

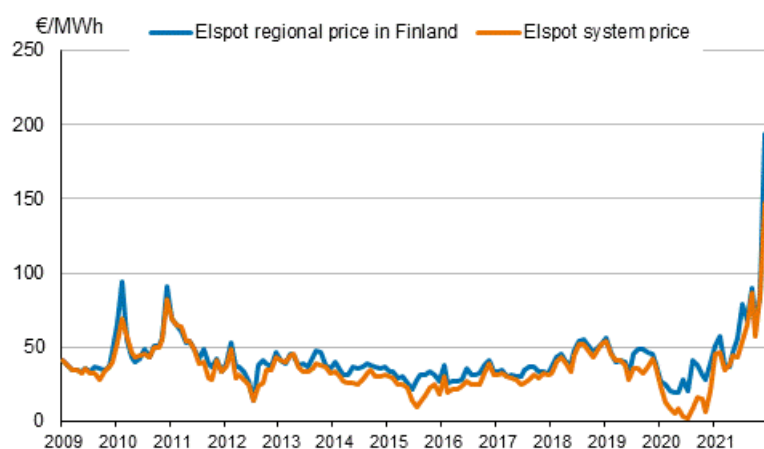
Energy prices

2021, 4th quarter

Monthly price of Nordic electricity rose record high in the last quarter of 2021

In the last quarter of 2021, energy prices rose clearly. The system price of Nordic electricity on the exchange and the area price for Finland broke the previous records clearly. The prices of imported fossil fuels rose to a new level, led by natural gas. The price of domestic forest chippings also rose.

Average monthly spot prices at the Nord Pool Spot power exchange



The world market price of crude oil remained high in the last quarter of 2021. This was also reflected in the consumer prices of liquid fuels. In December, the price of motor gasoline was 27 per cent and diesel oil 28 per cent higher than one year earlier. The tax on light fuel oil used for heating was raised at the beginning of the year, so its price increase was as much as 44 per cent in the corresponding period.

Fossil coal and natural gas are imported to Finland mainly for use in energy production. The price of coal has been growing steeply since summer. In December, the tax-free price was nearly triple and the price including excise duty was 48 per cent higher than one year previously. Comparable data on the prices of natural gas start from the beginning of 2021, but they show a clear trend of a sharp rise in prices. The tax-free price of natural gas for power plant users has even quadrupled and the price including excise duty has nearly tripled over the course of 2021.

The price of forest chippings has also been on the rise, although its change has not been as sharp as that of imported fuels. In the fourth quarter, the price of forest chippings went up by eight per cent from one year back.

Towards the end of the last quarter, the prices of the Nordic power exchange rose exceptionally high. The monthly average for the system price and Finland's area price has never before risen to over EUR 100 per megawatt hour (EUR/MWh), but in December the system price was EUR 147 per MWh and the area price for Finland EUR 193 per MWh. The change is steep compared with the exceptionally low prices in 2020, when the system price was at its lowest EUR two per MWh and the area price for Finland EUR 20 per MWh.

There were several reasons for the dramatic rise in the exchange price of electricity. In addition to higher prices of fuels and emission rights, at the same time Nordic water reserves were low and less wind power than usual was available. Electricity consumption was, in turn, boosted by the very cold December and economic activity, which has been growing after the worst shock caused by the coronavirus.

For electricity users, changes in wholesale prices are visible with a delay. For consumers, prices were 11 to 15 per cent higher in the last quarter than twelve months earlier. The prices for enterprise and corporate clients react faster to market changes. In December, the prices of the smallest users were 22 per cent higher and those of the largest users 125 per cent higher than in December 2020.

The price of milled peat not published due to too few observations.

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Appendix tables

Appendix table 1. Energy prices in heat production in December 2021

Energy source ³⁾	Price €/MWh ¹⁾	Annual change-%
Hard coal (VAT 0%) ²⁾	55.2	48.6
Natural gas (VAT 0%)	87.22	.
Forest chips (VAT 0%) ⁴⁾	24.3	8.3
Milled peat (VAT 0%) ⁴⁾	—	—

1) Inclusive of excise duties.

2) The coal price is preliminary.

3) Sources: Energy Authority, Finnish Customs, FOEX Indexes Ltd, The Bioenergy Association of Finland, Statistics Finland.

4) Price of forest chippings average for 4th quarter, the price of milled peat not published due to too few observations.

Appendix table 2. Consumer prices of heating energy in December 2021

Energy source ²⁾	Price €/MWh ¹⁾	Annual change-%
Light fuel (VAT 24%)	110.9	44.2
Household electricity, L2 (VAT 24%)	157.4	15.3
Wood pellet (VAT 24%) ⁴⁾¹⁾	58.5	0.2
District heat, terraced house / low-rise block of flats (VAT 24%) ¹⁾	88.2	5.5

1) The prices do not take into account energy conversion losses.

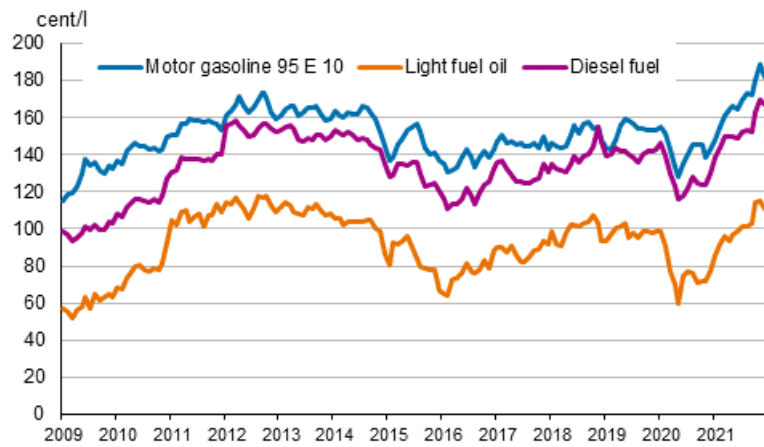
2) Sources: Finnish Energy, Energy Authority, Statistics Finland

3) The price of district heat is from January 2022.

4) Wood pellet price: Producer price indices 2021 December, appendix table 25.

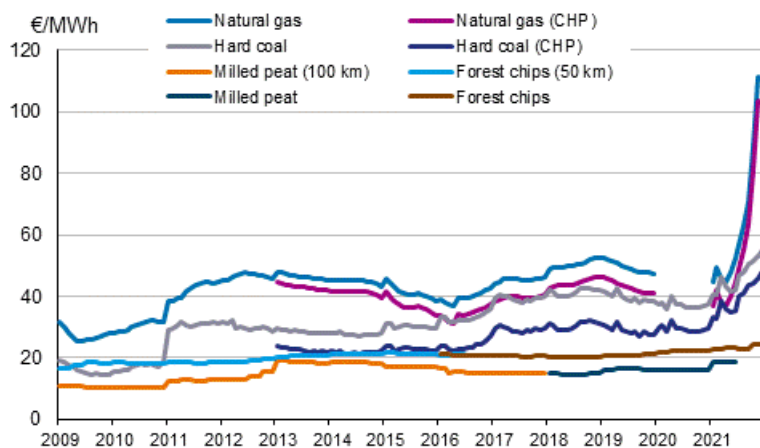
Appendix figures

Appendix figure 1. Consumer prices of principal oil products



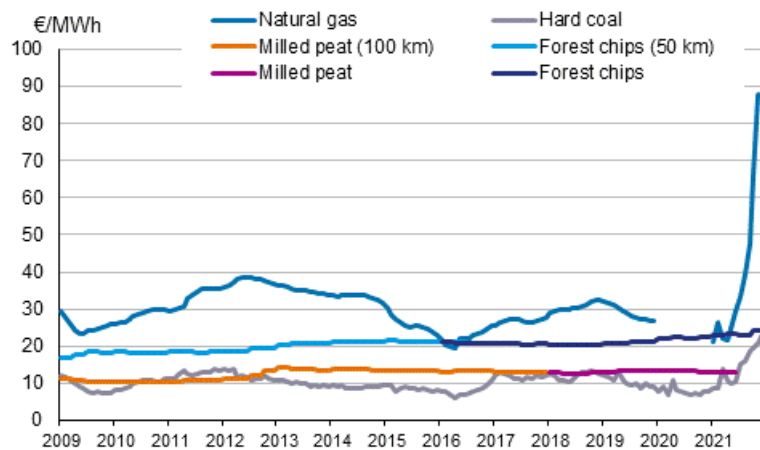
Sources: Finnish Petroleum and Biofuels Association (–11/2018), Statistics Finland (12/2018–).

Appendix figure 2. Fuel prices in heat production



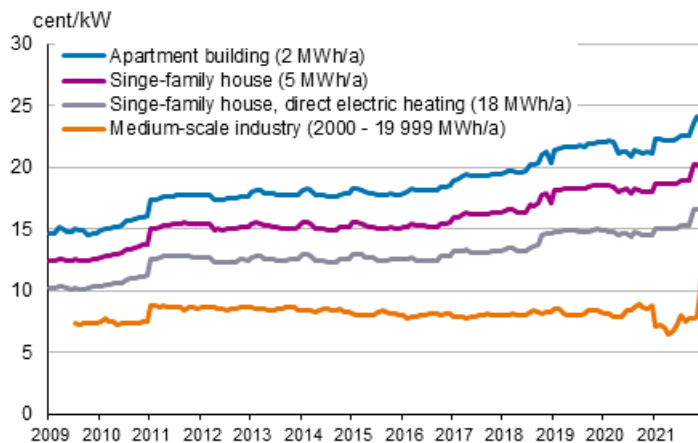
The prices include excise duties (VAT 0%). The energy content tax on natural gas and hard coal used in combined heat and power production has been reduced by € 7.63 per MWh from the beginning of 2019. Sources: Finnish Customs, Energy Authority, The Bioenergy Association of Finland, Statistics Finland, FOEX Indexes Ltd..

Appendix figure 3. Fuel prices in electricity production



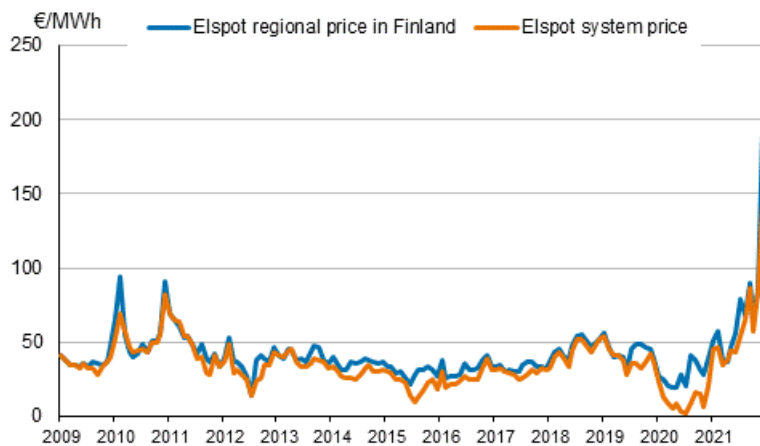
The fuels of electricity production are exclusive of tax. Sources: Finnish Customs, Energy Authority, The Bioenergy Association of Finland, Statistics Finland, FOEX Indexes Ltd..

Appendix figure 4. Price of electricity by type of consumer



The prices include electrical energy, transmission fee and taxes. Sources: Energy Authority, Statistics Finland.

Appendix figure 5. Average monthly spot prices at the Nord Pool Spot power exchange



Source: Nord Pool Spot

Inquiries

Ville Maljanen 029 551 2691
Head of Department in
charge:
Katri Kaaja

energia@stat.fi
www.stat.fi

Source: Statistics Finland, Energy prices