Energy prices
2019, 3rd quarter

Energy prices fell in the third quarter of the year
According to Statistics Finland's data, energy prices decreased in nearly all energy products in the third quarter of the year. Only the prices of domestic fuels and the consumer prices of electricity were higher than in the previous year.

Fuel Prices in Electricity Production

The fall in the world market price of oil from the previous year was also reflected in the consumer prices of liquid fuels. Despite tax increases, the price of light fuel oil was almost five per cent lower in September compared to one year before. In September, the price of motor gasoline was two per cent lower and the price of diesel oil was on the same level as in the year before.

The tax-free prices of hard coal and natural gas used in energy production were 34 and 13 per cent lower respectively in September compared to the previous year. The taxation for combined heat and power production was changed from the beginning of the year. The halving of carbon dioxide tax was abandoned, but it was replaced with lower energy content tax for fuels used in combined production. The changes tighten the taxation of coal and lighten the taxation of natural gas in combined production. The taxable prices of coal and natural gas were respectively 11 and 6 per cent lower in September compared to one year earlier.
Prices of domestic fuels rose from the previous year. The taxable prices of forest chippings and milled peat were four and 12 per cent higher in September than one year ago. The price increase of milled peat was boosted by tax increases at the beginning of the year. Apart from peat and forest chippings, the prices of fuels for energy production have been falling.

In September, the system price of the Nordic electricity exchange derived from the sell and buy bids on the exchange was, on average, 31 per cent lower than one year previously. However, the fall was not reflected in full in the Finnish area price. In September, the average Finnish area price was only four per cent lower than the area price in September last year. During the past year, the hydro resources in the Nordic countries have normalised and the price level of emission permissions has stabilised.

In September, the electricity prices for household customers were around seven to nine per cent higher than in the year before, depending on the consumption category. Compared to the previous year, electricity prices for enterprise and corporate customers rose by two to 11 per cent, except for one consumption category. Household customers’ electricity prices are based on the obligation to deliver prices published by the Energy Authority. The obligation to deliver price reacts slowly to changes in electricity prices on the Nordic electricity exchange.
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 2019.................................................................6
Appendix table 3. Consumer prices of heating energy in September 2019.................................................................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

<table>
<thead>
<tr>
<th>Date</th>
<th>Fuel</th>
<th>Excise taxes</th>
<th>Energy content tax</th>
<th>Carbon dioxide tax</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Motor-gasoline, unleaded</td>
<td>Natural gas</td>
<td>Total energy consumption</td>
<td>Nuclear power</td>
</tr>
<tr>
<td></td>
<td>Diesel fuel</td>
<td>Light fuel oil</td>
<td>Heavy fuel oil</td>
<td>Hard coal</td>
</tr>
<tr>
<td></td>
<td>c/l</td>
<td>c/kg</td>
<td>€/t</td>
<td>€/MWh</td>
</tr>
<tr>
<td>1.1.1990</td>
<td>21.53</td>
<td>16.82</td>
<td>0.34</td>
<td>-</td>
</tr>
<tr>
<td>1.1.1991</td>
<td>26.57</td>
<td>17.49</td>
<td>0.35</td>
<td>-</td>
</tr>
<tr>
<td>1.1.1992</td>
<td>28.26</td>
<td>17.49</td>
<td>0.35</td>
<td>-</td>
</tr>
<tr>
<td>1.1.1993</td>
<td>31.62</td>
<td>17.49</td>
<td>0.35</td>
<td>-</td>
</tr>
<tr>
<td>1.1.1994</td>
<td>39.52</td>
<td>19.17</td>
<td>1.41</td>
<td>-</td>
</tr>
<tr>
<td>1.1.1995</td>
<td>40.05</td>
<td>17.29</td>
<td>2.05</td>
<td>-</td>
</tr>
<tr>
<td>1.1.1996</td>
<td>45.12</td>
<td>27.50</td>
<td>3.02</td>
<td>-</td>
</tr>
<tr>
<td>1.1.1997</td>
<td>51.85</td>
<td>27.50</td>
<td>4.88</td>
<td>-</td>
</tr>
<tr>
<td>1.1.1998</td>
<td>55.22</td>
<td>30.02</td>
<td>5.50</td>
<td>-</td>
</tr>
<tr>
<td>1.1.1999</td>
<td>55.22</td>
<td>30.02</td>
<td>6.37</td>
<td>-</td>
</tr>
<tr>
<td>1.1.2000</td>
<td>58.08</td>
<td>31.59</td>
<td>6.71</td>
<td>-</td>
</tr>
<tr>
<td>1.1.2001</td>
<td>58.08</td>
<td>31.59</td>
<td>6.71</td>
<td>-</td>
</tr>
<tr>
<td>1.1.2002</td>
<td>58.08</td>
<td>31.59</td>
<td>6.71</td>
<td>-</td>
</tr>
<tr>
<td>1.1.2003</td>
<td>58.08</td>
<td>31.59</td>
<td>6.71</td>
<td>-</td>
</tr>
<tr>
<td>1.1.2004</td>
<td>58.08</td>
<td>31.59</td>
<td>6.71</td>
<td>-</td>
</tr>
<tr>
<td>1.1.2005</td>
<td>58.08</td>
<td>31.59</td>
<td>6.71</td>
<td>-</td>
</tr>
<tr>
<td>1.1.2006</td>
<td>58.08</td>
<td>31.59</td>
<td>6.71</td>
<td>-</td>
</tr>
<tr>
<td>1.1.2007</td>
<td>58.08</td>
<td>31.59</td>
<td>6.71</td>
<td>-</td>
</tr>
<tr>
<td>1.1.2008</td>
<td>58.08</td>
<td>31.59</td>
<td>6.71</td>
<td>-</td>
</tr>
<tr>
<td>1.1.2009</td>
<td>58.08</td>
<td>31.59</td>
<td>6.71</td>
<td>-</td>
</tr>
<tr>
<td>1.1.2010</td>
<td>58.08</td>
<td>31.59</td>
<td>6.71</td>
<td>-</td>
</tr>
<tr>
<td>1.1.2011</td>
<td>58.08</td>
<td>31.59</td>
<td>6.71</td>
<td>-</td>
</tr>
<tr>
<td>1.1.2012</td>
<td>58.08</td>
<td>31.59</td>
<td>6.71</td>
<td>-</td>
</tr>
<tr>
<td>1.1.2013</td>
<td>58.08</td>
<td>31.59</td>
<td>6.71</td>
<td>-</td>
</tr>
<tr>
<td>1.1.2014</td>
<td>58.08</td>
<td>31.59</td>
<td>6.71</td>
<td>-</td>
</tr>
<tr>
<td>1.1.2015</td>
<td>58.08</td>
<td>31.59</td>
<td>6.71</td>
<td>-</td>
</tr>
<tr>
<td>1.1.2016</td>
<td>58.08</td>
<td>31.59</td>
<td>6.71</td>
<td>-</td>
</tr>
<tr>
<td>1.1.2017</td>
<td>58.08</td>
<td>31.59</td>
<td>6.71</td>
<td>-</td>
</tr>
<tr>
<td>1.1.2018</td>
<td>58.08</td>
<td>31.59</td>
<td>6.71</td>
<td>-</td>
</tr>
<tr>
<td>1.1.2019</td>
<td>58.08</td>
<td>31.59</td>
<td>6.71</td>
<td>-</td>
</tr>
<tr>
<td>1.1.2020</td>
<td>58.08</td>
<td>31.59</td>
<td>6.71</td>
<td>-</td>
</tr>
</tbody>
</table>

---

1. Excise taxes: c/l, c/kg, €/t, €/MWh, c/kWh
2. Energy content tax: c/l, c/kg, €/t, €/MWh
3. Carbon dioxide tax: c/l, c/kg, €/t, €/MWh
4. **Note:** The table details the energy taxes, precautionary stock fees, and oil pollution fees for different fuels and energy sources, including electricity, oil, gas, and coal. The values are presented on a date-wise basis, indicating the rate of excise taxes, energy content tax, and carbon dioxide tax for each date.
<table>
<thead>
<tr>
<th>Date</th>
<th>Fuels 1)</th>
<th>Electricity Consumption</th>
<th>Electricity, €/MWh</th>
<th>Production</th>
<th>Imports</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Motor-gasoline, unled 3)</td>
<td>Light fuel oil 12)</td>
<td>Liquefied petroleum gas</td>
<td>Heavy fuel oil</td>
<td>Hard coal 1)</td>
</tr>
<tr>
<td>1.1.2013</td>
<td>14,00</td>
<td>15,90</td>
<td>9,34</td>
<td>–</td>
<td>11,34</td>
</tr>
<tr>
<td>1.1.2014</td>
<td>16,25</td>
<td>18,61</td>
<td>9,34</td>
<td>–</td>
<td>11,34</td>
</tr>
<tr>
<td>1.1.2015</td>
<td>16,25</td>
<td>18,61</td>
<td>11,74</td>
<td>–</td>
<td>14,25</td>
</tr>
<tr>
<td>1.1.2016</td>
<td>16,25</td>
<td>18,61</td>
<td>14,40</td>
<td>16,32</td>
<td>17,49</td>
</tr>
<tr>
<td>1.1.2017</td>
<td>17,38</td>
<td>19,90</td>
<td>15,47</td>
<td>17,53</td>
<td>18,78</td>
</tr>
<tr>
<td>1.1.2018</td>
<td>17,38</td>
<td>19,90</td>
<td>16,54</td>
<td>18,74</td>
<td>20,08</td>
</tr>
<tr>
<td>1.1.2019</td>
<td>17,38</td>
<td>19,90</td>
<td>16,90</td>
<td>18,09</td>
<td>18,67</td>
</tr>
</tbody>
</table>

**Energy tax** 7)

| Date     | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 1.1.2011 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 1.1.2013 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 1,90 |
| 1.1.2014 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 1,90 |
| 1.1.2015 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 3,40 |
| 1.1.2016 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 3,40 |
| 1.3.2016 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 1.1.2019 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

**Strategic stockpile fees**

| Date     | 0,72 | 0,39 | 0,39 | – | 0,32 | 1,48 | – | – | – | – | – | – | – | – | – |
| 1.1.1984 | 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)

| Date     | 0,28 | 0,031 | 0,031 | – | 0,037 | – | – | – | – | – | – | – | – | – | – |
| 1.1.1990 | 0,038 | 0,042 | 0,042 | – | 0,050 | – | – | – | – | – | – | – | – | – | – |
| 1.1.2005 | 0,113 | 0,126 | 0,126 | – | 0,150 | – | – | – | – | – | – | – | – | – | – |
| 1.1.2010 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

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 September 2019

<table>
<thead>
<tr>
<th>Energy source</th>
<th>1) Price €/MWh</th>
<th>Annual change-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard coal (VAT 0%)</td>
<td>37.86</td>
<td>-10.7</td>
</tr>
<tr>
<td>Natural gas (VAT 0%)</td>
<td>47.98</td>
<td>-6.2</td>
</tr>
<tr>
<td>Forest chips (VAT 0%)</td>
<td>21.01</td>
<td>4.2</td>
</tr>
<tr>
<td>Milled peat (VAT 0%)</td>
<td>16.34</td>
<td>12.1</td>
</tr>
</tbody>
</table>

1) Inclusive of excise duties.
2) The price is preliminary. Price of forest chippings and milled peat, average for 3rd quarter.
3) Sources: Energy Authority, Finnish Customs, FOEX Indexes Ltd, The Bioenergy Association of Finland, Statistics Finland

Appendix table 3. Consumer prices of heating energy in September 2019

<table>
<thead>
<tr>
<th>Energy source</th>
<th>1) Price €/MWh</th>
<th>Annual change-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light fuel (VAT 24%)</td>
<td>94.2</td>
<td>-9.2</td>
</tr>
<tr>
<td>Household electricity, L2 (VAT 24%)</td>
<td>138.60</td>
<td>8</td>
</tr>
<tr>
<td>Wood pellet (VAT 24%)</td>
<td>58</td>
<td>2.4</td>
</tr>
<tr>
<td>District heat, terraced house / low-rise block of flats (VAT 24%)</td>
<td>81.84</td>
<td>2.7</td>
</tr>
</tbody>
</table>

1) The prices do not take into account energy conversion losses. The price of district heat is from July 2019.
2) Sources: Finnish Energy, Energy Authority, 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 (–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.

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.

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

Aleksi Sandberg 029 551 3326
Director in charge:
Ville Vertanen

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