

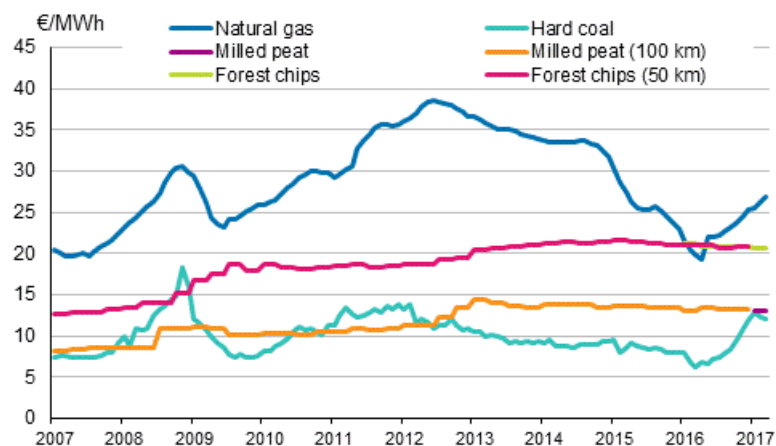
Energy prices

2017, 1st quarter

Energy prices continued to rise in the first quarter

The rise in energy prices that started at the end of last year continued in the first quarter. According to Statistics Finland's data, this was due to tax increases at the start of the year, but most of all to higher prices of imported fuels.

Fuel Prices in Electricity Production



Oil producing countries' cuts in oil production raised the prices of oil products imported to Finland. This and tax increases at the beginning of the year contributed to the clear rise in the consumer prices of fuels. In March, prices had risen from one year back by 12 per cent for motor gasoline, by 16 per cent for diesel oil and by 20 per cent for light fuel oil.

The world market price of coal made a distinct upturn in the latter half of last year. The tax-free price of coal used in electricity production was in March as much as 93 per cent higher than one year earlier and is now close to the tax-free price of energy peat. The present rise was preceded by a gradual fall in the price of hard coal for several years and now the price has gone up roughly to the level of 2011. Similarly, natural gas has been on the rise, its tax-free price being 36 per cent higher in March. In Finland, the fuels for electricity production are tax-free while excise duty is paid on fuels used in heat production.

The tax-free prices of coal and natural gas used in heat production were raised in the first quarter by higher prices of excise duties and tax-free prices. Changes in tax-free prices influence taxable prices increasingly less due to the growing share of taxes in the past few years. Compared to the situation one year earlier, the price of hard coal was 24 per cent higher in March and the price of natural gas 22 per cent higher.

The poor water situation in Nordic countries has influenced the rise in the system price of the Nordic electricity exchange derived from the sell and buy bids on the exchange. This has also been visible in the difference between the system price and the Finnish area price, which has narrowed down to almost nothing in the first quarter.

The prices of electricity for household customers went up in all consumer groups and were, on average, five per cent higher in March than one year earlier. There was much dispersion in the electricity prices of enterprise and corporate customers. For the smallest consumers, the rise amounted to a few per cent in March, for medium size consumers, prices fell by a few per cent and for the biggest consumers, prices rose by 11 per cent.

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 March 2017.....	6
Appendix table 3. Consumer prices of heating energy in March 2017.....	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.....	9
Appendix figure 6. Average monthly spotprices 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	26,96	189,84	18,53	1,90	2,24	0,69	-	-	-
Energy content tax ⁸⁾													
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	-	-	-	-	-	-
Carbon dioxide tax ⁹⁾													
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	-	-	-	-	-	-

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					
1.1.2017	17,38	19,90	15,47	17,53	18,78	139,91	11,48	-	-	-	-	-	-
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	-	-	-
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) 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) Fee for imported oil and oil products: 1,50 €/t

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 March 2017

Energy source ³⁾	¹⁾ Price €/MWh	Annual change-%
²⁾ Hard coal (VAT 0%)	39.02	24.1
Natural gas (VAT 0%)	45.49	22.1
Forest chips (VAT 0%)	20.71	-2.4
Milled peat (VAT 0%)	14.98	-6.4

1) Inclusive of excise duties.

2) The price is preliminary.

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

Appendix table 3. Consumer prices of heating energy in March 2017

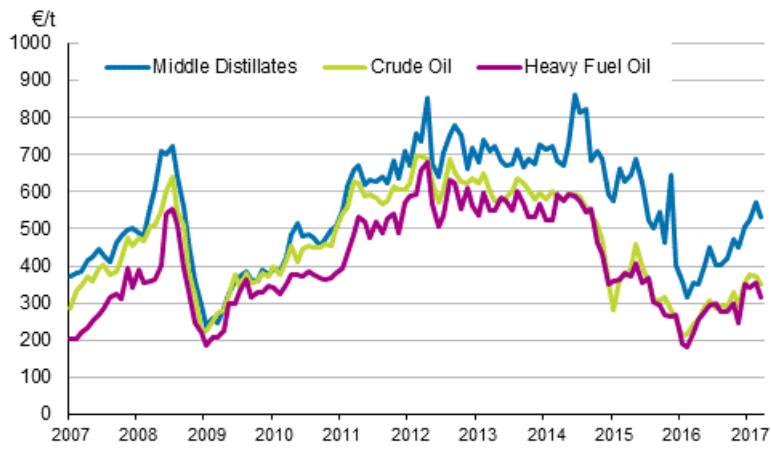
Energy source ²⁾	¹⁾ Price €/MWh	Annual change-%
Light fuel (VAT 24%)	87.1	19.6
Household electricity, K2 (VAT 24%)	124.2	4.2
Wood pellet (VAT 24%)	57	-0.6
District heat, terraced house / low-rise block of flats (VAT 24%)	78.28	1.5

1) The price of wood pellet is from February 2017 and district heat January 2017

2) Sources: Finnish Energy Industries, Energy Authority, Petroleum and Biofuels Association of Finland, Statistics Finland

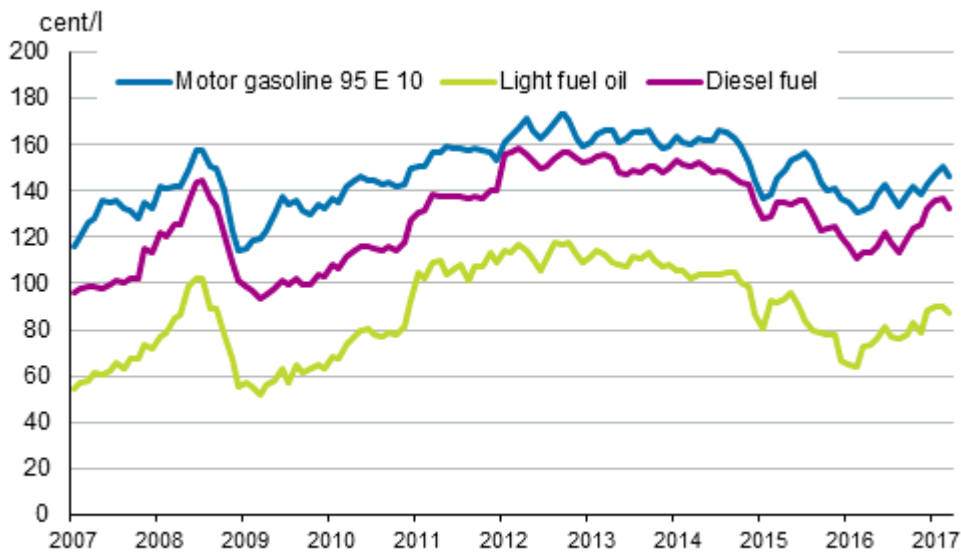
Appendix figures

Appendix figure 1. Import prices of oil



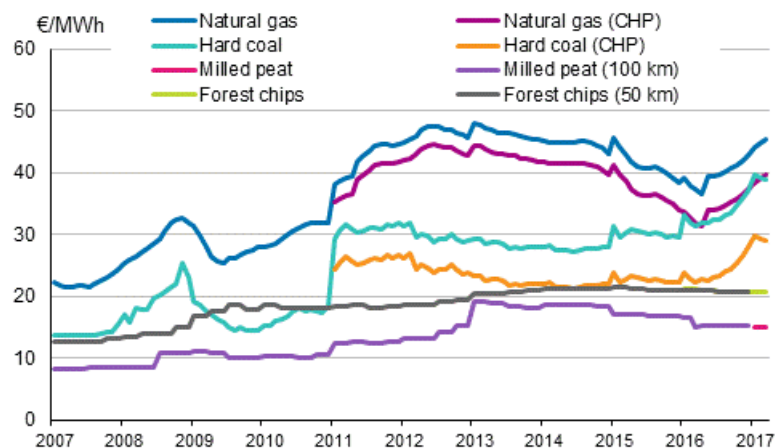
Source: Finnish Customs

Appendix figure 2. Consumer prices of principal oil products



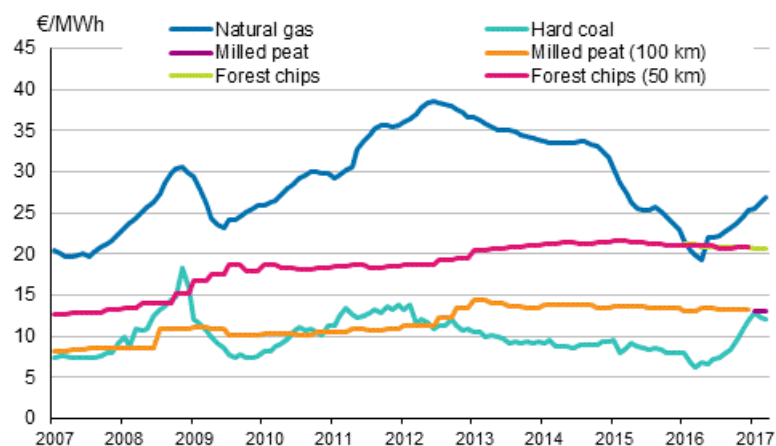
Source: Finnish Petroleum and Biofuels Association

Appendix figure 3. Fuel prices in heat production



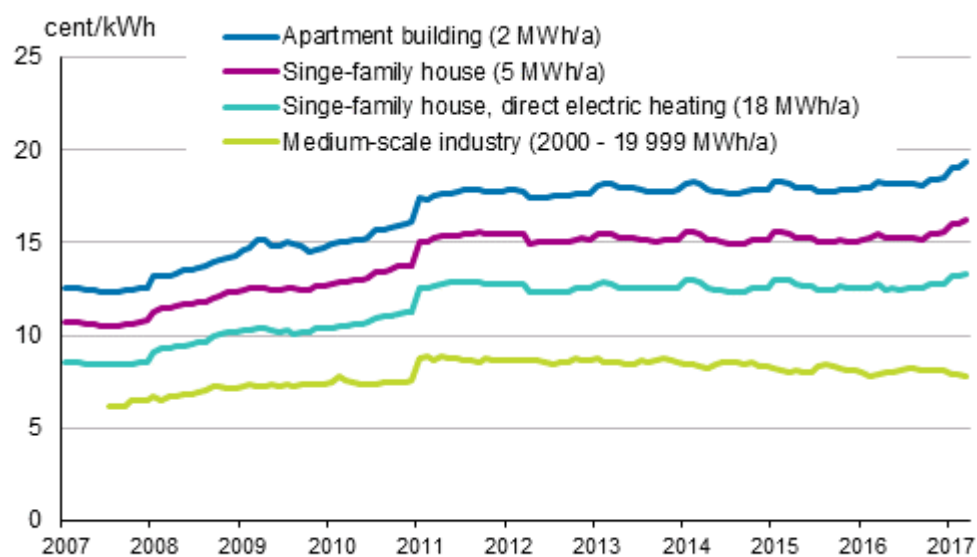
The prices include excise duties (VAT 0%). The carbon dioxide tax on natural gas and hard coal used in combined heat and power production was halved from the beginning of 2011. Sources: Finnish Customs, Energy Authority, The Bioenergy Association of Finland, Finnish Petroleum and Biofuels Association, FOEX Indexes Ltd

Appendix figure 4. Fuel prices in electricity production



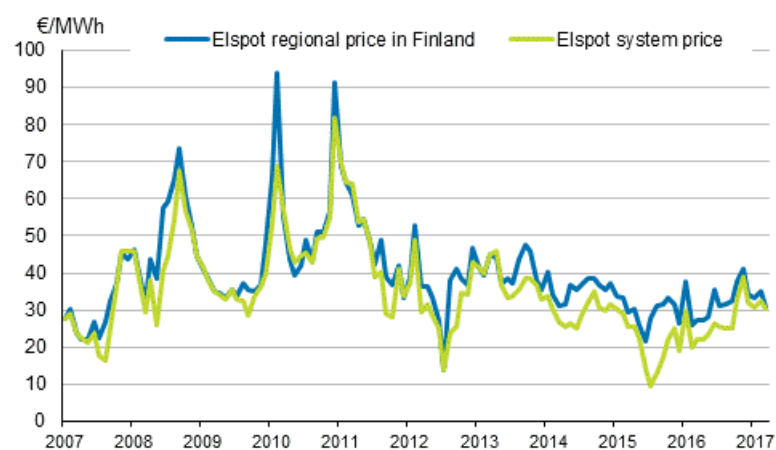
The fuels of electricity production are exclusive of tax. Sources: Finnish Customs, Energy Authority, The Bioenergy Association of Finland, Finnish Petroleum and Biofuels Association, FOEX Indexes Ltd

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 spotprices at the Nord Pool Spot power exchange



Source: Nord Pool Spot

Inquiries

Ville Maljanen 029 551 2691
Director in charge:
Ville Vertanen

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