

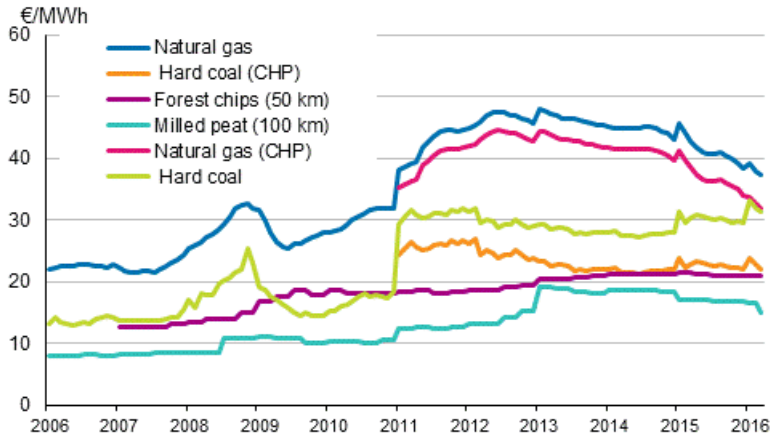
Energy prices

2016, 1st quarter

Energy prices decreased in the first quarter

According to Statistics Finland's data, prices of energy products continued declining in the first quarter of 2016 compared with the corresponding quarter of the previous year. The drop in energy prices has, in particular, been affected by the fall in the world market price of oil, as well as by the decrease in the wholesale price of electricity in the Nordic electricity exchange. Only the price of hard coal used in heat production increased due to the tax increase that was adopted at the beginning of the year.

Fuel Prices in Heat Production



As a result of the fallen world market price of oil, the prices of oil products imported to Finland decreased in the first quarter of the year to the lowest level seen in the 2010s. This also had an effect on the consumer prices of liquid fuels. The price of motor gasoline was ten per cent lower and diesel oil 16 per cent lower than one year earlier. Correspondingly, the price of light fuel oil declined by 21 per cent despite tax increases.

The tax of hard coal and natural gas used in heat production was raised at the beginning of 2016. The price of hard coal increased by six per cent year-on-year in the first quarter. The price of natural gas, in turn, has declined with the world market price of oil and was, despite tax increases, 14 per cent lower than one year earlier. The tax of milled peat in heat production was lowered at the beginning of March and its price

declined by six per cent in the first quarter. The price of forest chips went down by three per cent. The drop in prices was now also reflected in the price of district heat that declined by one per cent in January. The price of wood pellets used by consumers was one per cent lower in February than one year earlier.

The monthly average for the system price of the Nordic electricity exchange derived from the sell and buy bids on the exchange was in March EUR 21.92 per megawatt hour, which was 14 per cent lower than a year earlier. Due to electricity transmission restrictions, the Finnish area price was 24 per cent higher in March than the system price, that is, EUR 27.09 per megawatt hour, though falling by eight per cent from one year ago.

The fallen prices in the electricity exchange were most clearly visible in the prices of enterprise and corporate customers, among whom the price was, on average, four per cent lower for small consumers and eight per cent lower for big consumers than one year earlier. Correspondingly, the prices of household customers went down by two per cent, on average.

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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	-	-	-
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	-	-	-	-	-	-
Carbon dioxide tax⁹⁾													
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	-	-	-	-	-	-
Energy tax⁷⁾													

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	-	-	-	-	-	-	-	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 fees ⁶⁾														
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 2016

Energy source	¹⁾ Price €/MWh	Annual change-%
²⁾ Hard coal (VAT 0%)	31.35	3.4
Natural gas (VAT 0%)	37.26	-13.1
Forest chips (VAT 0%)	21.00	-2.5
Milled peat (VAT 0%)	16.00	-5.9

1) Inclusive of excise duties.

2) The price is preliminary.

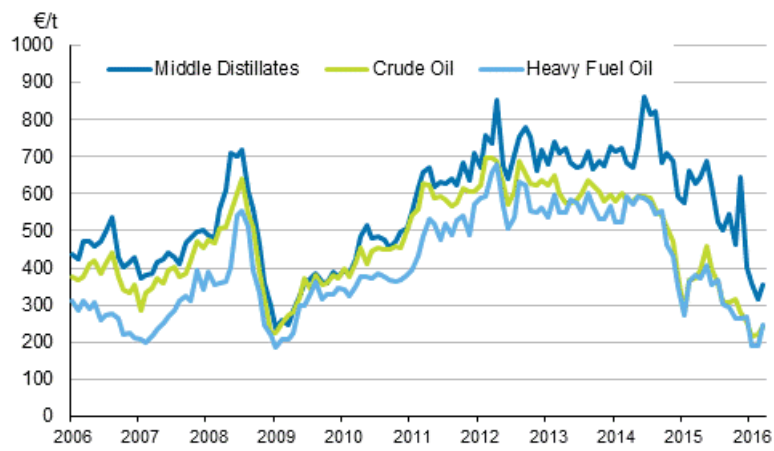
Appendix table 3. Consumer prices of heating energy in March 2016

Energy source	¹⁾ Price €/MWh	Annual change-%
Light fuel (VAT 24%)	72.8	-20.7
Household electricity, K2 (VAT 24%)	119.3	-2.0
Wood pellet (VAT 24%)	58	-1.4
District heat, terraced house / low-rise block of flats (VAT 24%)	77.15	-0.7

1) The price of wood pellet is from February and district heat January 2016

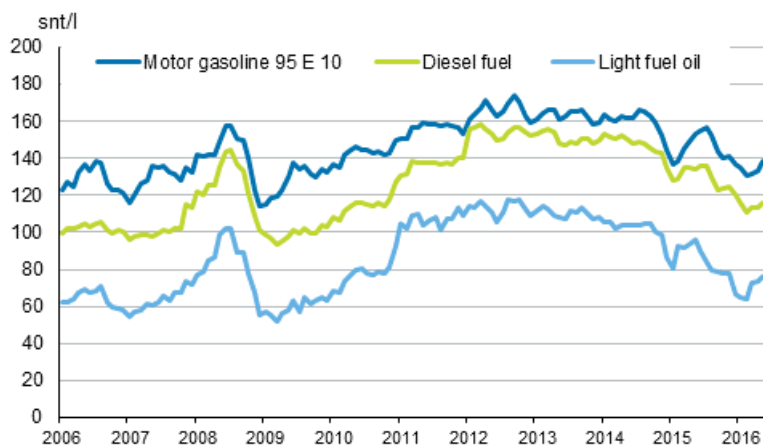
Appendix figures

Appendix figure 1. Import prices of oil



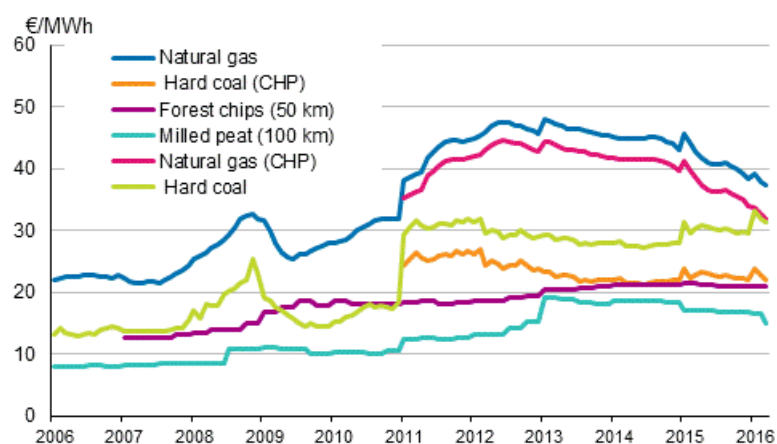
Source: Finnish Customs/Foreign Trade Statistics

Appendix figure 2. Consumer prices of principal oil products



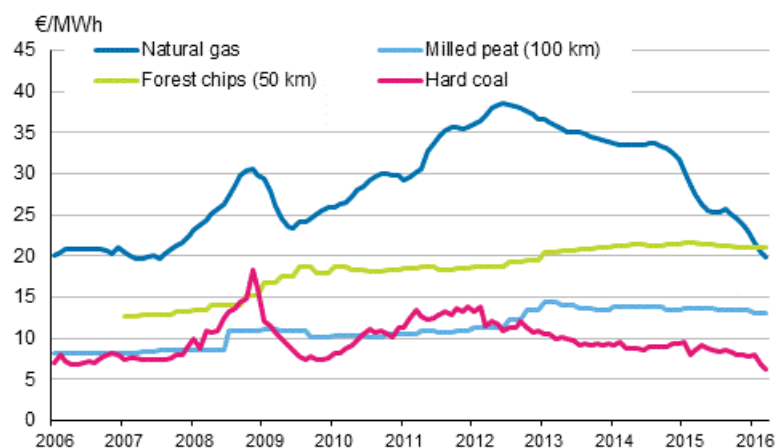
Source: Finnish Petroleum and Biofuels Association

Appendix figure 3. Fuel prices in heat production



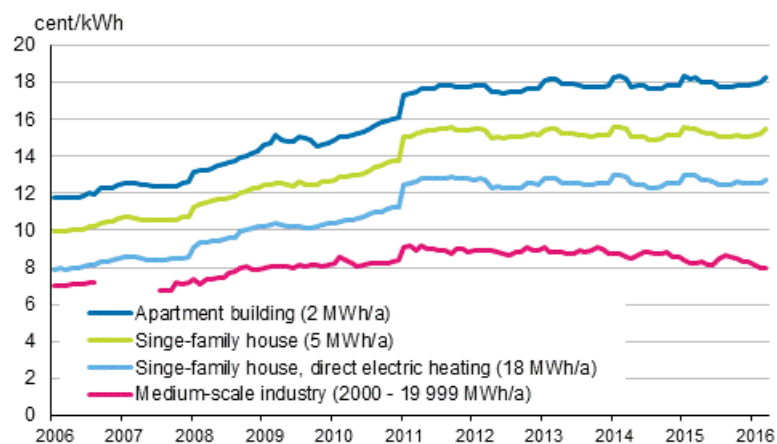
The prices include excise duties (VAT 0%). The carbon dioxide tax on natural gas and hard coal used in combined heat and power production was halved from the beginning of 2011. Sources: Finnish Customs/Foreign Trade Statistics, Energy Authority/Gasum Oy, The Bioenergy Association of Finland/Association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

Appendix figure 4. Fuel prices in electricity production



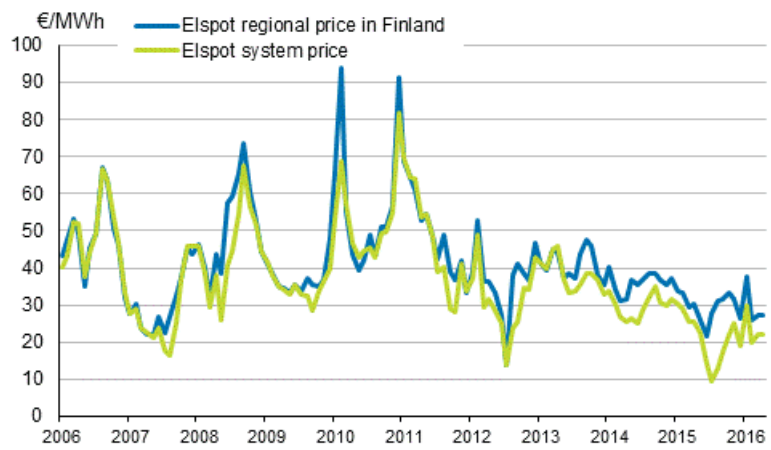
The fuels of electricity production are exclusive of tax. Sources: Finnish Customs/Foreign Trade Statistics, Energy Authority/Gasum Oy, The Bioenergy Association of Finland/ Association of Finnish Peat Industries, Finnish Petroleum and Biofuels Association

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

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Source: Statistics Finland, Energy prices