

# Energy prices

2011, 1st quarter

## Energy prices rose

According to Statistics Finland, the rise in prices of domestic heat production fuels has been lower compared with imported fuels. The rise in excise duties and prices of fossil fuels has pushed up energy prices especially in heat production and traffic

#### **Energy prices in heat production in March 2011**

| Corrected on 7 September 2011. The correction is indicated in red. Was previously 23. |                           |                 |  |  |  |  |  |  |
|---|---------------------------|-----------------|--|--|--|--|--|--|
| Energy source   | <sup>2)</sup> Price €/MWh | Annual change-% |  |  |  |  |  |  |
| Light fuel (VAT 23%)  | 109.1                     | 47.9            |  |  |  |  |  |  |
| Hard coal (VAT 0%)  | 31.6                      | 98.3            |  |  |  |  |  |  |
| Natural gas (VAT 0%   | 39.3                      | 37.3            |  |  |  |  |  |  |
| Forest chips (VAT 0%)   | 18.5                      | -0.7            |  |  |  |  |  |  |
| Wood pellet (VAT 23%)   | 52.8 <sup>1)</sup>        | 1.8             |  |  |  |  |  |  |
| Household energy, K2 (VAT 23%)  | 152.3                     | 18.2            |  |  |  |  |  |  |

<sup>1)</sup> The price for May.

The prices of transport fuels exceeded in May 2011 the peak prices of summer 2008. The consumer price of light fuel oil rose especially. The price of light fuel oil was raised by the increase in excise duties at the turn of the year. At the beginning of the year, the price of light fuel oil was over 50 per cent up year-on-year. The price of household electricity was up by around 20 per cent in the early part of the year.

The price of milled peat used in heat production was 20.1 per cent higher in the first quarter of the year than in the corresponding period of 2010. The price was pushed up most by the new energy tax. The price of forest chippings fell by 0.7 per cent from one year before. The price of consumer pellets was 1.8 per cent higher in May compared with the corresponding period of last year.

The price of coal used in separate heat production was nearly 100 per cent higher in March than one year earlier. In combined heat and power production the rise in prices was lower than for coal because of excise duties. Excise duties also raised the price of natural gas by nearly 40 per cent.

<sup>2)</sup> The prices include excise duties.

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## Appendix tables

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

| Date      | Fuels 1)  |                    |                      |                      |                             |                |                        | Electricity                  |              |                  |                |         |  |
|-----------|---|--------------------|----------------------|----------------------|-----------------------------|----------------|------------------------|------------------------------|--------------|------------------|----------------|---------|--|
|           |   |                    |                      |                      |                             |                | Consumption Production |                              |              | ion              |                |         |  |
|           | Motor<br>gaso-<br>line,<br>unleaded <sup>2)</sup> | fuel <sup>3)</sup> | Light<br>fuel<br>oil | Heavy<br>fuel<br>oil | <sup>11)</sup> Hard<br>coal | Natural<br>gas | Peat                   | Electricity, I <sup>4)</sup> | Electricity, | Nuclear<br>power | Hydro<br>power | Imports |  |
|           | c/l   |                    |                      | c/kg                 | €/t                         | c/nm³          | €/MWh                  | c/kWh                        |              |                  |                |         |  |
| Excise to | axes <sup>10)</sup>                               |                    |                      |                      |                             |                |                        |                              |              |                  |                |         |  |
| 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                         | 0,4          | -                | -              | -       |  |
| 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              | 15,7                 | 18,51                | 126,91                      | 8,94           | 1,9                    | 1,69                         | 0,69         | _                | -              | -       |  |
| Energy o  | content tax <sup>8</sup>                          | )                  |                      |                      |                             |                |                        |                              |              |                  |                |         |  |
| 1.1.2011  | 50,36   | -                  | 7,70                 | 8,79                 | 54,54                       | 3,00           | -                      | -                            | -            | _                | -              | _       |  |
| Carbon    | dioxide tax <sup>9</sup>                          | )                  |                      | ı                    | ı                           |                |                        |                              |              |                  |                |         |  |
| 1.1.2011  | 11,66   | _                  | 8,00                 | 9,72                 | 72,37                       | 5,94           | _                      | -                            | -            | _                | -              | -       |  |
| Energy t  | ax <sup>7)</sup>                                  |                    |                      |                      |                             |                |                        | I.                           | I.           |                  |                |         |  |
| 1.1.2011  | _   | _                  | _                    | _                    | _                           | _              | 1,9                    | 1,69                         | 0,69         | _                | _              | _       |  |
| Strategic | stockpile f                                       | ees                |                      |                      |                             |                |                        |                              |              |                  |                |         |  |
| 1.7.1984  | 0,72  |                    | 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 pollu | tion fees <sup>6)</sup>                           | 1                  | 1                    | 1                    | 1                           | 1              | 1                      |                              |              | 1                | 1              |         |  |
| 1.1.1990  |   | 0,031              | 0,031                | 0,037                | _                           | _              | _                      | _                            | _            | _                | _              | _       |  |
| 1.1.2005  |   |                    | 0,042                | 0,050                | _                           | _              | _                      | -                            | -            | _                | -              | _       |  |
| 1.1.2010  |   |                    | 0,126                | 0,150                | -                           | _              | _                      | _                            | -            | _                | _              | _       |  |
|           | , -   |                    |                      |                      |                             |                |                        |                              |              |                  |                |         |  |

<sup>1)</sup> Fuels in electricity production tax-exempt since 1 January 1997

<sup>2)</sup> Reformulated, since 1 January 1993, also sulphur-free since 1 September 2004

<sup>3)</sup> Sulphur-free, sulphur content < 50 ppm since 1 July 1993, sulphur content < 10 ppm since 1 September 2004

<sup>4)</sup> Tax class I: others

<sup>5)</sup> Tax class II: industry and professional greenhouses

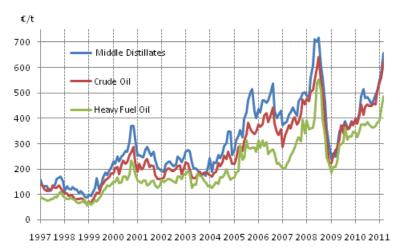
<sup>6)</sup> Fee for imported oil and oil products: 1,50 €/t

<sup>7)</sup> 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.

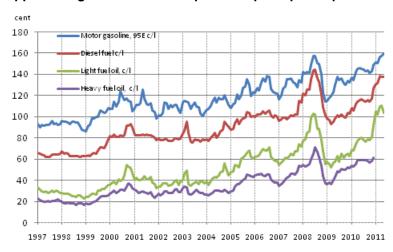
## Appendix figures

## Appendix figure 1. Import prices of oil



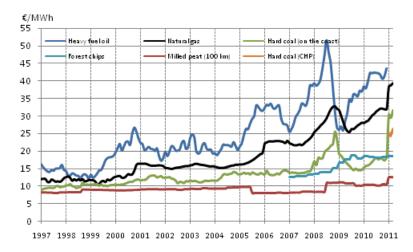
Source: National Board of Customs/Foreign Trade Statistics

### Appendix figure 2. Consumer prices of principal oil products



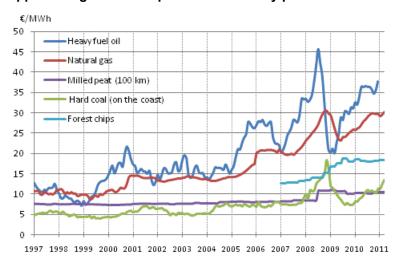
Source: Finnish Petroleum Federation

#### Appendix figure 3. Fuel Prices in Heat Production



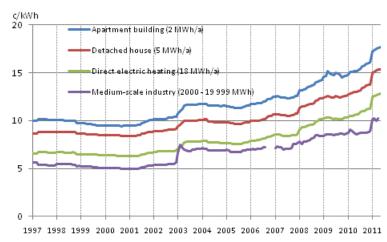
Sources: National Board of Customs/Foreign Trade Statistics, Gasum Oy, Association of Finnish Peat Industries, Finnish Petroleum Federation

#### Appendix figure 4. Fuel prices in electricity production



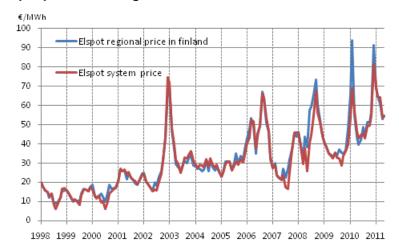
Sources: National Board of Customs/Foreign Trade Statistics, Gasum Oy, Association of Finnish Peat Industries, Finnish Petroleum Federation. Corrected on 27 September 2011.

### Appendix figure 5. Price of electricity by type of consumer, c/kWh



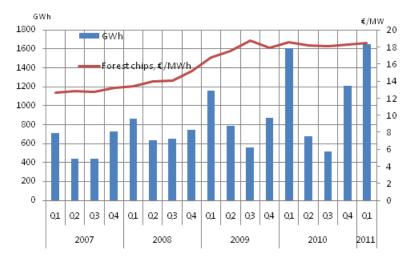
Source: Energy Market Authority

# Appendix figure 6. Average monthly spotprices at the Nord Pool Spot power exchange



Source: Nord Pool Spot

### Appendix figure 7. Price of forest chips





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Source: Statistics Finland, Energy prices