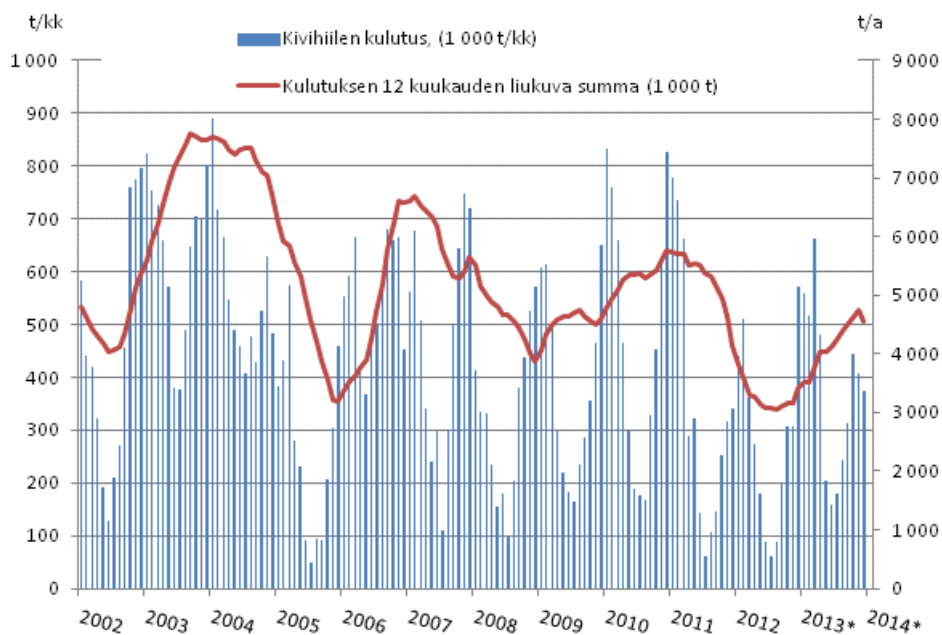


12-month moving total

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

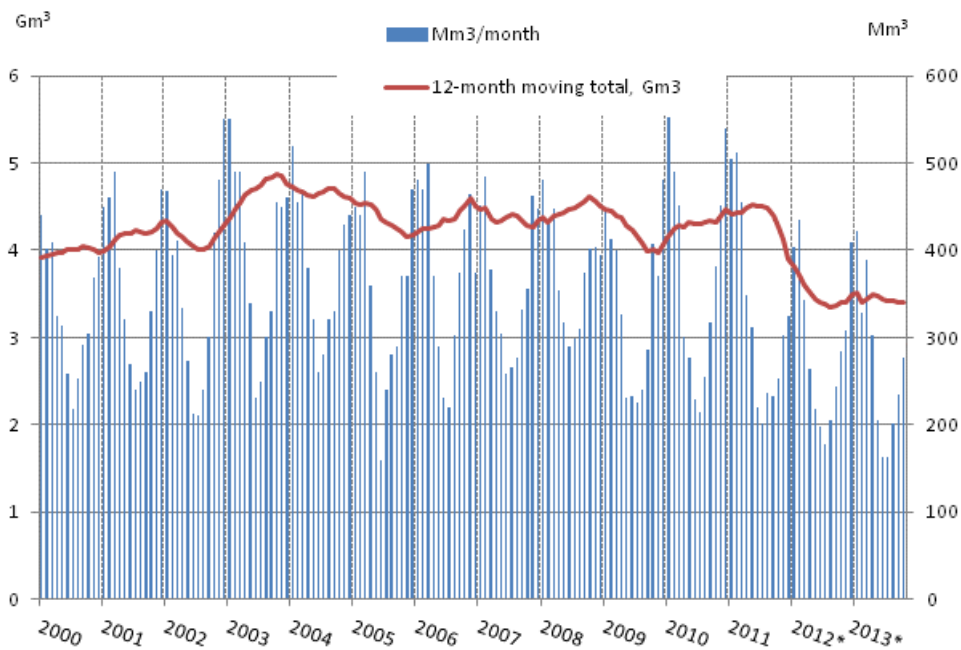


Appendix figure 3. Coal consumption



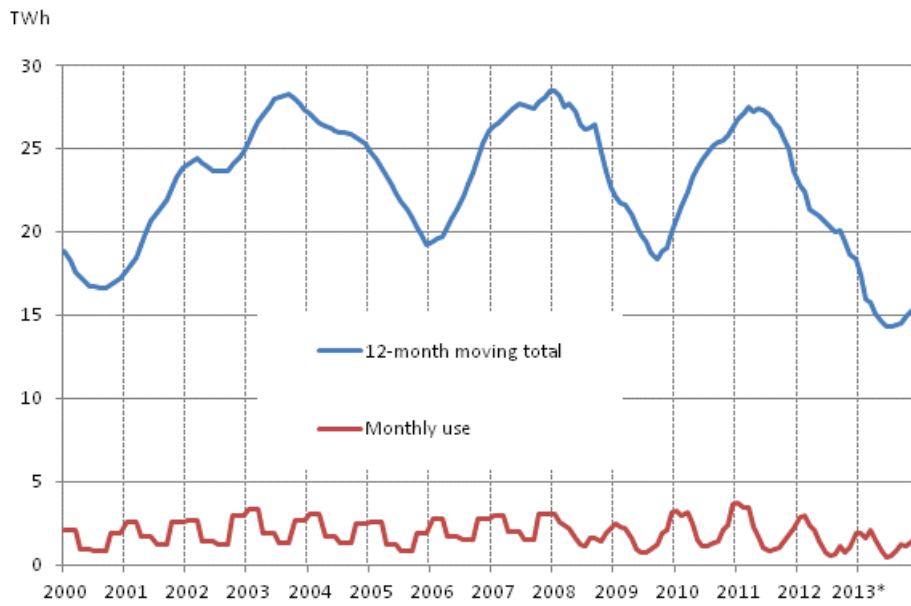
Source: Finnish Energy Industries Federation

Appendix figure 4. Consumption of natural gas



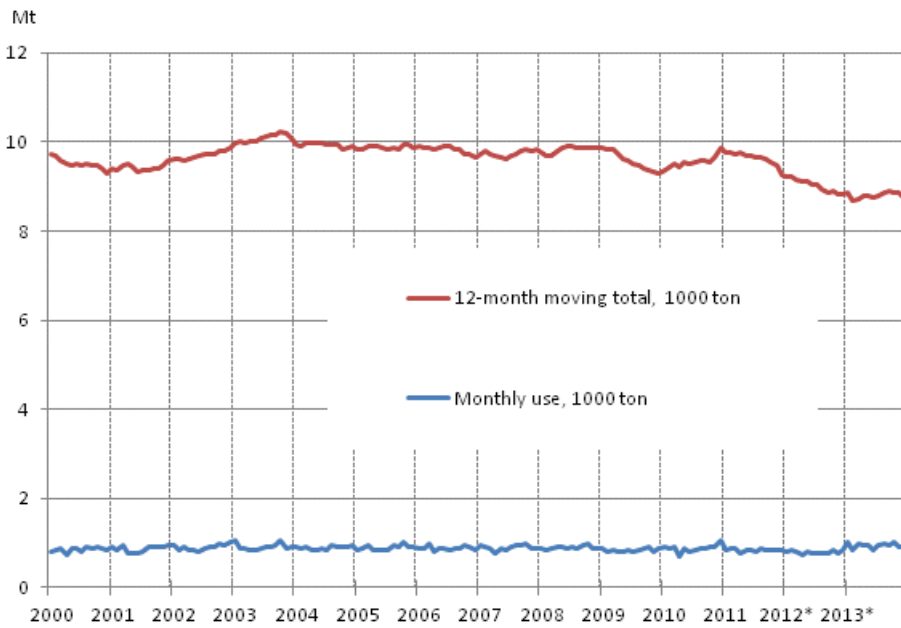
Source: Gasum Oy, 12-month moving total

Appendix figure 5. Peat consumption



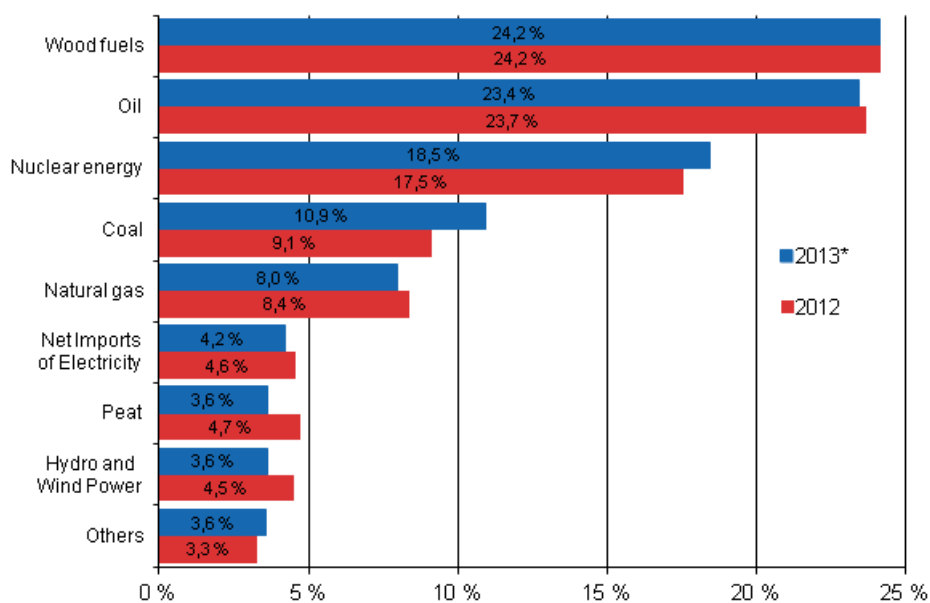
Source: Association of Finnish Peat Industries 12-month moving total

Appendix figure 6. Domestic oil deliveries



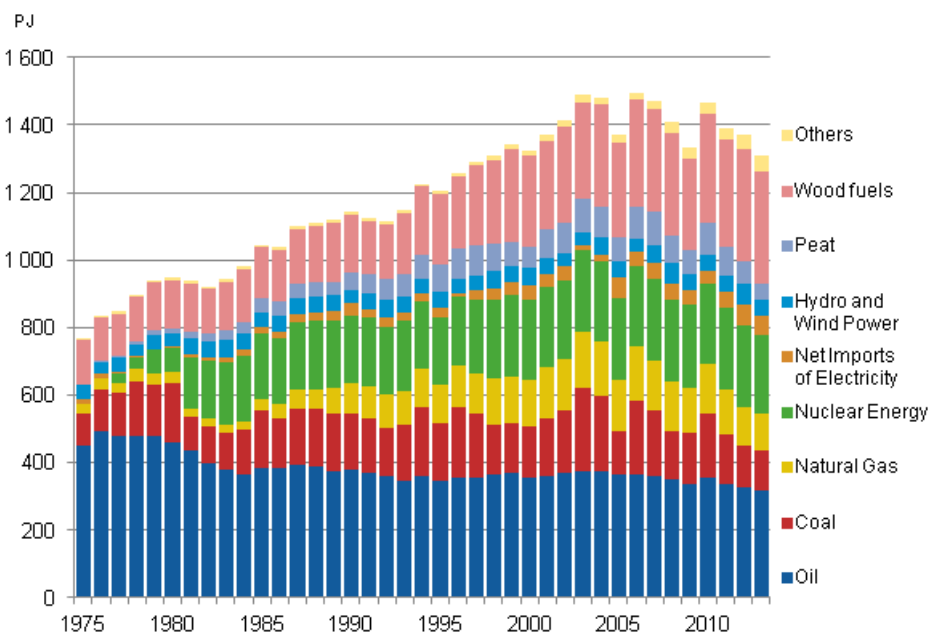
Source: Finnish Petroleum Federation, 12-month moving total

Appendix figure 7. Share of total energy consumption 2012–2013*



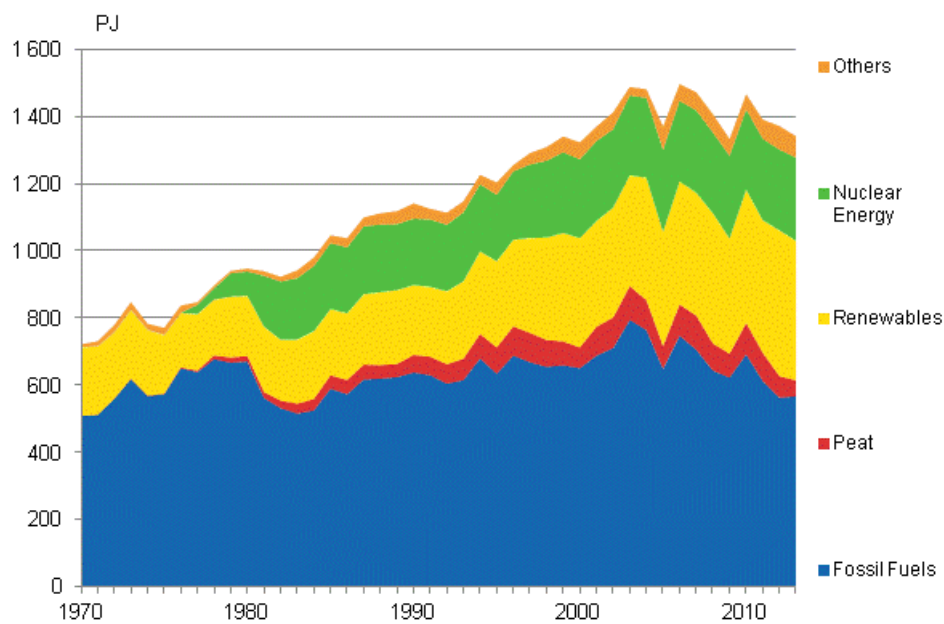
*preliminary

Appendix figure 8. Total energy consumption 1975–2013*



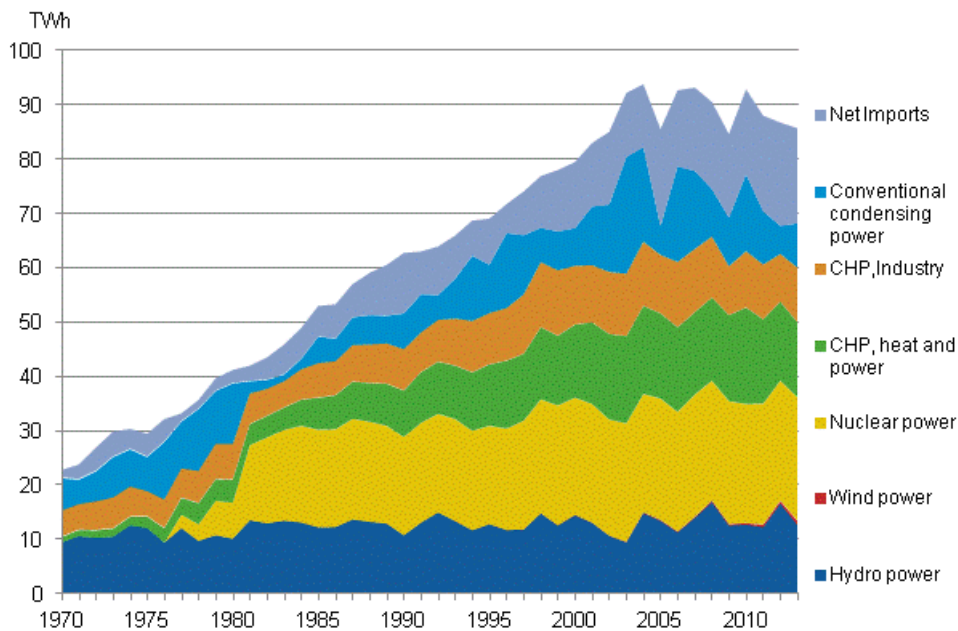
*preliminary

Appendix figure 9. Fossil fuels and renewables 1970–2013*



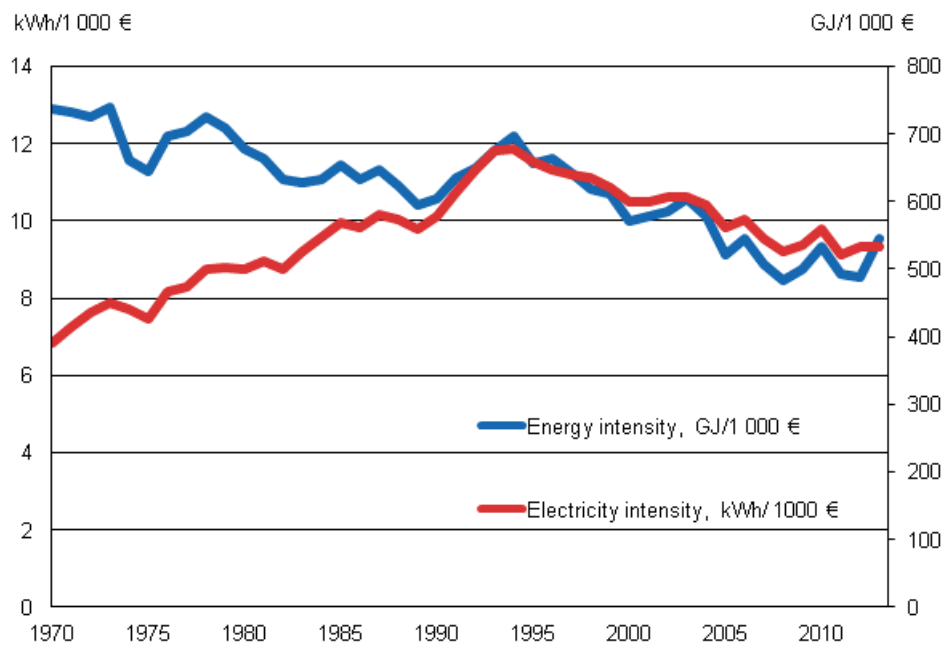
*preliminary

Appendix figure 10. Electricity supply 1970–2013*



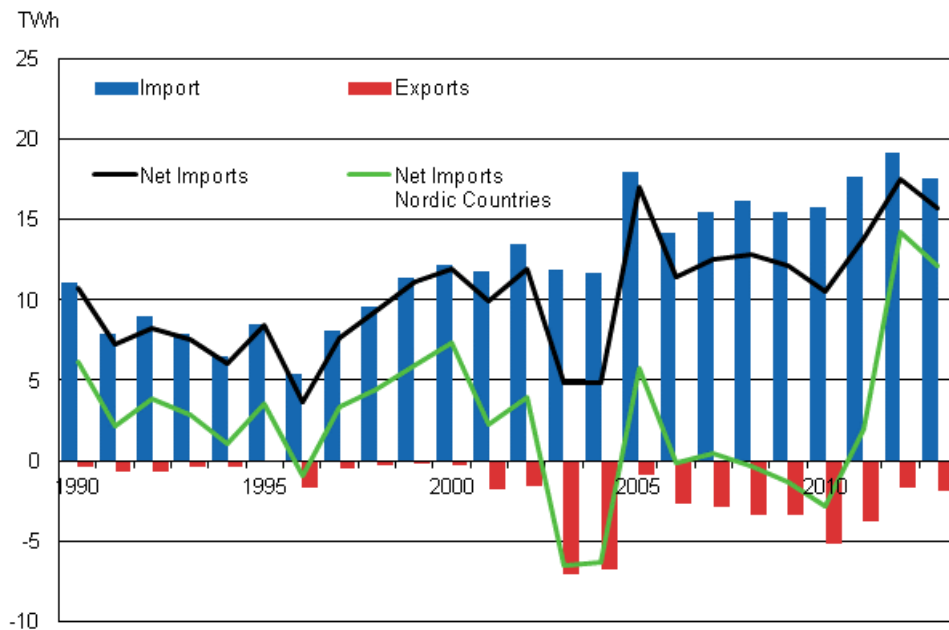
Source: Finnish Energy Industries, Finnish Wind Power Association, *preliminary

Appendix figure 11. Energy and electricity intensity 1970–2013*



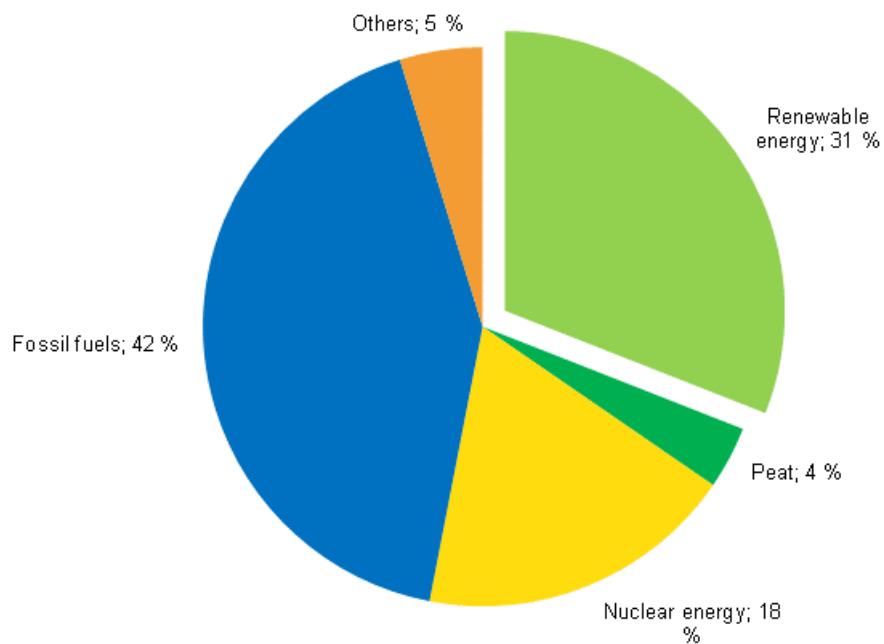
*year 2012 preliminary

Appendix figure 12. Imports and exports of electricity 1990–2013*

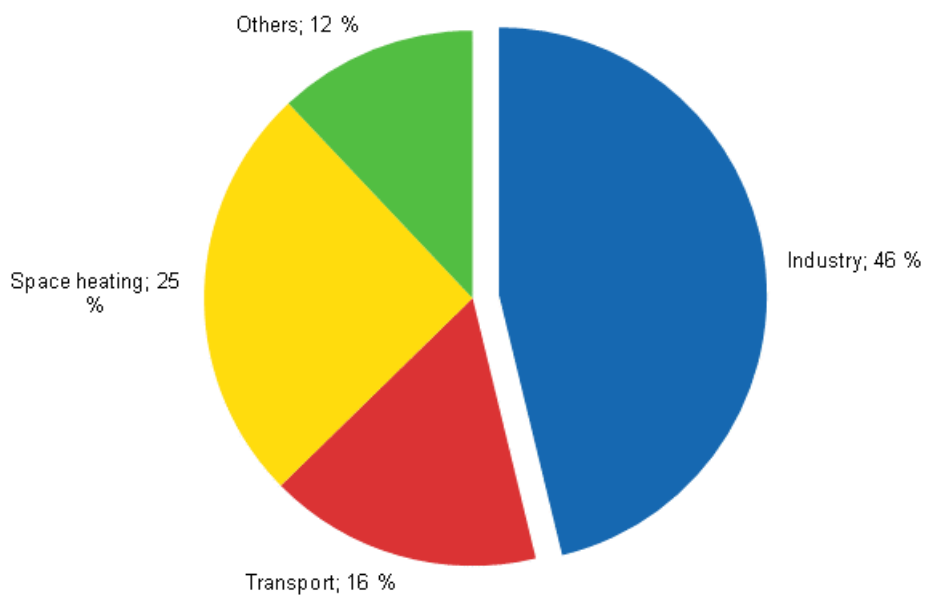


Source: Finnish Energy Industries, *preliminary

Appendix figure 13. Share of renewables of total primary energy 2013* Corrected on 8 September 2014

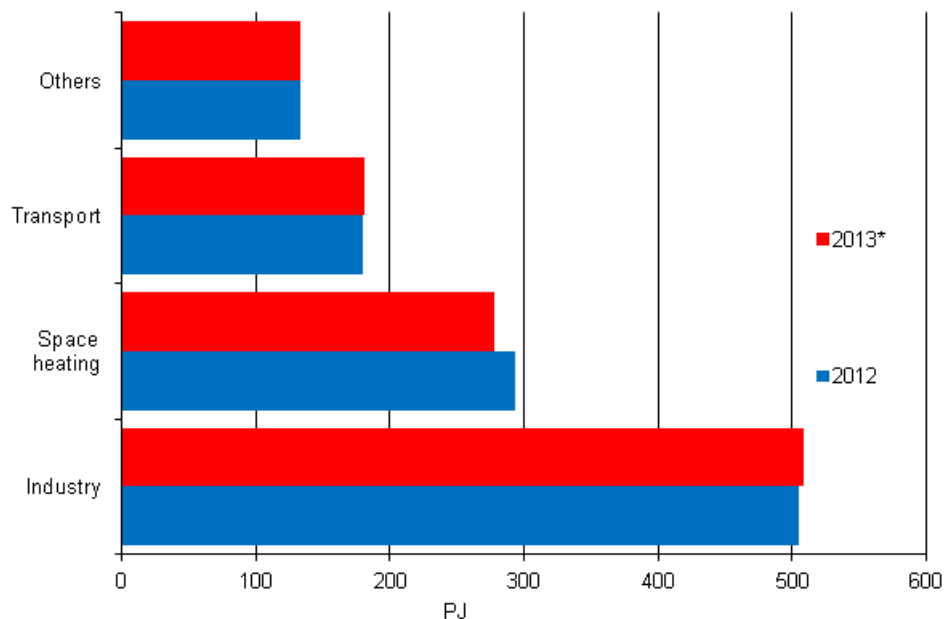


Appendix figure 14. Final energy consumption by sector 2013*



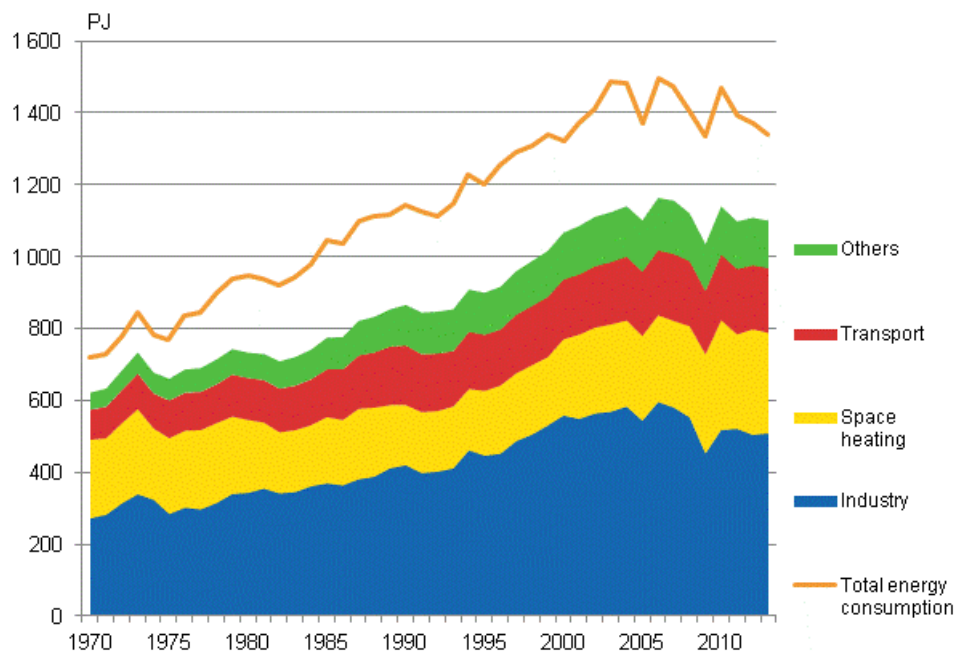
*Preliminary.

Appendix figure 15. Final energy consumption by sector 2012 and 2013*



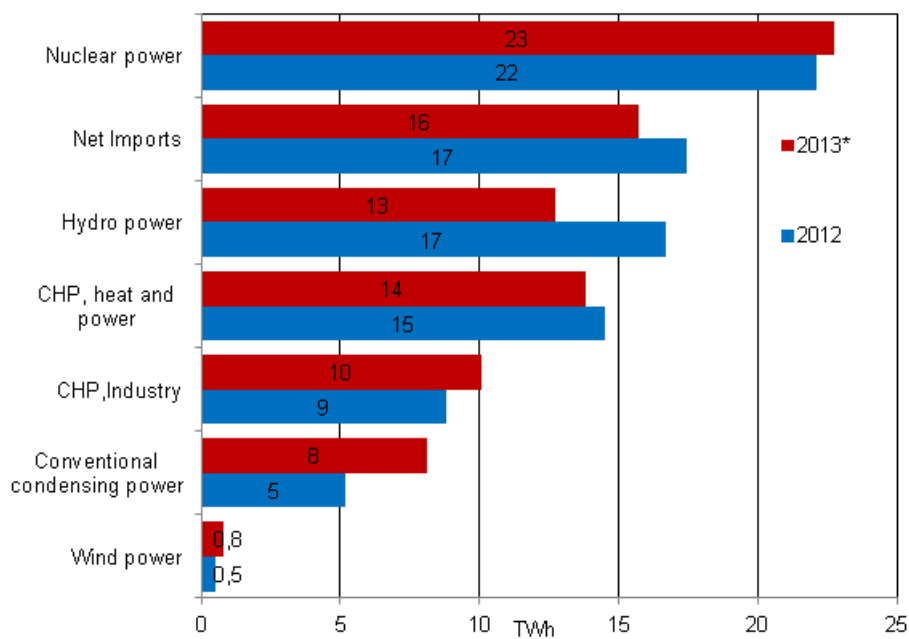
*preliminary

Appendix figure 16. Total energy consumption and final energy consumption 1970–2013*



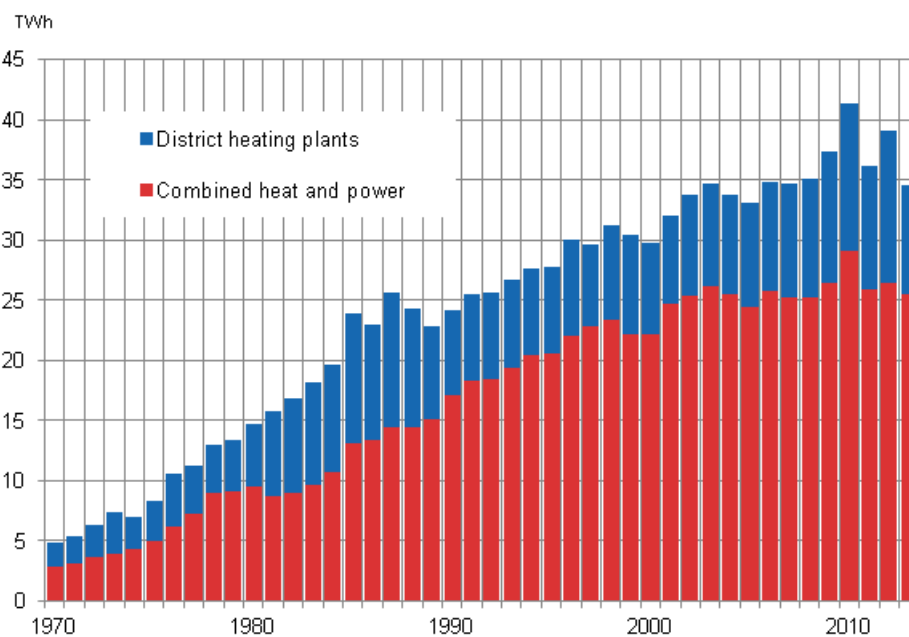
*preliminary

Appendix figure 17. Electricity supply 2012–2013*



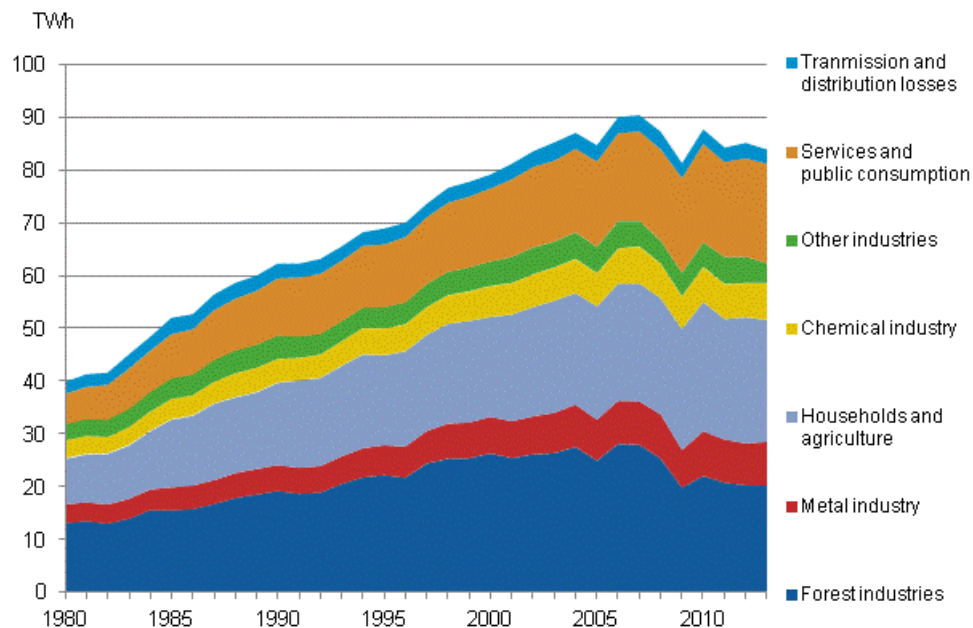
Source: Finnish Energy Industries, *preliminary

Appendix figure 18. Production of district heat 1970–2013*



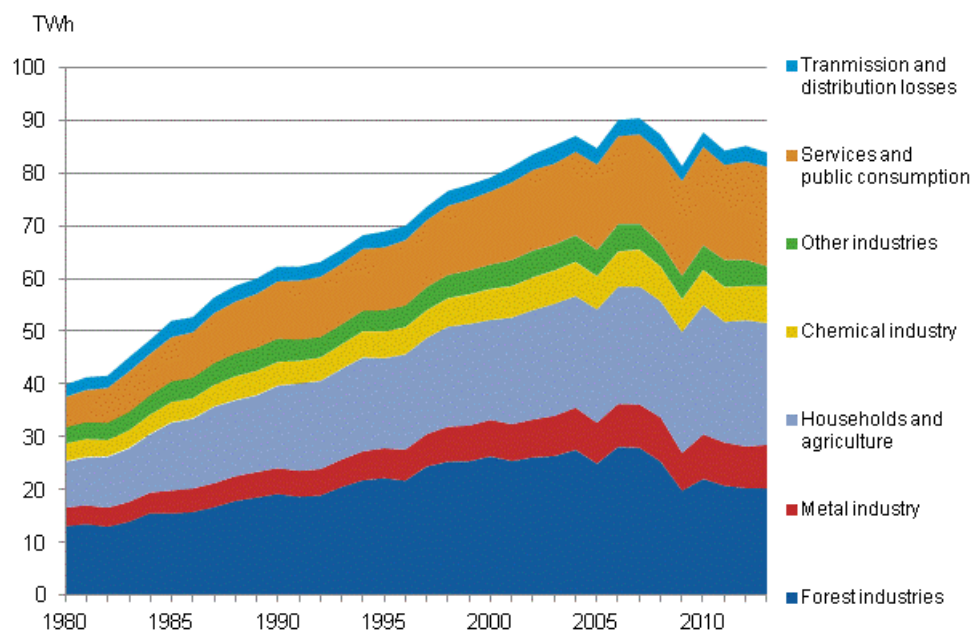
Source: Finnish Energy Industries *preliminary

Appendix figure 19. Electricity generation capacity in peak load period in the beginning of the year 2013



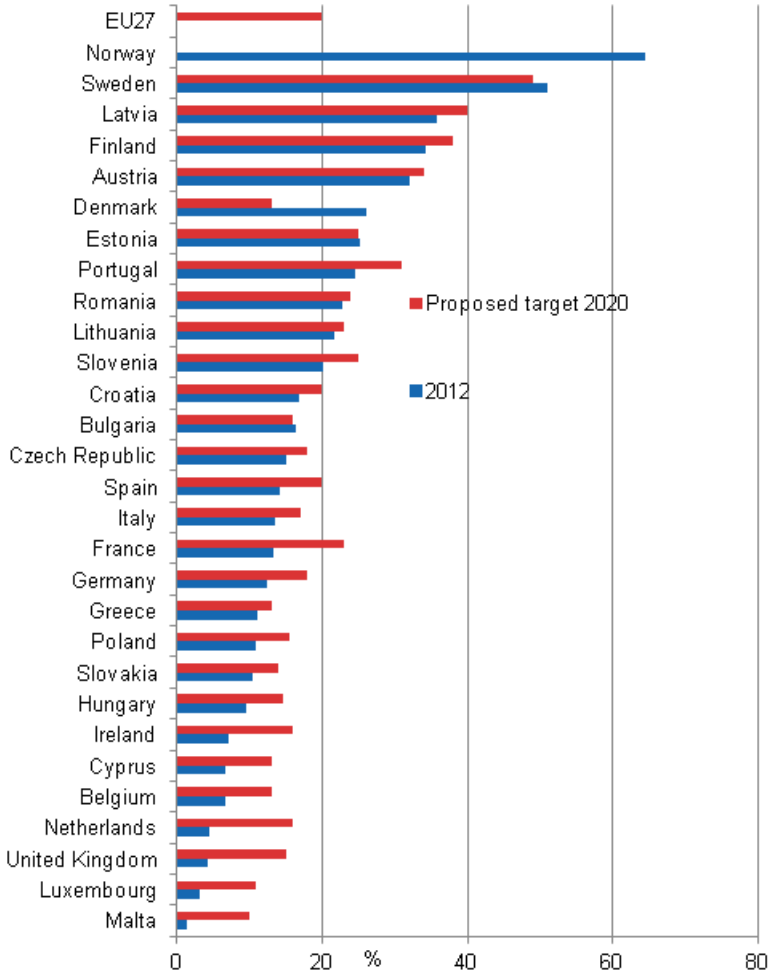
Source: Fingrid Oyj and the Energy Market Authority

Appendix figure 20. Electricity consumption by sector 1980–2013*



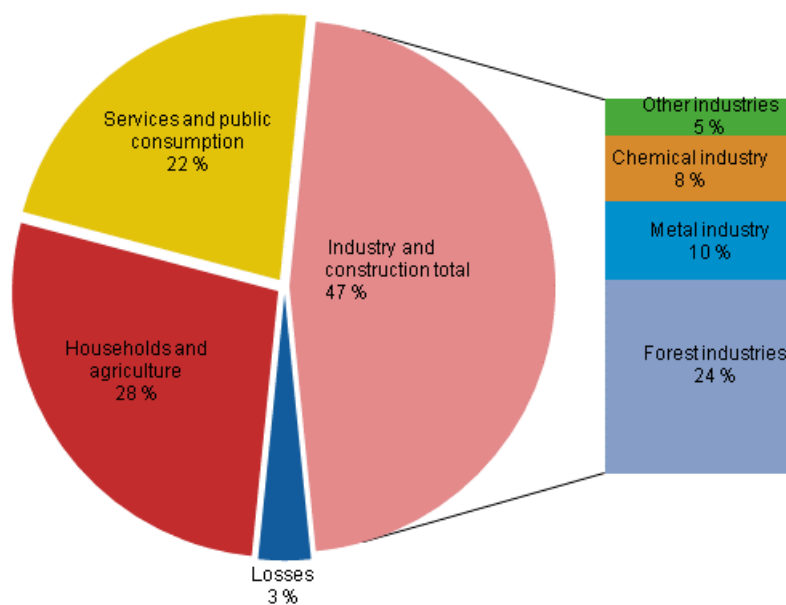
Source: Finnish Energy Industries, *preliminary

Appendix figure 21. Renewable energy as a proportion of final energy consumption in 2012, and the target for 2020



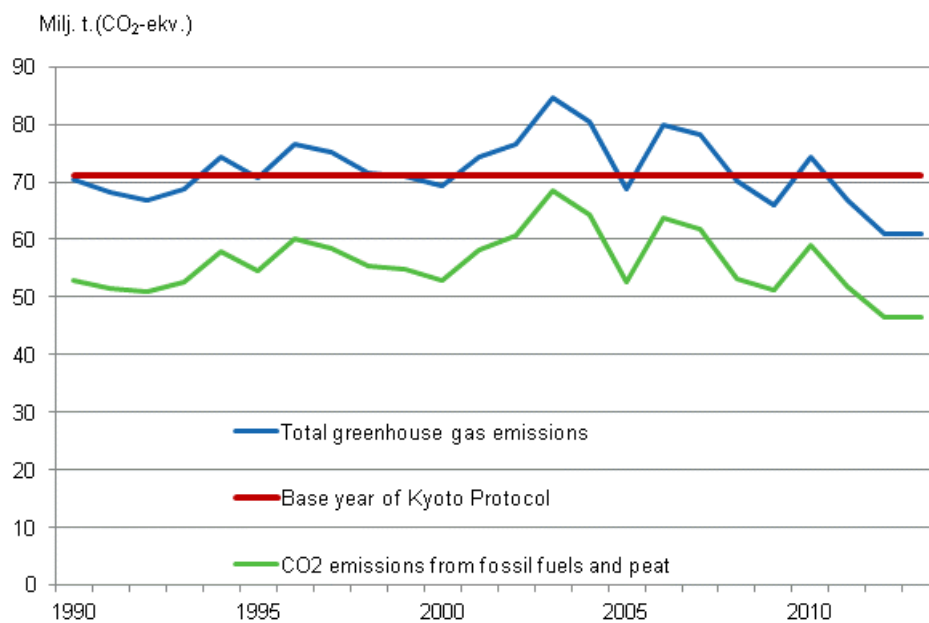
Source: Eurostat

Appendix figure 22. Electricity consumption by sector 2013*



Source: Statistics Finland, *preliminary

Appendix figure 23. Finland's greenhouse gas emissions 1990–2013*



Revisions in these statistics

The data of the statistics have become revised according to the table below. For more information about data revisions, see Section 3 of the quality description (only in Finnish).

Revisions to data on annual changes in total energy consumption¹⁾

Total energy consumption and quarter		Annual change (%)		Revision (%-point)
		1st release	Latest release 24.3.2014 (%)	
	I/2013	-1	-4	-3
	II/2013	2	-1	-3
	III/2013	5	-2	-7
	IV/2013	.	-2	.

1) The revisions describe the difference between the annual change percentages of the latest and first releases in percentages. The first release refers to the time when preliminary data for the statistical reference quarter in question were released for the first time.

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Source: Statistics Finland, Energy supply and consumption