

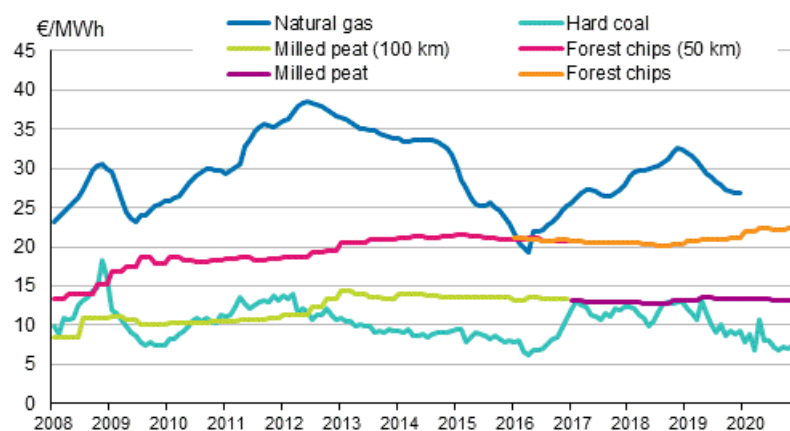
Energy prices

2020, 4th quarter

Energy prices made an upturn in the last quarter of 2020

In the last quarter of 2020, energy prices made an upturn after the decline in spring and summer. However, the prices of hard coal and peat remained lower than in the last quarter of 2019. By contrast, the price of forest chippings was six per cent higher compared to the previous year. Consumer prices of electricity and liquid fuels also fell.

Fuel prices in electricity production



In the last quarter of 2020, the world market price of crude oil made an upturn. The price in the last quarter of the year was around two-thirds of the price in the last quarter of the previous year. The average price of crude oil was also around one-third lower in 2020 than in 2019

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 seven per cent lower in December and that of diesel oil nine per cent lower than one year earlier. The corresponding drop in the price of light fuel oil was 22 per cent. Consumer prices were at their lowest in May.

The excise duty on liquid transport fuels rose at the beginning of August. The collection of the compensation fee for oil pollution damages was discontinued from the beginning of March, when the capital of the Oil Pollution Fund exceeded EUR 10 million. No changes took place in other taxes and tax-like payments.

The falling trend of the import price of hard coal began to rise in autumn. In the last quarter of the year, the tax-free price of hard coal was almost one-fifth lower than one year previously.

As a result of the deregulation of the Finnish gas market, sufficiently certain data were not available on the development of the price of natural gas in 2020. Statistics Finland started collecting data by customer group and the first price data to be published concern January 2021.

Among domestic fuels, the price of forest chippings started to rise again in the last quarter of the year after a slight drop. Compared with the previous quarter, the price was good one percentage point higher. Compared to the last quarter of 2019, the price of forest chippings was six per cent higher. The slight decline in the prices of milled peat continued. Compared to the previous quarter, the price was around one per cent lower and compared to the previous year about two per cent lower.

Both the supply and demand on the Nordic electricity market in 2020 were exceptional. Plenty of water and wind power was available. The warm weather and weak economic development lowered demand. The system price of the Nordic market was record low in July. The system price is formed from the sell and buy bids in the whole market area when transfer restrictions are not taken into consideration.

The exceptional circumstances highlighted the importance of transmission capacity. The lowest electricity prices of this millennium were seen in Norway, but in Finland the price of electricity was clearly higher than in 2000. However, the difference compared to the previous year is clear. In 2020, the area price for Finland was around one-third lower than in 2019.

The fall in the market prices of electricity was also visible in consumer prices. The energy prices of consumer customers fell by two to four per cent compared to the quarter one year before. The size of the change varied by customer group. The price development for enterprise customers was not uniform. These data derive from Statistics Finland's Price inquiry on electrical energy.

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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 December 2020

Energy source ³⁾	Price €/MWh ¹⁾	Annual change-%
Hard coal (VAT 0%) ²⁾	37.3	-3.1
Natural gas (VAT 0%) ⁵⁾	.	.
Forest chips (VAT 0%) ⁴⁾	22.5	6.0
Milled peat (VAT 0%)	16.1	-1.5

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 4th quarter.

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

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

Energy source ²⁾	Price €/MWh ¹⁾	Annual change-%
Light fuel (VAT 24%)	76.9	-21.7
Household electricity, L2 (VAT 24%)	136.5	-2.0
Wood pellet (VAT 24%) ⁴⁾¹⁾	58.3	-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.

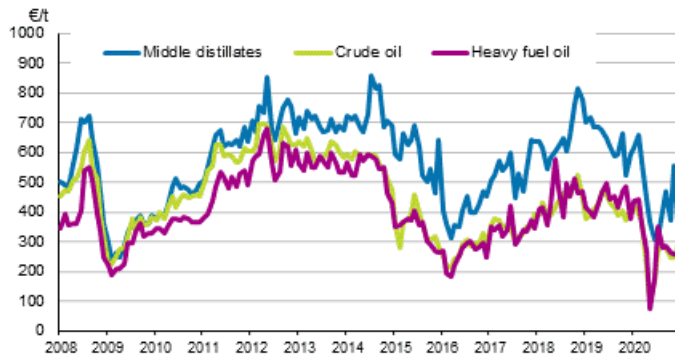
2) Sources: Finnish Energy, Energy Authority, Statistics Finland

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

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

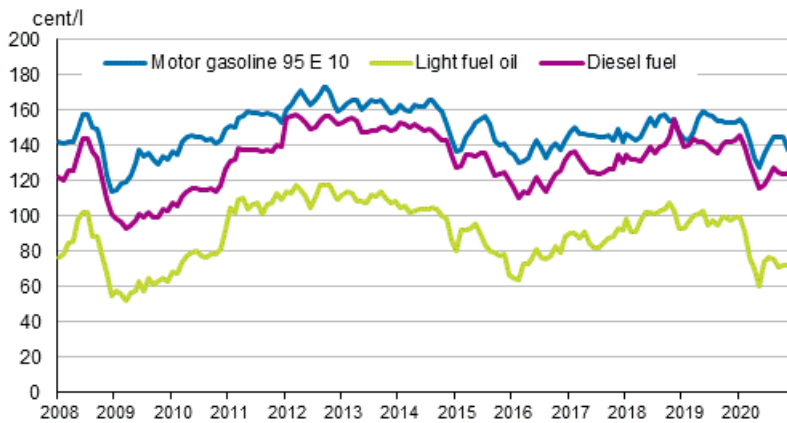
Appendix figures

Appendix figure 1. Import prices of oil



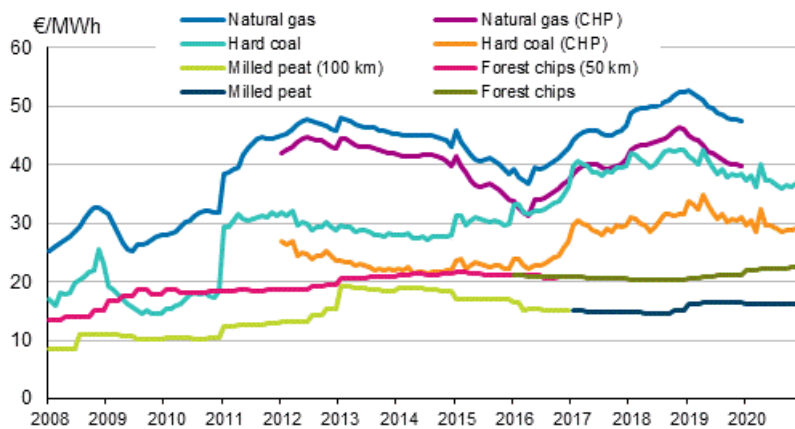
Source: Finnish Customs

Appendix figure 2. Consumer prices of principal oil products



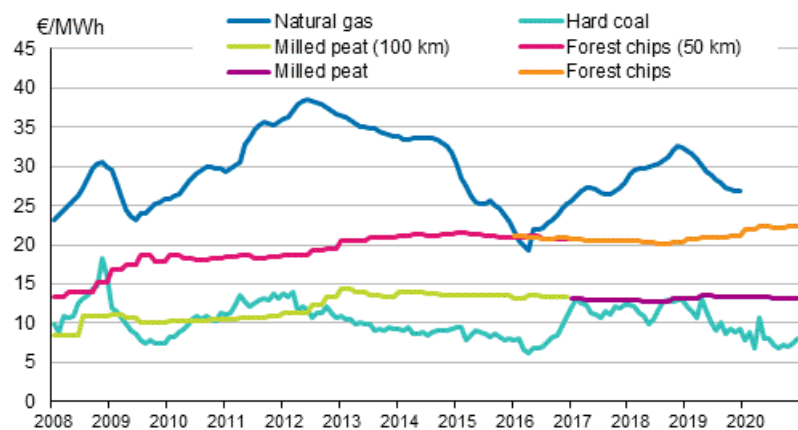
Source: Finnish Petroleum and Biofuels Association (-11/2018), Statistics Finland (12/2018-).

Appendix figure 3. Fuel prices in heat production



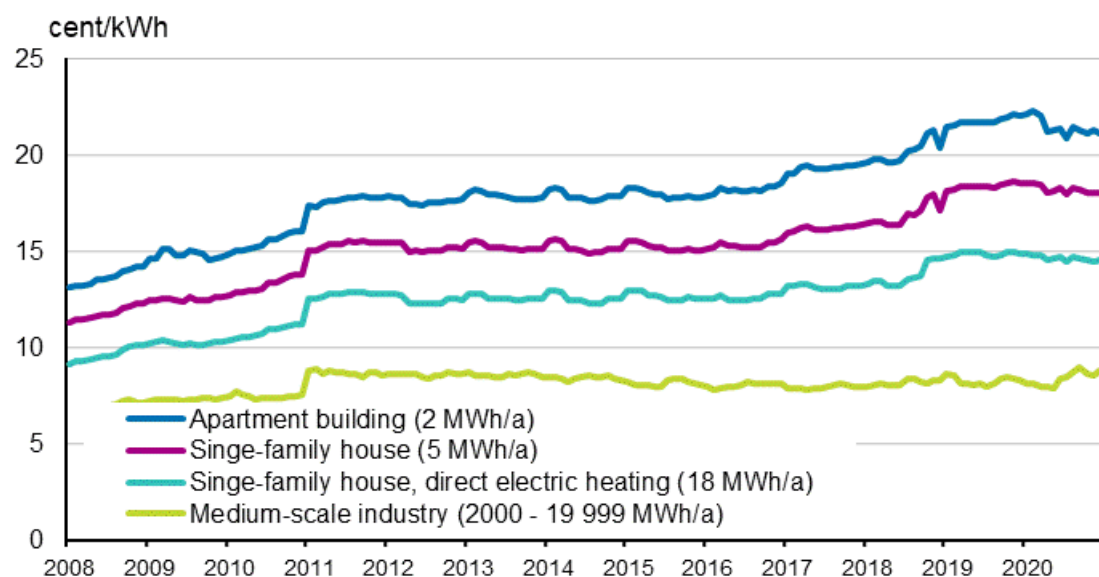
The prices include excise duties (VAT 0%). The energy content tax on natural gas and hard coal used in combined heat and power production has been reduced by € 7,63 per MWh from the beginning of 2019. Sources: Finnish Customs, Energy Authority, The Bioenergy Association of Finland, Statistics Finland,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

Appendix figure 4. Fuel prices in electricity production



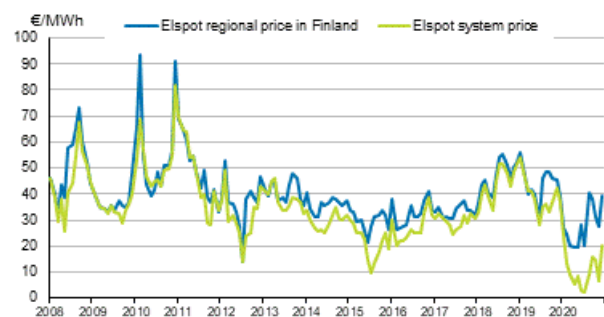
The fuels of electricity production are exclusive of tax. Sources: Finnish Customs, Energy Authority, The Bioenergy Association of Finland, Statistics Finland, FOEX Indexes Ltd. Energy Authority's latest published natural gas price December 2019.

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:
Katri Kaaja

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