

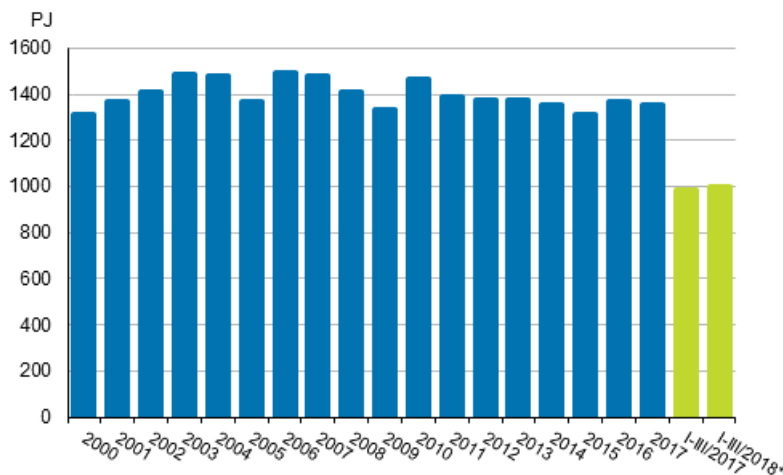
# Energy supply and consumption

2018, 3rd quarter

## Carbon dioxide emissions in the energy sector went up by 4 per cent in January to September

According to Statistics Finland's preliminary data, total energy consumption in January to September amounted to 997 million terajoule, which was one per cent more than in the corresponding period last year. Electricity consumption amounted to 64 terawatt hours, which is three per cent more than one year earlier. The use of peat increased clearly, which was the main reason for the four per cent growth in carbon dioxide emissions in the energy sector.

### Total energy consumption



\*preliminary

The consumption of peat grew in January to September by 30 per cent compared with the corresponding period of last year. Examined in the longer term, the consumption of peat has, however, been on the decline and this year the consumption increased especially as a result of the cold weather in the early part of the year. Carbon dioxide emissions also increased as the consumption of natural gas started to rise after having fallen for seven years. The consumption of wood fuels went down by five per cent and that of coal by two per cent.

The growth in the consumption of electricity was caused by the cold weather as well as the improved economic situation of industry. The production of condensing power, which has been falling in several

successive years, grew by 51 per cent in this year's January to September. Solar and wind power also continued growing strongly. Net imports of electricity decreased by four per cent, which was mostly due to increased exports to Estonia.

In January to September, diverse energy products were imported into Finland to the value of EUR 7.9 billion, which was 23 per cent more than one year earlier. Most energy products were imported from Russia, whose share of the value of imports was 63 per cent. Energy products were exported to the value of EUR 4 billion, which was 15 per cent more than one year previously. Most energy products were exported from Finland to EU countries, which accounted for 80 per cent of the value of exports.

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

Energy source	I-III/2018*	Annual change-%*	Percentage share of total energy consumption*
Oil <sup>1)</sup>	227,461	0	23
Coal <sup>2)</sup>	82,205	-2	8
Natural gas <sup>3)</sup>	54,850	9	6
Nuclear energy <sup>4)</sup>	174,693	2	18
Net imports of electricity <sup>5)</sup>	54,324	-4	5
Hydro power <sup>5)</sup>	36,684	-4	4
Wind power <sup>5)</sup>	14,746	28	2
Peat	49,181	30	5
Wood fuels	258,255	-5	26
Others <sup>6)</sup>	44,747	13	5
<b>TOTAL ENERGY CONSUMPTION</b>	<b>997,147</b>	<b>1</b>	<b>100</b>
Bunkers	34,378	23	.
CO2 emissions from energy sector	31	4	.

\* = 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.

# Contents

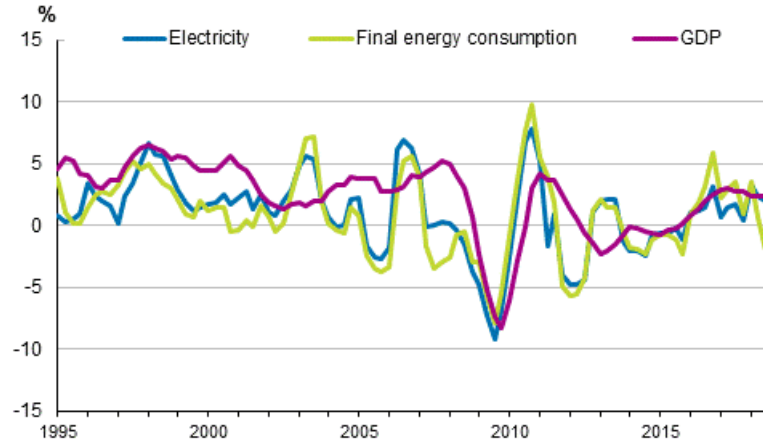
## Figures

### Appendix figures

Appendix figure 1. Changes in GDP, Final energy consumption and electricity consumption.....	4
Appendix figure 2. Carbon dioxide emissions from fossil fuels and peat use .....	4
Appendix figure 3. Coal consumption .....	5
Appendix figure 4. Natural gas consumption.....	5
Appendix figure 5. Energy peat consumption.....	5
Appendix figure 6. Domestic oil deliveries.....	6
Revisions in these statistics.....	7

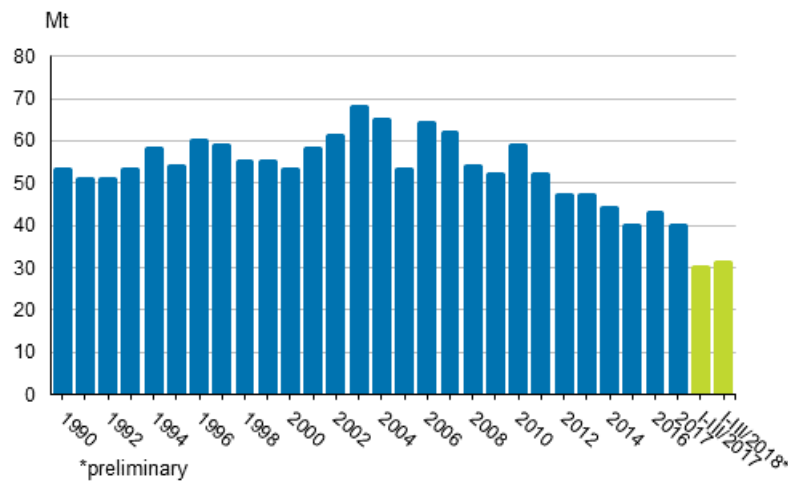
# Appendix figures

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



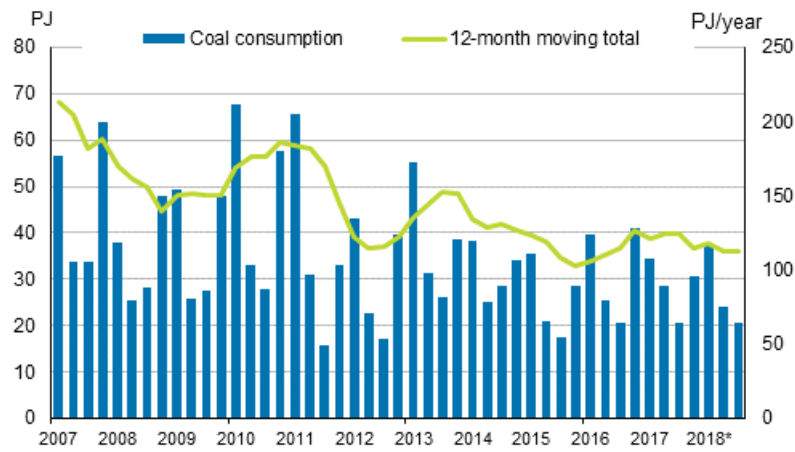
\*preliminary, 12-month moving total

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



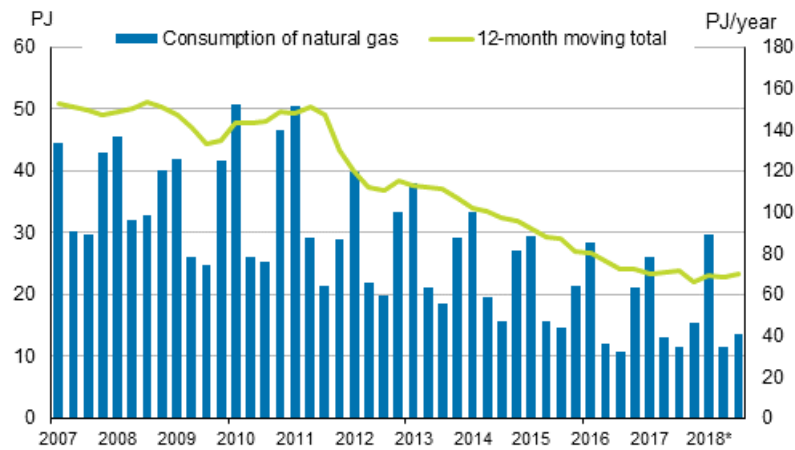
\*preliminary

**Appendix figure 3. Coal consumption**



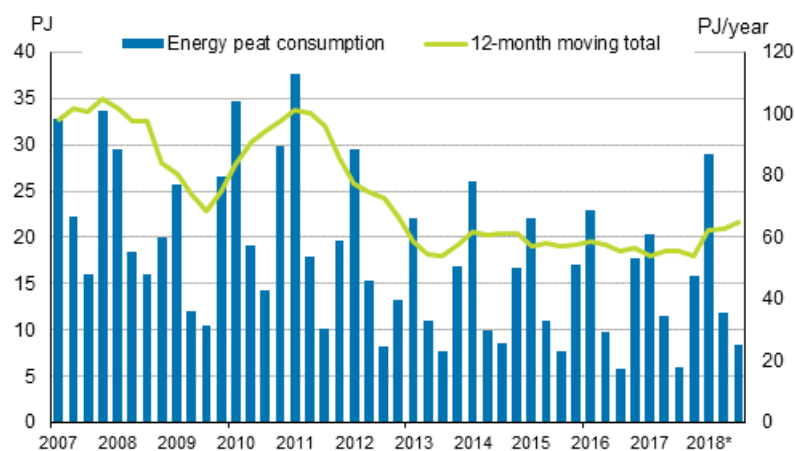
\*preliminary

**Appendix figure 4. Natural gas consumption**



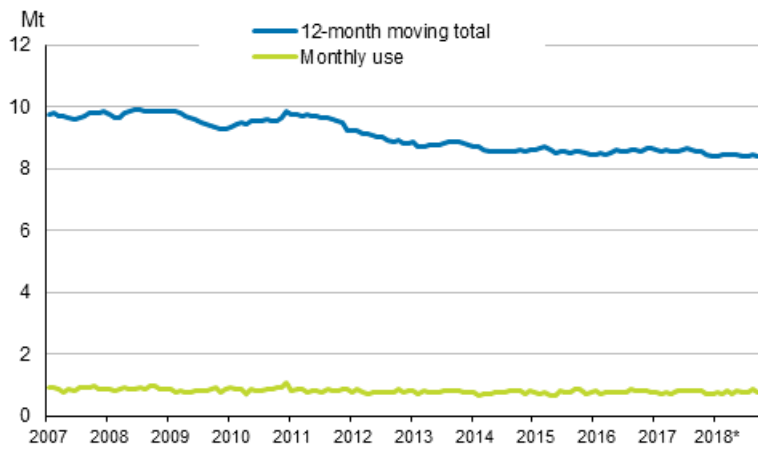
Source: Gasum, \* preliminary

**Appendix figure 5. Energy peat consumption**



Source: The Bioenergy Association of Finland/Association of Finnish Peat Industries, \*preliminary

### Appendix figure 6. Domestic oil deliveries



Source: 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<sup>1)</sup>

Total energy consumption and quarter	Annual change (%)		Revision (%-point)
	1st release (%)	Latest release 20th December 2018 (%)	
I-IV 2017	-1	-1	0
I/2017	-4	-6	-2
II/2017	5	4	-1
III/2017	5	4	-1
IV/2017	-3	-4	-1
I/2018	9	8	-1
II/2018	-3	-3	0
III/2018	.	-3	.

. = 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.

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Source: Statistics Finland, Energy supply and consumption