

Energy prices

2020, 3rd quarter

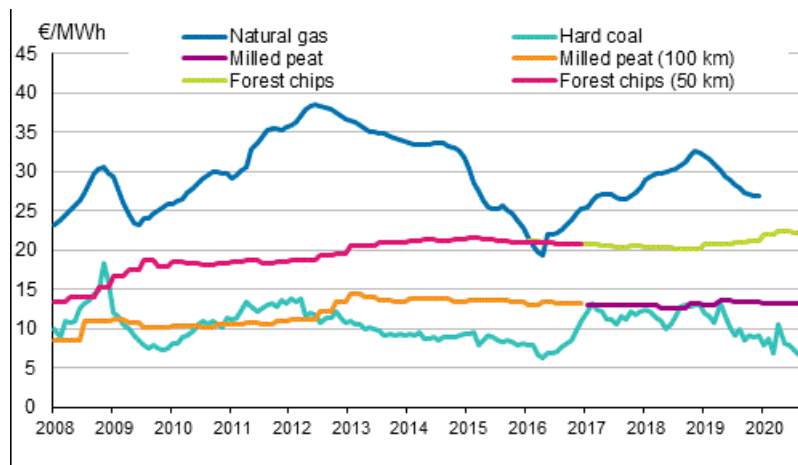
Energy prices decrease in the third quarter of 2020 compared to corresponding quarter of the year before ¹⁾

Corrected on 12 December. The Correction is indicated in red.

In the third quarter of 2020, energy prices were lower than in the corresponding quarter of the year before, except for forest chippings. The magnitude of the drop in prices varied by energy source. The biggest change occurred in the prices of crude oil.

2)

Fuel prices in electricity production



The world market price of crude oil rose and evened out to good USD 40 per barrel after the price plunge in March. The current price level is around two-thirds of the previous year's price level. The changes in world market prices have been visible in the consumer prices of oil products. Despite the tax increase in August, the price of motor gasoline was six per cent lower in September and that of diesel oil nearly 11 per cent lower than one year earlier. The corresponding drop in the price of light fuel oil was 28 per cent. Consumer prices were at their lowest in May.

1) The heading of the release was corrected on 11 December 2020.

2) The last sentence of the lead paragraph was removed on 11 December 2020.

The excise duty on liquid transport fuels rose at the beginning of August. The price effect of the tax change is estimated to be on average 5.3 cents per litre for motor gasoline and its substitutes and 5,6 cents per litre for diesel and its substitutes. The tax will pass on to consumer prices over a longer period.

The fluctuation in the import price of hard coal in the early part of the year turned to a downward trend in the summer. In the third quarter of the year, the tax-free price of hard coal was almost one quarter lower than one year previously.

The gas market in Finland was liberalised at the beginning of 2020. For the time being, data concerning the price development of natural gas are too uncertain to be published. Collection of data by customer group has started and the first data are due to be published in spring 2021.

Of domestic fuels, the rise in the price of forest chippings turned to a slight decrease in the third quarter of the year. Compared with the previous quarter, the price was one percentage point lower. Compared to the third quarter of 2019, the price was five per cent higher. The price of milled peat also decreased slightly. Compared with both the previous quarter and one year ago, the price of milled peat was around one per cent lower.

The system price of the Nord Pool electricity market derived from the sell and buy bids on the exchange market made a slight upturn in August, which reflects the seasonal variations in the price of electricity. In the Nordic countries, the demand for electricity, and thus also the price, is usually at its lowest in summer and at its highest in winter. In July, the system price was record low. The current year has been exceptional in terms of both production and demand. There has been plenty of water and wind power, and warm weather and weak economic development have lowered the demand.

The area price for Finland has been higher than the system price already for a long time. In the exceptional circumstances this year, the price difference has become large because the available transmission capacity has not been sufficient to level off the price differences of the market area. However, compared with the previous year the area price for Finland has decreased. In autumn, the area price for Finland was just under one third lower than in the year before.

The fall in the market prices of electricity was also visible in consumer prices. The energy prices of consumer customers fell in all customer groups by around four percentage points compared to the quarter one year ago. The price development for enterprise customers was not uniform. These data derive from Statistics Finland's Price inquiry on electrical energy.

Contents

Tables

Appendix tables

Appendix table 1. Energy taxes, precautionary stock fees and oil pollution fees	4
Appendix table 2. Energy prices in heat production in September 2020.....	6
Appendix table 3. Consumer prices of heating energy in September 2020.....	6

Figures

Appendix figures

Appendix figure 1. Import prices of oil	7
Appendix figure 2. Consumer prices of principal oil products	7
Appendix figure 3. Fuel prices in heat production.....	8
Appendix figure 4. Fuel prices in electricity production	8
Appendix figure 5. Price of electricity by type of consumer.....	8
Appendix figure 6. Average monthly spot prices at the Nord Pool Spot power exchange	9

Appendix tables

Appendix table 1. Energy taxes, precautionary stock fees and oil pollution fees

Date	Fuels ¹⁾								Electricity				
	Motor-gasoline, unleaded ²⁾	Diesel fuel ³⁾	Light fuel oil ¹²⁾	Liquefied petroleum gas	Heavy fuel oil	Hard coal ¹¹⁾	Natural gas	Peat	Consumption		Production		
									Electricity, I ⁴⁾	Electricity, II ⁵⁾	Nuclear power	Hydro power	Imports
c/l			c/kg		€/t	€/MWh		c/kWh					
Excise taxes ¹⁰⁾													
1.1.1990	21,53	16,82	0,34	-	0,34	2,69	0,17	0,34	-	-	-	-	-
1.1.1991	26,57	17,49	0,35	-	0,35	2,83	0,18	0,35	-	-	-	-	-
1.1.1992	28,26	17,49	0,35	-	0,35	2,83	0,18	0,35	-	-	-	-	-
1.8.1992	31,62	17,49	0,35	-	0,35	2,83	0,18	0,35	-	-	-	-	-
1.1.1993	39,52	19,17	1,41	-	1,12	5,61	0,35	0,70	0,25	0,25	0,10	-	0,10
1.7.1993	39,52	16,65	1,41	-	1,12	5,61	0,35	0,70	0,25	0,25	0,10	-	0,10
1.1.1994	40,05	17,29	2,05	-	1,98	11,30	1,09	0,35	-	-	0,35	0,03	0,22
1.1.1995	45,12	27,50	3,02	-	3,12	19,53	0,94	0,59	-	-	0,40	0,07	0,37
1.1.1996	51,85	27,50	3,02	-	3,12	19,53	0,94	0,59	-	-	0,40	0,07	0,37
1.1.1997	51,85	27,50	4,88	-	3,72	28,42	1,19	0,71	0,40	0,40	-	-	-
1.4.1997	51,85	27,50	4,88	-	3,72	28,42	1,19	0,71	0,56	0,24	-	-	-
1.1.1998	55,22	30,02	5,50	-	4,34	33,40	1,40	0,82	0,56	0,34	-	-	-
1.9.1998	55,22	30,02	6,37	-	5,40	41,37	1,73	1,51	0,69	0,42	-	-	-
1.1.2003	58,08	31,59	6,71	-	5,68	43,52	1,82	1,59	0,73	0,44	-	-	-
1.7.2005	58,08	31,59	6,71	-	5,68	43,52	1,82	-	0,73	0,44	-	-	-
1.1.2007	58,08	31,59	6,71	-	5,68	43,52	1,82	-	0,73	0,22	-	-	-
1.1.2008	62,02	36,05	8,35	-	6,42	49,32	2,016	-	0,87	0,25	-	-	-
1.1.2011	62,02	36,05	15,70	-	18,51	126,91	8,94	1,90	1,69	0,69	-	-	-
1.1.2012	64,36	46,60	15,70	-	18,51	126,91	8,940	1,90	1,69	0,69	-	-	-
1.1.2013	64,36	46,60	15,99	-	18,93	131,53	11,38	4,90	1,69	0,69	-	-	-
1.1.2014	66,61	49,31	15,99	-	18,93	131,53	11,38	4,90	1,89	0,69	-	-	-
1.1.2015	67,45	50,26	18,39	-	21,84	153,24	15,36	3,40	2,24	0,69	-	-	-
1.1.2016	67,45	50,26	21,05	24,82	25,08	177,36	17,34	3,40	2,24	0,69	-	-	-
1.3.2016	67,45	50,26	21,05	24,82	25,08	177,36	17,34	1,90	2,24	0,69	-	-	-
1.1.2017	69,57	52,67	22,52	26,54	26,83	189,84	18,53	1,90	2,24	0,69	-	-	-
1.1.2018	69,57	52,67	24,04	28,32	28,64	202,69	19,78	1,90	2,24	0,69	-	-	-
1.1.2019	69,57	52,67	24,53	27,90	27,23	200,58	20,57	3,00	2,24	0,69	-	-	-
1.8.2020	75,28	59,13	24,53	27,90	27,23	200,58	20,57	3,00	2,24	0,69	-	-	-
Energy content tax⁸⁾													
1.1.2011	50,36	-	7,70	-	8,79	54,54	3,00	-	-	-	-	-	-
1.1.2012	50,36	30,70	7,70	-	8,79	54,54	3,00	-	-	-	-	-	-
1.1.2013	50,36	30,70	6,65	-	7,59	47,10	4,45	-	-	-	-	-	-
1.1.2015	51,20	31,65	6,65	-	7,59	47,10	6,65	-	-	-	-	-	-
1.1.2016	51,20	31,65	6,65	8,50	7,59	47,10	6,65	-	-	-	-	-	-
1.1.2017	52,19	32,77	7,05	9,01	8,05	49,93	7,05	-	-	-	-	-	-
1.1.2018	52,19	32,77	7,50	9,58	8,56	53,13	7,50	-	-	-	-	-	-
1.1.2019	52,19	32,77	7,63	9,81	8,56	52,77	7,63	-	-	-	-	-	-
1.8.2020	53,79	34,57	7,63	9,81	8,56	52,77	7,63	-	-	-	-	-	-
Carbon dioxide tax⁹⁾													

Date	Fuels ¹⁾								Electricity				
									Consumption		Production		
	Motor-gasoline, unleaded ²⁾	Diesel fuel ³⁾	Light fuel oil ¹²⁾	Liquefied petroleum gas	Heavy fuel oil	Hard coal ¹¹⁾	Natural gas	Peat	Electricity, I ⁴⁾	Electricity, II ⁵⁾	Nuclear power	Hydro power	Imports
c/l			c/kg		€/t	€/MWh		c/kWh					
1.1.2011	11,66	-	8,00	-	9,72	72,37	5,94	-	-	-	-	-	-
1.1.2012	14,00	15,90	8,00	-	9,72	72,37	5,94	-	-	-	-	-	-
1.1.2013	14,00	15,90	9,34	-	11,34	84,43	6,93	-	-	-	-	-	-
1.1.2014	16,25	18,61	9,34	-	11,34	84,43	6,93	-	-	-	-	-	-
1.1.2015	16,25	18,61	11,74	-	14,25	106,14	8,71	-	-	-	-	-	-
1.1.2016	16,25	18,61	14,40	16,32	17,49	130,26	10,69	-	-	-	-	-	-
1.1.2017	17,38	19,90	15,47	17,53	18,78	139,91	11,48	-	-	-	-	-	-
1.1.2018	17,38	19,90	16,54	18,74	20,08	149,56	12,28	-	-	-	-	-	-
1.1.2019	17,38	19,90	16,90	18,09	18,67	147,81	12,94	-	-	-	-	-	-
1.8.2020	21,49	34,57	16,90	18,09	18,67	147,81	12,94	-	-	-	-	-	-
Energy tax⁷⁾													
1.1.2011	-	-	-	-	-	-	-	1,90	1,69	0,69	-	-	-
1.1.2013	-	-	-	-	-	-	-	4,90	1,69	0,69	-	-	-
1.1.2014	-	-	-	-	-	-	-	4,90	1,89	0,69	-	-	-
1.1.2015	-	-	-	-	-	-	-	3,40	2,24	0,69	-	-	-
1.1.2016	-	-	-	-	-	-	-	3,40	2,24	0,69	-	-	-
1.3.2016	-	-	-	-	-	-	-	1,90	2,24	0,69	-	-	-
1.1.2019	-	-	-	-	-	-	-	3,00	2,24	0,69	-	-	-
Strategic stockpile fees													
1.7.1984	0,72	0,39	0,39	-	0,32	1,48	-	-	-	-	-	-	-
1.1.1997	0,68	0,35	0,35	-	0,28	1,18	0,084	-	0,013	0,013	-	-	-
1.1.2016	0,68	0,35	0,35	0,11	0,28	1,18	0,084	-	0,013	0,013	-	-	-
Oil pollution fees⁶⁾													
1.1.1990	0,28	0,031	0,031	-	0,037	-	-	-	-	-	-	-	-
1.1.2005	0,038	0,042	0,042	-	0,050	-	-	-	-	-	-	-	-
1.1.2010	0,113	0,126	0,126	-	0,150	-	-	-	-	-	-	-	-
1.3.2020	0,000	0,000	0,000	-	0,000	-	-	-	-	-	-	-	-

1) Fuels in electricity production tax-exempt since 1 January 1997.

2) Reformulated, since 1 January 1993, also sulphur-free since 1 September 2004. Fossil fuel.

3) Sulphur-free, sulphur content < 50 ppm since 1 July 1993, sulphur content < 10 ppm since 1 September 2004. Fossil fuel.

4) Tax class I: others

5) Tax class II: industry and professional greenhouses

6) Collection of oil pollution fees is discontinued until the capital of the oil protection fund falls below 5 million euro.

7) Energy tax included in excise taxes.

8) Energy content tax included in excise taxes.

9) Carbon dioxide tax included in excise taxes.

10) Excise taxes contain energy content tax, carbon dioxide tax, and energy tax.

11) Excise taxes for hard coal is in the heat production. In CHP use excise tax is lower.

12) Fossil fuel. Sulphur-free.

Appendix table 2. Energy prices in heat production in September 2020

Energy source ³⁾	Price €/MWh ¹⁾	Annual change-%
Hard coal (VAT 0%) ²⁾	36.5	-3.7
Natural gas (VAT 0%) ⁵⁾	.	.
Forest chips (VAT 0%) ⁴⁾	22.2	5.4
Milled peat (VAT 0%)	16.2	-0.9

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 and milled peat, average for 3rd quarter.

5) Publication of natural gas price discontinued for time being.

Appendix table 3. Consumer prices of heating energy in September 2020

Energy source ²⁾	Price €/MWh ¹⁾	Annual change-%
Light fuel (VAT 24%)	71,0	-28.3
Household electricity, L2 (VAT 24%)	137,1	-1.1
Wood pellet (VAT 24%) ⁴⁾¹⁾	.	.
District heat, terraced house / low-rise block of flats (VAT 24%) ¹⁾	82,57	0.9

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

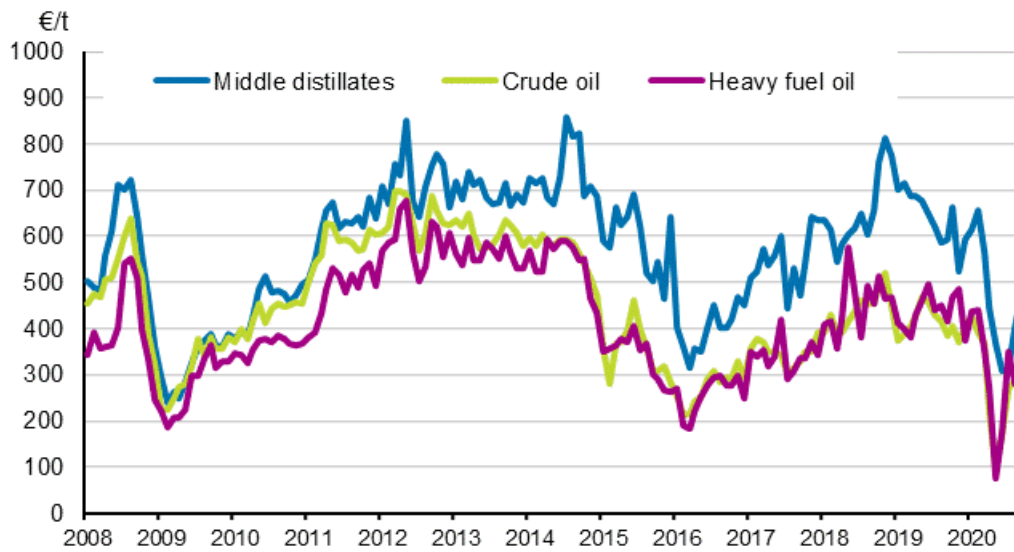
2) Sources: Finnish Energy, Energy Authority, Statistics Finland

3) The price of district heat is from July 2020.

4) Publication of wood pellet price is discontinued for time being.

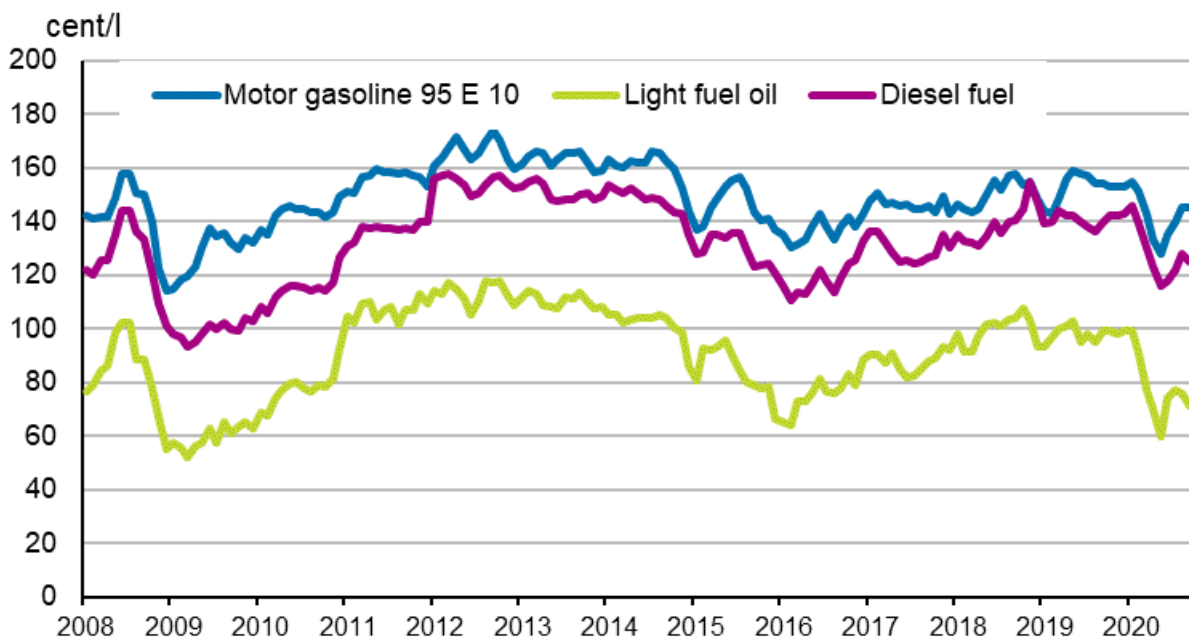
Appendix figures

Appendix figure 1. Import prices of oil



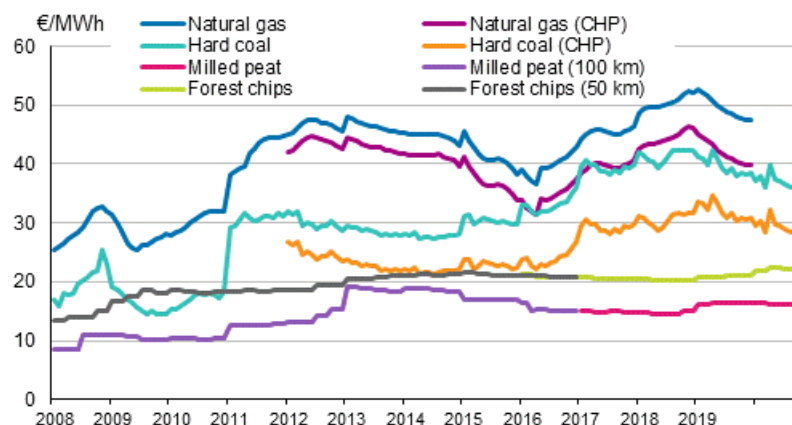
Source: Finnish Customs

Appendix figure 2. Consumer prices of principal oil products



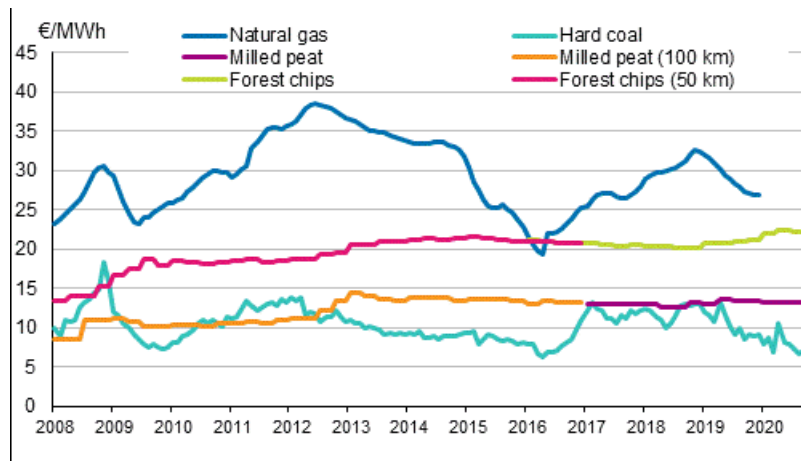
Source: Finnish Petroleum and Biofuels Association (-11/2018), Statistics Finland (12/2018-).

Appendix figure 3. Fuel prices in heat production



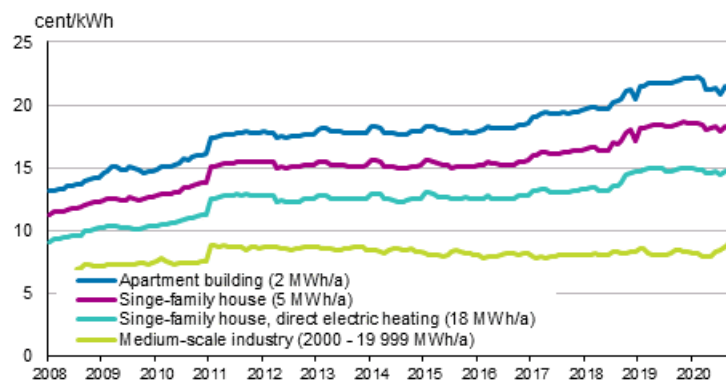
The prices include excise duties (VAT 0%). The energy content tax on natural gas and hard coal used in combined heat and power production has been reduced by € 7,63 per MWh from the beginning of 2019. Sources: Finnish Customs, Energy Authority, The Bioenergy Association of Finland, Statistics Finland, FOEX Indexes Ltd. Energy Authority's latest published natural gas price December 2019.

Appendix figure 4. Fuel prices in electricity production



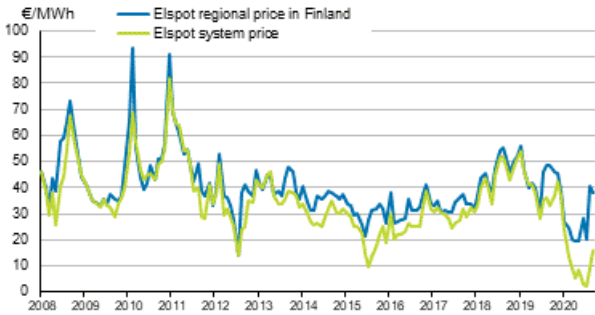
The fuels of electricity production are exclusive of tax. Sources: Finnish Customs, Energy Authority, The Bioenergy Association of Finland, Statistics Finland, FOEX Indexes Ltd. Energy Authority's latest published natural gas price December 2019.

Appendix figure 5. Price of electricity by type of consumer



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

Appendix figure 6. Average monthly spot prices at the Nord Pool Spot power exchange



Source: Nord Pool Spot

Inquiries

Virve Rouhiainen 029 551 3527
Head of Department in
charge:
Mari Ylä-Jarkko

energia@stat.fi
www.stat.fi
Source: Statistics Finland, Energy prices