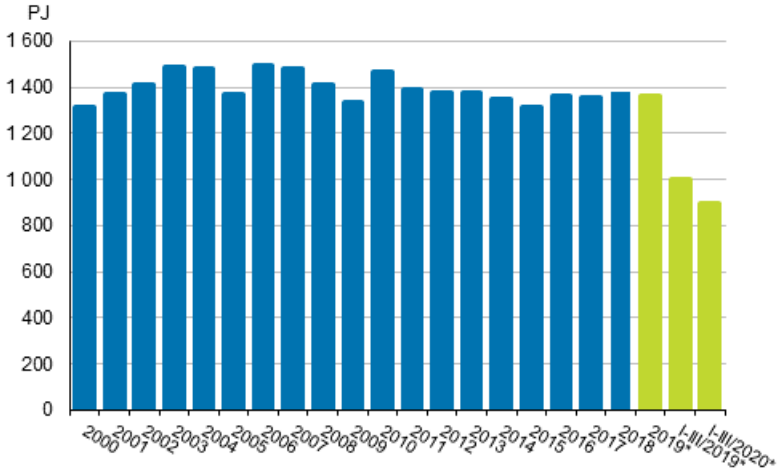
Energy supply and consumption

2020, 3rd quarter

Carbon dioxide emissions from the energy use of fuels declined by 16 per cent year-on-year

According to Statistics Finland's preliminary data, total energy consumption in January to September amounted to 894 petajoule (PJ), which was 11 per cent less than in the corresponding period last year. Electricity consumption amounted to 59.1 terawatt hours (TWh), or seven per cent less than one year earlier. Carbon dioxide emissions from the energy use of fuels declined by 16 per cent year-on-year.

Total energy consumption



*preliminary

The consumption of all fuels decreased in January to September from the year before. The effect of the coronavirus was particularly visible in the consumption of liquid fuels in transport. Oil consumption decreased by 16 per cent compared to last year's January to September period. Of other fossil fuels, the consumption of hard coal decreased by 26 per cent and the consumption of natural gas by five per cent in January to September from the year before. The accelerating decrease in the consumption of coal has been affected by the ban on the use of coal for energy, which will enter into force in 2029. The consumption of peat was 25 per cent and that of wood fuels 14 per cent lower than one year ago.

Over the January to September period, total electricity consumption fell by seven per cent compared with twelve months back. In addition to the warm weather, the fall in electricity consumption was affected by lower consumption of electricity in manufacturing. Favourable weather conditions in the early part of the year boosted hydro power and wind power by 25 and 23 per cent, respectively. As a result of the grown production of hydro and wind power, less electricity was imported than in the year before. Net imports of electricity declined by 26 per cent from the previous year.

In January to September, diverse energy products were imported into Finland to the value of EUR 5.1 billion, which was 36 per cent less than one year earlier. Most energy products were imported from Russia, whose share of the value of imports was 55 per cent. Exports of energy products from Finland amounted to EUR 2.8 billion. The value of exports decreased by 33 per cent from the January to September of the year before. Energy products were exported most to OECD countries, which accounted for 75 per cent of the value of exports.

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

Energy source	I-III/2020*	Annual change-%	Percentage share of total energy consumption
Oil[1)]	192,924	-16	22
Coal[2)]	50,202	-26	6
Natural gas[3)]	50,322	-5	6
Nuclear energy[4)]	182,293	0	20
Net imports of electricity[5)]	40,001	-26	5
Hydro power[5)]	41,088	25	5
Wind power[5)]	19,485	24	2
Peat	29,583	-25	3
Wood fuels	241,150	-14	27
Others[6)]	46,705	-5	5
TOTAL ENERGY CONSUMPTION	893,752	-11	100
Bunkers	18, 234	-51	.
CO2 emissions from energy sector	24	-16	.

* = Preliminary data
. = Category not applicable

1) Oil: includes the bio part of transport fuels.

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

3) The consumption of natural gas does not include raw material use.

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

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

6) Others: includes exothermic heat from industry, recovered fuels, heat pumps, hydrogen, biogas, other bioenergy and solar energy.

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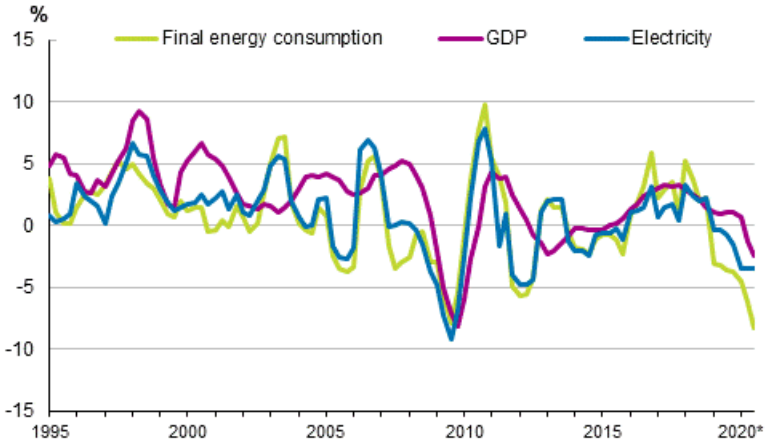
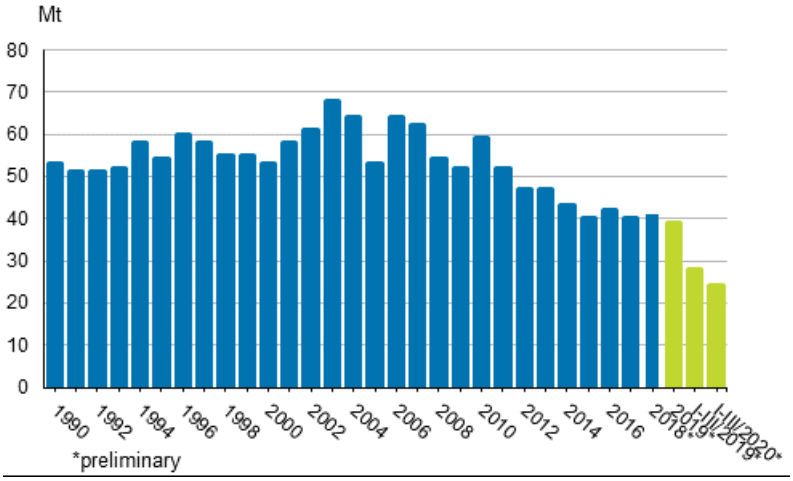
Appendix figure 1. Changes in GDP, Final energy consumption and electricity consumption



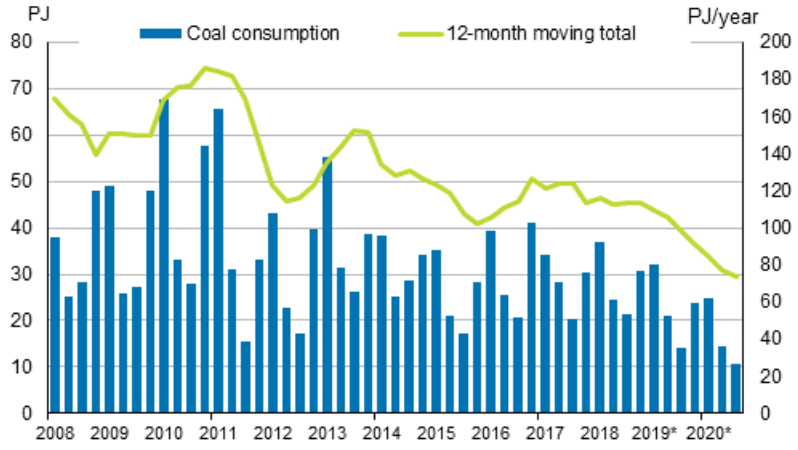
*preliminary, 12-month moving total

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



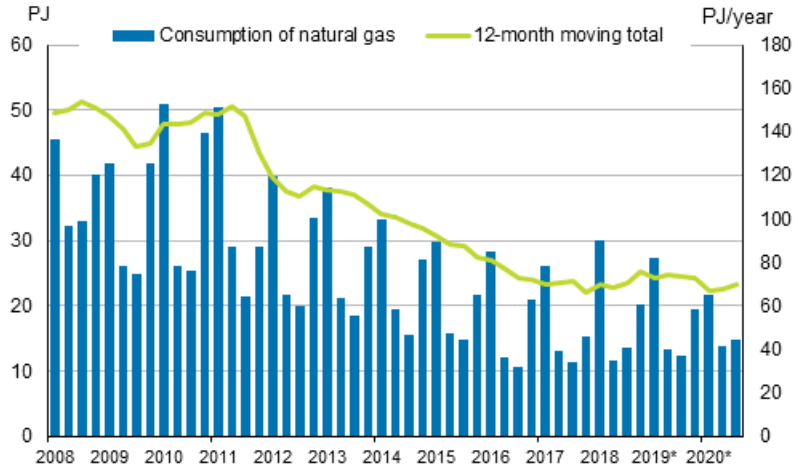
*preliminary

Appendix figure 3. Coal consumption



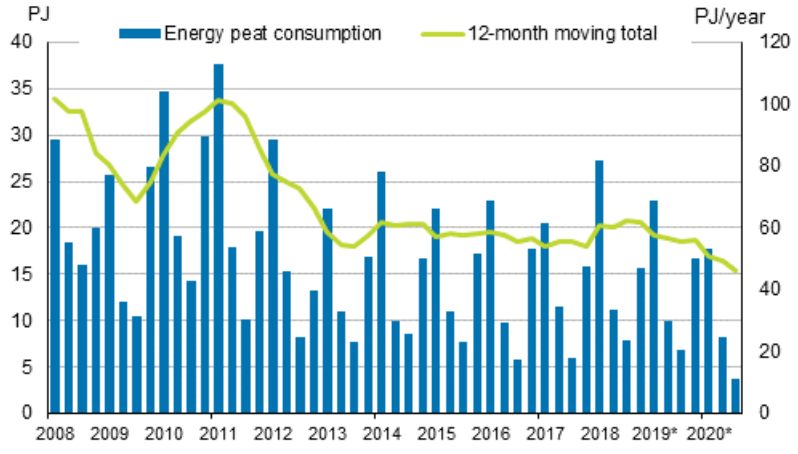
*preliminary

Appendix figure 4. Natural gas consumption



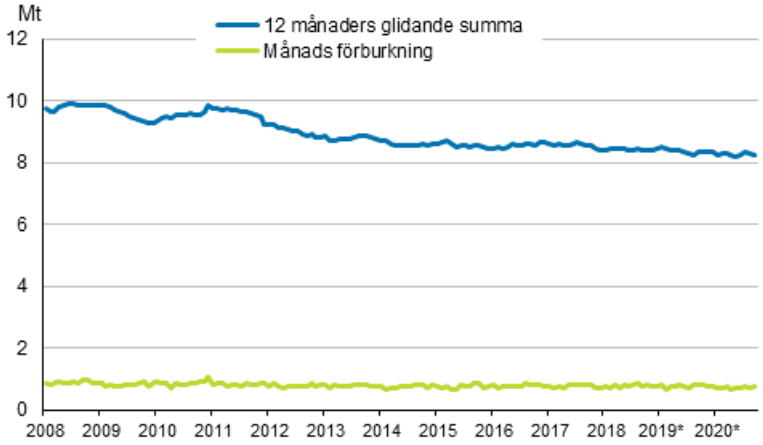
Source: Gasgrid Finland/Gasum, * preliminary

Appendix figure 5. Energy peat consumption



Source: Statistics Finland/The Bioenergy Association of Finland, *preliminary

Appendix figure 6. Domestic oil deliveries



Source: Statistics Finland/Finnish Petroleum and Biofuels Association, *preliminary

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 consumption[1)]

Total energy consumption and quarter	Annual change (%)		Revision (%-point)
	1st release (%)	Latest release 16th December 2020 (%)	
I-IV 2019	-1	-1	0
I/2019	-9	-5	4
II/2019	-3	1	4
III/2019	-4	0	4
IV/2019	1	1	0
I/2020	-11	-11	0
II/2020	-10	-10	0
III/2020	.	-12	.

. = Category not applicable

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.

Statistics Finland

Suomen virallinen tilasto
Finlands officiella statistik
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Energy 2020

Inquiries

Aleksi Sandberg 029 551 3326
Head of Department in charge:
Mari Ylä-Jarkko

energia@stat.fi
www.stat.fi
Source: Statistics Finland, Energy supply and consumption

Communication and Information Services, Statistics Finland
tel. +358 29 551 2220
www.stat.fi

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