

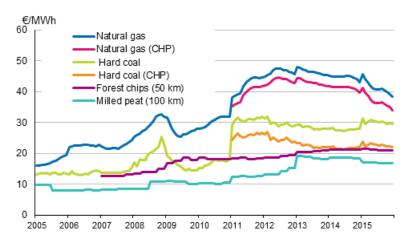
Energy prices

2015, 4th quarter

Energy prices continued to fall in the last quarter

According to Statistics Finland's data, prices of energy products went down in the last quarter of 2015 compared with the corresponding quarter of the previous year. For consumers, the most significant drop in prices occurred for liquid fuels. Of fuels used in heat production, prices of all but natural coal went down, as its tax was raised at the beginning of 2015. However, prices have fallen most in the Nordic electricity exchange, where the price of electricity was 41 per cent lower than one year earlier.

Fuel Prices in Heat Production



As a result of the fallen world market price of oil, the prices of oil products imported to Finland continued declining in the last quarter. This also had an effect on the consumer prices of liquid fuels. The price of motor petrol fell by five per cent in December from one year before. The corresponding drop for diesel oil amounted to 11 per cent and for light fuel oil to 23 per cent.

The tax of hard coal used in heat production was raised at the beginning of 2015, as a result of which the price was, on average, six per cent higher in the fourth quarter than one year earlier. The tax on natural gas was also raised, but its price has fallen along with the price of oil. In the fourth quarter, the price of natural gas went down by 11 per cent from one year back. The tax of milled peat was lowered at the

beginning of last year, as a consequence of which its price in the last quarter was eight per cent lower than one year before. The price of forest chips went down by two per cent.

The monthly average for the system price of the Nordic electricity exchange derived from the sell and buy bids on the exchange was in December EUR 18.85 per megawatt hour, which was 41 per cent lower than a year earlier. Due to electricity transmission restrictions, the Finnish area price was 41 per cent higher in December than the system price, that is, EUR 26.56 per megawatt hour, though falling by 29 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 in the last quarter was, on average, three per cent lower for small consumers and eight per cent lower for big consumers. The prices of household customers remained on level with the year before, due to a hike in electricity taxes at the beginning of 2015.

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Appendix tables

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

Date	Fuels 1)					Electricity						
						Consumption Production						
	Motor- gasoline, unleaded ²⁾	Diesel fuel ³⁾	Light fuel oil ¹²⁾	Heavy fuel oil	¹¹⁾ Hard coal	Natural gas	Peat	Electricity, I ⁴⁾	Electricity, II ⁵⁾	Nuclear power	Hydro power	Imports
	c/l			c/kg	€/t	€/MWh	€/MWh	c/kWh				
Excise ta	axes 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	25,08	177,36	17,34	1,90	2,24	0,69	-	-	-
Energy o	ontent tax ⁸⁾)								1		
1.1.2011	50,36		7,70	8,79	54,54	3,00	_	_	_	_	_	_
1.1.2012	50,36		7,70	8,79	54,54	3,00	_	_	_	_	_	_
1.1.2013	50,36		6,65	7,59	47,10	4,45	_	_	_	_	_	_
1.1.2015	51,20			7,59	47,10	6,65	_	_	_	_	_	_
	dioxide tax ⁹⁾		-,	-,	,	,						
1.1.2011	11,66	1	8,00	9,72	72,37	5,94						
1.1.2011	14,00		8,00	9,72	72,37	5,94	-	-	_	_	_	-
1.1.2012	14,00	15,90	9,34	11,34	84,43	6,93	-	-	-	_	-	-
1.1.2013	16,25		9,34	11,34	84,43	6,93	_	-	_	_	_	-
	16,25	18,61		14,25		8,71	_	_	_	_	-	_
1.1.2015	16,25						-	_	_	_	-	_
1.1.2016		10,01	14,40	17,49	130,20	10,69	-	_	_	_	_	_
Energy t	ax'′											
1.1.2011	-	-	-	-	-	-	1,90	1,69	0,69		-	-
1.1.2013	-	-	-	-	-	-	4,90	1,69	0,69	-	-	-

Date	Fuels 1)					Electricity						
						Consumption		Production				
	Motor- gasoline, unleaded ²⁾	fuel ³⁾	Light fuel oil ¹²⁾	fuel	¹¹⁾ Hard coal	Natural gas	Peat	Electricity, I ⁴⁾	Electricity, II ⁵⁾	Nuclear power	Hydro power	Imports
1.1.2014	-	-	-	-	-	_	4,90	1,89	0,69	_	-	-
1.1.2015	-	-	-	-	-	-	3,40	2,24	0,69	_	-	-
1.1.2016	-	-	-	-	-	-	1,90	2,24	0,69	_	-	-
Strategic	stockpile f	ees							,			
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	_	-	-
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

Appendix table 2. Energy prices in heat production in December 2015

Energy source	¹⁾ Price €/MWh	Annual change-%
²⁾ Hard coal (VAT 0%)	29.53	5.0
Natural gas (VAT 0%)	38.34	-11.2
Forest chips (VAT 0%)	21.03	-1.5
Milled peat (VAT 0%)	16.89	-8.2

¹⁾ Inclusive of excise duties.

Appendix table 3. Consumer prices of heating energy in December 2015

Energy source	¹⁾ Price €/MWh	Annual change-%
Light fuel (VAT 24%)	66.3	-23.1
Household electricity, K2 (VAT 24%)	117.6	0.1
Wood pellet (VAT 24%)	58	-0.5
District heat, terraced house / low-rise block of flats (VAT 24%)	77.15	-0.7

¹⁾ The price of wood pellet is from November 2015 and district heat January 2016

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

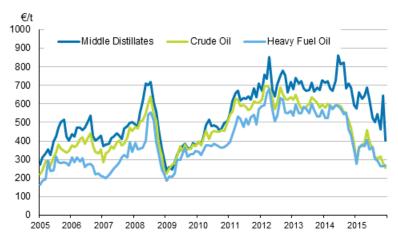
¹¹⁾ Excise taxes for hard coal is in the heat production. In CHP use excise tax is lower.

¹²⁾ Fossil fuel. Sulfur free

²⁾ The price is preliminary.

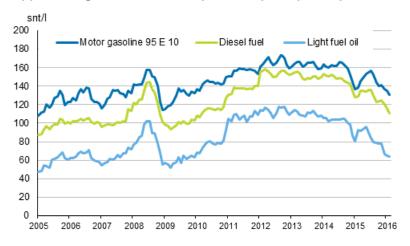
Appendix figures

Appendix figure 1. Import prices of oil



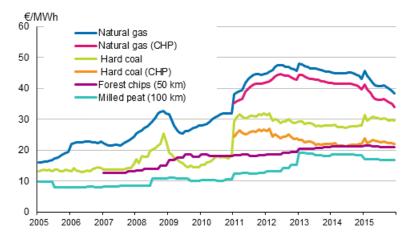
Source: Finnish Customs/Foreign Trade Statistics

Appendix figure 2. Consumer prices of principal oil products



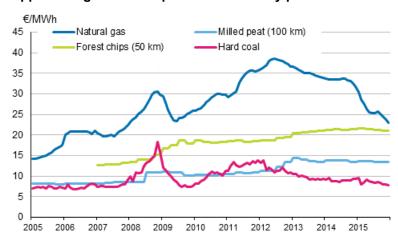
Source: Finnish Petroleum and Biofuels Association

Appendix figure 3. Fuel prices in heat production



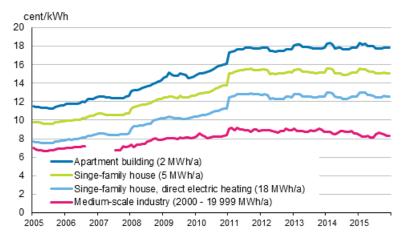
The prices include excise duties (VAT 0%). The carbon dioxide tax on natural gas and hard coal used in combined heat and power production was halved from the beginning of 2011. Sources: Finnish Customs/Foreign Trade Statistics, Energy Authority/Gasum Oy, The Bioenergy Association of Finland/Association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

Appendix figure 4. Fuel prices in electricity production



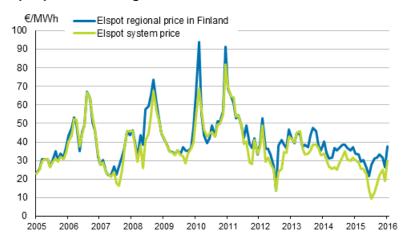
The fuels of electricity production are exclusive of tax. Sources: Finnish Customs/Foreign Trade Statistics, Energy Authority/Gasum Oy,The Bioenergy Association of Finland/ Association of Finnish Peat Industries, Finnish Petroleum and Biofuels Association

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



Energy 2016

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Source: Statistics Finland, Energy prices