

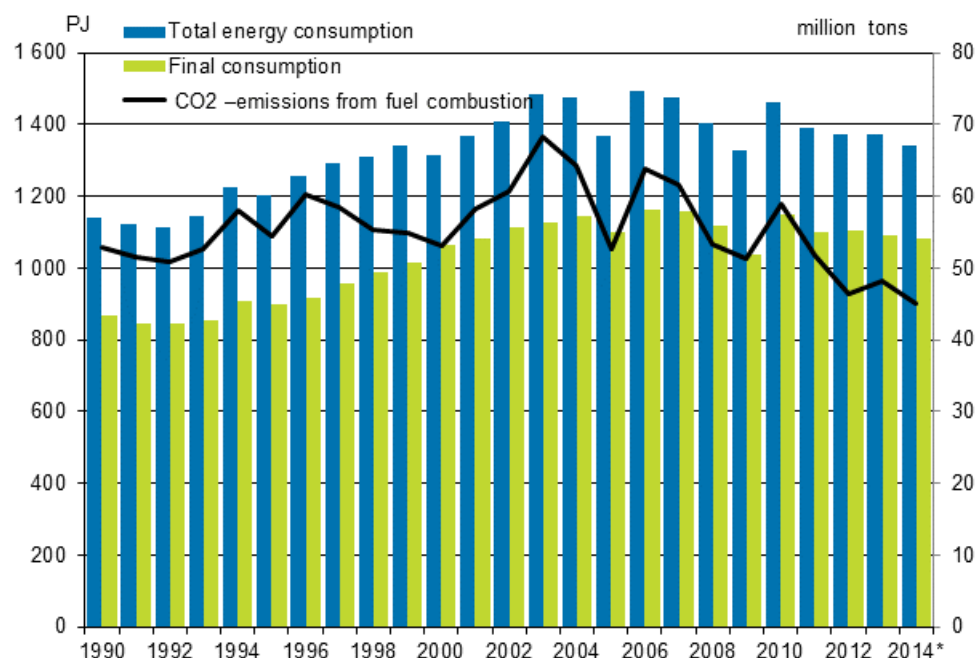
Energy supply and consumption

2014, 4th quarter

Total energy consumption fell by 2 per cent last year

According to Statistics Finland’s preliminary data, total energy consumption in 2014 amounted to approximately 1,340 petajoule (PJ), or around 372 terawatt hours (TWh), which was more than two per cent less than in 2013. Electricity consumption amounted to 83.3 TWh, down by around one per cent year-on-year. The need for heating energy was reduced by the warmer weather than usual. In turn, the improved water situation in the Nordic countries increased net imports of electricity by 14 per cent. Carbon dioxide emissions from the production of energy decreased by six per cent year-on-year.

Total energy consumption, final consumption and carbon dioxide emissions 1990–2014*



The warmer weather than usual last year and the increase in net imports of electricity contributed to the decreasing consumption of fossil and wood fuels. Among individual energy sources, the largest reduction of 14 per cent was seen in the consumption of natural gas (15 PJ) last year. The consumption of coal

(including hard coal, coke, and blast furnace and coke oven gas) also decreased clearly, by 11 per cent (16 PJ). The consumption of oil went down by three per cent (7.9 PJ). The use of peat increased by nine per cent (5.4 PJ) from the year before, which is explained by an exceptionally low use of peat in 2013. The use of wood fuels diminished by nearly two per cent (5.5 PJ) and it covered around one-quarter of total energy consumption in Finland.

The use of fossil fuels diminished by seven per cent from the year before, which raised the share of renewable energy by one percentage point. The share of renewable energy in total energy consumption rose to 32 per cent last year.

Final consumption of energy went down by one per cent. According to preliminary data, the share of manufacturing in final energy consumption was 47 per cent, which was unchanged from twelve months before. The share of space heating of buildings, which decreased by one per cent from 2013, is one-quarter of the final consumption of energy. The use of energy consumption in transport went down by one per cent, the share of consumption remained almost on level with the year before.

Net imports of electricity reached a new record level, up by 14 per cent (8.1 PJ). The share of net imports in the electricity consumed in Finland was 22 per cent. Imports of electricity from Sweden increased by 47 per cent. Imports from Russia, in turn, went down by 28 per cent. Exports of electricity to Estonia have well more than doubled. Domestic production of electricity decreased by four per cent year-on-year. The warm weather had an effect on the drop in the volume of electricity generated in combined heat and power production by nearly seven per cent. The production of condensate power went down by 25 per cent, primarily due to the better water situation in the Nordic countries compared to last year. Wind power production continued its brisk growth, up by 44 per cent (1.2 PJ). Even though wind power production has quadrupled in five years, its share of Finland's total energy consumption is 0.3 per cent.

Last year, diverse energy products were imported into Finland to the value of EUR ten billion, which was 25 per cent less than one year earlier. Most energy products were imported from Russia, whose share of the value of imports was around 61 per cent. Correspondingly, energy products were exported from Finland to the value of EUR 5.2 billion, which was 25 per cent less than one year previously. Most energy products were exported from Finland to EU countries, which accounted for 76 per cent of the value of exports.

Stocks of coal in December were around 29 TWh, or 26 per cent up on one year earlier. Stocks of energy peat were estimated to be around 18 TWh, which was six per cent less than in the corresponding period of the year before.

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

Corrected at 5 pm on 23 March 2015. The corrections are indicated in red.

Energy source, TJ ⁴⁾	2014*	Annual change-%*	Percentage share of total energy consumption*
Oil	308,693	-3	23
Coal ¹⁾	134,823	-11	10
Natural gas	91,678	-14	7
Nuclear energy ²⁾	247,174	0	18
Net imports of electricity ³⁾	64,690	14	5
Hydro power ³⁾	47,523	4	4
Wind power ³⁾	4 007	44	0
Peat	62,260	9	5
Wood fuels	333,198	-2	25
Others	46,077	-9	3
TOTAL ENERGY CONSUMPTION	1,340,123	-2	100
Bunkers	28,639	-11	.
CO2 emissions from energy sector	45	-6	.

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

Contents

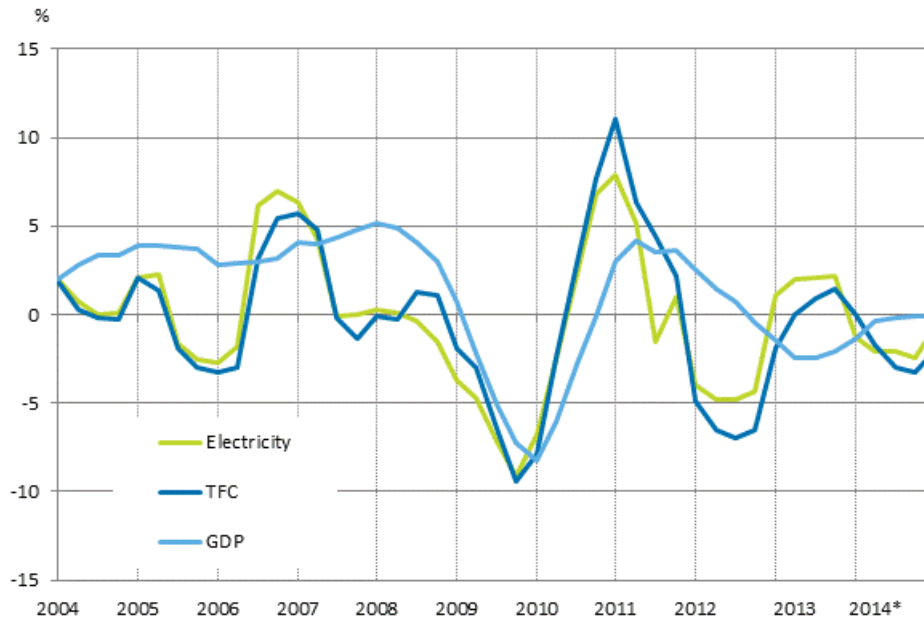
Figures

Appendix figures

Appendix figure 1. Changes in GDP, Final energy consumption and electricity consumption.....	5
Appendix figure 2. Carbon dioxide emissions from fossil fuels and peat use	5
Appendix figure 3. Coal consumption	6
Appendix figure 4. Consumption of natural gas	6
Appendix figure 5. Peat consumption.....	7
Appendix figure 6. Domestic oil deliveries.....	7
Appendix figure 7. Share of total energy consumption 2013–2014*.....	8
Appendix figure 8. Total energy consumption 1975–2014*.....	8
Appendix figure 9. Fossil fuels and renewables 1970–2014*.....	9
Appendix figure 10. Electricity supply 1970–2014*.....	9
Appendix figure 11. Energy and electricity intensity 1970–2014*.....	10
Appendix figure 12. Imports and exports of electricity 1990–2014*.....	10
Appendix figure 13. Share of renewables of total primary energy 2014*.....	11
Appendix figure 14. Final energy consumption by sector 2014*.....	11
Appendix figure 15. Final energy consumption by sector 2013 and 2014*.....	12
Appendix figure 16. Total energy consumption and final energy consumption 1970–2014*.....	12
Appendix figure 17. Electricity supply 2013–2014*.....	13
Appendix figure 18. Production of district heat 1970–2014*.....	13
Appendix figure 19. Electricity generation capacity in peak load period in the beginning of the year 2014.....	14
Appendix figure 20. Electricity consumption by sector 1980–2014*.....	14
Appendix figure 21. Renewable energy as a proportion of final energy consumption in 2013, and the target for 2020.....	15
Appendix figure 22. Electricity consumption by sector 2014*.....	16
Appendix figure 23. Finland’s greenhouse gas emissions 1990–2013*.....	16
Revisions in these statistics.....	17

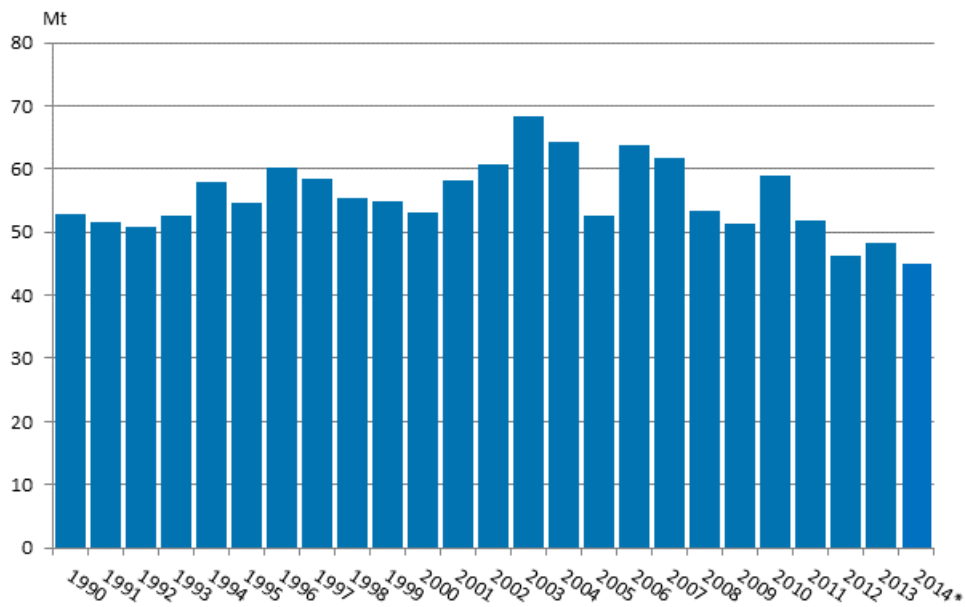
Appendix figures

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

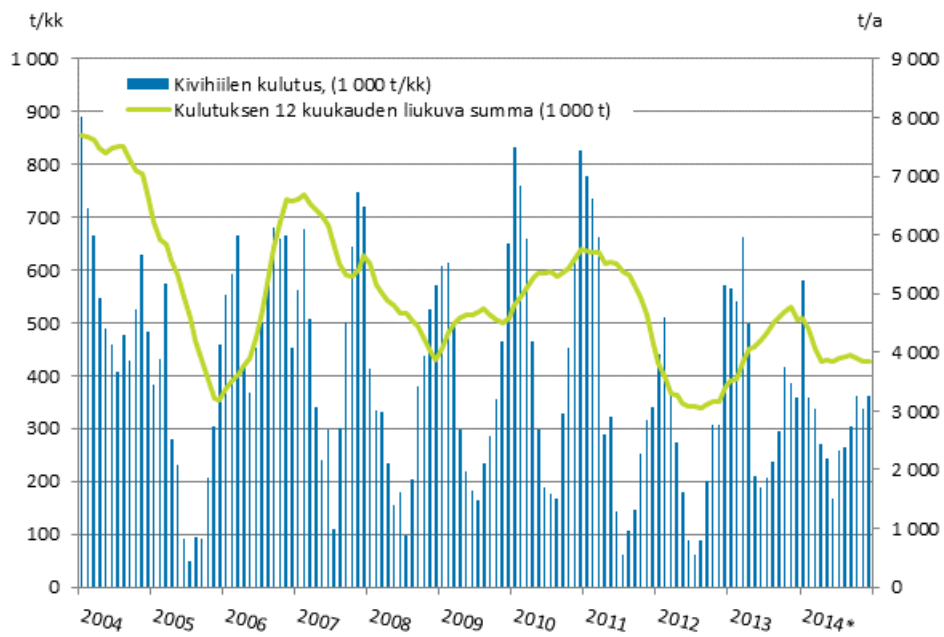


12-month moving total

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

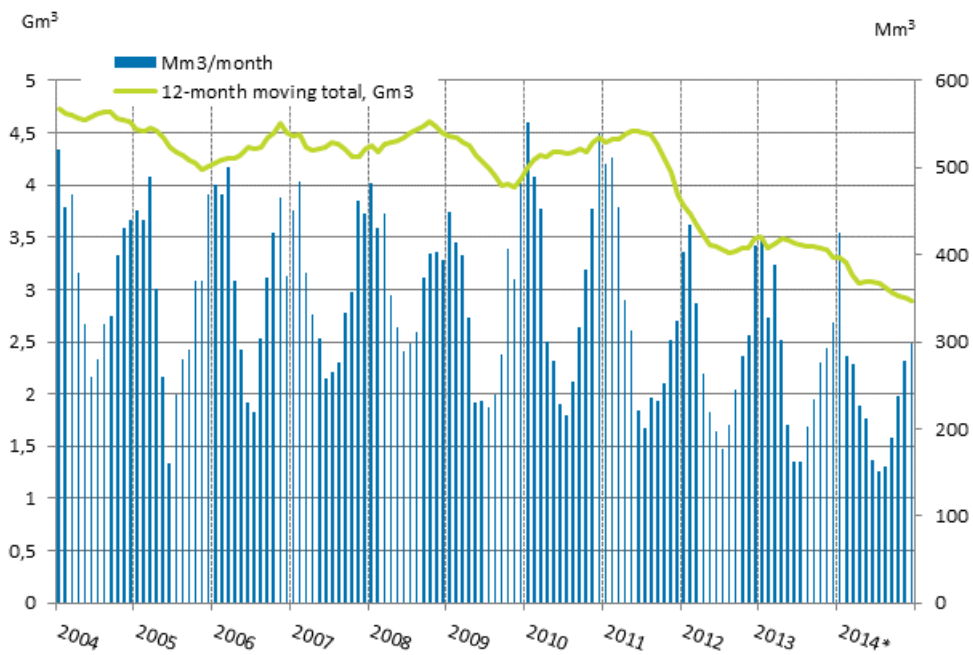


Appendix figure 3. Coal consumption



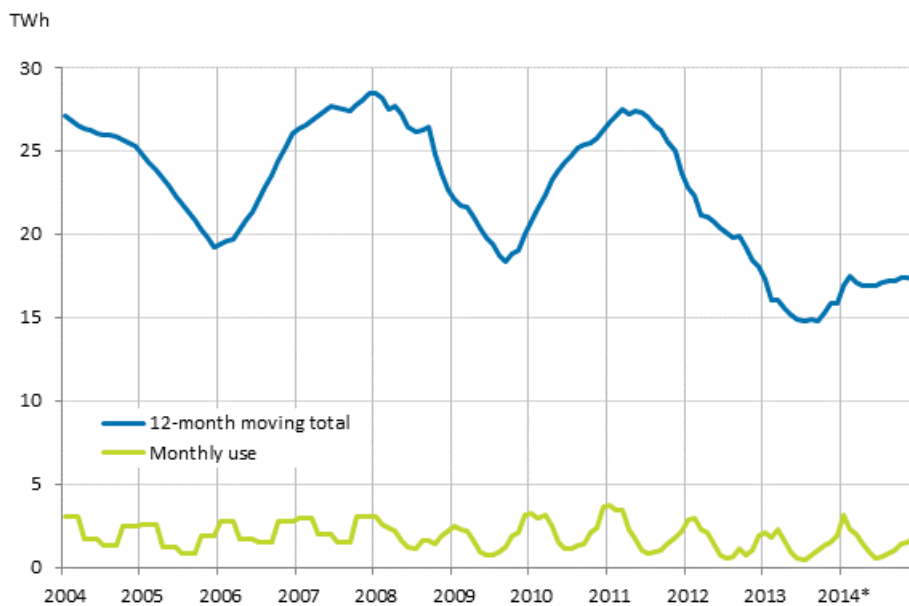
Source: Finnish Energy Industries Federation

Appendix figure 4. Consumption of natural gas



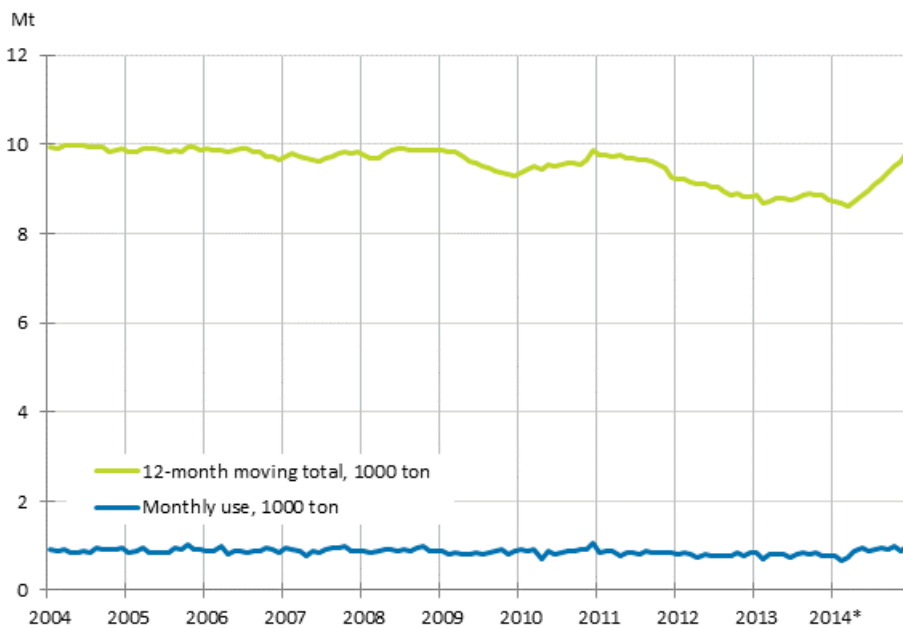
Source: Gasum Oy, 12-month moving total

Appendix figure 5. Peat consumption



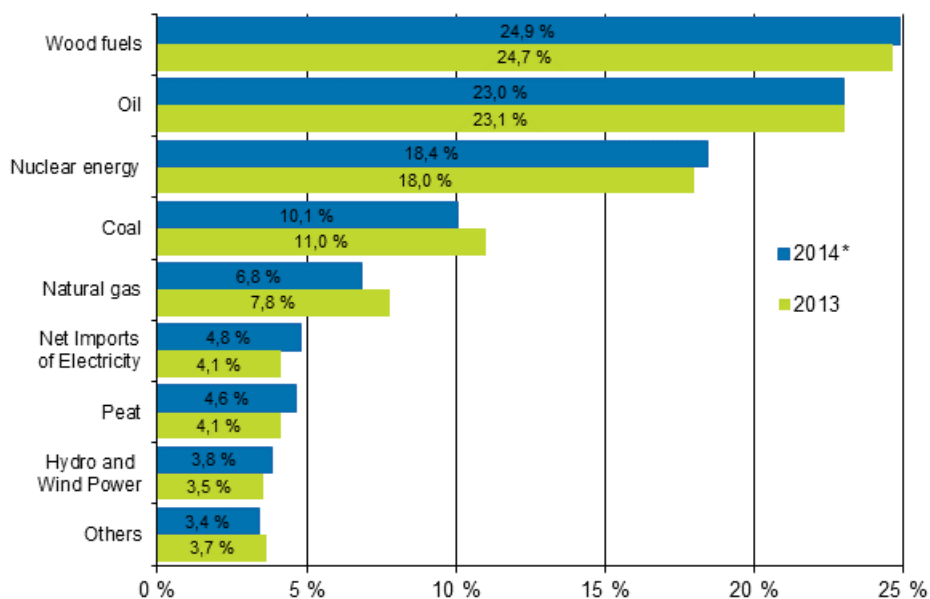
Source: The Bioenergy Association of Finland, 12-month moving total

Appendix figure 6. Domestic oil deliveries



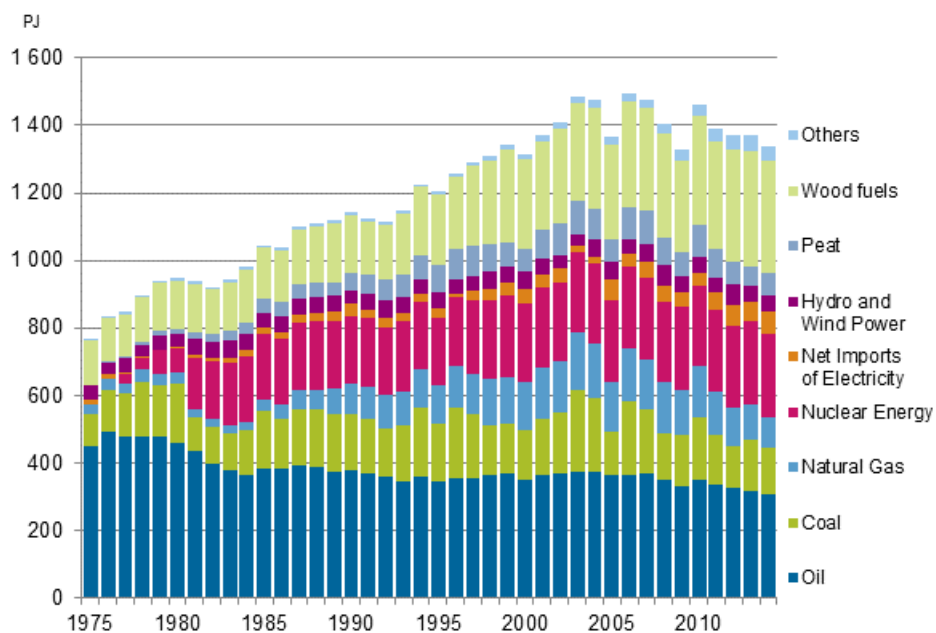
Source: Association of Finnish Peat Industries, 12-month moving total

Appendix figure 7. Share of total energy consumption 2013–2014*



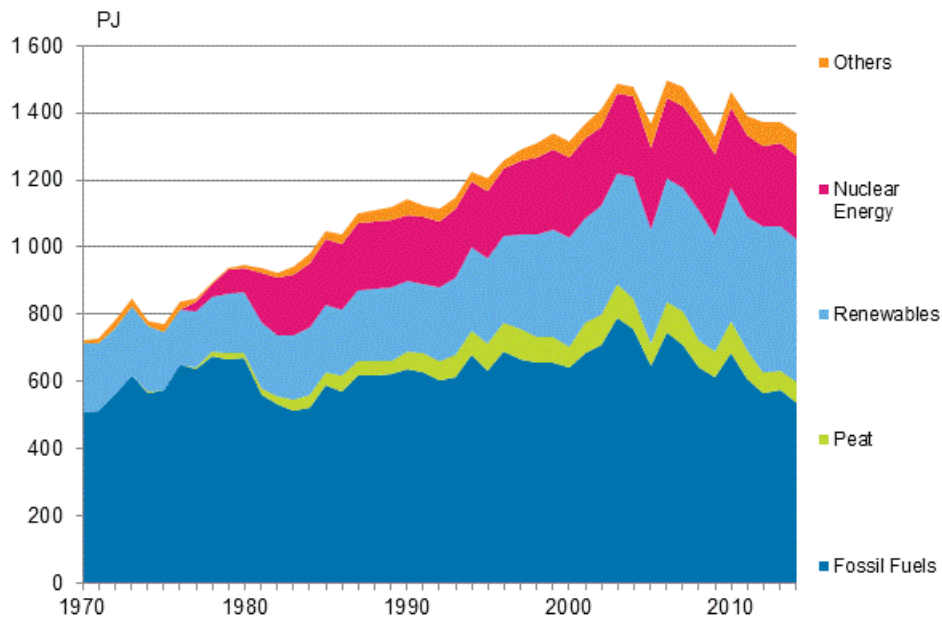
*preliminary

Appendix figure 8. Total energy consumption 1975–2014*



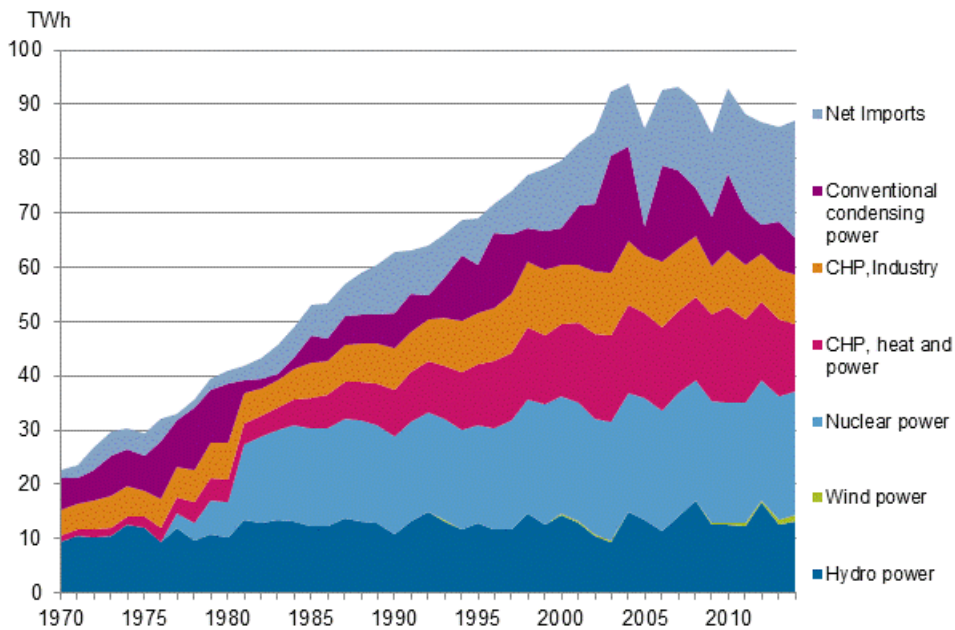
*preliminary

Appendix figure 9. Fossil fuels and renewables 1970–2014*



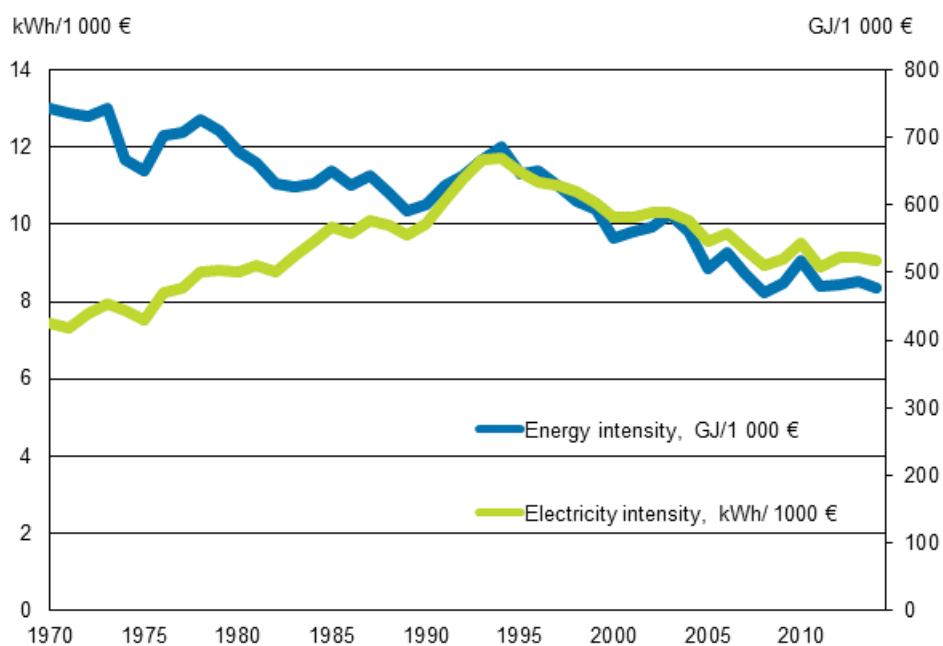
*preliminary

Appendix figure 10. Electricity supply 1970–2014*



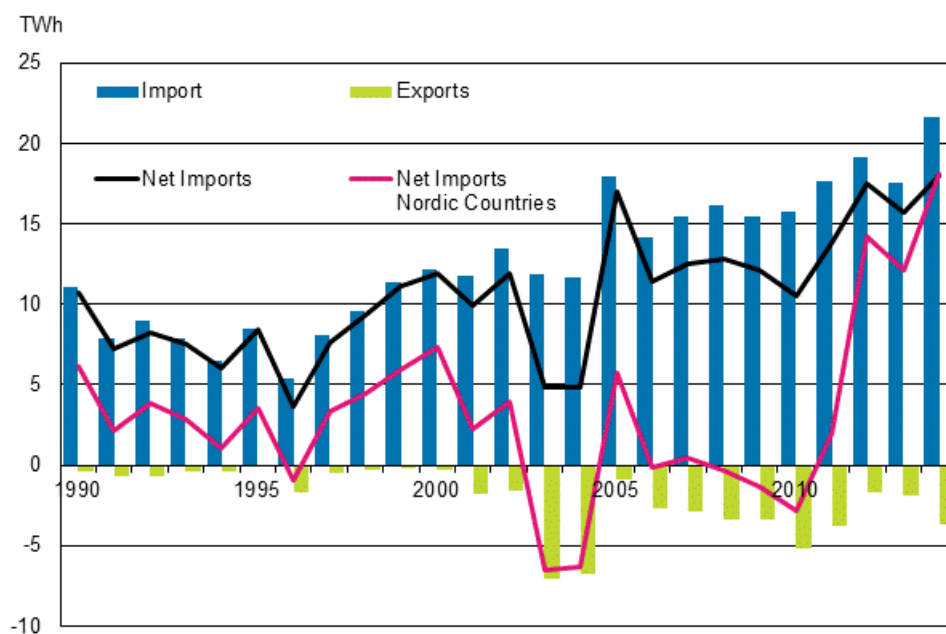
Source: Finnish Energy Industries, Finnish Wind Power Association, *preliminary

Appendix figure 11. Energy and electricity intensity 1970–2014*



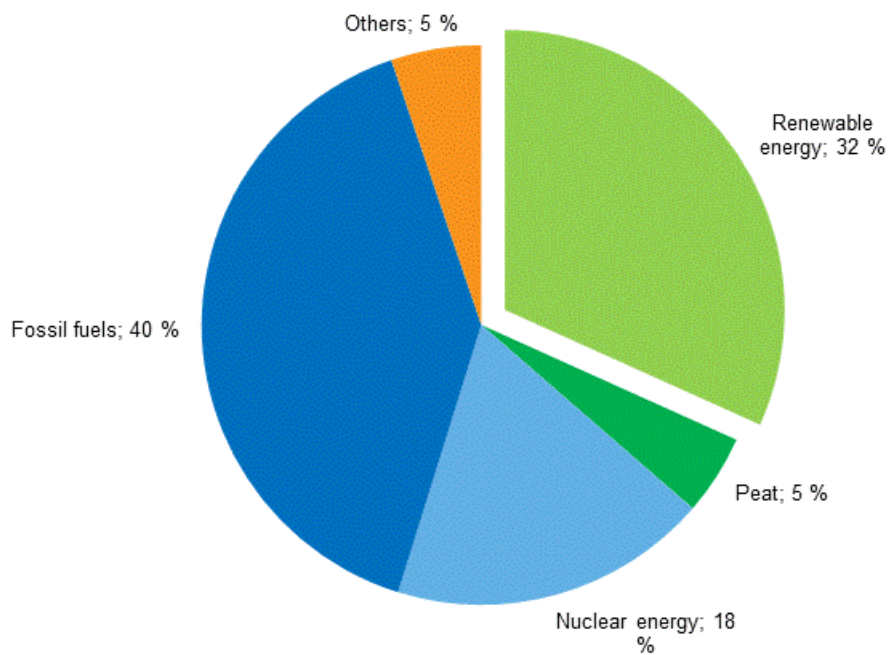
*year 2012 preliminary

Appendix figure 12. Imports and exports of electricity 1990–2014*



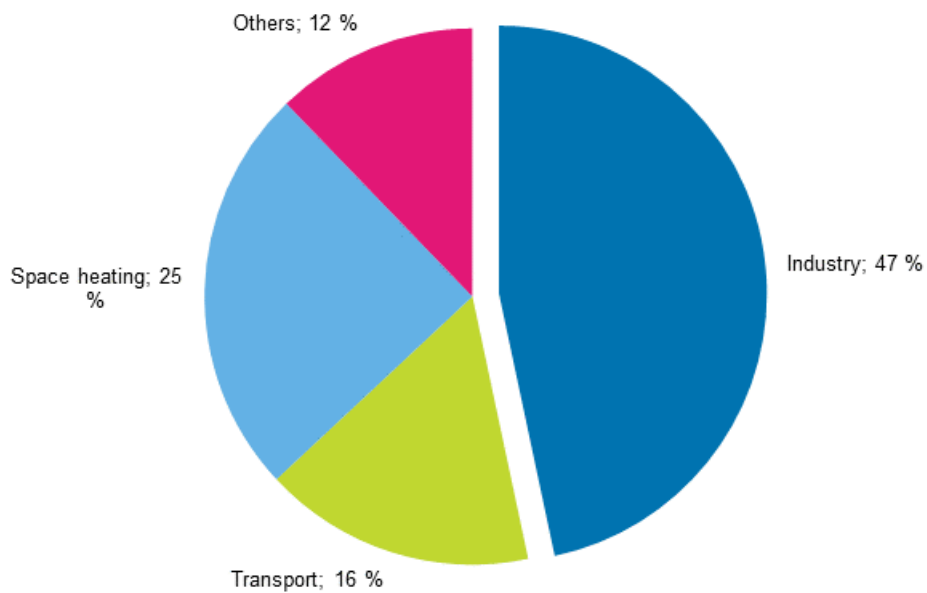
Source: Finnish Energy Industries, *preliminary

Appendix figure 13. Share of renewables of total primary energy 2014*



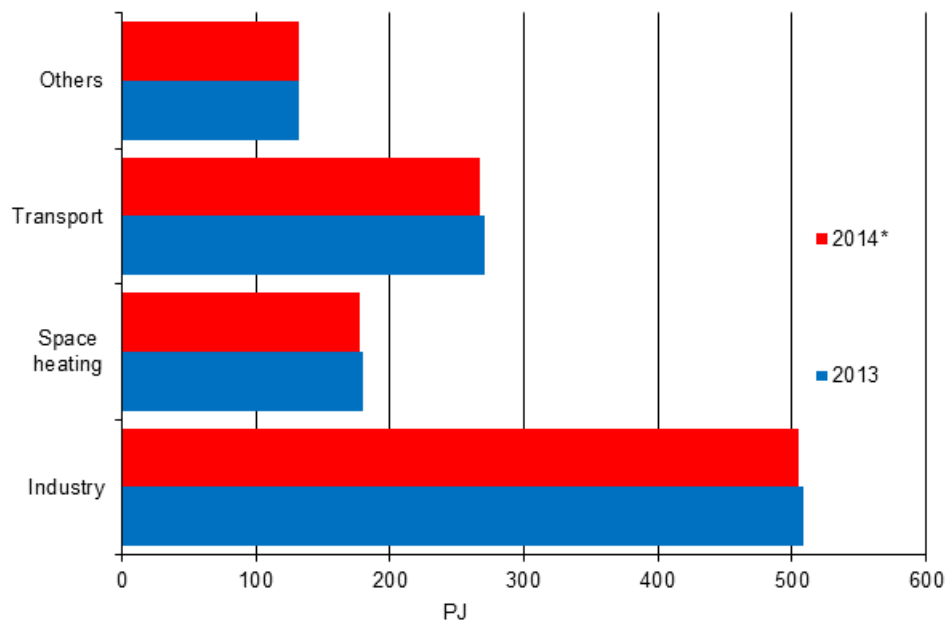
*preliminary

Appendix figure 14. Final energy consumption by sector 2014*



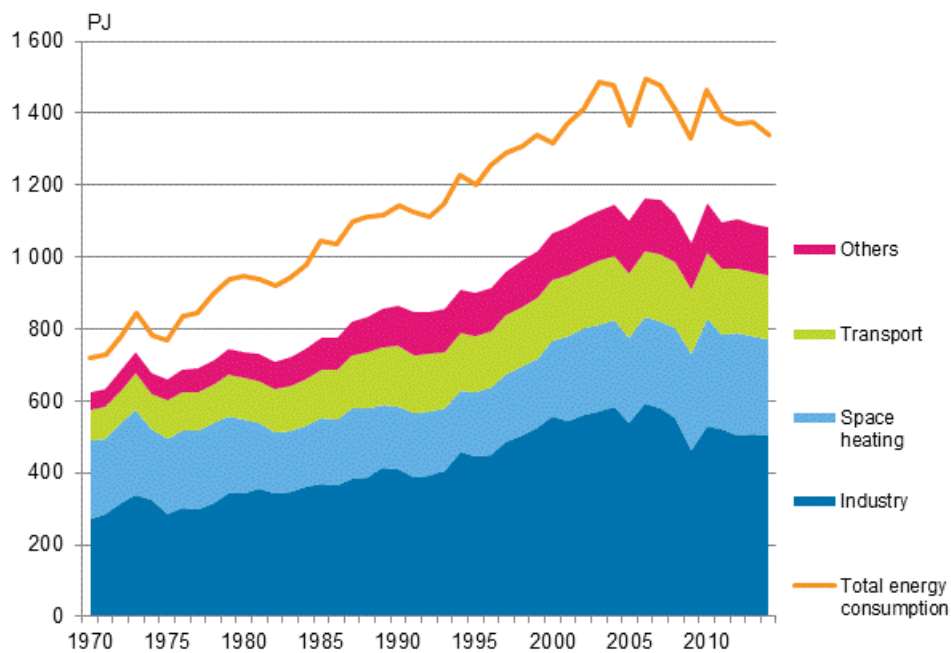
*Preliminary.

Appendix figure 15. Final energy consumption by sector 2013 and 2014*



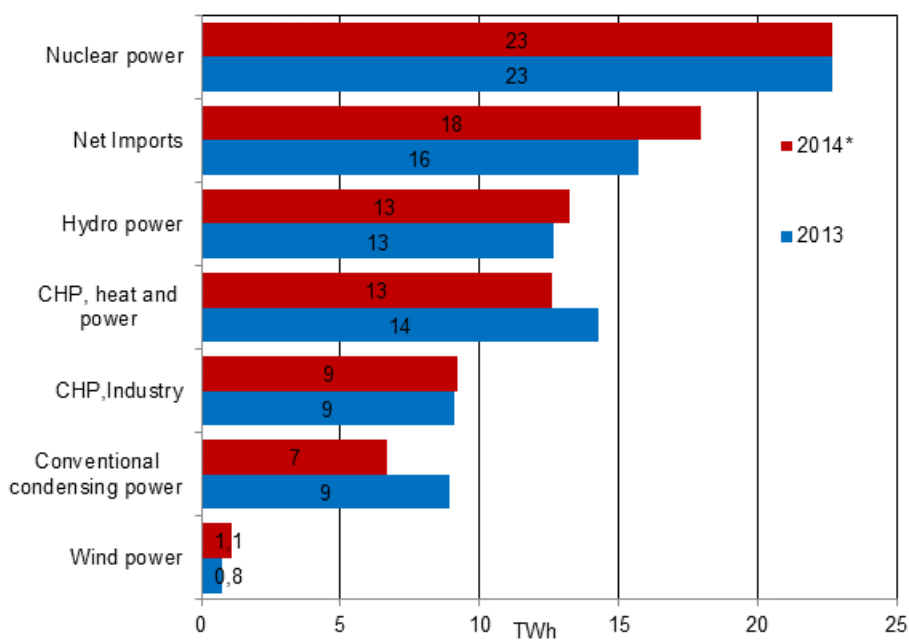
*preliminary

Appendix figure 16. Total energy consumption and final energy consumption 1970–2014*



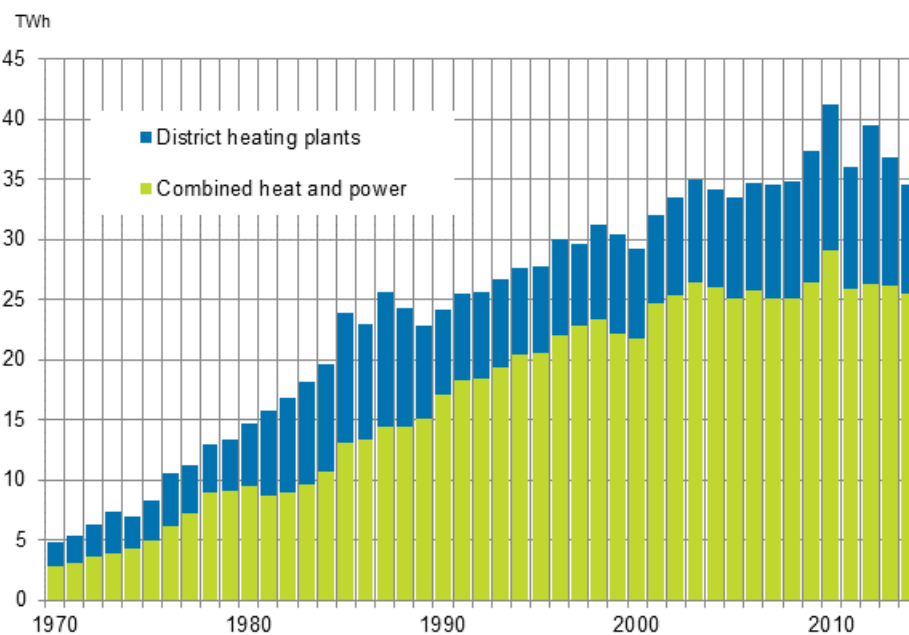
*preliminary

Appendix figure 17. Electricity supply 2013–2014*



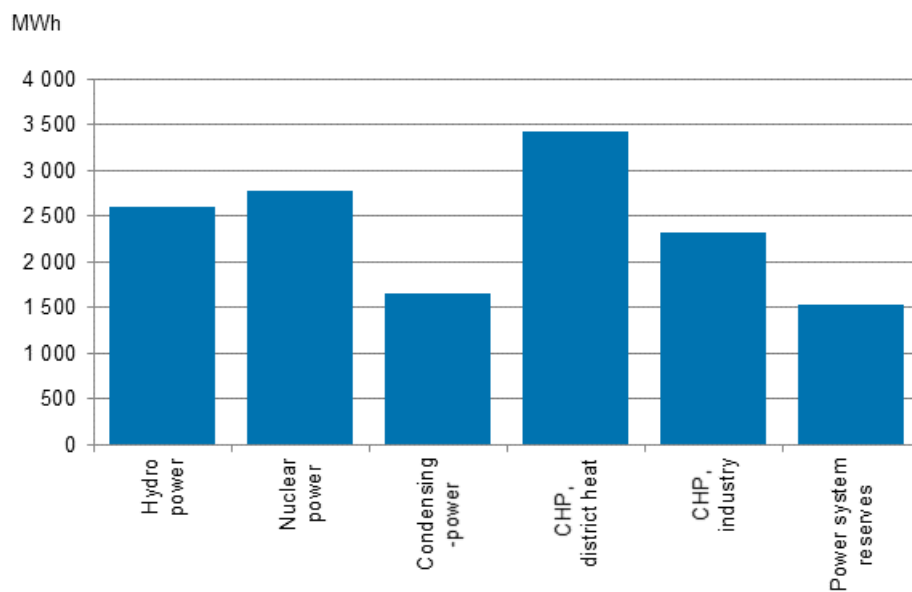
Source: Finnish Energy Industries, *preliminary

Appendix figure 18. Production of district heat 1970–2014*



Source: Finnish Energy Industries *preliminary

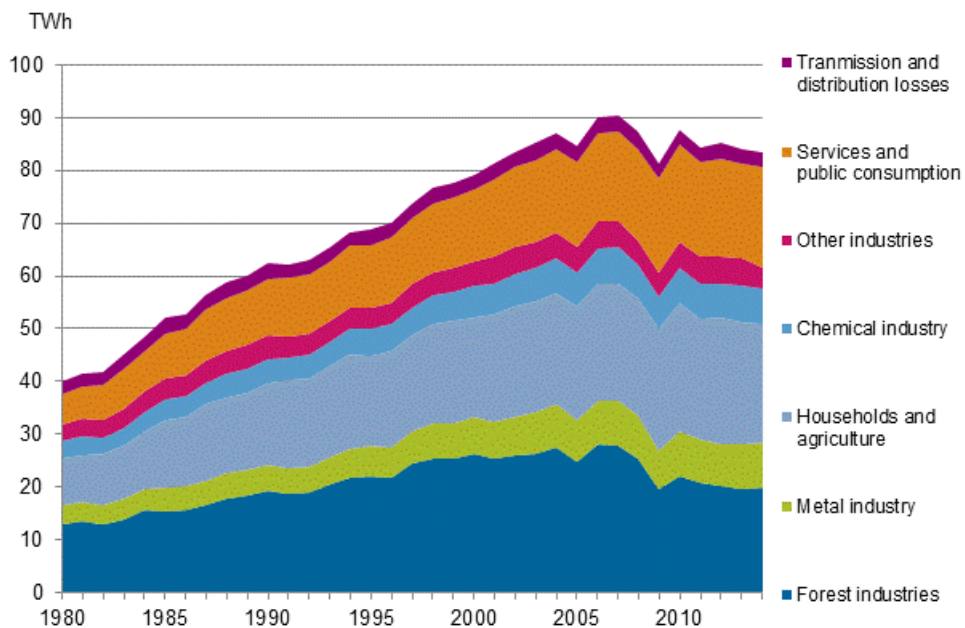
Appendix figure 19. Electricity generation capacity in peak load period in the beginning of the year 2014



The simultaneously available capacity (net) 12 800 MW

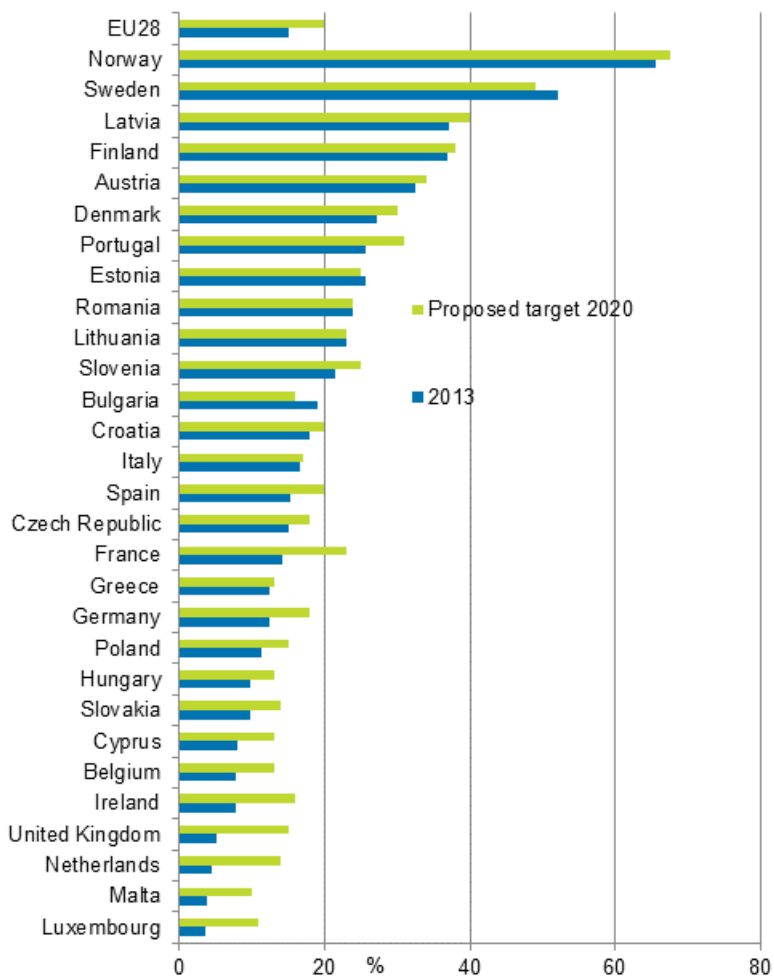
Source: Fingrid Oyj and the Energy Market Authority

Appendix figure 20. Electricity consumption by sector 1980–2014*



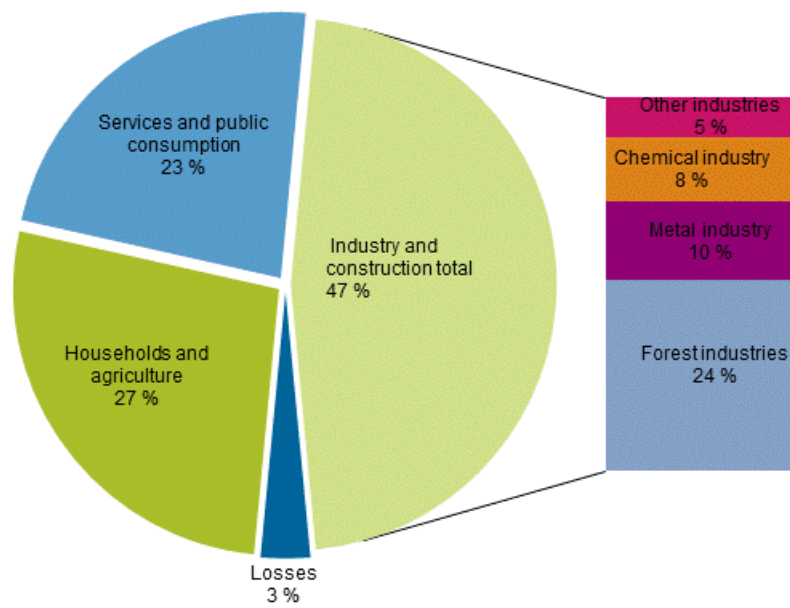
Source: Finnish Energy Industries, *preliminary

Appendix figure 21. Renewable energy as a proportion of final energy consumption in 2013, and the target for 2020



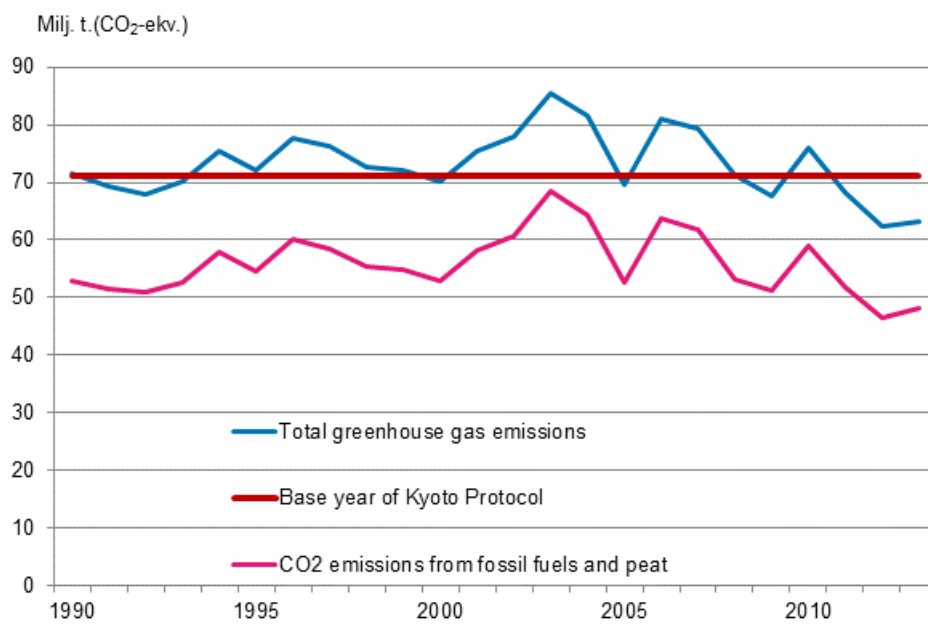
Source: Eurostat

Appendix figure 22. Electricity consumption by sector 2014*



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 23.3.2015 (%)	
	I/2014	-5	-6	-1
	II/2014	-5	-3	2
	III/2014	2	0	-2
	IV/2014	.	1	.

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