ENERGY TAXATION
IN THE EUROPEAN ECONOMIC AREA
AS OF APRIL 2010

Report prepared by the Eurogas Group of Experts in Energy Taxation.
This report and other Eurogas publications are available on the web site: http://www.eurogas.org/
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As of April 2010
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INTRODUCTION

This report is issued regularly with the intention of providing an up-to-date overview of the national energy taxation systems and the latest fiscal developments in energy in the European countries where EUROGAS member companies and associations are based. It has been prepared by the EUROGAS group of experts on Energy Taxation: the Taxation Committee based on the input of EUROGAS members. In order to provide a full picture of Europe, this year the Eurogas report covers all the EU27 countries. We would like to thank very much the Ministries of Finance of Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Portugal, Romania, Slovakia and Slovenia for their kind assistance.

The present report provides a factual description of national energy tax systems and taxes in the residential, industrial and power generation sectors as of April 2010. It consists of two parts. The first part provides an overview and a comparison in tables and graphs of the aggregated factual data on energy taxes applied for the six most important sources of energy in the three main energy sectors in the EU countries and Switzerland. The second part contains detailed descriptions of each of the individual national energy taxation systems.

All types of energy taxes (directly levied on the energy sold/consumed) are covered, regardless of their labels and professed objectives, except for taxes on motor fuels.

Due to the complexity of the energy taxation, and limits to available up-to-date statistics, it is difficult to provide a fully detailed up-to-date picture of the fiscal situation of each country’s energy sector. Therefore, the report contains some relevant information concerning the tax system applied to undertakings in the different energy sectors, and having an impact on energy prices, such as levies in the form of royalties (charged to oil and gas exploration and production activities) or concession fees (charged to natural gas, electricity and district heat supply undertakings in some countries). The following countries contributed to this report:

<table>
<thead>
<tr>
<th>AUSTRIA</th>
<th>GREECE</th>
<th>ROMANIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>BELGIUM</td>
<td>HUNGARY</td>
<td>SLOVAKIA</td>
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<tr>
<td>BULGARIA</td>
<td>ITALY</td>
<td>SLOVENIA</td>
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<td>CZECH REPUBLIC</td>
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<td>DENMARK</td>
<td>LITHUANIA</td>
<td>SWEDEN</td>
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<td>ESTONIA</td>
<td>LUXEMBOURG</td>
<td>UNITED KINGDOM</td>
</tr>
<tr>
<td>FINLAND</td>
<td>THE NETHERLANDS</td>
<td>SWITZERLAND</td>
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<td>FRANCE</td>
<td>POLAND</td>
<td></td>
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<tr>
<td>GERMANY</td>
<td>PORTUGAL</td>
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</tr>
</tbody>
</table>

COMMENT

In the European Union, the level of energy taxation greatly differs from one country to another. Behind this are differing national energy tax systems that have been devised according to each country’s specific circumstances, such as the structural characteristics of natural gas final markets (per-capita consumption, infrastructures, etc.) and specific political choices, such as revenue raising, protection/promotion of national energy production (e.g. domestic coal), protection of the international competitiveness of industry (energy taxes applied in the residential sector are typically higher than energy taxes applied in the commercial and industrial sectors), environment and/or climate protection. Consequently, not only do the taxation levels on the different fuels differ, but so also does the relative tax treatment of competing fuels in every country’s energy market.

Natural gas can be substituted by or replaces at least one form of energy supply in every market sector. In practice, this creates strong inter-fuel competition, particularly in the industrial and power generation sectors. Thus, for natural gas suppliers, the relative taxation of natural gas against competing energies in the different outlet sectors matters almost more than the absolute level of taxation.
DEFINITIONS

**VAT** (Value Added Tax) is the most general type of tax. VAT not only applies to energy but to most consumer goods. In principle, VAT applies in most countries to all consumer categories. In practice, however, VAT on energy is recoverable in all Eurogas member countries when used for commercial or industrial purposes. VAT is therefore mainly a tax on energy in the residential sector.

**Excise Duty** is a general tax charged on energy consumption as such. In most countries (like Finland, Germany, Spain, The Netherlands and the UK) excise duties apply across all consumer categories. In other countries (like Belgium and France) some excise taxes are differentiated between different consumer categories, whereas industry, in some countries (like Denmark and Sweden), is exempt from excise taxes on energy.

**Environmental Levies** are tax elements directly related to environmental aspects of energy consumption such as emissions of SO₂ or CO₂.

**Other tax elements** include often less significant fees or charges related to energy supply, storage, clean up etc. Examples of such charges are emergency stock fees, and oil pollution fees. In some cases, these fees are not being charged directly to the end-users but for example to oil suppliers as an extra cost element. In the end, however, these costs are borne by the consumers.

The content of this report is organized into two parts: the first part provides a comparison of the energy taxes and the second part describes the national tax systems of these countries. From a methodological point of view, a strict comparison between the different tax rates is not quite accurate, as numerous exceptions and country specifications in the political and environmental choices have to be taken into consideration. Notwithstanding this simplification, the report gives an indication of the countries’ positioning amongst themselves and in comparison to the “minimum rates” proposed in the EU Directive.

The implementation of the EU minimum tax rates entered into force on 1 January 2004, as stipulated in Directive 2003/96/EC restructuring the Community framework for the taxation of energy products and electricity. The Directive widens the scope of the EU’s minimum rate system for energy products, previously limited to mineral oils, to all energy products, including coal, natural gas and electricity. The objectives of the directive are twofold: economic and environmental. On the one hand, the legal text aims at reducing distortions of competition between Member States and energy products and on the other, it promotes energy efficiency and emission reductions.

### EU Minimum energy tax rates (EURO/GJ)

<table>
<thead>
<tr>
<th></th>
<th>Households</th>
<th>Industry</th>
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</thead>
<tbody>
<tr>
<td>Coal</td>
<td>0,30</td>
<td>Coal</td>
</tr>
<tr>
<td>Oil</td>
<td>0,58</td>
<td>Heavy Fuel Oil (HFO)</td>
</tr>
<tr>
<td>Natural gas</td>
<td>0,30</td>
<td>Light Fuel Oil (LFO)</td>
</tr>
<tr>
<td>Electricity</td>
<td>0,28</td>
<td>Natural gas</td>
</tr>
</tbody>
</table>

*Source: DG TREN (Directive 2003/96/EC)*

Electricity 0,14

For a better understanding of the sector comparison, the inter-fuel differences amongst the countries have to be taken into account, considering that the countries’ specific energy mix as well as taxation regimes are not amongst the EC competences.
EUROGAS POSITION ON EVENTUAL ENERGY TAX DIRECTIVE REVISION

In this Report, Eurogas takes the opportunity to recall its position on the possible revision of the Energy tax Directive. The following extracts are part of the Eurogas contribution in the framework of the public consultation on the Green Paper on the use of market-based instruments for environment and energy related policy purposes.

Should the Energy Taxation Directive be reviewed to make a clearer link to the policy objectives the Directive integrates, in particular in the field of environment and energy?

Eurogas supports the revision of the Tax Directive with the objective of combining the energy and environment objectives. The main objective of such a revision should be to ensure that the principle of “polluter pays” is not jeopardized by numerous relieves, as it is the case now.

Natural gas especially if it replaces other fossil fuels will make a valuable efficient and effective contribution towards the Kyoto objectives. EU policy frameworks should be supportive of this potential.

Eurogas recalls that amongst all the fossil energies, natural gas produces the lowest CO₂ emissions per unit of energy. It offers important advantages in terms of greenhouse benefits (also taking into account methane releases associated with the handling and use of natural gas).

Another advantage is that, unlike with other fossil fuels, natural gas contains practically no pollutant-forming components. The exhaust of gas-fired combustion is therefore virtually free of sulphur dioxide (SO₂) and particulates. Emissions of nitrogen oxides (NOx) are also low because natural gas contains hardly any organically bonded nitrogen and because combustion can occur at relatively low and constant temperatures.

A comparison between carbon dioxide emissions and the current minimum taxation levels shows that Directive 2003/96/EC does not reflect environmental aspects. The present minimum tax levels for natural gas are even higher than the level of coal and coke in the heating market, which creates strong discrimination against the cleanest available fossil fuel, and even stronger discrimination with the zero-level for LPG. This situation favours less environmental friendly energies and does not allow the EU to reach its climate change targets.

For this reason, we welcome the initiative of taking into account both the equivalent energy content and the environmental impacts of the various fuels in a weighted manner.

Eurogas also notes the importance of ensuring that the revenues generated from eventual tax corrections will be used with the clear objective of contributing to climate change objectives. Investment in new technologies should be considered.

We also warn the Commission against initiatives which raise current tax levels too much, since this could cause concern for the competitiveness of European industry and contradict the objectives of the Lisbon strategy.

Would this make energy taxation a more effective instrument by better combining the incentive effects of taxation with the ability to generate revenue?

Eurogas is convinced that such a distinction will avoid market distortion and contribute towards fair treatment of the various fuels. When fixing the new rates, Eurogas wishes to encourage the European Commission to better reflect the environmental benefits of natural gas.

Applying the environmental element outside emissions trading schemes would provide an opportunity for sharing the burden of emission reduction targets. This aspect is relevant for the competitiveness of different forms of heating, as some of them are not covered by the EU ETS.

Is splitting the minimum levels of taxation between energy and environmental counterparts the best way for doing so?

Different systems are already in place to reflect the environmental component, such as the ETS, and so it might be more appropriate to further develop them instead of creating new instruments. Although supporting the principle of taking into account the two components (energy content and environmental
impact) in a weighted manner, Eurogas is not sure that the split into two different taxes is required. In some countries this split has been effective for more than a decade, but the Paper is not explicit on how the separation of the current minimum levels of taxation into energy and environmental components would be implemented, and what rates would be applied. Eurogas supports taking into account the two components when revising the current Energy Tax Directive, but at this stage Eurogas reserves its position as far as the split is concerned due to the lack of clarity on the structure of the taxes proposed.

In any case, the reform of the Directive should take into account the following principles:

1) **Energy content component:** the Directive should be improved by properly reflecting the energy content of the different energies. The following method is proposed:
   - As for fossil fuels, this component should reflect the energy content of the different energies, to avoid distortions between them.
   - As for electricity consumption, this component should take account of an average generation efficiency rate, thus reflecting the primary energy content at the stage of electricity generation.

To avoid a double burden effect, the consumption of primary energies for generation purposes should be exempted from the energy component.

For that purpose, we recommend referring to the Annex II of Directive 2006/32/EC on energy end-use efficiency and energy services, proposing a conversion table "Energy content of selected fuels for end use".

![Energy content of selected fuels for end use](image)

**Source:** Annex II, Directive 2006/32/EC

2) As to the **environmental component**, Eurogas considers that it should take into account all the fundamental environmental aspects such as emissions of CO₂, and of other gases, as well as the production of waste.

![Emissions](image)

**Source:** Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories

Referring to the proposal in the Green Paper to increase differentiation according to fuel use, Eurogas members note that in most of their countries the trend is in the opposite direction. Eurogas believes this proposal must be further developed, taking into account the current situations in EU Member States. From an industry point of view, Eurogas supports the opportunity to differentiate the dimension of energy component according to use, as for example between heating and transportation.

**What would be the pros and cons and the main practical aspects of such an approach?**

The lack of a clear view on separation and the efforts needed to determine the components and structure of the two new taxes (especially for the environmental tax), might lead to further delays in reforming the current system and to numerous complications which might obscure the primary objective of reaching the environmental goals set by the EU.
PART ONE: COMPARISON OF COUNTRY DATA AND FIGURES ON ENERGY TAXATION AS OF APRIL 2010
### Eurogas

**Table: RESIDENTIAL SECTOR**

#### NATIONAL ENERGY TAXES AS OF April 2010 (1/2)

<table>
<thead>
<tr>
<th>EUR/GJ (NCV)</th>
<th>AT</th>
<th>BE</th>
<th>BG</th>
<th>CZ</th>
<th>DE</th>
<th>DK (DKK)</th>
<th>EST</th>
<th>ES</th>
<th>FR</th>
<th>FIN (Ft)</th>
<th>GR</th>
<th>HU</th>
<th>IRE (IE)</th>
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<tbody>
<tr>
<td><strong>HFO (≤0.5% S)</strong></td>
<td>1.49</td>
<td>0.37</td>
<td>no tax</td>
<td>0.47</td>
<td>-</td>
<td>9.69</td>
<td>0.38</td>
<td>0.35</td>
<td>0.44</td>
<td>1.65</td>
<td>-</td>
<td>0.41</td>
<td>1.60</td>
</tr>
<tr>
<td><strong>HFO (≤1% S)</strong></td>
<td>1.49</td>
<td>not rel.</td>
<td>0.64</td>
<td>0.47</td>
<td>-</td>
<td>10.04</td>
<td>0.36</td>
<td>0.35</td>
<td>0.44</td>
<td>-</td>
<td>-</td>
<td>3.72</td>
<td>1.60</td>
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<td><strong>Gas oil</strong></td>
<td>2.71</td>
<td>0.51</td>
<td>0.69</td>
<td>0.71</td>
<td>1.72</td>
<td>9.14</td>
<td>2.99</td>
<td>8.26</td>
<td>2.12 (E1)</td>
<td>1.59</td>
<td>1.74</td>
<td>3.20</td>
<td>0.59 (GR1)</td>
</tr>
<tr>
<td><strong>LPG</strong></td>
<td>0.91</td>
<td>0.37</td>
<td>no tax</td>
<td>no tax</td>
<td>1.31</td>
<td>8.98</td>
<td>no tax</td>
<td>no tax</td>
<td>no tax</td>
<td>no tax</td>
<td>no tax</td>
<td>0.28</td>
<td>no tax</td>
</tr>
<tr>
<td><strong>Natural gas</strong></td>
<td>1.85</td>
<td>0.41</td>
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<td>no tax</td>
<td>1.89</td>
<td>8.79</td>
<td>0.70</td>
<td>no tax</td>
<td>no tax</td>
<td>0.58</td>
<td>no tax</td>
<td>no tax</td>
<td>0.85</td>
</tr>
<tr>
<td><strong>Coal</strong></td>
<td>1.99</td>
<td>0.43</td>
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<td>no tax</td>
<td>0.34</td>
<td>no tax</td>
<td>14.49</td>
<td>0.30</td>
<td>no tax</td>
<td>no tax</td>
<td>1.99</td>
<td>no tax</td>
<td>no tax</td>
</tr>
<tr>
<td><strong>Electricity</strong></td>
<td>4.17</td>
<td>1.66</td>
<td>no tax</td>
<td>0.31</td>
<td>5.69</td>
<td>26.55</td>
<td>1.24</td>
<td>0.14</td>
<td>3.75 (FR2)</td>
<td>1.38 (FR1)</td>
<td>2.45 (FR2)</td>
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<td><strong>non-recoverable VAT (%)</strong></td>
<td>20.00</td>
<td>21.00</td>
<td>20.00</td>
<td>20.00</td>
<td>19.00</td>
<td>25.00</td>
<td>20.00</td>
<td>16.00</td>
<td>19.60</td>
<td>5.5 (FR4)</td>
<td>22.00</td>
<td>21 (GR3)</td>
<td>10 (GR4)</td>
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</table>

<table>
<thead>
<tr>
<th>EUR/MWh (NCV)</th>
<th>AT</th>
<th>BE</th>
<th>BG</th>
<th>CZ</th>
<th>DE</th>
<th>DK (DKK)</th>
<th>EST</th>
<th>ES</th>
<th>FR</th>
<th>FIN (Ft)</th>
<th>GR</th>
<th>HU</th>
<th>IRE (IE)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HFO (≤0.5% S)</strong></td>
<td>5.37</td>
<td>1.33</td>
<td>no tax</td>
<td>1.69</td>
<td>-</td>
<td>34.89</td>
<td>1.35</td>
<td>1.25</td>
<td>1.59</td>
<td>5.94</td>
<td>-</td>
<td>1.46</td>
<td>5.75</td>
</tr>
<tr>
<td><strong>HFO (≤1% S)</strong></td>
<td>5.37</td>
<td>not rel.</td>
<td>2.30</td>
<td>1.69</td>
<td>-</td>
<td>38.13</td>
<td>1.35</td>
<td>1.25</td>
<td>1.59</td>
<td>-</td>
<td>-</td>
<td>13.39</td>
<td>5.75</td>
</tr>
<tr>
<td><strong>Gas oil</strong></td>
<td>9.75</td>
<td>1.83</td>
<td>2.48</td>
<td>2.55</td>
<td>6.21</td>
<td>32.91</td>
<td>10.76</td>
<td>29.82</td>
<td>7.6 (E1)</td>
<td>5.73</td>
<td>6.26</td>
<td>25.92</td>
<td>5.12 (GR1)</td>
</tr>
<tr>
<td><strong>LPG</strong></td>
<td>3.27</td>
<td>1.32</td>
<td>no tax</td>
<td>no tax</td>
<td>4.76</td>
<td>32.33</td>
<td>no tax</td>
<td>no tax</td>
<td>no tax</td>
<td>no tax</td>
<td>no tax</td>
<td>1.02</td>
<td>no tax</td>
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<td><strong>Natural gas</strong></td>
<td>5.94</td>
<td>1.46</td>
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<td>no tax</td>
<td>6.09</td>
<td>31.68</td>
<td>2.52</td>
<td>no tax</td>
<td>no tax</td>
<td>2.10</td>
<td>no tax</td>
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<td>3.07</td>
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<td><strong>Coal</strong></td>
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<td>1.54</td>
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<td>1.21</td>
<td>no tax</td>
<td>52.18</td>
<td>1.08</td>
<td>no tax</td>
<td>no tax</td>
<td>7.12</td>
<td>no tax</td>
<td>no tax</td>
<td>1.08 (E2)</td>
</tr>
<tr>
<td><strong>Electricity</strong></td>
<td>15.00</td>
<td>5.98</td>
<td>no tax</td>
<td>1.12</td>
<td>20.50</td>
<td>95.57</td>
<td>4.47</td>
<td>1.00</td>
<td>13.5 (FR5)</td>
<td>5 (FR4)</td>
<td>8.83</td>
<td>0.50</td>
<td>no tax</td>
</tr>
<tr>
<td><strong>non-recoverable VAT (%)</strong></td>
<td>20.00</td>
<td>21.00</td>
<td>20.00</td>
<td>20.00</td>
<td>19.00</td>
<td>25.00</td>
<td>20.00</td>
<td>16.00</td>
<td>19.60</td>
<td>5.5 (FR4)</td>
<td>22.00</td>
<td>21 (GR3)</td>
<td>10 (GR4)</td>
</tr>
</tbody>
</table>

[BE1] For gas with a sulphur degree ≤ 10mg/kWh the rate is 0.47/EUR/GJ or 1.70 EUR/MWh.  
[BE2] General VAT rate of 21% (except for coal 12%).  
[BG1] Zero excise duty on the share of natural gas in total consumption was lower than 15% in 2000.  
[DK1] Tax includes excise tax. CO2 tax and S02 tax. S02 tax is indicated for common commercial fuel qualities.  
[DK2] Tax for heating use and some propellant use. The general rate is 300/KWh or 8,787/EURO.  
[DK3] Tax rate on the part of consumption over 5 GWh incl.  
[DK4] Tax rate on the part of consumption over 5 GWh incl.  
[FR2] Maximum tax 2.50 EUR/GJ (local tax) + 1.25 EUR/GJ (CGRE)  
[FR3] Min tax 0.14 EUR/GJ (local tax) + 1.25 EUR/GJ (CGRE)  
[FR5] Maximum tax 5.00 EUR/MWh (local tax) + 4.50 EUR/MWh (CGRE)  
[FR6] Min tax 0.50 EUR/MWh (local tax) + 4.50 EUR/MWh (CGRE)  
[FR7] The Tax is composed of a basic tax: Additional tax + Security of supply fee.  
[FR8] Tax is paid by the owner of the electricity network or power producer who sells the electricity. Tax is not paid for wind power or very small power plants.  
[FI1] Maximum Tax  
[FI2] Between 15 Oct and 30 April (winter) a reduced rate is applied.  
[FI3] Exemption by law up to 2013  
[FI4] VAT: 21% for oil products  
[FR7] VAT: 10% for natural gas and electricity  
[FI1] The rates were calculated by Eurogas, based on the Revenue Office "Table of Excise Duty Rates", all rates include the carbon charge. The Carbon tax will apply from 1 May 2010.  
[FR2] Coal and Peat briquettes exempted from carbon charge.
<table>
<thead>
<tr>
<th>EUROC/GJ (NCV)</th>
<th>IT (TJ)</th>
<th>LV</th>
<th>LT</th>
<th>LUX</th>
<th>NL (Nl2)</th>
<th>PL (P.pl1)</th>
<th>PT</th>
<th>RO</th>
<th>SK</th>
<th>SI</th>
<th>SW</th>
<th>UK</th>
<th>CH (CHF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HFO (≤0.5% S)</td>
<td>1.57</td>
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<td>0.39</td>
<td>0.37</td>
<td>not rel.</td>
<td>0.38</td>
<td>0.38</td>
<td>0.08</td>
<td>not rel.</td>
<td>10.48</td>
<td>3.17</td>
<td>0.06</td>
<td></td>
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<td>HFO (21% S)</td>
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<td>0.39</td>
<td>0.37</td>
<td>not rel.</td>
<td>0.38</td>
<td>0.38</td>
<td>-</td>
<td>not rel.</td>
<td>10.78</td>
<td>3.17</td>
<td>0.06</td>
<td></td>
</tr>
<tr>
<td>Gas oil</td>
<td>11,58</td>
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<td>7.54</td>
<td>0.58</td>
<td>[LT1]</td>
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<td>0.11</td>
<td>0.19</td>
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<th>EUROC/MWh (NCV)</th>
<th>IT (TJ)</th>
<th>LV</th>
<th>LT</th>
<th>LUX</th>
<th>NL (Nl2)</th>
<th>PL (P.pl1)</th>
<th>PT</th>
<th>RO</th>
<th>SK</th>
<th>SI</th>
<th>SW</th>
<th>UK</th>
<th>CH (CHF)</th>
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<td>not rel.</td>
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<td>1.36</td>
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<td>-</td>
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<td>27.14</td>
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<td>17.49</td>
<td>28.46</td>
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<td>0.54</td>
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<td>LPG</td>
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<td>1.19</td>
<td>1.48</td>
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<td>no tax</td>
<td>0.76</td>
<td>12.52</td>
<td>0.57</td>
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<td>2.33</td>
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<td>Natural gas</td>
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<td>1.56</td>
<td>1.07</td>
<td>no tax</td>
<td>0.86</td>
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<td>1.15</td>
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<td>3.17</td>
<td>24.03</td>
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<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
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<td>0.08</td>
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<td>42.62</td>
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<tr>
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<td>1.00</td>
<td>1.00</td>
<td>[LT1]</td>
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<td>1.00</td>
<td>1.00</td>
<td>28.93</td>
<td>0.04</td>
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</table>

[IT1]: For industries using cylinders bigger than 10m³.
[IT2]: For annual consumption up to 120m³ - Southern and Central Regions
[IT3]: For annual consumption between 120m³ and 150m³ - Southern and Central Regions
[IT4]: For annual consumption above 150m³ - Southern and Central Regions
[IT5]: Considering LPG and gasoil taxation in the residential and commercial sectors there is a different regime in northern provinces and in the mountain areas.
[IT6]: For annual consumption up to 120m³ - Northern Regions
[IT7]: For annual consumption between 120m³ and 150m³ - Northern Regions
[IT8]: For annual consumption above 150m³ - Northern Regions
[IT9]: Additional regional tax can vary between 0.15 and 0.9 EUR/GJ (0.54 and 3.23 Euro/MWh), but cannot exceed 50% of the level of the corresponding national excise.
[IT10]: VAT for HPG and LPG.
[IT11]: VAT for gasoil.
[IT12]: VAT for natural gas used for heating.
[IT13]: VAT for electricity and natural gas (except natural gas as fuel).
[LT1]: For heating use.
[LT2]: LPG used for heating is relieved from excise duty.
[LU1]: This corresponds to a monitoring charge "relevanz de kontrolle".
[LU2]: Annual consumption ≤500 MWh.
[LU3]: Where consumption ≤ 25 MWh.
[LU4]: Except for heavy fuel oil where applicable rate is 15% and for coal and gasoil where the rate is 12%.
[NL1]: The given figures are not exact, but refer to a typical consumption level for this sector.
[NL2]: All consumers with an electricity connection get a refund of Euro 197.00 per connection per year.
[PL1]: Conversion from 1000l for G3 with factor: 40.61.
[PL2]: There is no differentiation of duties for subehar content.
[PL3]: The rate for LPG used as fuel for cars equals 4.47 euro.
[PL4]: The tax for electricity is the maximum.
[PL5]: Tax for natural gas used for heating.
[PT2]: Tax rate for LPG used as a motor fuel is €0.08/750ml.
[PT1]: Natural gas is taxed only when used as a motor fuel (62.78/€).
[SK1]: Tax rate for LPG used as motor fuel is €0.05/1000l. 
[SK2]: Tax rate for LPG used as heating fuel is €0.03/1000kg.
[SW1]: Tax rate for natural gas used as motor fuel is €0.03/1000kg.
[CH1]: fuel CO2 tax is applied, no excise tax.
[CH2]: CH (CHF).
### Table: INDUSTRY SECTOR

#### NATIONAL ENERGY TAXES AS OF APRIL 2010 (1/2)

<table>
<thead>
<tr>
<th>Fuel Type</th>
<th>EUR/GJ (NCV)</th>
<th>AT</th>
<th>BE (BE1)</th>
<th>BG</th>
<th>CZ</th>
<th>DE</th>
<th>DK (DK1)</th>
<th>EST</th>
<th>ES</th>
<th>FR</th>
<th>FIN</th>
<th>GR</th>
<th>HU</th>
<th>IRE (IE1)</th>
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<tr>
<td>HFO (&lt;0.5% S)</td>
<td>1.49</td>
<td>0.16</td>
<td>-</td>
<td>0.57</td>
<td>0.61</td>
<td>2.65</td>
<td>0.38</td>
<td>0.35</td>
<td>0.44</td>
<td>1.65</td>
<td>0.46</td>
<td>0.41</td>
<td>1.60</td>
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<tr>
<td>HFO (21% S)</td>
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<td>0.04</td>
<td>0.47</td>
<td>0.76</td>
<td>2.99</td>
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<td>2.15</td>
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<td>7.20</td>
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<tr>
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<td>-</td>
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<td>-</td>
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<td>0.00</td>
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<thead>
<tr>
<th>Fuel Type</th>
<th>EUR/MWh (NCV)</th>
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<th>BE (BE1)</th>
<th>BG</th>
<th>CZ</th>
<th>DE</th>
<th>DK (DK1)</th>
<th>EST</th>
<th>ES</th>
<th>FR</th>
<th>FIN</th>
<th>GR</th>
<th>HU</th>
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<tr>
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<td>1.59</td>
<td>5.94</td>
<td>1.66</td>
<td>1.48</td>
<td>5.75</td>
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<td>0.69</td>
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<td>-</td>
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<td>7.73</td>
<td>10.78</td>
<td>29.98</td>
<td>29.92</td>
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<td>-</td>
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<td>7.13</td>
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<td>0.00</td>
<td>3.57</td>
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<td>2.52</td>
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<td>1.21</td>
<td>1.11</td>
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<td>0.00</td>
<td>1.23</td>
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<td>0.00</td>
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**Notes:**

- [BE1] Taxes for industrial Consumers with Agreement, different from energy intensive industries
- [BE2] For Gasoil with a sulphur degree <= 10mg/kg the rate is 0.24 EUR/GJ or 0.85 EUR/MWh.
- [BG1] Zero excise duty as the share of natural gas in total consumption was lower than 5% in 2000
- [DK1] Tax includes C02 tax and SO2 tax. SO2 tax is included for common commercial fuel qualities
- [FR1] Tax for heating use and some industrial use. The general tax is 307€/1000GJ or 0,27€/GJ
- [GR1] Tax includes small tax for low power users and low power use
- [IE2] Coal and Peat briquettes exempted from carbon charge.
## Table: INDUSTRY SECTOR

### NATIONAL ENERGY TAXES AS OF April 2010 (2/2)

<table>
<thead>
<tr>
<th>Energy Source</th>
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<th>LV</th>
<th>LT</th>
<th>LUX</th>
<th>NL (NL2)</th>
<th>PL (PL1)</th>
<th>PT</th>
<th>RO</th>
<th>SK</th>
<th>SI (SI2)</th>
<th>SW</th>
<th>UK</th>
<th>CH (CH1)</th>
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<td>0.37</td>
<td>not rel.</td>
<td>0.39</td>
<td>0.73</td>
<td>0.38</td>
<td>-</td>
<td>1.37</td>
<td>1.79</td>
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<td>0.06</td>
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<tr>
<td>Gas oil</td>
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<td>0.36</td>
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<td>7.91</td>
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<td>3.29</td>
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<tr>
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<td>0.3</td>
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<td>no tax</td>
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<td>2.08</td>
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### EUROS/MWh (NCV)

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<th>IT</th>
<th>LV</th>
<th>LT</th>
<th>LUX</th>
<th>NL (NL2)</th>
<th>PL (PL1)</th>
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<th>RO</th>
<th>SK</th>
<th>SI (SI2)</th>
<th>SW</th>
<th>UK</th>
<th>CH (CH1)</th>
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<tbody>
<tr>
<td>HFO (±0.5% S)</td>
<td>2.75</td>
<td>1.4</td>
<td>1.36</td>
<td>1.33</td>
<td>2.93</td>
<td>1.40</td>
<td>1.37</td>
<td>1.35</td>
<td>2.09</td>
<td>4.95</td>
<td>5.41</td>
<td>11.42</td>
<td>0.23</td>
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<tr>
<td>HFO (21% S)</td>
<td>5.71</td>
<td>1.4</td>
<td>1.36</td>
<td>1.33</td>
<td>not rel.</td>
<td>1.40</td>
<td>2.63</td>
<td>1.35</td>
<td>-</td>
<td>4.95</td>
<td>5.45</td>
<td>11.42</td>
<td>0.23</td>
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<td>28.48</td>
<td>1.53</td>
<td>9.45</td>
<td>4.72</td>
<td>12.20</td>
<td>0.23</td>
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<tr>
<td>LPG</td>
<td>14.85</td>
<td>2.86</td>
<td>23.56</td>
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### Notes:

1. [T1]: For industries using cylinders bigger than 1.0 m³.
2. [T2]: Additional regional tax 0.15 – 0.18 Euro/GJ.
3. [T3]: For users consuming over 1,200,000 m³/year, additional regional tax 0.15 Euro/GJ.
4. [T4]: Additional regional tax 0.34 – 0.65 Euro/GJ.
5. [T5]: For users consuming over 1,200,000 m³/year, additional regional tax 0.15 Euro/MWh.
6. [T6]: For all fuels, VAT is recoverable for industrial use, otherwise VAT for gas 10% and other VAT rates vary for residential sector data.
7. [L1]: Some industries have exemption from excise tax on natural gas.
8. [L2]: For heating use.
9. [L3]: LPG used for heating is relieved from excise duty.
10. [L4]: Tax exemption according to the Article 151(1)(g) of Council Directive 2003/96/EC.
11. [L5]: Heating / Business use with consumption > 550 MWh: 10€/1000 MWh (this is a monitoring charge).
12. [L6]: Agricultural and horticultural uses are exempted from taxes.
13. [L7]: Consumption > 550 MWh.
14. [L8]: For a company whose consumption > 25 MWh in metallurgical processes, electricity and chemical reduction or mineralogical processes the rate is 0.13 € / MWh.
15. [L9]: Consumption > 4100 MWh, for a company signing an agreement with the government aimed at improving its energy bill, the rate is 0.3 € / MWh.
16. [L10]: This applies to business with an environmental objectives agreement with the government consuming > 25 MWh.
17. [L11]: For gasoil and heavy fuel oil the rate is 12%; for coal it is 12%.
18. [L12]: The energy content is net, it refers to a typical consumption level for this sector.
19. [L13]: For all the fuels the rate of refund of Euro 197.00 per connection per year.
20. [L14]: Conversion from 1000 l for GI with factor: 40,61.
21. [L15]: There is no differentiation of duties for sulphur content.
22. [L16]: For LPG used as fuel for cars the rate is of 4.47 Euros.
23. [L17]: Heating, gasoil for industrial, commercial and residential heating.
24. [L18]: Tax rate for LPG used as a motor fuel is Euro 0.38/GJ.
25. [L19]: Natural gas is taxed only when used as a motor fuel (EC 78/81/G).
### Table: POWER SECTOR

#### NATIONAL ENERGY TAXES AS OF April 2010 (1/2)

<table>
<thead>
<tr>
<th>EUR/GJ (NCV)</th>
<th>AT</th>
<th>BE</th>
<th>BG</th>
<th>CZ</th>
<th>DE</th>
<th>DK (DK1)</th>
<th>EST</th>
<th>ES</th>
<th>FR</th>
<th>FIN</th>
<th>GR</th>
<th>HU</th>
<th>IRE</th>
</tr>
</thead>
<tbody>
<tr>
<td>HFO (±0.5% S)</td>
<td>no tax</td>
<td>no tax</td>
<td>no tax</td>
<td>0.37</td>
<td>no tax</td>
<td>no tax</td>
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<tr>
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<td>1.59</td>
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<table>
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<tr>
<th>EUR/MWh (NCV)</th>
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<th>BG</th>
<th>CZ</th>
<th>D</th>
<th>DK (DK1)</th>
<th>EST</th>
<th>ES</th>
<th>FR</th>
<th>FIN</th>
<th>GR</th>
<th>HU</th>
<th>IRE</th>
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<tbody>
<tr>
<td>HFO (±0.5% S)</td>
<td>no tax</td>
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<td>no tax</td>
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<td>non-recoverable VAT (%)</td>
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<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
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<td>0.00</td>
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</table>

[AT1] Tax exemption concerning energy input for electricity generation
[AT2] for CHP reduced tax: 0.35 EUR/GJ=1.31 €/MWh
[AT3] effective tax after refund on input energy as to CHP plants producing electricity and heat
[AT4] reduced tax for CHP: 0.32 EUR/GJ=1.14 €/MWh
[AT5] reduced tax for natural gas used in power generation
[BG1] Zero excise duty as the share of natural gas in total consumption was lower than 15% in 2000
[CZ1] For heat production or in CHPs the major part of the rate is refunded and the subject pays 550 CZK/1000 litres (0.71 €/GI). If gas oil is used just for electricity production (ie. not in CHP) the full rate applies, ie 10 950 CZK/1000 litres (11.73 €/GI) and no tax exemption.
[DK1] no taxation of power generation in stationary plants with a rated power output of more than 2 Megawatt and fuel input to CHP plants with an annual utilisation rate of 70% or more
[GR1] Tax-free use as fuel for heat or power generation
[DK1] Taxes are presented for the power production above 20MW
## Table: POWER SECTOR

### NATIONAL ENERGY TAXES AS OF April 2010 (2/2)

<table>
<thead>
<tr>
<th></th>
<th>IT (€/tE)</th>
<th>LV</th>
<th>LT</th>
<th>LUX</th>
<th>NL</th>
<th>PL (€/GJ)</th>
<th>PT</th>
<th>RO</th>
<th>SK</th>
<th>SI</th>
<th>SW (€/MWh)</th>
<th>UK</th>
<th>CH (€/MWh)</th>
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<tbody>
<tr>
<td><strong>HFO (±0.5% S)</strong></td>
<td>0.37</td>
<td>0.39</td>
<td>no tax</td>
<td>no tax</td>
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<td>0.39</td>
<td>no tax</td>
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<td>0.17</td>
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<td>0.03</td>
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<td>no tax</td>
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<td>0.37</td>
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</tr>
<tr>
<td><strong>Coal</strong></td>
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<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
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</tbody>
</table>

<table>
<thead>
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<th></th>
<th>IT (€/tE)</th>
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<th>LT</th>
<th>LUX</th>
<th>NL</th>
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<th>SW (€/MWh)</th>
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<th>CH (€/MWh)</th>
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<td>1.40</td>
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<td>1.04</td>
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<td>0.23</td>
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<td>2.09</td>
<td>11.42</td>
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<td>1.20</td>
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<td><strong>LPG</strong></td>
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<td>no tax</td>
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<td>no tax</td>
<td>0.40</td>
<td>0.12</td>
<td>0.11</td>
</tr>
<tr>
<td><strong>Natural gas</strong></td>
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<td>0.05</td>
<td>no tax</td>
<td>no tax</td>
<td>no tax</td>
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<td>no tax</td>
<td>0.06</td>
<td>0.06</td>
<td>0.11</td>
</tr>
<tr>
<td><strong>Coal</strong></td>
<td>0.36</td>
<td>0.36</td>
<td>0.36</td>
<td>0.36</td>
<td>0.36</td>
<td>0.36</td>
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<td>0.36</td>
<td>0.36</td>
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<tr>
<td><strong>non-recoverable VAT (%)</strong></td>
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<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
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<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

(1T) applied to fuels used by public utilities and by electricity producers that sell electricity to public utilities.

(LV) Tax exemption for the generation of energy in combined equipment generation of electricity and heat energy. Exemption is applied only for generation of electricity.

(PL) Conversion factor 100 GJ for GJ with factor 100/40.1.

(PL2) There is no differentiation of duties for sulphur content

(PL3) For use as fuel for cars equal 4.47 euro

(SW1) WSPO with 0.8% Sulphur content and LPG with 0.4% Sulphur content

(SW2) 3% of the fuel for electricity from CHP production is defined as auxiliary fuel and taxed at normal level

(CH) Federal law severely restricts the use of fossil fuels for power generation.
Charts: RESIDENTIAL SECTOR

Energy Taxes - Residential Sector as of April 2010

Energy Taxes - Residential Sector as of April 2010

Gas oil

LPG

Natural gas

Electricity
VAT

V.A.T. Rates as of April 2010
(not deductible in the residential sector)

CONVERSION TABLE:

<table>
<thead>
<tr>
<th>Energy product</th>
<th>Euro per GJ</th>
<th>Euro per 1000 kg</th>
<th>Euro per 1000 l</th>
</tr>
</thead>
<tbody>
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<td>44,0</td>
<td>32,6</td>
</tr>
<tr>
<td>Diesel (1000 l)</td>
<td>1,0</td>
<td>42,6</td>
<td>37,1</td>
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<tr>
<td>LPG (1000 kg)</td>
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<td>24,8</td>
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<tr>
<td>Natural gas (GJ gross calorific value)</td>
<td>1,0</td>
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</tr>
<tr>
<td>[NCV=0.9GCV]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heavy fuel oil (1000 kg)</td>
<td>1,0</td>
<td>40,0</td>
<td>38,0</td>
</tr>
</tbody>
</table>
PART TWO: DESCRIPTION OF NATIONAL ENERGY TAXATION SYSTEMS IN EU COUNTRIES & SWITZERLAND AS OF APRIL 2010
1. **Tax regime specifications**

1.1. Are there different energy taxes for different end-use sectors (e.g. households, district heating, industry (heating, processes), power generation, cogenerations)?

Not in general. However, with respect to the Consumption tax, there is a refund system for entrepreneurs:

The actual tax refund system became effective as of 1 January 2004 and is applicable for producing companies as well as for service companies. Whenever the amount of the taxes on energy consumption exceeds 0.5% of the so called net production value “Nettoproduktionswert” (defined by turnover minus input costs), this percentage effectively represents a tax ceiling on energy sources. In addition, coal tax and mineral oil tax have been incorporated into the tax refund system and minimum levels of energy taxes have been established from 1 January 2004 on, in order to comply with the guidelines contained in the Electricity Directive. These minimum levels of energy taxes are:

<table>
<thead>
<tr>
<th>Tax</th>
<th>Unit</th>
<th>Unit</th>
</tr>
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<tbody>
<tr>
<td>HFO</td>
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<tr>
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<tr>
<td>Electricity</td>
<td>0,1389 EUR/GJ</td>
<td>0,5000 EUR/MWh</td>
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</table>

Due to the general output-taxation system there is an input tax exemption for HFO, natural gas and coal as far as electricity production is concerned. For the input of gas oil there is a partial tax-refund in case of electricity production and co-generation of electricity and heat.

For combined heating and power generation the input tax exemption only applies for the portion of energy input attributable to electricity production. For the portion attributable to heat production no input tax exemption applies. The correct allocation respectively the calculation method how to split the energy input is currently in discussion with the ministry of finance as no consistent procedure exists so far and the further development remains to be seen.

1.2. Breakdown of total energy taxes on the different tax elements (e.g. general excise duty, environmental levy, storage taxes).

All taxes are a lump sum without specified elements, especially when there is no environmental background.

1.3. Description of the fiscality applied on undertakings in energy sectors having an impact on energy prices, such as royalties and concession fees.

In Vienna City and in Lower Austria a duty for the usage of public land is charged by the municipality to the local electricity utility; in economic terms this levy is similar and comparable to a concession fee. The tax-rate for the City of Vienna is 6 % on electricity revenues in the municipal territory. The tax-rate for Lower Austria amounts to € 25.40 per 100 meters of grid on public land.

2. **Description of legal framework of tax regime**

2.1. Which changes in the energy tax system have taken place since 1 January 1995 and for which stated reasons?

On 1 June 1996 the electricity and natural gas taxation system was introduced and has been, in general, maintained since then. With effect from 1 June 2000 the tax-rate for electricity was more than doubled, whereas the tax-rate for natural gas was maintained.
On 1 January 2004 the tax rate for natural gas was more than doubled (from 0.0436 €/m³ to 0.066 €/m³). The tax rate for electricity was maintained and amounts to 0.015 €/kWh. Furthermore, the process of tax-collection was changed due to the liberalisation of the energy markets. It is now effected by the grid operators. This means that the electricity tax as well as the natural gas tax is paid by the consumers but levied and administrated by the respective grid company by way of a separate item on the electricity or gas bill.

With effect from 1 January 2004 a taxation of the supply and consumption of coal was introduced. The tax rate amounts to 0.05 €/kg.

With effect from 1 January 2005 the mineral oil tax on Petrol and Diesel is lowered if biogenous substances (like Bio-Ethyl Alcohol, Biogas, Bio-Methanol) are added. Mineral oil which consists solely of biogenous substances is tax exempt.

With effect from 1 July 2007 the mineral oil tax for the consumption of Gasoil was increased by € 30 per ton and for the consumption of Diesel by € 50 per ton.

As previously mentioned, there is a tax refund system for energy taxes. This system was continuously changed in the last years. The actual effective system exists since 1 January 2004 (see above).

2.2. Is natural gas coming under pressure with regard to changes in the energy taxation system (from governments or other energy lobbies, e.g. the oil or coal lobbies)?

The taxes on gas (and electricity), which have become effective on June 1 1996, have clearly shifted the balance in favour of mineral oil products and coal. The present system is definitely not ecologically-driven and represents a contradiction to the official Austrian energy policy favouring environmentally-friendly forms of energy and reduction of emissions. Due to the above mentioned national implementation of the Electricity Directive – implementation of minimum levels of energy taxes and inclusion of coal tax and mineral oil tax in the energy tax refund system – it can be supposed that the usage of natural gas is coming under pressure.

Furthermore, because of the non-taxation of biomass as fuel and the incentives from the government to encourage the installation of biomass-heating, the usage of natural gas as fuel is coming under pressure.

2.3. Are any changes foreseen in the energy tax system? Please specify. Why are energy taxes to change and how will the foreseen changes affect the market position of natural gas?

Currently public discussions regarding different changes (e.g. increase of the mineral oil tax or the introduction of a new CO₂-tax) in the energy tax system are held. Probably there will be some changes within the next few years. However, at this time possible changes cannot be specified. The further development remains to be seen.

3. Natural gas competitiveness

3.1. Is the tax system “fair” to natural gas or does the tax regime in itself cause problems in relation to the competitive position/marketing of natural gas?

When the tax on natural gas was introduced natural gas prices were burdened in comparison to competing oil products which were subject to mineral oil tax. But market forces had quickly reached a certain balance. However, because of the inclusion of mineral oil tax in the tax refund system these balances were interfered with.

3.2. Are tax revenues in any way used to promote/support the use of natural gas?

No. The tax revenues only contribute to the public budget.
3.3. Who benefits from any tax differentials between different fuels (e.g. consumers, energy producers, energy distributors)?

In general there are no benefits for a certain user group. Since 1st January 2004 the taxation of coal was introduced this means an increase of tax payments for all users of coal, especially for the households who have no possibility of entering the existing tax refund system. The tax rate for coal amounts to 0.05 €/kg.

4. VAT Regime

The VAT-system corresponds to the 6th EU-Directive. The standard VAT-rate is 20%. It is reduced for the supply of those goods listed in Appendix A to the VAT Act, e.g. certain foodstuffs, books, newspapers and periodicals, objects of art, leases of land and buildings for living, services rendered by hospitals or homes for aged people, by theatres, museums or cinemas.

In principle, VAT is neither an expense nor an income item for most businesses because the input tax paid to suppliers is recoverable from the fiscal authorities.

With effect from 1 January 2005 the changes in the 6th EU-directive – modification of the place of supply for the delivery of gas and electricity – were transferred into the Austrian VAT Act. According to the new regulations, deliveries of gas and electricity to energy supply companies or to electricity traders are taxed in the country where the customer locates his company. Deliveries to end consumers have to be taxed in that country, where the deliveries are used by the end consumer.

Beginning with 1st July 2006 on invoices that exceed EUR 10,000 - additionally to the other necessary criteria - the VAT identification number of the customer has to be indicated. This is a material qualification for the deductibility of input VAT.

According to the VAT directives deductibility of input VAT is not allowed for invoices that are transferred via electronic means (E-Mail, Electronic data exchange, facsimile,...) unless they are not provided with a defined way of an electronic signature. However, invoices that are transmitted via facsimile are exempt from that rule until 31st December 2011 (transition period).

With effect from 1 January 2010 businesses need to consider considerable changes in respect of VAT regulations.

Changes in place of services performed by a business to another business (B2B):
The place of the majority of intra-Community services supplied to businesses will be at the place where the recipient of the service is established. The supplier of the service will therefore usually issue an invoice without VAT and the liability for VAT will shift via the Reverse Charge System to the recipient of the service.

Sales List for intra-Community supply of services:
From 1 January 2010 onwards, supplies of services for which the VAT liability shifts to the recipient of the service according to the new B2B rule will have to be declared in the monthly Sales List. The term for the submission of the Sales List concerning reporting periods starting after 31 December 2009 was shortened. Henceforth, the Sales List must be submitted by the end of each calendar month following the reporting period.

5. Taxation and pollution

In Austria there is no premium for natural gas. Due to the fact that in general there is an output taxation system for energy, there is no special tax-regime on renewable energy sources.

6. Biogas taxation

As already mentioned above (2nd point) mineral oil which consists solely of biogenous substances such as Biogas is tax exempt in Austria since 1 January 2005. So Biogas will not be taxed under the mineral oil tax act. Furthermore, Biogas doesn’t meet the requirements of the definition of natural gas according to the natural gas tax act. So the usage of Biogas is in principle not taxed in Austria. However, if Biogas is
Eurogas

supplied to a natural gas grid, Biogas is treated as natural gas, as a further distinction is practicably not possible. Furthermore there is currently no regulation planned solving this disadvantage.

7. **Taxation for Natural Gas Vehicles (NGV)**

There is no special tax-regime on NGVs in Austria. CNG is taxed as natural gas. But there are several incentives to encourage the use of NGVs, but no tax-driven ones.

8. **LNG taxation**

LNG has no preferential treatments.
1. **Tax regime specifications**

1.1. **Are there different energy taxes for different end-use sectors (e.g. households, district heating, industry (heating, processes), power generation, cogenerations)?**

Reference is made to the different tax rates as indicated in the enclosed tables and point 1.2.

1.2. **Breakdown of total energy taxes on the different tax elements (e.g. general excise duty, environmental levy, storage taxes).**

- **Federal taxes**

  The following federal taxes are applicable on the consumption of gas:
  - the excise duty
  - the federal contribution on gas
  - the federal surcharge on the delivery of gas

  The excise duty is an indirect taxation levied by the federal government to finance part of the social security provisions. The excise duty is levied on the consumption of energy products and electricity on the Belgian territory and is subject to VAT.

  This ordinary regime involves 4 kinds of taxes:
  - the excise duty;
  - the special excise duty;
  - the control retribution on the heating gas oil;
  - the energy tax.

  The level of the tax rate depends on the kind of end-user: a residential for private use or a professional end-user. In case of professional use different rates apply depending on the fact whether or not the gas is used for energy-intensive business and whether or not environmental agreements are concluded.

  The federal contribution on gas is a contribution levied by the federal government to finance the costs related to federal regulation and the costs related to public service obligations (a.o. Law of April 12, 1965 relating to the transport of gas and other products by means of pipes). This federal contribution is due on the delivery of gas on Belgian territory and amounts to 0.1490 EUR/MWh for calendar year 2010. This federal contribution is subject to VAT.

  On top of that also a federal surcharge on the delivery of gas is levied amounting to 0,1777 EUR/MWh for calendar year 2010 (a.o. Law of April 12, 1965 relating to transport of gas and other products by means of pipes). This surcharge finances the real net costs related to the application of maximum prices for well-defined protected and vulnerable residential clients. By exception, this surcharge is not subject to VAT.

- **Regional taxes**

  In addition to these federal taxes, some regional taxes are also applicable on the consumption of natural gas in the Walloon and Brussels region.

  In the Walloon region, a grid connection fee is applicable on the consumption of gas (see the Execution Decree of the Walloon Region of June 19, 2003). This charge finances mainly the costs of the Walloon regulator (the CWaPE), the premiums relating or rational use of energy and aid for the production of green power.

  For the first consumption of 100 kWh per year, a lump sum access fee is due amounting to 0,0075 EUR. Subsequently, for the next consumption < 1 GWh/year : 0,075 EUR/MWh, <10 GWh/ year : 0,06 EUR/MWh and for the consumption ≥ 10 GWh/ year : 0,03 EUR/MWh.

  In the Brussels Region, a charge on the use of public territory is applicable amounting to 1,050 EUR/MWh by the end of 2009. This surcharge is subject to VAT (see the Brussels Decree of April 1, 2004).
1.3. **Description of the fiscal policy applied on undertakings in energy sectors having an impact on energy prices, such as royalties and concession fees.**

Belgian law does not foresee any specific regulation on gas suppliers in this respect.

2. **Description of legal framework of tax regime**

2.1 **Which changes in the energy tax system have taken place since 1 January 1995 and for which stated reasons?**

- **THE FEDERAL EXCISE DUTIES**

To transpose the Energy taxation Directive 2003/96/EC of 27 October 2003, two Royal Decrees dated on the 29 February 2004 were first published in Belgium. Those two Royal Decrees have been replaced by Chapter 18 of the Program Law of December 27, 2004 relating to the taxation of energy products and electricity (applicable as of January 1, 2005).

This Program Law, maintains the energy taxes already existing before January 1, 2005, but adapts the taxation modalities in line with the Energy taxation Directive 2003/96/EC. The GN-codes have been actualised and new energy products have been subjected to excise duty (amongst others coals, electricity and gas). This Program Law also reflects the exemptions as foreseen in the Directive. Moreover, each energy product described in the aforementioned Directive is considered in this Program Law. Also were new tax rates implemented or adapted in order to respect the minimal European taxation levels.

This Program Law of December 27, 2004 also reduced the tax rates with 50% for energy-intensive enterprises with an environmental agreement and up to 25% for other companies with an environmental agreement. For the execution of this Program Law, 3 Royal Decrees were published during 2005.

With the Program law of December 27, 2005 the reduced rates for enterprises with an environmental agreement are further decreased. Subsequently, the reduction for energy-intensive enterprises with an environmental agreement was increased from 50% to 100% and for other companies with an environmental agreement the reduced rates were increased from 25% to 50%.

When transposing the European Directive for the natural gas in Belgium, Belgium has partially made use of the authorization as foreseen in annex II of this Directive until December 31, 2006. As of January 1, 2007, the European Directive is fully applied.

- **OTHER TAXES**

For the law changes of the other aforementioned taxes reference is made to point 1.2.

2.2. **Is natural gas coming under pressure with regard to changes in the energy taxation system (from governments or other energy lobbies, e.g. the oil or coal lobbies)?**

In principal, the provisions of the European Directives are correctly implemented by the Belgian authorities.

2.3. **Are any changes foreseen in the energy tax system? Please specify. Why are energy taxes to change and how will the foreseen changes affect the market position of natural gas?**

Several green tax working groups have taken place providing advice to the Belgian Authorities with respect to the climate change, sustainable production and consumption, health and environment, mobility and transport. This is still an ongoing discussion.

3. **Natural gas competitiveness**

In principal, the provisions of the European Directives are correctly implemented by the Belgian authorities. Belgian law does not foresee any specific initiatives in this respect nor advantageous nor disadvantageous for the natural gas competitiveness.
4. **VAT Regime**

The applicable VAT rate is 21% with the exception of coal (12%). With the exception of the federal surcharge on the delivery of gas and the grid connection fee in the Walloon Region, all aforementioned regional and federal taxes are subject to VAT.

5. **Taxation and pollution**

Currently, Belgian law does not yet foresee any energy taxes directly linked to pollution (e.g. SO₂ or CO₂ emissions).

6. **Taxation and energy efficiency**

Besides the provisions foreseen in the European Directives (reduced rates for enterprises with an environmental agreement), Belgian law also foresees some income taxation benefits (i.e. investment deductions and tax deductions for investments aiming at energy savings).

7. **Biogas taxation**

No specific initiatives in Belgium in this respect.

8. **Taxation for Natural Gas Vehicles (NGV)**

There is no excise duty due on the use of natural gas as engine fuel. No other provisions do exist.

9. **LNG taxation**

No specific initiatives in Belgium in this respect.
BULGARIA

We thank very much the Bulgarian Ministry of Finance for this contribution.

1. **Tax regime specifications**

1.1. Are there different energy taxes for different end-use sectors (e.g. households, district heating, industry (heating, processes), power generation, cogeneration)?

The energy taxes in the Republic of Bulgaria are set in the Law on Excise Duties and Taxe Warehouses (Act on excise duties). There are different excise taxes for energy products used in households, for heating purposes and as motor fuels in agriculture. The excise tax rate for electricity used by households, as well as for LPG, natural gas used for heating, is 0 (zero). Exempt from excise tax are the energy products used for power generation purposes.

1.2. Breakdown of total energy taxes on the different tax elements (e.g. general excise duty, environmental levy, storage taxes).

Energy taxes include excise taxes and an environmental levy only for heavy fuel oil (so-called boiler fuel) with 3% sulphur content. VAT at the universal rate of 20% is also paid by the end-user.

1.3. Description of the fiscality applied on undertakings in energy sectors having an impact on energy prices, such as royalties and concession fees.

The production of energy resources (petroleum and coal) is subject to royalty payment (concession fee).

In case of petroleum the amount of royalty is determined as a per cent of the total revenue of the petroleum produced, saved and sold under concession agreement, by applying R-factor royalty scale.

"R-factor" means the total cumulative revenue from the activity related to the concession for all reported periods minus royalties paid divided by the total cumulative costs incurred by the Permit Holder and related to the Concession (Exploration, Appraisal, Development, Operating and Restoration Costs) for all reported periods, however, excluding financial costs. The R-factor is calculated using the following formula:

\[
R\text{-factor} = \frac{\text{CUMREV}}{\text{CUMCOSTS}}
\]

Where:

- CUMREV = total cumulative revenue from the activity related to the granted Petroleum Production Concession for all reported periods minus royalties paid
- CUMCOSTS = total cumulative costs from the activity related to the granted Petroleum Production Concession (Exploration, Appraisal, Development, Operating and Restoration Costs) for all reported periods

The calculated R-factor is then applied to determine the percentage of the royalty as follows:

<table>
<thead>
<tr>
<th>R-factor</th>
<th>Royalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1.50</td>
<td>2.5%</td>
</tr>
<tr>
<td>1.50 – 1.75</td>
<td>5.0%</td>
</tr>
<tr>
<td>1.75 – 2.00</td>
<td>7.5%</td>
</tr>
<tr>
<td>2.00 – 2.50</td>
<td>10.0%</td>
</tr>
<tr>
<td>2.50 – 3.00</td>
<td>12.5%</td>
</tr>
<tr>
<td>&gt; 3.00</td>
<td>25.5%</td>
</tr>
</tbody>
</table>
Eurogas

Similarly, in case of coal, the logic behind the royalty calculation is the same, however, the levels of R-factor applied and the percentage of royalty are slightly different, as shown below:

<table>
<thead>
<tr>
<th>R-factor</th>
<th>Royalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1.00</td>
<td>2.0%</td>
</tr>
<tr>
<td>1.00 – 1.50</td>
<td>3.0%</td>
</tr>
<tr>
<td>1.50 – 2.00</td>
<td>4.0%</td>
</tr>
<tr>
<td>2.00 – 2.50</td>
<td>6.0%</td>
</tr>
<tr>
<td>2.50 – 3.00</td>
<td>8.0%</td>
</tr>
<tr>
<td>&gt; 3.00</td>
<td>10.0%</td>
</tr>
</tbody>
</table>

The royalty is paid prior to deduction of operating, exploration, appraisal, development, abandonment and restoration costs and prior to tax. It is also paid as a percent of Total Revenue from the sale of petroleum or coal for each period (specified in the agreement and may be either half-year or quarter) less the transportation costs.

2. **Description of legal framework of tax regime**

2.1. **Which changes in the energy tax system have taken place since 1 January 1995 and for which stated reasons?**

The Act on excise taxes, passed by Parliament in 2005, in force as of 1 January 2006, changed the energy tax system. This Act transposes Directive 2003/96/EC, which Bulgaria had to implement on its way of accession to the EU.

2.2. **Is natural gas coming under pressure with regard to changes in the energy taxation system (from governments or other energy lobbies, e.g. the oil or coal lobbies)?**

No.

2.3. **Are any changes foreseen in the energy tax system? Please specify. Why are energy taxes to change and how will the foreseen changes affect the market position of natural gas?**

No major changes in the system are foreseen, but such changes might be necessitated by the Second Strategic Energy Review.

3. **Natural gas competitiveness**

3.1. **Is the tax system “fair” to natural gas or does the tax regime in itself cause problems in relation to the competitive position/marketing of natural gas?**

The tax system is fair to natural gas, as for the time being there is no energy tax on gas.

3.2. **Who benefits from any tax differentials between different fuels (e.g. consumers, energy producers, energy distributors)?**

Consumers get direct benefits from the different taxes on different fuels. Distributors, namely providers of compressed natural gas as motor fuel, benefit indirectly as well.

4. **VAT Regime**

Entities registered under the VAT Act can deduct VAT incurred in the course of economic activity on the territory of the Republic of Bulgaria. Excise duties are one off payable therefore they are not deductible at all. There are a couple of exceptions, depending on the type of use.
5. **Taxation and pollution**

There is an environmental levy only for the most polluting liquid fuel - heavy fuel oil (so-called boiler fuel) with 3% sulphur content.

6. **Biogas taxation**

Currently there is no special treatment for biogas, no excise tax.

7. **Taxation for Natural Gas Vehicles (NGV)**

No excise tax is paid for natural gas used as motor fuel (in NGV).

8. **LNG taxation**

n.a., as there is no LNG use at present.
CZECH REPUBLIC

We thank very much the Czech Ministry of Finance for this contribution.

1. Tax regime specifications

1.1. Are there different energy taxes for different end-use sectors (e.g. households, district heating, industry (heating, processes), power generation, cogenerations)?

The energy taxes in the Czech Republic are set in Act No. 353/2003 Coll. (Act on excise duties – part Mineral Oils) and Act no. 261/2007 Coll. (solid fuels, gaseous fuels and electricity). While the part mineral oils does not differentiate between end-use sector, natural gas and solid fuels are exempted from energy tax if they are combusted by households or power generation sector. Electricity used in power sector is exempted from taxation. Otherwise, in order to determine energy tax for particular fuel one needs to specify the type of final consumption of that fuel irrespective of which sector the end-customer comes from. What matters is whether the fuel is used for instance for heating or rather as power for an engine, etc. The table above shows the energy taxes when the fuels are used for heating and thermal energy generation, no matter how this energy is used afterwards.

1.2. Breakdown of total energy taxes on the different tax elements (e.g. general excise duty, environmental levy, storage taxes).

Energy taxes outlined in the tables include only excise taxes. Besides excise tax one has to also consider emission fees (see below) and VAT.

2. Description of the legal framework and natural gas competitiveness

The Czech Republic applied the minimum rates for natural gas, electricity and coal as of January 1, 2008.

3. VAT Regime

Entities registered for Czech VAT can generally deduct Czech VAT costs incurred during the course of economic activity. In other words, an end-customer which does not use fuel for the economic activity cannot recover VAT.

4. Taxation and pollution

Energy taxes and excise taxes on mineral oils are not primarily linked to pollution. There are special emission fees for pollution (these are not included in the figures in the above table) and they depend on the emissions content. The table below shows emissions charges for main particular pollutants as set in Act. No. 86/2002 Coll, Act on Air Protection.

<table>
<thead>
<tr>
<th>Charges for air pollution</th>
<th>EUR/ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>Particulates</td>
<td>119</td>
</tr>
<tr>
<td>SO₂</td>
<td>40</td>
</tr>
<tr>
<td>NOx</td>
<td>32</td>
</tr>
<tr>
<td>CO</td>
<td>24</td>
</tr>
</tbody>
</table>

The charges for pollution are related to tons of pollutants (not to the type of fuel).
Eurogas

In Energy intensive industries who consume heat from plants without CO₂-permits there will be an additional increase in energy taxes of 150 DKK/ton CO₂ to the degree that those industries increase their energy consumptions further from a historical energy consumption with 2007 as base year.

No payment of energy taxes for industrial use of heat produced on plants with CO₂-permits. (goes back to 2005)

Exemption for industries covered by article 2, section 4, of directive 2003/96 (goes back to 2005).

2.1. Are there different energy taxes for different end-use sectors (e.g. households, district heating, industry (heating, processes), power generation, cogeneration)? Please specify.

Fuels used for electricity production in cogeneration are not taxed if the electricity produced is taxed.

Industry process are not totally exempted from excise duties as there will be a payment of a small amount of energy tax and most of the CO₂-tax.

3. Description of legal framework of tax regime

All recent changes in the energy tax system are due to environmental concerns.

4. Natural gas competitiveness

The tax system is “fair” to natural gas, since all fossil fuels are taxed equally; however it is increasingly a problem that bio fuels are exempted from energy taxation. Tax revenues are not used for the promotion/support of natural gas.

5. VAT Regime

In Denmark the general VAT rules apply and there are no special energy VAT rules. The general principle for energy taxation is that households are subject to the 25% VAT and the excise tax as well as the full amount of CO₂ and SO₂ tax elements, whereas industrial and commercial energy users can recover VAT and excise tax.

6. Taxation and pollution

In Denmark all fuels are thus taxed at the same rates independent of use but based on the content of energy, CO₂ and SO₂ / sulphur. Since natural gas contains less CO₂ and SO₂ than oil and coal it is taxed less heavily. As to renewables, since they produce less CO₂ and SO₂ than fossil fuels they are taxed less heavily.

7. Biogas taxation

At present, there is no CO₂ tax. In general there are no special rules, although the issue is under consideration at political level.

8. Taxation for Natural Gas Vehicles (NGV)

Natural gas used for vehicles is taxed more heavily than other uses of natural gas.

9. LNG taxation

No special rules.
DENMARK

1. **Tax Regime specifications**

Since 1 January 1996 energy taxation in Denmark consists of three elements: excise tax, CO₂ tax and SO₂ tax. The CO₂ tax has been in force since 1992/93 while the SO₂ tax was introduced in 1996, together with certain increases of the CO₂ taxation, as part of a programme to emphasise the environmental profile of taxation. In Denmark all fuels are thus taxed at the same rates independent of use but based on the content of energy, CO₂ and SO₂ / sulphur.

Energy used for space heating in the commercial and industrial sectors is, since 1996, taxed with rates equal to those applied to the residential sector (i.e. both excise and CO₂/SO₂ tax).

**Basis up to 2005**

Full payment of energy tax for other heat use than production purpose. Industry pays for most heat for production purposes the CO₂-part of the energy tax. A few energy intensive production types pay only between 3 and 29 pct of the full CO₂ part of the energy tax and can also get a refund for the energy tax.

Full payment of energy tax on vehicle fuel other than for business sailing and business flight. Moreover, the primary sector only pays the CO₂-part of the energy tax on motor fuel used directly in this sector.

**2005**

Bio fuels used in vehicles is exempted from the CO₂-part of the energy tax: Decrease by 150 DDK/ton CO₂.

Decrease in energy tax level for sulphur free diesel oil with 0.02 DKK/litre and for sulphur free petrol with 0.04 DKK/litre until the end of 2008

**2006**

Re taxation of process heat used for heating purposes outside the process company decreases from 47.5 to 32.2 pct. of the sales price for the heat.

Energy taxes on district heating coming from power plants with combined heat and power production decreases to 45 DKK/GJ heat in periods where the power plant do not produce electricity.

**2008**

All energy taxes are indexed by 1.8 pct annual.

**2010**

The CO₂-element of energy taxes increases from 90 DKK/ton CO₂ to 150 DKK/Ton CO₂.

2. **Taxation and pollution**

Emission based tax on NOx emissions. Most businesses cannot be registered for this tax and will therefore see the tax directly on the invoice for the fuel. Eg. 0.008 DKK/Nm³ natural gas for other purposes than vehicle fuel, and 0.028 DKK/Nm³ for natural gas for vehicle fuel.

When mixing bio fuels and oil products for vehicle purpose, the excise duty on the bio fuel can be determined from the energy content in the bio fuel if this in fact is known.

Increase in net payment of energy taxes from industry with 0.016 DKK/Kwh electricity and 4.8 DKK/GJ heat from coal, natural gas and mineral oils. These increase in net payments will increase further in the years to come to react 0.061 DKK/KWh electricity and 17 DKK/GJ heat from coal, natural gas and mineral oils in 2014.

Equalization of cooling for other purposes than production with household heating (full taxation)

Equalization of energy taxation of heat production on all power plants, meaning that taxation of heat from central power plants increase (0 to 20 DKK/GJ heat)
Eurogas

In Energy intensive industries who consume heat from plants without CO₂-permits there will be an additional increase in energy taxes of 150 DKK/ton CO₂ to the degree that those industries increase their energy consumptions further from a historical energy consumption with 2007 as base year.

No payment of energy taxes for industrial use of heat produced on plants with CO₂-permits. (goes back to 2005)

Exemption for industries covered by article 2, section 4, of directive 2003/96 (goes back to 2005).

2.1. Are there different energy taxes for different end-use sectors (e.g. households, district heating, industry (heating, processes), power generation, cogeneration)? Please specify.

Fuels used for electricity production in cogeneration are not taxed if the electricity produced is taxed.

Industry process are not totally exempted from excise duties as there will be a payment of a small amount of energy tax and most of the CO₂-tax.

3. Description of legal framework of tax regime

All recent changes in the energy tax system are due to environmental concerns.

4. Natural gas competitiveness

The tax system is “fair” to natural gas, since all fossil fuels are taxed equally; however it is increasingly a problem that bio fuels are exempted from energy taxation. Tax revenues are not used for the promotion/support of natural gas.

5. VAT Regime

In Denmark the general VAT rules apply and there are no special energy VAT rules. The general principle for energy taxation is that households are subject to the 25% VAT and the excise tax as well as the full amount of CO₂ and SO₂ tax elements, whereas industrial and commercial energy users can recover VAT and excise tax.

6. Taxation and pollution

In Denmark all fuels are thus taxed at the same rates independent of use but based on the content of energy, CO₂ and SO₂ / sulphur. Since natural gas contains less CO₂ and SO₂ than oil and coal it is taxed less heavily. As to renewables, since they produce less CO₂ and SO₂ than fossil fuels they are taxed less heavily.

7. Biogas taxation

At present, there is no CO₂ tax. In general there are no special rules, although the issue is under consideration at political level.

8. Taxation for Natural Gas Vehicles (NGV)

Natural gas used for vehicles is taxed more heavily than other uses of natural gas.

9. LNG taxation

No special rules.
ESTONIA

We thank very much the Estonian Ministry of Finance for this contribution.

1. Tax regime specifications

1.1. Are there different energy taxes for different end-use sectors (e.g. households, district heating, industry (heating, processes), power generation, cogenerations)?

The tax rates are not differentiated on a basis of a different end-use sector (standard VAT rate 20% and excise rate 0.7 EUR per GJ). The excise duty on natural gas used for heating purposes was imposed from 1st of January 2008.

1.2. Breakdown of total energy taxes on the different tax elements (e.g. general excise duty, environmental levy, storage taxes).

Excise duty (on natural gas used for heating purposes). Environmental fees (the most important fee is the CO₂ emissions charge which is imposed on natural gas used for heating purposes. If natural gas is used in combined power and heat plants then the CO₂ emissions charge is only imposed on proportion of natural gas used for heating purposes).

2. Description of legal framework of tax regime

2.1. Which changes in the energy tax system have taken place since 1 January 1995 and for which stated reasons?

The tax rates for energy products were imposed already from 1991 when the Republic of Estonia was re-established. Besides motor fuels Estonia started taxing light heating oil from 1st of December 1997 and heavy fuel oil from 1st of May 2004. The tax on solid fossil fuels (coal and coke) was imposed on 1st of May 2005. From 1st of January 2008 the excise duty was imposed on electricity and natural gas.

The excise rates of motor fuels were raised from 1st of July 2009 and from 1st of January 2010. By now the relevant excise rates are much higher than the EU minimum excise rates.

Table 1. National excise duty rates applicable to petrol and gas oil used as propellant and the EU minimum excise levels (1.01.2010).

<table>
<thead>
<tr>
<th>Energy product</th>
<th>Excise rates in Estonia from 2010</th>
<th>The EU minimum levels of taxation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unleaded petrol</td>
<td>423 EUR 1000 l</td>
<td>359 EUR 1000 l</td>
</tr>
<tr>
<td>Diesel</td>
<td>393 EUR 1000 l</td>
<td>330 EUR 1000 l</td>
</tr>
</tbody>
</table>

The excise rate on natural gas was raised significantly from 1st of July 2009 – from 0.3 to 0.7 EUR per GJ. From 1st of March 2010 the excise rate of electricity was raised from 3.2 to 4.47 EUR per MWh.
Eurogas

Table 2. National excise duty rates applicable to heating fuels and electricity and the EU minimum excise levels (1.03.2010).

<table>
<thead>
<tr>
<th>Energy product</th>
<th>Excise rates in Estonia from 2010</th>
<th>EU minimum levels of taxation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Business use</td>
<td>Non-business use</td>
</tr>
<tr>
<td>Light heating Oil</td>
<td>111 EUR/1000 l.</td>
<td>21 EUR/1000 l.</td>
</tr>
<tr>
<td>Heavy Fuel Oil</td>
<td>15 EUR/1000 kg</td>
<td>15 EUR/1000 kg</td>
</tr>
<tr>
<td>Kerosene</td>
<td>330 EUR/1000 l.</td>
<td>0</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>0,7 EUR GJ</td>
<td>0,15 EUR GJ</td>
</tr>
<tr>
<td>Coal and coke</td>
<td>0,3 EUR GJ</td>
<td>0,15 EUR GJ</td>
</tr>
<tr>
<td>Electricity</td>
<td>4,47 EUR/ MWh</td>
<td>0,5 EUR/ MWh</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 EUR/ MWh</td>
</tr>
</tbody>
</table>

2.2. Are any changes foreseen in the energy tax system? Please specify. Why are energy taxes to change and how will the foreseen changes affect the market position of natural gas?

There will probably be no such tax changes in the nearest future that will negatively affect the market position of natural gas in Estonia.

3. Natural gas competitiveness

3.1. Is the tax system “fair” to natural gas or does the tax regime in itself cause problems in relation to the competitive position/marketing of natural gas?

The tax system is quite fair to natural gas. This depends with which fuel we compare its excise.

3.2. Are tax revenues in any way used to promote/support the use of natural gas?

No.

4. VAT Regime

There are no VAT reductions regarding natural gas.

5. Biogas taxation

Biogas is not taxed with excise.

6. Taxation for Natural Gas Vehicles (NGV)

Natural gas used as a motor fuel is not taxed with excise.
1. **Tax regime specifications**

1.1. Are there different energy taxes for different end-use sectors (e.g. households, district heating, industry (heating, processes), power generation, cogenerations)?

Taxes are not levied on fuels used in power generation, but there is output tax for consumption of electricity. Electricity tax class II is paid by industry and green houses. All other users pay tax class I. In the current tax law applicable since 1.1.2008 there are some tax reliefs for energy intensive industries. Companies can apply for reimbursement if paid taxes exceed 3.7% of the added value of the company. Electricity is free of output tax if it is used in transmission of electricity, exported, used in railways or used in power plants. If fuel is used in CHP plants, the tax base of fuels used in heat production is 90% of produced heat. Fuels used for power generation in CHP plants are free of taxes as mentioned earlier.

1.2. Breakdown of total energy taxes on the different tax elements (e.g. general excise duty, environmental levy, storage taxes).

The Finnish energy taxation system consists of three tax components: a basic tax, an additional tax and a security of supply fee. All fossil fuels are being charged with an additional tax, which represents the bulk of the tax burden. All of them are subject to security of supply fees. Light fuel oil is charged with a basic tax, which is fiscal.

The additional tax of fossil fuels is based on the CO₂ emissions of the respective fuel, with the exception of peat and natural gas. They have a lower CO₂ tax rate.

The power generation is subject to an output tax only, consisting mainly of the environmental tax. The environmental tax on electricity is charged to the owner of the electricity network or to the power producer selling its electricity to the customer. Very small hydro, wind, wood or peat power producers do not pay tax. There are two tax classes - I and II - for electricity. Class II is paid by industry and greenhouses, class I by all other users.

<table>
<thead>
<tr>
<th>Fuel</th>
<th>Basic tax</th>
<th>Additional tax</th>
<th>Security of supply fee</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>HFO, cent/kg</td>
<td>-</td>
<td>6,42</td>
<td>0,28</td>
<td>6,70</td>
</tr>
<tr>
<td>LFO, cent /l</td>
<td>2,94</td>
<td>5,41</td>
<td>0,35</td>
<td>8,70</td>
</tr>
<tr>
<td>Natural Gas, cent/m³</td>
<td>-</td>
<td>2,016</td>
<td>0,084</td>
<td>2,10</td>
</tr>
<tr>
<td>Coal, €/tonne</td>
<td>-</td>
<td>49,32</td>
<td>1,18</td>
<td>50,50</td>
</tr>
<tr>
<td>Electricity, cent/kWh</td>
<td>I</td>
<td>-</td>
<td>0,87</td>
<td>0,013</td>
</tr>
<tr>
<td></td>
<td>II</td>
<td>-</td>
<td>0,25</td>
<td>0,263</td>
</tr>
</tbody>
</table>

2. **Description of legal framework of tax regime**

The Finnish energy taxation system consists of three tax components: a basic tax, an additional tax and a security of supply fee. All fossil fuels are being charged with an additional tax, which represents the bulk of the tax burden. All of them, except peat, are subject to security of supply fees. Light fuel oil is charged with a basic tax, which is fiscal.

2.1. Which changes in the energy tax system have taken place since 1 January 1995 and for which stated reasons?

Since 1.07.2005, the tax on Peat was removed in order to support the domestic energy production. Tax of electricity on industry was decreased by 50% on 1.1.2007.

2.2. Is natural gas coming under pressure with regard to changes in the energy taxation system (from governments or other energy lobbies, e.g. the oil or coal lobbies)?

There has been some criticism of the 50% lower CO₂-based energy tax of natural gas among the industry lobby. There is a risk that this benefit is abolished. Despite its green advantages, natural gas is considered more as a fossil fuel and not as a fuel of choice.
Eurogas

2.3. Are any changes foreseen in the energy tax system? Please specify. Why are energy taxes to change and how will the foreseen changes affect the market position of natural gas?

Ministry of Finance has introduced changes for energy taxation applicable as of 1.1.2011. This will increase taxes on fossil fuels by 100%. The tax relief of lower CO₂-tax applied for Natural Gas will be removed (see chapter 2.2) meaning that energy tax of Natural Gas will be increased by 329%. These changes will have negative impacts on competitiveness of Natural Gas especially in CHP production. Competitiveness against Coal and oil products will be improved slightly but against bio fuels (wood) and peat, competitiveness will collapse. This will decrease use of Natural Gas in CHP production. Many power companies are considering now to replace gas fired CHP –plants with wood and peat fired plants.

Purpose of the change is fiscal i.e. to increase tax revenues and to improve position of domestic fuels against imported fossil fuels. This is a political issue. There is already shortage of wood near existing power plant sites before changes of taxation and it is expected that shortage would be even worse in the future if new plant plans are realized. Changes in taxation would have bad environmental impacts because of increased use of wood and peat. Change can also increase separate heat and power production instead of effective and environmentally friendly CHP production. Final decisions are expected to be released during this spring.

<table>
<thead>
<tr>
<th>Energy taxes in Finland as of 1.1.2011 based on proposal of Ministry of Finance</th>
<th>Current EUR/MWh (NCV)</th>
<th>1.1.2011 EUR/MWh (NCV)</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>HFO</td>
<td>5.94</td>
<td>13.16</td>
<td>122 %</td>
</tr>
<tr>
<td>LFO</td>
<td>6.26</td>
<td>11.30</td>
<td>80 %</td>
</tr>
<tr>
<td>Coal</td>
<td>7.12</td>
<td>15.51</td>
<td>118 %</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>2.10</td>
<td>9.00</td>
<td>329 %</td>
</tr>
<tr>
<td>Wood, biomass</td>
<td>0</td>
<td>0</td>
<td>0 %</td>
</tr>
<tr>
<td>Peat</td>
<td>0</td>
<td>0</td>
<td>0 %</td>
</tr>
<tr>
<td>Electricity, households</td>
<td>8.83</td>
<td>17.00</td>
<td>93 %</td>
</tr>
<tr>
<td>Electricity, industry</td>
<td>2.63</td>
<td>7.00</td>
<td>166 %</td>
</tr>
</tbody>
</table>

3. **Natural gas competitiveness**

3.1. Is the tax system “fair” to natural gas or does the tax regime in itself cause problems in relation to the competitive position/marketing of natural gas?

Natural gas benefits from lower CO₂-emissions in taxation of fuels used for heat production and this is considered fair. In power generation, there is no advantage of lower emissions of natural gas because there are no taxes for fuels.

The use of natural gas is not promoted/supported by tax revenues.

3.2. Who benefits from any tax differentials between different fuels (e.g. consumers, energy producers, energy distributors)?

Natural gas benefits in CHP production due to tax differentials.

4. **VAT Regime**

VAT is recoverable for industry and power producers and non-recoverable for households.
5. **Taxation and pollution**

5.1. **To what extent are energy taxes directly linked to pollution (e.g. SO2 or CO2 emissions)?**

The additional tax of fossil fuels is based on CO2 emissions. There are tax reliefs for domestic fuel, peat. Wood is considered as green energy with no CO2 emissions and it has been exempted from energy taxes.

6. **What tax premium is there for natural gas?**

Natural gas has a premium due to lower specific emission of CO2.

6.1. **How are renewable energy sources generally taxed?**

Renewable energy is free of all energy taxes. Very small power plants (40 MVA) which make electricity from wood or peat as well as very small hydro and all wind power plants get also investment support. Plants using recycled material can also get support. In the future there will be also a feed in tariff for wind power.

7. **Biogas taxation**

Biogas is free of energy taxes. There is a common interest to increase use of renewable energy and therefore the Government will introduce Feed in Tariff (FIT) for biogas. This FIT will guarantee a certain price of electricity produced by biogas. There are several projects aiming to produce biogas from waste and biomass and inject the produced biogas into the natural gas grid.

8. **Taxation for Natural Gas Vehicles (NGV)**

Currently NGVs pay the same tax on natural gas as other users. Tax is much lower compared other fuels (gasoline and diesel). Taxation of transportation fuels is under revision by the Ministry of Finance. If the double content tax (i.e. energy/ CO2) is introduced, this will increase taxes for NGV’s to near competing fuels (gasoline and diesel). This change threatens the future development of NGV’s.

9. **LNG taxation**

LNG taxation is similar to natural gas taxation.
1. Tax Regime specifications

1.1. Fuel oil and gas oil

In France, the "TIPP" (Taxe Intérieure sur les Produits Pétroliers) is levied on all uses of HFO and LFO. Once a year, the government may revise the rates for the different energy taxes (TIPP on petroleum products, TICGN on natural gas...). The excise TIPP, unchanged since 2004 is 5,66 €/hl for domestic gasoil and 18,5 €/t for fuel oil, regardless of sulphur content.

1.2. Electricity

Local tax is levied on behalf of the municipalities (from 0 to 8 %) and local districts (from 0 to 4 %). Consumers above 250 kVA of power are exempted. The tax is applied on 80 % of the consumption for power subscription under P= 36kVA and on 30 % of the consumption for power subscription from 36 kVA to 250 kVA. The mean level of these taxes is of 8 €/MWh for residential users and can vary from 0,5 € to 9 €/MWh for non household customers depending on the consumption level and localisation. Since August 1, 1991, local taxes have been subject to VAT. These taxes should be reformed to comply with European directive.

CSPE (Charges de service public de l’électricité) created by the law "loi n° 2000- 108 du 10 février 2000 relative à la modernisation et au développement du service public de l’électricité" to compensate the subsidies paid to renewable energy and CHP producers and also some social electricity prices and special prices for isolated areas (islands). Rate: 4,5 €/MWh.

CTA (Contribution tarifaire d’acheminement), on electricity transit and distribution capacity charges was created in January 2005. The amount of the tax is 8,2% of the transmission standing charge and 21% of the distribution standing charge.

TARTAM (tarif réglementé transitoire d’ajustement du marché) enables customers who left the regulated market for contracts based on market prices, to benefit from a price ceiling indexed on regulated prices. The difference between this price and the market price is refunded to suppliers by owners of nuclear or hydraulic power plants. For 2010 nuclear & hydro charge amounts to 0,8 €/MWh.

The initial period of application of this tariff has been extended but according to a reform under discussion it should be suppressed at the beginning of year 2011.

1.3. Natural gas

TICGN ("taxe intérieure sur la consommation de gaz naturel") : This tax applies to all consumers except for households using gas for heating (including collective heating) and some specific industrial uses of gas (including power generation). CHP plants are also exempt from this tax for the first five operating years. The rate of the tax is 1,19 €/MWh PCS.

TSS (tarif spécial de solidarité): vulnerable customers benefit from a special tariff, compensated by the suppliers but this system is not considered as a tax

CTA (Contribution tarifaire d’acheminement) on natural gas transit and distribution capacity charges was created in January 2005. The amount of the tax is 5,3% of the transmission standing charge and 17,7% of the distribution standing charge.

1.4. Coal, LPG, wood and renewable source energies

Only VAT is applied on these fuels, except:

LPG used for vehicles (GPL carburant) which is taxed at 5,99 €/hl equivalent to 107,60 €/t (density is 557 kg/m3, 60 % butane, 40 % propane).

Coal which is taxed at 1,19 €/MWh since July 1, 2007. Residential heating and power generation are exempted from this tax. Coal used as raw material is exempted too.
Eurogas

1.5. Other taxes

There are some taxes on electricity generation and distribution such as high-voltage pylon tax and per MW power plant tax. There are no taxes or concession fees in France as regards gas storage.

2. Expected change in legal framework for tax regime

The French government has discussed a CO₂ tax ("taxe carbone") but has delayed any implementation until a similar mechanism applies at European level.

3. VAT Regime

Since 1 January 2004, the rate of VAT has been set at 5,5 % for both the standing charge and the capacity price for electricity (P ≤ 36 kVA) and gas distributed by grids. The normal rate of 19,6 % is applied to energy consumption for continental France.

Energy selling companies and district heating installations can recover VAT on their purchases. Every three months, they withdraw the VAT they paid for their buyings from the VAT they perceived from their sales. Only this difference is due to the State.

Apart from some export industries, there are no cases of VAT exemption. Final consumers, generally households, cannot recover the VAT paid.

VAT applies on excise and other taxes

4. Taxation and pollution

4.1. Taxes on emissions

Combustion installations larger than 20 MWth are taxed on their emissions of SO₂, NOx and VOC. This tax was created on 1 January 1999 and is called the TGAP (Taxe Générale sur les Activités Polluantes= General tax on polluting activities). Its rate is 42,68 €/t for SO₂ and VOC, and 51,22 €/t for NOx.

4.2. CO₂ ETS

Implementation of the directive on EU emission trading scheme 2003/87/CE. Every combustion plant larger than 20 MWth gets some CO₂ quotas for free. In France, this directive has been implemented through decrees: (August 19, 2004 and February 25, 2005).

The allocation of these quotas follows a national plan. The national plan for the period 2008-2012 was submitted to the European Commission in December 2006. It was adopted on March 26, 2007.

The competitiveness of natural gas CHP and power plants is affected by this tax.

4.3. White certificates

The French system of energy saving certificates (white certificates) is created by a law.

It defines: the obligees (the one bound to exhibit proof of energy savings) = energy suppliers (of electricity, gas, LPG, heat and cold beyond a certain threshold, and gas oil) the targets of energy saving per 3 year periods, how to comply with the obligations: make energy savings (in their own installations or by their customers), to buy certificates on the market or pay penalties (2 c€/kWh not saved) and the creation of a national register of CEE.

The volumes of savings to be realized for the 2nd 3 year period (starting in 2010) is still to be finalised (54 TWh for first period).

Objectives should increase three folds from previous period and new obligees should be included.
Decrees of May 2006 define:
- the method to share the obligation between actors
- the "saving value" of each energy saving operation (for example high efficiency boilers, low consumption light bulbs,...). These should be left unchanged for second period.

5. **Biogas taxation**

Administrative and fiscal rules applicable to biogas to be injected in gas grids are currently under definition.

No specific rules exist so far.

6. **Taxation for Natural Gas Vehicles (NGV)**

Since January 2008, TICGN is no longer applied to the consumption of natural gas vehicles.

7. **LNG taxation**

There is only a port tax on LNG. Its rate is over incoming total weights. This tax (not specific to LNG), goes to the port administration.
1. **Tax Regime specifications**

In 2009, the receipts of the German Federal Government, federal states and municipalities from the natural gas consumption tax, the payments for the mining royalty and the concession fee, decreased approximately to almost 4 billion €. This decrease is essentially attributable to the reduction of the quantitative basis of taxation or the collection of fiscal charges, i.e. of the quantities consumed or produced within Germany. In addition, prices at the production level in Germany were lower, which led to a reduction of revenues from mining royalties.

The rules on the taxation of natural gas are laid down in the Energy Tax Law which became effective on 01/08/2006 and replaced the Law on Excise Tax on Oil and Oil Products. The new Energy Tax Law also implemented the EU Energy Tax Directive that became effective at the end of October 2003 into national legislation. The minimum tax rates of the Energy Tax Directive are all adhered to or exceeded in Germany.

1.1. **Taxation of natural gas - liquid gas - light and heavy fuel oil used for heating purposes**

The tax rate for natural gas used for heating purposes is 5.50 Euro/MWh (Ho), the tax rate for light fuel oil is 61.35 Euro/1000 l (76.35 Euro/1000 l sulfur content more than 50mg/kg), that for heavy fuel oil 25.00 Euro/1000 kg, and the tax rate for liquid gas is 60.60 Euro/1000 kg. The imposition of the natural gas tax is attributable to the fact that natural gas is withdrawn from the pipeline network for consumption. Normally, the taxpayer is the natural gas supplier.

2. **Tax benefits**

The German Energy Tax Law defines numerous facts justifying a tax relief. The most important tax benefits are the tax relief granted to the producing sector and the "tax cap compensations", the tax relief granted to electricity generation and to the combined generation of heat and power as well as the tax relief for bio fuels and bio heating fuels.

3. **Tax benefits to the producing sector**

In Germany, the producing sector is granted particular tax benefits, namely a 40 % tax refund of the energy tax rate, i.e. for natural gas 40 % of 5.50 Euro/MWh (new rates as of 01/01/2007). The tax burden to the producing sector thus amounts to 3.30 Euro/MWh (GCV). This favourable tax treatment is also applied to the gas, water, electricity and district heat supply companies as undertakings of the producing sector.

4. **Taxation of facilities subject to preferential tax treatment**

The German Energy Tax Law defines certain stationary facilities which, in spite of the use of natural gas as motor fuel, can be operated at the reduced heating tax rate of 5.50 EUR/MWh. Facilities eligible for tax relief are those whose mechanical energy serves exclusively electricity generation. Likewise, facilities serving exclusively the combined generation of heat and power, and whose annual utilization rate amounts to at least 60%, are subject to the reduced tax rate though their mechanical energy does not exclusively serve the generation of electricity. The heating tax rate is also applied to facilities serving exclusively the purpose of gas transport via pipelines or gas storage.

5. **Tax cap compensation**

In addition, the companies of the producing sector have the possibility to obtain further tax benefits through the “tax cap compensation”. The tax relief granted by means of the tax cap compensation amounts to a maximum of 95 %, i.e. 1.46 EUR/MWh, for natural gas.

The tax cap compensation is planned to be maintained until the end of 2012 depending on the CO₂ emission savings by the German industry.
6. **Taxation and energy efficiency**

6.1. **Tax relief to electricity generation and combined generation of heat and power**

Specific plants are granted full tax relief. On the one hand, these are stationary plants for electricity generation with a rated electric power of more than two Megawatts. If the mechanical energy generated by the plant serves also other purposes apart from electricity generation, the tax relief is only granted to the share of energy products belonging to electricity generation. On the other hand, plants for the combined generation of heat and power (CHP) with a monthly or annual rate of utilization of at least 70% are completely exempted from the energy tax.

6.2. **Tax relief to bio fuels and bio heating fuels**

The Energy Tax Law also provides for a full tax relief to bio-natural gas fed into the distribution network. Bio-natural gas used as heating fuel is fully exempted from energy taxation until 31/12/2009, and bio-natural gas used as motor fuel is exempted from the energy tax until 31/12/2015. The tax relief to bio-natural gas used as motor fuel will be granted only if certain sustainability criteria are fulfilled and reported. Furthermore, bio natural gas that is not fed into the distribution network but e.g. directly into a CHP plant, can be used without being liable to taxation.

6.3. **Climate protection declaration of the German gas sector**

In 1995, the German gas sector undertook to reduce CO₂ emissions. This climate protection declaration was refined in November 2000. The aim of the climate protection declaration is to reduce the emission of climate-relevant gases in Germany by 2012 by approx. 45 million t/a of CO₂ equivalents as compared to 1990. This objective is to be achieved by a more efficient use of natural gas in private households, trade and in the transport sector as well as by the modernization of natural-gas pipelines.

7. **Taxation of natural gas used as motor fuel**

The tax rate for natural gas used as motor fuel has been fixed until 2018. The reduced tax rate is 13.90 Euro/MWh. From 2019, it will be 31.80 EUR/MWh.

8. **Taxation of turnover**

In Germany, the delivery of natural gas is subject to a standard tax rate of currently 19%.
GREECE

1. **Tax regime specifications**

There are different energy taxes for different end users as far as gas oil, LPG and electricity are concerned.

- **Gas oil**
  - for heating purposes during the heating period (15 Oct. - 30 Apr.)
  - for power generation
  - for automotive usage
  - for industrial and commercial usage
  - for agricultural usage

- **LPG**
  - for general purposes
  - for automotive usage
  - for industrial usage
  - for agricultural usage

- **Electricity**
  - for business usage
  - for non business usage

2. **Description of legal framework of tax regime**

According to Law 2960/2001 (articles 72–78), excise tax levels as of 15.03.2010 are as follows:

<table>
<thead>
<tr>
<th>Excise Tax</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>HFO</td>
<td>19 €/MT</td>
</tr>
<tr>
<td>Gas oil</td>
<td></td>
</tr>
<tr>
<td>for heating purposes</td>
<td>21 €/1000lt</td>
</tr>
<tr>
<td>for power generation</td>
<td>382 €/1000lt</td>
</tr>
<tr>
<td>for industrial and</td>
<td>257 €/1000lt</td>
</tr>
<tr>
<td>commercial usage</td>
<td></td>
</tr>
<tr>
<td>for agricultural usage</td>
<td>21 €/1000lt</td>
</tr>
<tr>
<td>LPG</td>
<td></td>
</tr>
<tr>
<td>for general purposes</td>
<td>13 €/MT</td>
</tr>
<tr>
<td>for automotive usage</td>
<td>125 €/MT</td>
</tr>
<tr>
<td>for industrial usage</td>
<td>41 €/MT</td>
</tr>
<tr>
<td>for agricultural usage</td>
<td>0,29 €/MT</td>
</tr>
<tr>
<td>Electricity</td>
<td></td>
</tr>
<tr>
<td>for business usage</td>
<td>2,5 €/MWh</td>
</tr>
<tr>
<td>for non business usage</td>
<td>5 €/MWh</td>
</tr>
<tr>
<td>Natural gas</td>
<td>0</td>
</tr>
</tbody>
</table>

The main changes from 2008 are the following:

(a) The increase of excise tax applied on gas oil for automotive usage, from 293 €/1000lt to 382 €/1000lt and
(b) The increase of excise tax applied on gas oil for industrial and commercial usage, from 168 €/1000lt (293 – 125 recoverable) to 257 €/1000lt (382 – 125 recoverable).
(c) The abolition of the reduced rate (120 €/1000lt) in gas oil for power generation.
(c) The imposition of excise tax for usage of electricity.

3. **Natural gas competitiveness**

Natural gas is by law exempted from excise tax in Greece up to 2013 (Law 3336/05, article 78). The excise tax of competing fuels thus constitutes an indirect subsidy to the project of introduction of natural gas in Greece.
4. **VAT Regime**

The VAT applicable in the transportation sector is 21% for oil products and 10% for natural gas and electricity. VAT on energy products is recoverable by all users subject to accounting regulation (i.e. excluding private users) with the exception of transportation fuel where VAT of fuel for cars is not recoverable.

5. **Taxation and pollution**

Energy taxes are not presently linked to pollution.

6. **Biogas taxation**

There is no special treatment for Biogas.

7. **Taxation for Natural Gas Vehicles (NGV)**

NGVs are exempted by law up to 2013.

8. **LNG taxation**

Same treatment as natural gas (thus exemption up to 2013, with VAT of 10%).
HUNGARY

We thank very much the Hungarian Ministry of Finance for this contribution.

1. **Tax regime specifications**

1.1. Are there different energy taxes for different end-use sectors (e.g. households, district heating, industry (heating, processes), power generation, cogenerations)?

No, Hungary applies the same energy tax rate for all end-use sectors.

1.2. Breakdown of total energy taxes on the different tax elements (e.g. general excise duty, environmental levy, storage taxes).

The energy tax is a single element tax, it does not contain any other tax elements.

2. **Description of legal framework of tax regime**

2.1. Which changes in the energy tax system have taken place since 1 January 1995 and for which stated reasons?

In 2004, the energy tax was introduced in Hungary to comply with the obligation set out in the 2003/96/EC Directive.

2.2. Are any changes foreseen in the energy tax system? Please specify. Why are energy taxes to change and how will the foreseen changes affect the market position of natural gas?

No changes are foreseen at this time in the energy tax system.

3. **Natural gas competitiveness**

3.1. Is the tax system "fair" to natural gas or does the tax regime in itself cause problems in relation to the competitive position/marketing of natural gas?

The tax regime has no negative effect on the competitive position/marketing of natural gas.

3.2. Are tax revenues in any way used to promote/support the use of natural gas?

No, tax revenues cannot be used directly for specified purposes according to the Hungarian state budget law.

4. **VAT Regime**

The Hungarian VAT system corresponds to the 2006/112/EC directive. Currently the standard VAT rate is 25% and there are also two reduced rates: 18% applied for milk, certain milky products, certain baked goods and for the supply of accommodation services and 5% applied for books, newspapers and periodicals, medicines and for the supply of district heating service.

Due to the EU accession, the former 12% VAT rate on gas and electricity increased to 15% and 25% respectively from 01 January 2004. In year 2006 the standard rate of 25% was reduced to 20% and the reduced rate of 15% was abolished, and from 01 July 2009 the standard rate increased to the current 25%.

In principle, most VAT charged in the commercial and industrial sectors can be reclaimed by the businesses with some exemptions including transportation fuel, where VAT on fuel used for passenger cars (even owned by companies) cannot be reclaimed.
Eurogas

From 1 January 2005 the rules of the 2003/92/EC directive – modification of the place of supply of gas and electricity – were transferred into the Hungarian Act on VAT. The regulations for energy supply companies or electricity traders stated by the modification of the Act on VAT remained unchanged until now, i.e. supply of gas and electricity to these entities are taxed in the country, where the customer established its business, lack of place of business or fixed establishment, where the customer has permanent address or usual residence. However, supplies to entities other than energy supply companies or electricity traders have to be taxed in the country where the consumption of these products takes place. In the case if the products are not consumed fully or partly, the gas and electricity not consumed has to be taxed in the country where the consumer has established its business, lack of place of business or fixed establishment, where the permanent address or usual residence of the consumer takes place. Avoiding double taxation, the import of natural gas and electricity is tax exempt from 01 January 2005.

5. **Biogas taxation**

There is no special regulation for the taxation of biogas.

6. **Taxation for Natural Gas Vehicles (NGV)**

Tax reduction is granted on the registration tax for Natural Gas Vehicles.

7. **LNG taxation**

There is no special regulation for the taxation of LNG.
IRELAND

This section was updated using the following links:


1. **Description of legal framework of tax regime**

1.1. **Which changes in the energy tax system have taken place since 1 January 1995 and for which stated reasons?**


In accordance with EU requirements, the Finance Act 2005 extended Mineral Oil Tax to Coal. The tax is payable by coal users, but a considerable number of coal users are exempt from the tax.

A new carbon tax of €15 Euro per tonne was announced in the 2010 Budget. The Carbon tax will apply from 1 May 2010 to Kerosene, Marked Gas Oil, Liquid Petroleum Gas (LPG), Fuel Oil and Natural Gas. VAT will also be charged on the carbon tax.

1.2. **Is natural gas coming under pressure with regard to changes in the energy taxation system (from governments or other energy lobbies, e.g. the oil or coal lobbies)?**

An excise duty, called Natural Gas Carbon Tax (NGCT), has been applied to supplies of natural gas to consumers. The tax applies to all supplies of natural gas to consumers in the State on or after 1 May 2010.

The supplier is liable for payment of the tax. Self supply of natural gas for a supplier’s own consumption is also liable.

A rate of €3.07 per megawatt hour applies.

This rate is derived from the rate of €15 per tonne of CO₂ emitted that has been applied to fuels generally. It is calculated by multiplying the emission factor of natural gas, expressed in kilograms of CO₂ per terajoule (56,873), by the number of terajoules per megawatt-hour (0.0036), and multiplying the resultant figure by a rate of 1.5 cent per kilogram of CO₂ emitted.

The amount of €3.07 is based on net calorific value. Where the quantity of gas supplied is measured using a gross calorific value, the rate should be multiplied by a conversion factor of 0.9028, giving an effective rate of tax of €2.77 per megawatt hour at gross calorific value.

A full relief from the tax is granted for natural gas which is shown to the satisfaction of the Revenue Commissioners to have been supplied for use in:
- the generation of electricity,
- chemical reduction,
- electrolytic or metallurgical processes.

A partial relief from the tax is granted for natural gas delivered for use in an installation that is covered by a greenhouse gas emissions permit issued by the Environmental Protection Agency. The natural gas concerned will be taxed at the minimum rate specified in the EU Energy Tax Directive, which is €0.54 per megawatt hour at gross calorific value.

The first accounting period is May / June 2010.
Eurogas

2. **Natural gas competitiveness**

2.1. **Is the tax system “fair” to natural gas or does the tax regime in itself cause problems in relation to the competitive position/marketing of natural gas?**

The carbon tax sees increases of 6 to 7 per cent gas costs for natural gas.

3. **VAT Regime**  
(Source: VAT guide 2008)

The standard rate of VAT is 21%. There is a reduced rate of 13.5% and a zero rate.

**Goods and Services Chargeable at 13.5%:**
- a) Coal, peat and other solid substances held out for sale solely as fuel. This category includes coke, turf and firewood but not other kinds of timber. Mineralised and power methylated spirits are regarded as qualifying for the 13.5% rate, but not industrial methylated spirits.
- b) electricity: Provided that this subparagraph shall not apply to the distribution of any electricity where such distribution is wholly or mainly in connection with the distribution of communications signals,
- c) gas of a kind used for domestic or industrial heating or lighting, whether in gaseous or liquid form, but not including motor vehicle gas within the meaning of section 42(1) of the Finance Act, 1976, gas of a kind normally used for welding and cutting metals or gas sold as lighter fuel,
- d) hydrocarbon oil of a kind used for domestic or industrial heating, excluding gas oil (within the meaning of the Hydrocarbon (Heavy) Oil Regulations, 1989 (SI No 121 of 1989)), other than gas oil which has been duly marked in accordance with Regulation 6(2) of the said Regulations;

Hydrocarbon oils of a kind used for domestic or industrial heating are liable at the 13.5% rate, as are marked gas oil, paraffin, kerosene jet fuel, marine diesel and tractor diesel. Petrol, road diesel, industrial methylated spirits, other gas oils and LPG motor gas are liable at the 21% rate.

**Goods and Services Chargeable at 21%:** Diesel (unmarked), Petrol

4. **Taxation and pollution**

From 1 May 2010 a carbon tax on home heating oil and other fuels will come into effect. The tax at a rate of €15 per tonne was introduced on petrol and diesel last December, and will now be applied to kerosene, marked gas oil, Liquid Petroleum Gas, fuel oil and natural gas.

5. **Taxation for Natural Gas Vehicles (NGV)**

Substitute fuel, including biofuel, used as auto-fuel in substitute for petrol is taxed at the petrol rate  
(Source: European Commission - DG Taxation and Customs Union, Excise Duty Tables).
1. **Tax regime specifications**

1.1. **Are there different energy taxes for different end-use sectors (e.g. households, district heating, industry (heating, processes), power generation, cogenerations)?**

Energy taxation in Italy differs widely among sectors (residential, industrial, power generation) and among regions: taxes on fuels for industrial uses are lower than taxes in the residential sector, but higher than those for electricity generation; the following section explain excise tax amounts and regimes for each sector (data conversion uses Net Calorific Value).

1.2. **Taxation of natural gas**

In the industrial one the excise tax amounts to 0,36 EURO/GJ (1,30 EURO/MWh) plus a regional tax of 0,15 EURO/GJ (0,54 EURO/MWh) - 0,18 EURO/GJ (0,65 EURO/MWh).

The reform introduced by the Budget for 2001 (Legge Finanziaria 2001) for excise tax on natural gas for industrial uses, that introduced a discount of 40% of the excise tax for the industrial user consuming more than 1,200,000 m3 on an annual basis, has been extended with different Government acts and has been confirmed it until the end of 2009. In this case the excise tax on natural gas for industrial uses is reduced at 0,22 EURO/GJ (0,78 EURO/MWh); the regional tax on natural gas for industrial uses is, in this case, reduced at a maximum rate of 0,15 EURO/GJ (0,54 EURO/MWh). For the commercial sector the excise levels applied are the same applied for the industrial one.

Gas used for power generation (production) is subjected to an excise tax of 0,01 EURO/GJ (0,05 EURO/MWh); in case of self production natural gas used for power generation is subjected to an excise tax of 0,004 EURO/GJ (0,01 EURO/MWh); gas used in refining processes and as raw material in chemical plants are exempted.

Gas used in the residential sector is subject to different excise taxes, to regional taxes and to value added tax; the level of these taxes differs among regions (northern and central regions versus southern regions known as “Cassa del Mezzogiorno”).

The Legislative Decree 2 February 2007, that introduced in the Italian fiscal framework the Directive 2003/96/CE, established excise levels for residential sector related to consumption ceilings.

The following table (Table 1) shows the present levels of excise tax for different annual consumption ceilings.

<table>
<thead>
<tr>
<th>Southern regions (ceilings m²/year)</th>
<th>euro/GJ</th>
<th>euro/MWH</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;120</td>
<td>1,10</td>
<td>3,96</td>
</tr>
<tr>
<td>120-480</td>
<td>3,91</td>
<td>14,07</td>
</tr>
<tr>
<td>480-1560</td>
<td>3,47</td>
<td>12,51</td>
</tr>
<tr>
<td>&gt;1560</td>
<td>4,34</td>
<td>15,64</td>
</tr>
<tr>
<td>Northern regions (ceilings m²/year)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;120</td>
<td>1,27</td>
<td>4,59</td>
</tr>
<tr>
<td>120-480</td>
<td>5,07</td>
<td>18,24</td>
</tr>
<tr>
<td>480-1560</td>
<td>4,92</td>
<td>17,72</td>
</tr>
<tr>
<td>&gt;1560</td>
<td>5,38</td>
<td>19,39</td>
</tr>
</tbody>
</table>

Throughout Italy there are furthermore different regional taxes whose level can vary between 0,15 and 0,90 EURO/GJ (0,54 and 3,23 EURO/MWh), but cannot exceed 50% of the level of the corresponding national excise.
2. **Description of legal framework of tax regime: recent measures**

The **Law 24 November 2006, n. 286** introduced a relevant excise reduction for commercial sector, establishing that excise values applied to this sector aren’t anymore the domestic one but are the same applied to the industrial sector.

The **Legislative Decree 2 February 2007, n. 26** introduced in the Italian fiscal framework the Directive 2003/96/CE. The main change entered into force on the 1st January 2008 with a revision of the general scheme of domestic excise application. Before this revision excises levels in residential sector were defined on the basis of three different kinds of use:

- T1 cooking and water heating;
- T2 individual heating;
- T3 centralized heating and all other domestic uses.

Starting from the 1st January 2008 excises, and vat rates, applied to residential sector are differentiated on the basis of the annual consumption. The level of excises remains different between Northern and Southern Regions of the Country but the difference will be gradually cancelled. Moreover the Decree provided, starting from the 1st June 2007, for the exemption from excises application of specific energy intensive activities (chemical, electrolytic, metallurgical, and mineralogical).

3. **Natural gas competitiveness**

The analysis of competitiveness between natural gas and gas oil in the residential and commercial sectors needs to take into account the different situation of the Italian regions as to climate (which is reflected into the specific consumption of each region) and as to the presence of numerous levels of excise tax applied to natural gas. The combined effect of these two factors is a differentiated level of competitiveness throughout the national territory, and normally natural gas is competitive in comparison with alternative fuels.

The following table (Table 2) shows the present level of excise tax for alternative fuels.

<table>
<thead>
<tr>
<th></th>
<th>Residential &amp; Commercial uses</th>
<th>Industrial uses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EURO/GJ</td>
<td>EURO/MWh</td>
</tr>
<tr>
<td>HSFO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9600 kcal/kg</td>
<td>3,19</td>
<td>11,49</td>
</tr>
<tr>
<td>LSOF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9800 kcal/kg</td>
<td>1,57</td>
<td>5,64</td>
</tr>
<tr>
<td>Gasoil(***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10200 kcal/kg</td>
<td>11,58</td>
<td>40,71</td>
</tr>
<tr>
<td>LPG(***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11000 kcal/kg</td>
<td>4,12</td>
<td>14,85</td>
</tr>
<tr>
<td>(*)</td>
<td>0,41</td>
<td>1,49</td>
</tr>
</tbody>
</table>

(*) applied to fuels used by public utilities and by electricity producers that sell electricity to public utilities

(*** for industries using cylinders bigger than 10 m³

(**** considering LPG and gasoil taxation in the residential and commercial sectors there is a different regime in some northern provinces (Aosta, Trento, Bolzano and Belluno) and in the mountain areas, which are characterized by rigid climate and by being not reached by the natural gas net: in these areas an allowance is provided on the final price of gasoil of 299 Lit/kg (3,62 EURO/GJ; 13,4 EURO/MWH); and, on the final price of LPG of 308 Lit/kg (3,45 EURO/GJ; 12,44 EURO MWH).
4. **VAT Regime**

The VAT regime on natural gas is differentiated by sectors. VAT rate is now at two different levels: 10% and 20% (see Table 3). For all fuels, VAT is recoverable for industrial and commercial uses.

Table 3: VAT rates on energy products:

<table>
<thead>
<tr>
<th></th>
<th>Power generation</th>
<th>All other uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSFO &amp; LSFO</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Gasoil</td>
<td>10%</td>
<td>20%</td>
</tr>
<tr>
<td>Coal</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>LPG</td>
<td>10%</td>
<td>20% (*)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Industry</th>
<th>Power Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural gas</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Residential</td>
<td>&lt;480 mc/year</td>
<td>&gt;480 mc/year</td>
</tr>
<tr>
<td>Natural gas</td>
<td>10%</td>
<td>20%</td>
</tr>
</tbody>
</table>

(*) 10% for cooking and water heating using cylinders of 10/20 kg.

5. **Taxation and pollution**

In July 2004, two Ministerial Decrees issued by the Minister of Productive Activities jointly with the Minister of the Environment and Land Protection set targets of reducing consumption of electricity and gas and introduced in Italy the White certificates Scheme. The quantitative objectives pursued by the scheme for the improvement of energy efficiency are expressed in primary energy units (Mtoe) to be saved in comparison with the "business as usual" scenario; nowadays targets are identified until 2012. The national targets are apportioned to electricity and gas distributors (obliged operators) that on the one hand have to satisfy them trough the delivery of white certificates, and on the other hand receive a fixed contribution to recover the costs they face because of the energy savings obligations.

The National Regulatory Authority issues White Certificates to obliged electricity and gas suppliers as well as Energy Saving Companies (ESCO) who implement energy efficiency measures. White certificates represent energy saving realized in the national system and are freely tradable on a specific stock exchange market or through bilateral transactions.

Initially the national target was apportioned to electricity and gas suppliers with more than 100,000 customers according to their individual market shares, and at least 50 % of the individual obligations needed to be covered by Energy Efficiency measures in the electricity and gas sectors respectively whereas the remaining obligation may be fulfilled with any other Energy Efficiency measures.

Ministerial Decree 21 December 2007 revised the previous discipline, introducing the following main measures:
- The energy efficiency obligation has been extended to suppliers with more than 50,000 customers;
- Energy saving objectives have been defined until 2012 and the ones previously established for 2008 and 2009 have been significantly increased;
- The 50% constraints has been cancelled;
- A mechanism to correct efficiency objective has been introduced with the aim of avoiding surplus of white certificates titles supply.

6. **Biogas taxation and LNG taxation**

Consumption of gas coming from LNG import is taxed in the same way as gas coming from pipeline import. There are fiscal incentives for biogas used as vehicle fuel.

7. **Taxation for Natural Gas Vehicles (NGV)**

A fiscal incentive exists; moreover there are fiscal incentives, in terms of bonus and discounts, for buying Natural Gas Vehicles.
LATVIA

We thank very much the Latvian Ministry of Finance for this contribution.

1. Tax regime specifications

1.1. Are there different energy taxes for different end-use sectors (e.g. households, district heating, industry (heating, processes), power generation, cogenerations)?

According to the national law “On Excise Duties” there are different mineral oil tax rates taking into account the use of mineral oils.

Standard tax rate is applied if mineral oils are used as propellant.

Reduced tax rate is applied to mineral oils used as heating fuel for the production of heat for heating or for the production of heat energy in a production (processing) of products technological process.

Mineral oils used for the generation of energy or in combined equipment generating electricity and heat energy are exempt from tax.

Producers of agricultural products receive a duty refund for gas oil used for the cultivation of utilised agricultural area.

On 1 July 2010 excise tax on natural gas will be introduced. Excise tax on natural gas will be applied on natural gas supplied to an end user.

Additionally to mandatory exemptions set by Article 2 (4) of Directive 2003/96/EC exemptions will be applied to natural gas used for production of electricity (including co-generation), for operation of technological equipment in industrial production (NACE classification) and for maintenance of necessary technological climate conditions in premises used for industrial production, for heating of covered spaces of land used for agricultural production (greenhouses) and for the purpose of operating the natural gas network.

According to Electricity Tax Law different tax rates are applied to electricity taking into account the use. Electricity tax is applied to the electricity supplied to an end user, as well as electricity, which is supplied for own consumption of electricity producer.

Electricity used for the electricity generation, the generation of heat energy and electricity in cogeneration, the carriage of goods and public passenger transport, including railway transport and municipal transport, and household users are exempt from tax.

The tax for electricity supplied to persons for the provision of street lighting services shall be calculated according to rate LVL 0 per megawatt hour.

Natural Resources Tax Law determines only one standard rate for coal, coke and lignite.

1.2. Breakdown of total energy taxes on the different tax elements (e.g. general excise duty, environmental levy, storage taxes).

Excise duty rates on mineral oils and natural gas, electricity tax and natural resources tax on coal, coke and lignite are generally set. Tax rates do not include any additional element such as environmental levy or storage tax.

2. Description of legal framework of tax regime

2.1. Which changes in the energy tax system have taken place since 1 January 1995 and for which stated reasons?

Taking into account that excise tax has to be harmonized around EU, EU legislation lays down very strict principles for application of excise duty on energy products.
Eurogas

The reform of excise duty system in Latvia before accession to EU was divided in two phases. During the initial phase, which lasted from 1997 to 2000, the basic elements of EU excise tax system were gradually introduced, such as the guarantees, excise warehouses, the procedure of payment of tax, etc. During the second phase, which started in 2003, the rest requirements were introduced.

The most important changes were related to the excise duty rates. According to the EU Directives, countries are obliged to apply at least the minimum duty rates set in the Directives. In Latvia before the accession date, excise duty rates were significantly lower than the minimal rates set in the Directives. However, taking into account the Latvian economic situation, it was considered impossible to apply the excise duty rates set in the Directives. Latvia asked and got a transition period for the introduction of minimal excise duty rates for energy products.

For petrol Latvia is allowed to apply a transitional period until 2011, for gas oil – until 2013 but from 1 February 2009 EU minimum excise duty rate is applied to petrol and gas oil.

In regard of heavy fuel oil Latvia has been provided with a transitional period until 1st January 2010 to apply excise duty on heavy fuel oil that is used for district heating purposes.

For energy products, namely, electricity, coal and coke, duty is applied only from 1 January 2007. For electricity Latvia was allowed to apply a transitional period until 2010, but for coal and coke – until 2009.

On 1 July 2010 excise tax on natural gas will be introduced.

2.2. Is natural gas coming under pressure with regard to changes in the energy taxation system (from governments or other energy lobbies, e.g. the oil or coal lobbies)?

The introduction of excise duty on natural gas will not put pressure on the gas sector, since the price difference between mineral oil products and natural gas will not be influenced substantially.

2.3. Are any changes foreseen in the energy tax system? Please specify. Why are energy taxes to change and how will the foreseen changes affect the market position of natural gas?

At the moment no changes in the energy tax system are foreseen.

3. Natural gas competitiveness

3.1. Is the tax system “fair” to natural gas or does the tax regime in itself cause problems in relation to the competitive position/marketing of natural gas?

The provisions of the European Directives are correctly implemented and mainly tax rates for different energy products are set at the EU minimum level stated by European Directives, so it can be concluded that tax system is “fair”.

3.2. Who benefits from any tax differentials between different fuels (e.g. consumers, energy producers, energy distributors)?

4. VAT Regime

According to the national law “On Value Added Tax” VAT standart rate is 21%, but supply of heating, electricity and natural gas to households (except for natural gas motor vehicles) is applicable with 10% VAT.

5. Taxation and pollution

Energy taxes are not linked to pollution. There is special natural resources tax with aim to restrict pollution of the environment, reduce manufacturing and sale of environment polluting substances, promote implementation of new, environment-friendly technology, support sustainable development in the economy, as well as to ensure environment protection measures financially.
According to Natural Resources Tax Law the following shall be taxable:
1) Natural resources, as well as the collection of edible park snails (Helix pomatia L.) for further economic use;
2) Use of the useful characteristics of subterranean depths, the pumping into geological structures of natural gas or greenhouse gases;
3) Waste disposal and polluting emission;
4) The volume of greenhouse gases emitted by technological equipment, which is not included in the amount of transferred emission quotas;
5) Goods harmful to the environment;
6) Packaging of goods and articles (hereinafter also – packaging) and disposable tableware and accessories. The packaging which the provider of services attaches to articles and which gets to the recipient of the service after provision of the service shall also be taxable;
7) Radioactive substances;
8) Vehicles to which Section 3, Paragraph one of the Management of End-of-Life Vehicles Law is applicable.

Natural Resources Tax Law and more information on taxation of pollution can be found on the web page of Ministry of Environment: http://www.vidm.gov.lv/eng/.

6. **Biogas taxation**

Biogas is applicable by excise duty.

7. **Taxation for Natural Gas Vehicles (NGV)**

Taxation for natural gas vehicles is the same as for other fuel driven vehicles – tax on cars and motorcycles shall be paid for first registration in Latvia and annual circulation fee as well. Natural gas used in natural gas vehicles will be taxed by excise duty as from 1 July 2010.

8. **LNG taxation**

There is no special LNG taxation in place.
LITHUANIA

We thank very much the Lithuanian Ministry of Finance for this contribution.

1. Tax regime specifications

1.1. Are there different energy taxes for different end-use sectors (e.g. households, district heating, industry (heating, processes), power generation, cogenerations)?

Lithuanian excise duty related legislation provides different excise regimes for certain end-use sectors, for example:
- Motor fuel intended for air navigation as well as sea navigation within Community waters (including fishing) is exempt from excise duty;
- Gas oils intended for use by agricultural entities in agriculture as well as in pond fisheries and other internal waters fisheries is relieved from excise duty.
- Natural gas intended for heating and industrial purposes is relieved from excise duty as well as coal and electricity supplied to residents and charitable organizations;
- Gas oils intended for heating are subject to excise duty at a lower rate;
- Energy products used for the production of all types of electricity are not subject to excise duty.

1.2 Breakdown of total energy taxes on the different tax elements (e.g. general excise duty, environmental levy, storage taxes).

Information considering the taxation and pollution is provided in response to question No. 6.

2. Description of legal framework of tax regime

2.1. Which changes in the energy tax system have taken place since 1 January 1995 and for which stated reasons?

Lithuanian excise duty legislation has been aligned with the EU Acquis due to the accession to the European Union as of 1 May 2004. Noteworthy is that Lithuania has been granted the following transitional periods for reaching the minimum EU excise levels:

- gas oil and kerosene used as propellant:
  - to reach the new minimum level of EUR 302 per 1 000 l until 1 January 2011 (the level of taxation on gas oil and kerosene had to be no less than EUR 274 per 1 000 l as from 1 January 2008);
  - to reach EUR 330 per 1 000 l until 1 January 2013.
- unleaded petrol used as propellant to reach EUR 359 per 1 000 l until 1 January 2011 (the level of taxation on unleaded petrol had to reach EUR 323 per 1 000 l as from 1 January 2008).
- coal, coke and lignite, until 1 January 2007;
- electricity and natural gas for heating purposes, until 1 January 2010;
- orimulsion used for purposes other than to produce electricity or heat, until 1 January 2010.

In fulfilment of the liabilities to the European Union, coal, coke and lignite have become subject to excise duty as of 1 January 2007 and excise duty rates on unleaded petrol, gas oils and kerosene have been increased as from 1 January 2008. Once more excise duty for kerosene and petrol has been increased from 1 January 2009. Only for gas oil the excise duty rate was reduced from 1 August 2010.

From 1 January 2010 the application of exemption of excise duty for energy products with substances of biological origin changed:
- When the percentage of of biological origin substances I energy products is not less than 30 percentage, excise duty rate is reduced by the percentage in proportion to the percentage of additives of biological origin in the product.
- When the percentage of biological origin substances is less than 30 percentage, the excise duty rate is reduced by the percentage in proportion to the percentage of additives of biological origin in the product and only for the part that exceeds the compulsory blending of additives of biological origin.

Due to the fact that on 31 December 2009 the transitional period for Lithuania to apply excise duty exemption to electricity expired, from 1 January 2010 the excise duty on electricity was introduced.
Eurogas

Orimulsion is no longer exempt from excise duty.

2.2. Is natural gas coming under pressure with regard to changes in the energy taxation system (from governments or other energy lobbies, e.g. the oil or coal lobbies)?

According to the Article 15(1)(g) of the Council Directive Lithuania has the right to apply excise duty exemption to natural gas used for heating purposes. Natural gas used or sold as motor fuels are taxed at EUR 219.5 for 1000 cubic metres of the product.

2.3. Are any changes foreseen in the energy tax system? Please specify. Why are energy taxes to change and how will the foreseen changes affect the market position of natural gas?

In fulfilment of the liabilities to the European Union, it is foreseen 1 January 2011 to increase the excise duty rate for gas oil.

3. Natural gas competitiveness

Who benefits from any tax differentials between different fuels (e.g. consumers, energy producers, energy distributors)?

According to Lithuanian legislation, natural gas intended for heating and industrial purposes is exempted from excise duty. Considering this, all parties (i.e. producers, suppliers and final consumers) benefit from this exemption.

4. VAT Regime

Supply of gas is subject to VAT at the standard rate of 21%. Input VAT costs incurred on natural gas by economic operators in pursuance of their taxable economic activities can be deducted.

5. Taxation and pollution

In our opinion the environmental taxes fulfill the environmental protection function.

The CO₂ tax it is not applied in Lithuania.

According Lithuanian legislation, charge on pollution from stationary sources is paid according to the amount of pollutants actually emitted during a reporting period. Its rate is in the range of SO₂ - 104,3 €/t; VOC - 24,9 €/t; NOx - 196,94 €/t; CO - 4.34 €/t. Charges from mobile sources are levied on pollution from mobile pollution sources - any other motor - driven vehicle consuming fuels. Charge is paid by legal entities that use mobile sources for commercial purposes. Its rate according to the fuel used:

1) In motor vehicles with internal combustion engines is in the range: petrol - 7,82 €/t, diesel fuel - 8,11 €/t, gas oil - from 7,53 €/t and natural gas - 6,08 €/t;
2) Fuel used in vessels is in the range: petrol - 11,87 €/t, diesel fuel - 12,74 €/t, fuel oil - from 2,9 €/t to 7,53 €/t;
3) Tax rate of diesel used in rail transport - 9,56 €/t;
4) Tax rate for aircrafts - 1,74 for one take-off and landing cycle of aircraft.

Biofuel used in motor driven vehicle is not taxed.

6. Biogas taxation

Lithuanian excise duty related legislation foresees specific provisions with respect to energy products manufactured from materials of biological origin or with their extenders (see answer to question No. 5).
7. **Taxation for Natural Gas Vehicles (NGV)**

Lithuanian excise duty legislation does not provide for a special tax regime for natural gas vehicles, i.e. natural gas intended for use as a motor fuel is subject to excise duty.

8. **LNG taxation**

Supply of liquefied natural gas (LNG) for heating purposes is exempt from excise duty as well as LNG intended for heating. However, liquid natural gas is subject to excise duty when it is intended for use as motor fuel.
LUXEMBOURG

1. Tax regime specifications

1.1. Are there different energy taxes for different end-use sectors (e.g. households, district heating, industry (heating, processes), power generation, cogenerations)?

Excise duties on energy products differ according to the purpose for which they are used.
- Gasoil
  - used as propellant: 310 EUR / 1000 l (< 10 mg/kg sulphur; for gasoil > 10 mg / kg sulphur the rate is 313,3548 EUR / 1000 l)
  - industrial / commercial use: 21 EUR / 1000 l
  - agricultural and horticultural use: 0 EUR / 1000 l.
  - heating – business use: 10 EUR
  - heating – non business use: 10 EUR

Petrole lampant
- used as propellant: 302 EUR / 1000 l
- industrial / commercial use: 21 EUR / 1000 l
- heating: 10 EUR/1000 l

Liquid petroleum gas (LPG)
- propellant use: 101,64 EUR / 1000 kg
- industrial / commercial use: 37,1840 EUR / 1000 kg
- heating – business use: 10 EUR / 1000 kg
- heating non business use: 10 EUR / 1000 kg

Natural gas
- propellant use: 0 EUR / MWh
- heating use:
  - business use (< 550 MWh): 1,08 EUR / MWh
  - business use (> 550 MWh except for amounts specified under "industrial/commercial use"): 0,54 EUR / MWh
- An energy intensive business with an environmental objectives agreement to participate in an emission trade system whose consumption > 4.100 MWh or for metallurgical or mineralogical process: 0,05 EUR / MWh
- business with an environmental objectives agreement with the government whose consumption > 4.100 MWh: 0,3 EUR / MWh
- used in combined heat and power plants: 0,00 EUR / MWh

Electricity
- non – business use :
  - < 25 MWh: 1 EUR / MWh
- business use:
  - 25 MWh 0,50 EUR / MWh
  - 25 MWh 0,10 EUR / MWh - metallurgical processes, electrolyse and chemical reduction or mineralogical process.

1.2. Breakdown of total energy taxes on the different tax elements (e.g. general excise duty, environmental levy, storage taxes).

All types of petrol (leaded and unleaded) used as propellant include a climate change tax of EUR 20 per 1000 litres (since 1 January 2007).

Total excise duties levied on petrol are:
- leaded petrol (used only for aircrafts): 516,1633 EUR / 1000 l
- unleaded petrol
  - >10 mg/kg: 464,5846 EUR / 1000 l
  - <=10 mg/kg: 462,0946 EUR / 1000 l
Eurogas

Gasoil
- used as propellant includes a climate change tax of EUR 25 per 1000 litres (since 1.1.2008);
- used for heating purposes contains a monitoring charge of EUR 10 per 1000 litres.

2. **Description of legal framework of tax regime**

2.1. **Which changes in the energy tax system have taken place since 1 January 1995 and for which stated reasons?**

In the natural gas sector a tax was introduced by the Budgetary Law of December 2006 and was applicable from 1 January 2007 onwards. The tax reflects Council Directive 2003/96/EC of 27 October 2003 restructuring the Community framework for the taxation of energy products and electricity.

2.2. **Is natural gas coming under pressure with regard to changes in the energy taxation system (from governments or other energy lobbies, e.g. the oil or coal lobbies)?**

The introduction of the above mentioned tax has not put further pressure on the gas sector, since the price difference between oil products and natural gas has, relatively seen, not been influenced substantially.

2.3. **Are any changes foreseen in the energy tax system? Please specify. Why are energy taxes to change and how will the foreseen changes affect the market position of natural gas?**

In the natural gas sector the tax system is not expected to be changed, whereas the tax level is subject to change on a yearly basis through the yearly budget law voted by Parliament.

3. **Natural gas competitiveness**

3.1. **Is the tax system “fair” to natural gas or does the tax regime in itself cause problems in relation to the competitive position/marketing of natural gas?**

Since in the natural gas sector the tax level corresponds to the minimum level asked by directive 2003/96/EC it can be concluded that the tax system is fair.

3.2. **Are tax revenues in any way used to promote/support the use of natural gas?**

No, not for the moment.

3.3. **Who benefits from any tax differentials between different fuels (e.g. consumers, energy producers, energy distributors)?**

The consumer should profit from any tax differential since in the natural gas and in the electricity sectors taxes are shown in transparency to the end customers on their bills.

4. **VAT Regime**

The VAT regulation is in line with the Council Directive 2006/112/EC of 28 November 2006 on the common system of value added tax. The VAT rate for gas has been set at 6%. VAT is recoverable for all the business community.

5. **Taxation and pollution**

The government has undertaken to support a progressive introduction of “green” taxation as from 2004. The Kyoto Fund was set up by a Law of 23 December 2004 transposing the European Directive 2003/87/CE on greenhouse gas emissions. Its objective is to “help finance the Kyoto flexibility mechanisms and the related national measures implemented with a view to reducing greenhouse gas emissions”. In application of the polluter-pays principle, the revenues generated in this way will be allocated in full to it.
The Kyoto Fund receives revenues for the State Budget which come from the “climate change contribution” introduced in 2007 (cf. 1.2. above) levied on fuel sales and from green car taxation introduced in 2007. All income derived from the climate change contribution goes to the Kyoto Fund. It is also the destination of 40% of income derived from car taxation. The climate change contribution reflects a progressive increase in road fuel excise rates. The first measure was introduced in 2007, with a tax of 20 EUR per 1000 litres being levied for fuel used as propellant and 12,5 EUR per 1000 litres levied for gasoil used as propellant. The measure was implemented by a law of 22 December 2006. The tax on gasoil was increased to 25 EUR per 1000 litres on 1 January 2008.

The motor vehicle tax reform based on environmental criteria was introduced on 1 January 2007. Previously car tax did not take into account the environmental aspect. The relevant taxation takes account of CO\(_2\) emissions and aims to encourage consumers to give preference to vehicles with low fuel consumption. The measure also aims to raise public awareness. It was introduced by a law of 22 December 2006 and lead to a complete reform of car taxation. The tax was shifted from a pure engine-size base to a 100% CO\(_2\) emissions related base.

Not related to the Kyoto Fund are the following measures. At the end of 2007 the Luxembourg government introduced a special aid scheme providing 750 euros to persons acquiring a car emitting less than 160 g CO\(_2\) per km. As from 2007 motor vehicle fuel has to be compulsorily blended by at least 2 % addition of fuel of a carbon free source such as ethanol or bio-diesel according to the terms of the European Directive 2003/30/CE. Failure to comply with this measure entails a pollution tax amounting to 1000 euros / 1000 litres. The measure was introduced by the 2007 Budgetary Law. Biofuel products ranging from NC 1507 to 1518, and those ranging from NC 3824 90 80 to 3824 90 99 as well as those having the codes NC 2207 20 00 and 2905 11 00 are exempted from taxation insofar as they take on a pure form for use. The measure was introduced by the 2008 Budgetary Law.

6. **Biogas taxation**

Ethylc alcohol (NC 2207 20 00) and methanol (NC 2905 11 00) are exempted from taxation insofar as they take on a pure form.

7. **Taxation for Natural Gas Vehicles (NGV)**

There are no taxes applied to gas consumed in natural gas vehicles except VAT. The taxation for natural gas vehicles is the same as for other fuel driven cars in the sense that they are based on CO\(_2\) emissions. Newly acquired NGVs emitting less than 160 g CO\(_2\) per km may benefit from the special aid scheme providing 750 euros for the acquisition of a car emitting less than 160 g CO\(_2\) per km (mentioned under 5).

8. **LNG taxation**

There is no special LNG taxation in place since there is no regasification plant in Luxembourg.
1. **Tax regime specifications**

1.1. Are there different energy taxes for different end-use sectors (e.g. households, district heating, industry (heating, processes), power generation, cogenerations)?

<table>
<thead>
<tr>
<th>Energy:</th>
<th>Euro per energy unit</th>
<th>EURO/GJ (NCV)</th>
<th>EURO/MWh (NCV)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HFO - 1% S)</strong></td>
<td>0.03369</td>
<td>0.8128</td>
<td>2.9250</td>
</tr>
<tr>
<td><strong>Gas Oil</strong></td>
<td>0 - 15300 l</td>
<td>0.25891</td>
<td>7.2080</td>
</tr>
<tr>
<td></td>
<td>&gt; 15300 l</td>
<td>0.19491</td>
<td>5.4262</td>
</tr>
<tr>
<td><strong>LPG</strong></td>
<td>0 - 119000 kg</td>
<td>0.16002</td>
<td>3.4787</td>
</tr>
<tr>
<td></td>
<td>&gt; 119000 kg</td>
<td>0.08430</td>
<td>1.8326</td>
</tr>
<tr>
<td><strong>Natural gas</strong></td>
<td>0 - 5000 m³</td>
<td>0.16290</td>
<td>5.1469</td>
</tr>
<tr>
<td></td>
<td>5001 - 170000 m³</td>
<td>0.14110</td>
<td>4.4581</td>
</tr>
<tr>
<td></td>
<td>170001 - 1000000 m³</td>
<td>0.03910</td>
<td>1.2354</td>
</tr>
<tr>
<td></td>
<td>1000001 - 10000000 m³</td>
<td>0.01240</td>
<td>0.3918</td>
</tr>
<tr>
<td></td>
<td>&gt; 10000000 m³</td>
<td>0.00820</td>
<td>0.2591</td>
</tr>
<tr>
<td><strong>Coal</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Electricity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0 - 10000 kWh</td>
<td>0.01140</td>
<td>30.9444</td>
</tr>
<tr>
<td></td>
<td>10001 - 50000 kWh</td>
<td>0.004060</td>
<td>11.2778</td>
</tr>
<tr>
<td></td>
<td>50001 - 10000000 kWh</td>
<td>0.001080</td>
<td>3.0000</td>
</tr>
<tr>
<td></td>
<td>&gt; 10000000 kWh</td>
<td>0.000050</td>
<td>0.1389</td>
</tr>
</tbody>
</table>

* HFO sulphur >1% is no longer in use in the Netherlands.

** Taxes/consumption levels based on annual consumption.

*** All consumers with an electricity connection get a refund of Euro 318.62 per connection per year.

1.2. Break down of total energy taxes on the different tax elements (e.g. general excise duty, environmental levy, storage taxes).

<table>
<thead>
<tr>
<th>Energy:</th>
<th>Excise duty</th>
<th>Environmental levy</th>
<th>Stock levy</th>
<th>Energy tax</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HFO - 1% S)</strong></td>
<td>100.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>Gas Oil</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 - 15300 l</td>
<td>97.7%</td>
<td>0.0%</td>
<td>2.3%</td>
<td>0.0%</td>
</tr>
<tr>
<td>&gt; 15300 l</td>
<td>97.0%</td>
<td>0.0%</td>
<td>3.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>LPG</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 - 119000 kg</td>
<td>96.3%</td>
<td>0.0%</td>
<td>3.7%</td>
<td>0.0%</td>
</tr>
<tr>
<td>&gt; 119000 kg</td>
<td>93.0%</td>
<td>0.0%</td>
<td>7.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>Natural gas</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 - 5000 m³</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>5001 - 170000 m³</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>170001 - 1000000 m³</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>1000001 - 10000000 m³</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>&gt; 10000000 m³</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td><strong>Coal</strong></td>
<td>0.0%</td>
<td>100.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>Electricity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 - 10000 kWh</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>10001 - 50000 kWh</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>50001 - 10000000 kWh</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>&gt; 10000000 kWh</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
1.3. Description of the fiscality applied on undertakings in energy sectors having an impact on energy prices, such as royalties and concession fees.

Generally speaking there are no different energy taxes for different end-use sectors except for green house horticulture, power- and co-generation.

Natural gas for horticultural use was exempted from tax up to the end of 1999. Starting from January 1 2000 the Government also introduced an Energy tax for this sector, but it is much lower than the normal tax rates. For rates for 2010 see table below:

<table>
<thead>
<tr>
<th>Natural gas for Horticulture use</th>
<th>Energy tax €/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 5000 m³</td>
<td>0.01485</td>
</tr>
<tr>
<td>5000 - 170.000 m³</td>
<td>0.02362</td>
</tr>
<tr>
<td>170.000 - 1,000,000 m³</td>
<td>0.01977</td>
</tr>
<tr>
<td>&gt;1,000,000 m³</td>
<td>0.01240</td>
</tr>
<tr>
<td>&gt;10,000,000 m³</td>
<td>0.00820</td>
</tr>
</tbody>
</table>

Power generation and co-generation above 20 MW are exempted from all taxes.

2. Description of legal framework of tax regime

2.1. Which changes in the energy tax system have taken place since 1 January 1995 and for which stated reasons?

**Ecotax / Energy tax:**

Since 1995 an Ecotax has been introduced in the Netherlands. For natural gas and electricity the first 800 m³/ 800 kWh were free of Ecotax.

On January 1 2001 the Ecotax system on natural gas and electricity changed. Up to the end of 2000 there was a (first) free part of 800 m³ and 800 kWh per customer/connection per year.

On January 1 2001 these free parts were cancelled and were replaced by an annual refund of € 142.--- per connection per year. For 2010 this refund amounts to € 318,62 per year. This refund has no link with the annual consumption of a customer.

Since January 1 2004 the so called "Ecotax" has been renamed as "Energy tax". This Energy tax includes the Environmental levy and the Ecotax. Only for coal is there still an Environmental levy.

For HFO, gas oil and LPG, on 1 January 2010 the Energy Tax has been builded in the Excise duty.

**Stock levy:**

Since 1 October 2004 the government introduced a stock levy LPG. Up to this date there was only a stock levy for gas oil.

**VAT:**

The VAT rate for 2001 went up from 17.5% to 19.0%.

2.2. Are any changes foreseen in the energy tax system? Please specify. Why are energy taxes to change and how will the foreseen changes affect the market position of natural gas?

No changes in taxation are foreseen in the near future. If increases of taxes will take place they will have no effect on the market position of natural gas.
3. **Natural gas competitiveness**

3.1. **Is the tax system "fair" to natural gas or does the tax regime in itself cause problems in relation to the competitive position/marketing of natural gas?**

In the Netherlands nearly all energy users are connected to the gas grid so there is no need to promote natural gas. The tax system also does not really encourage the use of other energy sources.

4. **VAT Regime**

The general VAT-rate for energy is 19%. For horticultural uses the VAT-rate is 6%. In the Netherlands the VAT is recoverable for all the business community.

5. **Taxation and pollution**

Energy taxes are not directly linked to pollution. There is no tax premium for natural gas. Renewable energy sources were not taxed in the Netherlands up to the end of 2003. Starting from 2005 renewable energy is fully taxed in the Netherlands. From 2006 green gas is also fully taxed in the Netherlands.

6. **Biogas taxation**

Biogas has the same tax tariff structure as natural gas.

7. **Taxation for Natural Gas Vehicles (NGV)**

Gas for Natural Gas Vehicles has the same tax tariff structure as natural gas. Starting from 2007, only natural gas is delivered as CNG by a filling station in motor vehicles, per m³ euro 0,03. From 2010, only natural gas is delivered as CNG by a filling station in motor vehicles, per m³ euro 0,0316.

8. **LNG taxation**

The Netherlands does not have LNG taxation at the moment. The Netherlands has only a small LNG-installation which is only used as storage-capacity.
1. **Tax regime specifications**

1.1. **Are there different energy taxes for different end-use sectors (e.g. households, district heating, industry (heating, processes), power generation, cogenerations)?**

Not in general. However, with respect to LPG, two different rates exist, whether the LPG is used as fuel for engine vehicles or for other purposes.

1.2. **Breakdown of total energy taxes on the different tax elements (e.g. general excise duty, environmental levy, storage taxes).**

Excise taxes for energy in Poland are set in the form of lump sum with no separate taxes neither for environmental nor storage purposes.

However, the excise taxes are suspended when harmonised energy products are stored in “fiscal depot” (the products are thus imposed when leaving the depot and not at the level of a manufacturer).

2. **Description of legal framework of tax regime**

2.1. **Which changes in the energy tax system have taken place since 1 January 1995 and for which stated reasons?**

Numerous changes have occurred in the Polish tax legislation in the last years. In general the taxation rates were modified on an annual basis. In 2004 general excise regulations were introduced in line with the EU rules.

On 1 March 2009 new version of the excise tax law entered into force in Poland. This law modified some specific regulations concerning particularly situation when a product can be excise free. To this end the category of intermediaries were introduced which are different from the category of final users of excise goods. The law brought domestic regulations on taxation of electricity in line with the Council Directive 2003/96/EC as of 27 October 2003.

The excise tax for electricity was shifted from energy producers to final distributors of energy. The excise rate on electricity was set at 20 PLN/MWh, which corresponds to 5,20 €/MWh (converted with exchange rate as of April 2010: 3,85 PLN/EUR).

Since 1 January 2007 new incentives have been introduced for biocomponents added for fuels in the form of excise duties reliefs. As of 1 April 2009 excise tax relief amounts to: 1,565 PLN (0,4065 €) for each 1 litre of biocomponents added to gasoline and 1,048 PLN (0,2722 €) for each 1 litre added to diesel. The excise tax for gasoline without biocomponents amounts to 1565 PLN/1000 l (406,51 €) and for diesel without biocomponents amounts to 1048 PLN/1000 l (272,22 €).

According to the new excise law dated of 2009, coal and coke are added to the list of excise goods with the rate of 1,28 PLN/1 GJ (0,3325 €), however until 1 January 2012 the duty is suspended. The excise rate for natural gas in the form of CNG when used for propelling car engines has been set at 11,04 PLN/1 GJ (2,8677 €), but the tax is suspended until 31 October 2013.

The excise rate for gas in the form of LPG used for propelling car engines amounts to 695 PLN/1000 kg (180,53 €).

Natural gas for heating purposes is imposed with the rate of 1,28 PLN/1 GJ (0,3325 €).

2.2. **Is natural gas coming under pressure with regard to changes in the energy taxation system (from governments or other energy lobbies, e.g. the oil or coal lobbies)?**

The percentage of natural gas used in the total consumption of energy products is slowly increasing. The excise rates for natural gas are in general at zero level until October 2013.
2.3. Are any changes foreseen in the energy tax system? Please specify. Why are energy taxes to change and how will the foreseen changes affect the market position of natural gas?

The current excise regulations have been updated in 2009 and there is no new project in the pipeline. Natural gas is on the list of excise goods but the tax is suspended until October 2013.

3. Natural gas competitiveness

3.1. Is the tax system “fair” to natural gas or does the tax regime in itself cause problems in relation to the competitive position/marketing of natural gas?

The tax regulations for natural gas have seemed to be rather fair so far.

3.2. Are tax revenues in any way used to promote/support the use of natural gas?

There is no redistribution of tax revenues towards the energy sector.

3.3. Who benefits from any tax differentials between different fuels (e.g. consumers, energy producers, energy distributors)?

In general, coal producers and consumers of LPG used for non propelling purposes. The national production of electricity is based mainly on coal and coke with the consumption of natural gas increasing slowly.

4. VAT Regime

The VAT regulation is in general in line with the Tax Directive 2006/112/EC. The standard rate is 22%. There are two levels of reduced rates: 3% and 7%. The VAT paid by producers is recoverable from fiscal authorities, with several exceptions.

5. Taxation and pollution

The excise rate on natural gas is zero, which can be considered as a premium. Tax reliefs have been introduced for biocomponents added to gasoline and to diesel (see point 2.1).

6. Biogas taxation

Biogases and biohydrogen are excise free. There are no specific regulation.

7. Taxation for Natural Gas Vehicles (NGV)

Natural gas used for propelling car engines is excise free until October 2013.

8. LNG taxation

Excise tax for LNG when used for vehicles purposes is suspended until October 2013.
PORTUGAL

We thank very much the Portuguese Ministry of Finance for this contribution.

1. **Tax regime specifications**

1.1. Are there different energy taxes for different end-use sectors (e.g. households, district heating, industry (heating, processes), power generation, cogeneration)?

There is only one general excise duty for all uses and sectors.

There are different tax rates in the following products:
- Gas oil – Total exemption for use in railways and sea, coastal and internal navigation. Reduced excise duty rates for agriculture, power generators. All these activities use coloured and marked gasoil.
- Heating gas oil carries a reduced tax rate, for industrial, commercial and domestic heating.
- Coal and fuel oil used for power generation (electricity) and cogeneration are exempted from tax, in the mainland, as well as gasoil in the Autonomous Regions of Azores and Madeira.

1.2. Breakdown of total energy taxes on the different tax elements (e.g. general excise duty, environmental levy, storage taxes).

There is only one single excise duty, without specified tax elements.

1.3. Description of the fiscality applied on undertakings in energy sectors having an impact on energy prices, such as royalties and concession fees.

This type of fiscality is not applied.

2. **Description of legal framework of tax regime**

2.1. Which changes in the energy tax system have taken place since January 1st, 1995, and for which stated reasons?

The Decree-Law no 566/99, of December 22, approved the Code of Excise Duties, including the duties on energy products, thus codifying the legislation on excise duties, including the 1994 laws on mineral oils, which were in line with the 1992 directives on mineral oils.

Subsequently, the Code was amended in order to transpose the 2003/96/EC Directive.

A new fiscal category was created in 2002, for a new product – heating gasoil – which is also coloured and marked, and carries its own tax rate, which is gradually increasing, in order to be harmonized with motor gasoil by 2014, under the National Climate Change Program, with the aim of reducing GHG emissions.

In 2006, a total or partial exemption was included in the Code for biofuels, when mixed with petrol or motor gasoil used for transportation.

In 2008, the code was amended regarding the exemption for industrial fuels.

2.2. Is natural gas coming under pressure with regard to changes in the energy taxation system (from governments or other energy lobbies, e.g. the oil or coal lobbies?)

No.

2.3. Are any changes foreseen in the energy tax system? Please specify. Why are energy taxes to change and how will the foreseen changes affect the market position of natural gas?

Natural gas will cease to be exempted under article 15, 1 g. of Council Directive 2003/96/CE, no later than 2013.
3. **Natural gas competitiveness**

3.1. Is the tax system “fair” to natural gas or does the tax regime in itself cause problems in relation to the competitive position / marketing of natural gas?

Natural gas is taxed only when used as motor fuel, under article 15 of the Directive. But there is an exemption for use in public transportation.

3.2. Are tax revenues in any way used to promote / support the use of natural gas?

No.

3.3. Who benefits from any tax differentials between different fuels (e.g. consumers, energy producers, energy distributors)?

The consumers.

4. **VAT Regime**

- The general VAT rate is currently 20%.
- The rate of the coloured and marked gasoil is 12 %.
- A 5% VAT tax rate applies to natural gas.
- VAT-registered companies can recover VAT.

5. **Taxation and pollution**

The tax rate of heating gasoil is being gradually increased, to prevent GHG emissions, by making fossil fuels unattractive to use for heating purposes.

Companies using industrial fuels (coal, coke, petroleum coke, fuel oil and petroleum gases) can qualify for tax exemption only if they are covered by ETS, and have a licence for their emissions.

6. **Taxation and energy efficiency**

Companies using industrial fuels (coal, coke, petroleum coke, fuel oil and petroleum gases) can also qualify for tax exemption if they have an Energy Consumption Rationalisation Agreement with the Government (Energy Department), under the "Intensive Energy Consumption Management System" (SGCIE).

7. **Biogas taxation**

There are no specific rules on biogas taxation.

8. **Taxation for Natural Gas Vehicles (NGV)**

Natural gas consumed by Natural Gas Vehicles carries a normal excise duty rate. However, the registration tax (ISV) on passenger cars is reduced to 50% for NGV. There is 100% exemption of the same tax for passenger cars used as taxis.

9. **LNG taxation**

Liquefied natural gas is taxed at € 2,78 / gigajoule, with a VAT rate of 5%.
We thank very much the Romanian Ministry of Finance for this contribution.

1. **Tax regime specifications**

1.1. Are there different energy taxes for different end-use sectors (e.g. households, district heating, industry (heating, processes), power generation, cogenerations)?

From the excise duty point of view, in the case of heavy fuel oil, coal and coke, and also in the electricity case, there are differentiated taxation levels depending on the usage of the product in commercial or non-commercial purpose.

The electricity produced from energetic renewable sources is exempted from the payment of excise duties. Also, the energy products and the electricity used for the production of electricity, as well as the electricity used for the maintaining of the capacity for production of electricity are exempted for the payment of excise duties. The exemption from the payment of excise duties is given also for the energy products and the electricity used for the combined production of electric energy and thermal energy.

The liquid petroleum gas is also tax depending on its use, as motor fuel, heating fuel or domestic use (the liquid petroleum gas bottled into gas cylinders is subject to “0” excise duty rate).

Concerning the natural gas, the establishing of different excise duty levels depend on the usage of the product as motor fuel or heating fuel, and in the case of natural gas use as heating fuel there is another differentiation of the excise duties, depending on its commercial or non-commercial character.

Also, we mention that the natural gas, coal and solid fuels used by the households and/or charitable organizations are exempted from the payment of excise duties.

The kerosene used as fuel by natural persons is not subject to excise duty.

In the case of leaded petrol, unleaded petrol and gas oil, according to the actual national legislation there are no different levels of excise duties.

1.2. **Breakdown of total energy taxes on the different tax elements (e.g. general excise duty, environmental levy, storage taxes).**

According to the Romanian legislation, the excise duties for energy products and electricity are entirely revenues of the state budget, without being divided into general excise duties, environmental levy or storage taxes.

1.3. **Description of the fiscality applied on undertakings in energy sectors having an impact on energy prices, such as royalties and concession fees.**

According to the legislation in force in Romania, for the concession of the natural gas distribution service and for the deposits of mineral oil exploitation, dues are owed.

2. **Description of legal framework of tax regime**

2.1. Which changes in the energy tax system have taken place since 1 January 1995 and for which stated reasons?

After the date of 1 January 1995, Romania was confronted with important changes regarding the energy excise duty, having a similar experience with other countries in transition.

In the year 1995, the only energy products subject to excise duty were the petrol and the gas oil.

From the year 1995 until the present, Romania applies a tax for the crude oil from the national production (tax that was introduced as far back as in 1 July 1993).

In the period 1995-2007, a tax for the natural gas from the national production was also applied.

Regarding the liquid petroleum gas and the kerosene, these were introduced in the excise duty system starting with the year 2004. The electricity has become subject to the excise duty on the date of 1 April 2005.
Eurogas

The most important change regarding the excise duty system in Romania has taken place once Romania joined the European Union when the alignment of the national legislation was made with the community legislation in the field.
In this respect, on the date of 1 January 2007 the coal and the coke were introduced in the excise duty system.
Also, another important change in the national legislation that regulates the general excise duty arrangement was made at 1 April 2010 when entered into force the provisions of the Directive 2008/118/CE.

2.2. Is natural gas coming under pressure with regard to changes in the energy taxation system (from governments or other energy lobbies, e.g. the oil or coal lobbies)?
Taking into account the encouragement of the use of energy products obtained from biomass, through a total exemption granted from the excise duty payment when the mentioned products are totally formed from biomasses and used as motor fuel or as heating fuel, in comparison with this regime we can affirm that natural gas is under pressure.

2.3. Are any changes foreseen in the energy tax system? Please specify. Why are energy taxes to change and how will the foreseen changes affect the market position of natural gas?
Regarding the possible changes that could occur on the excise duty system of energy products, having regard the abundance of changes which have happened in the last period of time in Romania, through the implementation of the community directives into the national legislation, there are no further foreseen changes for the moment, only if the community directives shall imposed such modifications.

3. Natural gas competitiveness

3.1. Is the tax system "fair" to natural gas or does the tax regime in itself cause problems in relation to the competitive position/marketing of natural gas?
Taking into account that also the other fuels are taxed, we consider that the excise duty system applied to natural gas is “fair”.

3.2. Are tax revenues in any way used to promote/support the use of natural gas?
An encouragement element for the usage of natural gas by the population is represented through the exemption from the payment of excise duty granted to this product when it is used by the households (domestic consumers). Also, the liquid petroleum gas bottled into the gas cylinders (also for the domestic use) is subject to “0” excise duty rate.

3.3. Who benefits from any tax differentials between different fuels (e.g. consumers, energy producers, energy distributors)?
The excise duties on natural gas are due by the economic operators that deliver the product to the final consumer (therefore not during the economical chain, from the producer to the consumer).

4. VAT Regime

In Romania, the energy products are subject to the standard VAT rate of 19%.

5. Taxation and pollution

In Romania, a major objective is the pollution reduction. Regarding the excise duty system applied to support this objective, we mention that for this reason, the usage of energy products obtains from biomass is promoted, therefore when these products are used as motor fuel or as heating fuel they are totally exempted from the payment of excise duty.
6. **Taxation and energy efficiency**

In order to reduce the pollution and to make the energetic system more efficient, for creating a stable and durable environment, Romania support the use of renewable sources of energy, therefore the electricity produced from such sources is exempted from the payment of excise duties.

7. **Biogas taxation**

For the moment, in Romania the biogas (if it is 100% biomass) is exempted from the payment of excise duty.

8. **Taxation for Natural Gas Vehicles (NGV)**

There is no special tax regime on NGVs in Romania. It is taxed as natural gas.

9. **LNG taxation**

Regarding the liquid natural gas, we mention that for the moment there is no special regulation, but in the situation when this product is destined to be used, sold or used as heating fuel or motor fuel, this product is subject to the excise duty at the level applied for the equivalent heating fuel or motor fuel.
SLOVAKIA

We thank very much the Slovak Ministry of Finance for this contribution.

1. Tax regime specifications

1.1. Are there different energy taxes for different end-use sectors (e.g. households, district heating, industry (heating, processes), power generation, cogenerations)?

In the Slovak republic, the energy tax is understood to be tax on electricity, coal and natural gas. No, there are not. However there are different tax rates and conditions for different end-use sectors applicable (e.g. household is fully exempted from any energy tax, i.e. any consumption of electricity, coal and NG is not taxed). Energy taxes generally apply to final consumption (end-user).

1.2. Breakdown of total energy taxes on the different tax elements (e.g. general excise duty, environmental levy, storage taxes).

Energy taxes applicable in Slovakia (except for common excise duties):
(1) excise duty on electricity
(2) excise duty on coal
(3) excise duty on natural gas

1.3. Description of the fiscality applied on undertakings in energy sectors having an impact on energy prices, such as royalties and concession fees.

n.a.

2. Description of legal framework of tax regime

2.1. Which changes in the energy tax system have taken place since 1 January 1995 and for which stated reasons?

The Slovak income tax, as well as VAT act introduced taxation of emission allowances, currently the new act reg. excise duties on electricity, coal and NG became effective as of 1.1.2008, however, the duty (tax) applies to supplies effected earliest as of 1.7.2008.

2.2. Are any changes foreseen in the energy tax system? Please specify. Why are energy taxes to change and how will the foreseen changes affect the market position of natural gas?

Natural gas shall be exempt from tax, if it is used as a motor fuel.

Disputes between the Slovak Ministry of Finance and the European Commission concerning the relevance of the exemption of CNG (compressed natural gas) used as motor fuel came to conclusion, which is stated in act reg. excise duties on electricity, coal and NG, effective as of 1.1.2008:
Natural gas shall be exempt from tax if it is designated for the production of compressed natural gas used as a motor fuel.

Natural gas shall also be exempt from tax if it is located in the regular tanks of motor vehicles, industrial machines, air conditioning, cooling and other similar units upon their entry into the tax territory from another Member State or from the territory of a third country, provided that this gas serves for their own drive or operation; for the purposes of this Act, a regular tank shall mean a tank allowing for the direct use of fuel.

There is no differentiation depending on the user of natural gas: the measure applies in the same way to natural persons and legal persons. Both Slovak and foreign persons buying fuel in Slovakia benefit in the same way from this measure. There is no sector-specific differentiation: all market players whose vehicles are adapted to use CNG qualify for the excise duty exemptions as will users who decide to use CNG in the future.

Furthermore, energy taxes changed (doubled in 2010) in order to meet the conditions stated in the EU directive. In 2007, the National Strategic and Referential Framework of 2007 – 2013, operational
programme of the Environment, operational target entitled the “Reduction of Emissions of Public Transport Pollutants Given the Priority in the Areas Requiring Special Air Protection”. The subject matter of support will be mainly the gasification of public transport buses (municipal buses and buses operating in the outskirts) and building of CNG stations was approved in Brussels. In case of successful implementation of the projects, the number of buses will be increased by 2013, from the current number of 239 to 600 - 800 which would mean the CNG consumption of approximately 15 million kg/year (21.0 million m³/year).

3. **Taxation for Natural Gas Vehicles (NGV)**

Act on Exercise Duty on Electricity, Coal and Natural Gas:

<table>
<thead>
<tr>
<th>Tax rate*</th>
<th>Natural gas used as motor fuel</th>
<th>Natural gas used as heating fuel</th>
</tr>
</thead>
<tbody>
<tr>
<td>as of 1.1.2010</td>
<td>13,27 Euro/MWh</td>
<td>1,32 Euro/MWh</td>
</tr>
</tbody>
</table>
SLOVENIA

We thank very much the Slovenian Ministry of Finance for this contribution.

1. **Tax regime specifications**

Taxation on energy in Slovenia consists of three elements: CO\(_2\) tax, excise tax and VAT.

1.1. **Are there different energy taxes for different end-use sectors (e.g. households, district heating, industry (heating, processes), power generation, cogenerations)?**

In general yes, but big industry and power generation are taking part in trading with emission rights.

According to excise duty legislation a partly refund of excise duty on gas oil is possible for the use of it in some sectors: agriculture, horticulture, pisciculture and forestry; for industrial and commercial purposes and for so called "commercial diesel" in transport sector. These exceptions are based on corresponding EU excise legislation. As electricity excise taxation was enforced in 2007, there was a difference between households and industry tax rate, but recently (may 2010) this difference was dismissed. Excise duty on electricity is exempt in some cases (chemical reduction, electrolytical and metallurgical processes, small hidroelectric stations, etc.).

1.2. **Breakdown of total energy taxes on the different tax elements (e.g. general excise duty, environmental levy, storage taxes).**

Taxes on energy in Slovenia (situation per 1 January 2010):

<table>
<thead>
<tr>
<th></th>
<th>€/GJ</th>
<th></th>
<th>€/MWh</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CO(_2)</td>
<td>Excise</td>
<td>CO(_2)+EX</td>
</tr>
<tr>
<td>GAS OIL</td>
<td>0,90</td>
<td>1,72</td>
<td>2,62</td>
</tr>
<tr>
<td>HFO</td>
<td>1,00</td>
<td>0,37</td>
<td>1,37</td>
</tr>
<tr>
<td>LFG</td>
<td>0,78</td>
<td>0,00</td>
<td>0,78</td>
</tr>
<tr>
<td>NATURAL GAS</td>
<td>0,70</td>
<td>0,18</td>
<td>0,88</td>
</tr>
<tr>
<td>COAL1</td>
<td>1,34</td>
<td>0,29</td>
<td>1,63</td>
</tr>
<tr>
<td>COAL2</td>
<td>1,03</td>
<td>0,29</td>
<td>1,32</td>
</tr>
<tr>
<td>COAL3</td>
<td>1,14</td>
<td>0,29</td>
<td>1,43</td>
</tr>
<tr>
<td>ELECTRICITY</td>
<td>domestic</td>
<td>0,28</td>
<td>0,28</td>
</tr>
<tr>
<td></td>
<td>enterprise</td>
<td>0,14</td>
<td>0,14</td>
</tr>
</tbody>
</table>

COAL1 (CN 2704); COAL2 (CN 2701); COAL3 (CN 2702)

2. **Description of legal framework of tax regime**

2.1. **Which changes in the energy tax system have taken place since 1 January 1995 and for which stated reasons?**

In Slovenia following changes in the energy tax system have taken place:

a) Excise Duty Law 1998  
b) CO\(_2\) tax Law 1998  
c) VAT Law 1999

Slovenian Excise Duty Law and VAT Law have both been changed several times since 1998 (1999), mainly because of the changes in the EU tax legislation or certain administrative, economic or other goals each government was trying to achieve. In the past two years the excise legislation was changed in the first line because of the current economic situation, the majority of excise duty rates were (are being) raised.
2.2. Is natural gas coming under pressure with regard to changes in the energy taxation system (from governments or other energy lobbies, e.g. the oil or coal lobbies)?

Natural gas is not under pressure for changes in the energy taxation system (like gas oil and fuel oil).

2.3. Are any changes foreseen in the energy tax system? Please specify. Why are energy taxes to change and how will the foreseen changes affect the market position of natural gas?

The future decisions will depend on the economic situation, but we expect the excise duty rates on energy products and electricity will still continue to grow to some extent in 2010. This will maybe stimulate the use of natural gas, but any certain forecasts would be too early.

3. Natural gas competitiveness

3.1. Is the tax system “fair” to natural gas or does the tax regime in itself cause problems in relation to the competitive position/marketing of natural gas?

Yes, the tax rate is lower in comparison with other energy products.

3.2. Who benefits from any tax differentials between different fuels (e.g. consumers, energy producers, energy distributors)?

Some industry sectors (as in point 1.1.).

4. VAT Regime

VAT: 20% is the same for all fuels and users.
Excise tax: (include in the tax base of VAT)

5. Taxation and pollution

CO₂ tax Law 1998

6. Taxation and energy efficiency

CO₂ emission coupons stimulate users to improve the efficiency of their systems

7. Biogas taxation

Biogas is not taxed.

8. Taxation for Natural Gas Vehicles (NGV)

The tax rate of natural gas, used for propelling of vehicles is 0,0981 € / m³.

9. LNG taxation

The tax rate of LNG for propelling is 134,3682 € / 1000 kg.
1. Tax regime specifications

1.1. Are there different energy taxes for different end-use sectors (e.g. households, district heating, industry (heating, processes), power generation, cogenerations)?

VAT: 16% is the same for all fuels and uses, even for bottled LPG, and electricity
Excise tax: (include in the tax base of VAT)
   - There is no taxation on energy products used for power generation and co-generation (natural gas, gas oil or coal)
   - Natural gas Vehicles: 1,15€/GJ
   - There is no taxation on natural gas used as combustible for heating.
   - Electricity utilities are charged a rate of 5,113% over the official electricity tariffs, and in accordance with Directive 2003/96 CE, the minimum rates are 0,5 €/MWh in business use, and 1 €/MWh in non business uses.

1.2. Breakdown of total energy taxes on the different tax elements (e.g. general excise duty, environmental levy, storage taxes).

   - Excise duty: 0
   - Excise tax: (include in the tax base of VAT)
   - VAT: import exempt/ delivery 16%
   - Pollution tax: apply only to certain industries issuing CO2, Nox, Sox

1.3. Description of the fiscality applied on undertakings in energy sectors having an impact on energy prices, such as royalties and concession fees.

VAT 16%

2. Description of legal framework of tax regime

2.1. Which changes in the energy tax system have taken place since 1 January 1995 and for which stated reasons?

   - Excises tax: adaptation to Directive 2003/96/EC restructuring the Community framework for the taxation of energy products and electricity.

2.2. Is natural gas coming under pressure with regard to changes in the energy taxation system (from governments or other energy lobbies, e.g. the oil or coal lobbies)?

No

2.3. Are any changes foresee in the energy tax system? Please specify. Why are energy taxes to change and how will the foreseen changes affect the market position of natural gas?

Excises Tax on natural gas: According to Directive 2003/96 (art. 15) the exemption applied on natural gas used for heating must disappear as soon as the Spanish share of natural gas in final energy consumption reaches 20%.

3. Natural gas competitiveness

3.1. Is the tax system “fair” to natural gas or does the tax regime in itself cause problems in relation to the competitive position/marketing of natural gas?

Yes, it is fair in a tax point of view.
3.2. Are tax revenues in any way used to promote/support the use of natural gas?
Yes, in the excises tax apply an exemption for natural gas used for heating.

3.3. Who benefits from any tax differentials between different fuels (e.g. consumers, energy producers, energy distributors)?
Energy producers and household consumers.

4. VAT Regime
VAT is the same for all fuels and uses, even for bottled LPG, and electricity, 16% rate. VAT is a recoverable tax except for residential consumers.

5. Taxation and pollution
Some Autonomous Communities as Andalusia, Murcia and Galicia have established taxes linked to pollutant emissions of CO₂, SOx, and NOx, from certain industries, apart from the national regulations in compliance of Kyoto Protocol.

6. Biogas taxation
There is no taxation (excises tax) on bio-diesel and bio-ethanol used as motor fuel, until 1.1.2013.

7. Taxation for Natural Gas Vehicles (NGV)
Excises tax: 1, 15 €/Gj , VAT 16%.

8. LNG taxation
No differences with natural gas
1. **Tax regime specifications**

**Energy taxes in Sweden 2010**

This report is based on the exchange rate 9,678.5 Swedish Crowns per Euro.

The Swedish energy tax system includes fuel taxes, nuclear power capacity taxes, hydro power property tax, electricity consumption taxes and VAT. Renewable energy is not taxed. The fuel taxes vary between the sectors for consumption and comprise:

- a fuel related energy tax,
- a carbon dioxide tax at a normal level of 108.5 Euro/ton CO₂;
- a sulphur tax at a common level of 3.1 Euro/kg.

The energy tax and the carbon dioxide tax are normally revised each year in relation to the development of the consumer price index. However during 2009 a new fuel tax system has been approved stating the levels ruling 2010, 2011, 2013 and 2015.

2. **Description of legal framework of tax regime**

2.1. **Which changes in the energy tax system have taken place since 1 January 1995 and for which stated reasons?**

Since 1 January 1995 the following changes in the fuel tax system have been carried through.

On 1 July 1997 the CO₂ tax level for industry was raised from 25 % to 50 % of the normal level. This was done mainly to increase the environmental fuel tax profile for the industry sector.

A tax change policy to increase energy taxes and reduce taxes on labour and employment was decided on in the year 2000. In 10 years the intention was that 3 billion Euro per year should be exchanged and the first step was taken in January 2001 when a sharp increase of the CO₂ taxes was introduced. In order to compensate the industry the CO₂ tax level for this sector was reduced to 35 %. The further CO₂ tax increase in 2002, 2003, 2004 and 2009 has been compensated for the industry by reducing the CO₂ tax level further, to 30 %, 25 %, 21 % and 15 % respectively.

The fuels used in combined heat and power plants got a new tax regime in 2004. Each fuel is split in two parts according to the electricity and heat ratio and taxed accordingly. The taxes on the heat fuels were reduced to the industry level to make the CHP plants more competitive in the market.

The last years a tax differentiation has also been made between enterprises included in the European carbon dioxide trading system and enterprises outside this system.
2.2. Are any changes foreseen in the energy tax system? Please specify. Why are energy
taxes to change and how will the foreseen changes affect the market position of natural
gas?

An overview of the entire energy tax system started in 1997 and has resulted in a new fuel tax decision
during 2009. The main intention is to introduce a more stable and reliable taxation framework, to make a
clearer split between fiscal taxes and environmental taxes and to promote a stronger environmental
profile. A harmonisation with the taxes in other EU countries is also considered important. The tax levels
for different sectors were decided in the parliament 2009 for the years 2010, 2011, 2013 and 2015.

<table>
<thead>
<tr>
<th>Sector</th>
<th>CO2-trade</th>
<th>Tax</th>
<th>2010</th>
<th>2011</th>
<th>2013</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal level</td>
<td>Energy</td>
<td>8,3 €/MWh</td>
<td>8,3 €/MWh</td>
<td>8,3 €/MWh</td>
<td>8,3 €/MWh</td>
<td></td>
</tr>
<tr>
<td>Normal level</td>
<td>CO2</td>
<td>109 €/ton</td>
<td>109 €/ton</td>
<td>112 €/ton</td>
<td>116 €/ton</td>
<td></td>
</tr>
</tbody>
</table>

Reductions are used for fuel taxes in different sectors resulting in a tax level paid according to the
following.

The new tax system is causing negative competitiveness for natural gas compared to fuel oil mainly for
the following reasons:

- Ruling energy tax is fuel related and consider also other emissions than CO2 but the new energy tax
  is only related to the energy content of the fuel
- Introduced energy tax and decreased CO2 tax in the industry and CHP sectors is disadvantageous to
  low carbon fuels.

Apart from the energy taxes there is a growing interest in market based governing systems like
certificates where the politicians can decide the objects and the rules and then let the market
administrate the work.

3. Natural gas competitiveness

3.1. Is the tax system "fair" to natural gas or does the tax regime in itself cause problems
in relation to the competitive position/marketing of natural gas?

The new tax system is based on a fiscal energy tax and emissions of CO2 and sulphur. Other emissions
are not considered in the tax system which is a drawback for natural gas compared to other fuels.

The continuing increase of the energy tax and the carbon dioxide tax has reduced the competitiveness of
natural gas compared to heat production by electricity devices and to fuels without taxes or with lower
taxes. No tax revenues are used to support natural gas.
3.2. Who benefits from any tax differentials between different fuels (e.g. consumers, energy producers, energy distributors)?

The energy-suppliers benefit economically by the tax differentials as the market price for fuels include taxes. The customers benefit by the environmental advantages of the tax system.

4. **VAT Regime**

VAT is recoverable for enterprises but not for household customers.

5. **Taxation and pollution**

Apart from specified energy tax, carbon dioxide tax and sulphur tax, there is a NOx fee for units producing useful energy of minimum 25 GWh per year. The NOx fee (reduced with administration costs) is paid back to the energy producers in relation to the net energy produced. The NOx fee level was increased from 4,13 to 5,17 Euro/kg NO₂ equivalent from the 1st of January 2008.

The carbon dioxide tax, the sulphur tax and the NOx fee are directly related to the pollution.

The previous subsidy system for electricity produced from renewable energy sources was replaced by a "green certificate" quota system in May 2003 for the period to year 2010. This certificate system has now been prolonged to 2035 in order to stimulate the investments in renewable electricity plants. New plants will receive certificates during a period of 15 years. Electricity qualified to receive certificates is produced by wind, solar energy, small scale hydro power and biomass and the certificates can be traded in a market system. The electricity consumers (with the exception of energy intensive industries) are obliged to buy electricity certificates according to the actual quota.

The quota is decided for each year and the level 2020 is based upon an increase of 25 TWh renewable electricity compared to 2002. Natural gas for CHP has great difficulties in competing with this support system.

Since 1 January 2005 Sweden takes part in the EU trading system for carbon dioxide.

6. **Biogas taxation**

Biogas, which means gas derived from biomass, is exempted from taxation in Sweden until the end of 2013. This exemption will be replaced with a tax refunding system 1 January 2011.

A tax problem has been observed when biogas is introduced to the natural gas grid for transportation to customers. In order to adopt the tax law to the open gas market conditions the government, in cooperation with the gas industry, has analysed the problem and proposed a solution where biogas and natural gas is taxed according to the customer’s purchase of respective gas quality. The new tax law for biogas transported in the natural gas grid is proposed to be decided during this summer and valid from the 1st of January 2011.

7. **Taxation for Natural Gas Vehicles (NGV)**

Conventional fuels in the transportation sector are taxed with 100 % CO₂ tax and a considerably higher energy tax than normal. To promote the development of alternative fuels for vehicles a lower tax level is applied on methane, natural gas and LPG. At present natural gas has no energy tax and a CO₂ tax at a level of 60% (139,3 Euro/1000Nm³) but the level will be increased to 100 % in 2015.

During 2009 there were 23 000 gas vehicles in Sweden and the biogas content was 65% of the gas consumed.

8. **LNG taxation**

LNG is taxed with energy tax and carbon dioxide tax in line with other fossil fuels.
UNITED KINGDOM

1. Tax regime specifications

Excise duties are levied on HFO and gas oil. The duties apply uniformly to all market sectors. In 2008 a number of simplification measures were introduced; one of which was to reduce the number of rates and to consolidate by product. A table showing the current and future rates (in £) has been produced below.

<table>
<thead>
<tr>
<th>Duty Rate</th>
<th>W.E.F. 1 Sept 2009</th>
<th>W.E.F. 1 April 2010</th>
<th>W.E.F. 1 October 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Road Fuels</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heavy Oil</td>
<td>0.5619</td>
<td>0.5719</td>
<td>0.5819</td>
</tr>
<tr>
<td>Unleaded Petrol</td>
<td>0.5619</td>
<td>0.5719</td>
<td>0.5819</td>
</tr>
<tr>
<td>Light Oil (other than unleaded petrol or aviation gasoline)</td>
<td>0.6591</td>
<td>0.6691</td>
<td>0.6791</td>
</tr>
<tr>
<td>Aviation gasoline (AVGAS)</td>
<td>0.3457</td>
<td>0.3835</td>
<td>0.3835</td>
</tr>
<tr>
<td>Non Road Fuels</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light oil delivered to an approved person for use as furnace fuel</td>
<td>0.1037</td>
<td>0.1055</td>
<td>0.1074</td>
</tr>
<tr>
<td>Marked gas oil</td>
<td>0.1080</td>
<td>0.1099</td>
<td>0.1118</td>
</tr>
<tr>
<td>Fuel oil</td>
<td>0.1037</td>
<td>0.1055</td>
<td>0.1074</td>
</tr>
<tr>
<td>Heavy oil other than fuel oil, gas oil or kerosene used as fuel</td>
<td>0.1037</td>
<td>0.1055</td>
<td>0.1074</td>
</tr>
<tr>
<td>Kerosene to be used as motor fuel off-road or in an excepted vehicle</td>
<td>0.1080</td>
<td>0.1099</td>
<td>0.1118</td>
</tr>
<tr>
<td>Biodiesel</td>
<td>0.3619</td>
<td>0.5719</td>
<td>0.5819</td>
</tr>
<tr>
<td>Bioethanol</td>
<td>0.3619</td>
<td>0.5719</td>
<td>0.5819</td>
</tr>
<tr>
<td>Biodiesel for non-road use</td>
<td>0.1080</td>
<td>0.1099</td>
<td>0.1118</td>
</tr>
<tr>
<td>Biodiesel blended with gas oil</td>
<td>0.1080</td>
<td>0.1099</td>
<td>0.1118</td>
</tr>
<tr>
<td>Road Fuel Gases</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural gas (NG) (inc Biogas)</td>
<td>0.2216</td>
<td>0.2360</td>
<td>0.2505</td>
</tr>
<tr>
<td>Road fuel gas other than natural gas – e.g. LPG</td>
<td>0.2767</td>
<td>0.3053</td>
<td>0.3195</td>
</tr>
</tbody>
</table>

* shown in £ per litre other than Road Fuel Gases which are shown in £ per kg.

As of 1 January 2006, the Government introduced a relief from duty for oil used in electricity generation. This was to remove the risk of double taxation on electricity generated and also to put oil fired power stations on a par with gas fired power stations (where the input is not subject to any form of environmental taxation). It also ensures compliance with the Energy Products Directive (Council Directive 2003/96/EC). Duty on the oil is initially paid by the generator but can then be reclaimed from HM Revenue & Customs, subject to certain qualifying conditions. There is also a relief for biofuels used for electricity generation.

As part of its commitment under Kyoto, the UK introduced a new environmental measure, Climate Change Levy ("CCL"), with effect from 1 April 2001. Please see 4) below for more information on CCL.

UK oil and gas production is subject to Petroleum Revenue Tax ("PRT") of 50% and ring fence corporation tax ("CT") of 50%. PRT is deductible in computing ring fence CT. There are special rules regarding the valuation of non-arm’s length sales. Fields which obtained development consent after 16 March 1993 are not subject to PRT. The 2005 Finance Act introduced measures which accelerated the payment of ring fenced corporation tax. The 2006 Finance Bill increased the rate of ring fence corporation tax to 50% with effect from 1 January 2006.

North Sea royalties were abolished with effect from 31 December 2002.
2. **Natural gas competitiveness**

2.1. *Is the tax system "fair" to natural gas or does the tax regime in itself cause problems in relation to the competitive position/marketing of natural gas?*

The rate of CCL applied to coal is the same as for gas. This is seen as being anti-competitive given the environmental differences between the two sources of fuel. CCL is widely expected to be revised.

3. **VAT Regime**

VAT is levied at 5% on ‘qualifying’ supplies of fuel and power (households and charities for non-business purposes), on small quantities of fuel and power not exceeding prescribed ‘de minimis’ limits, and on certain mixed use supplies (where there is a dual use of business and qualifying use). All other supplies of fuel and power are subject to standard rate VAT (currently 17.5%). In practice most VAT charged in the commercial and industrial sectors can be reclaimed. VAT is levied on the CCL inclusive amount, where applied.

It is widely accepted that the measure to introduce, as from 1 April 1994, VAT on domestic fuel was taken primarily to raise revenue although the Government did state that higher taxes discourage consumption and were therefore environmentally desirable.

The standard rate of VAT was reduced temporarily from 17.5% to 15% during 2009. This reverted to 17.5% with effect from 1 January 2010. Further changes to the VAT rates are expected during 2010/2011.

4. **Taxation and pollution (for more information on the CCL, please see Annex)**

As part of its commitment under Kyoto, the UK introduced a new environmental measure, Climate Change Levy (“CCL”), with effect from 1st April 2001. CCL is chargeable on the industrial and commercial use of certain taxable commodities for lighting, heating and power purposes, and is charged to consumers in the following sectors: Industry, Commerce, Agriculture, Public Administration and Other Services. Taxable commodities are Electricity, Natural Gas (as supplied by a gas utility), Petroleum and Hydrocarbon gas in a liquid state, Coke, and semi-coke of coal or lignite, and Petroleum Coke. CCL is not charged on energy supplied to households and on other supplies of energy qualifying for the reduced rate of VAT (see 3 above).

In addition, electricity produced in good quality heat and power plants as well as that generated from ‘new’ forms of renewable sources such as wind and power is exempt from CCL.

Certain other types of supplies, such as supplies not used as fuel and supplies used to produce taxable commodities other than electricity are also exempt from CCL. As CCL is consumption based, wholesale supplies fall outside the scope of the levy. Energy intensive sectors, which have concluded climate change agreements that meet the Government’s criteria, are subject to a reduced rate of CCL (currently 20% of the full rate; 35% of the full rate from April 2011). In order to ensure that domestic consumption of energy is not subject to CCL, the levy is imposed at the time of supply to commercial and industrial consumers.

On introduction, CCL was designed to be revenue neutral. This is no longer the case and CCL is now widely recognised to be a revenue raising measure.

CCL is a single-stage non-recoverable and therefore represents a cost to business.
Rates of CCL

<table>
<thead>
<tr>
<th></th>
<th>Gas (as supplied by a gas utility) in a gaseous state</th>
<th>Electricity</th>
<th>Petroleum gas/other gaseous hydrocarbon supplied in liquid state</th>
<th>Any other taxable commodity</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/04/01–31/03/07</td>
<td>£0.0015 per KWh</td>
<td>£0.0043 per KWh</td>
<td>£0.0096 per kg</td>
<td>£0.0117 per kg</td>
</tr>
<tr>
<td>01/04/07 – 31/03/08</td>
<td>£0.00154 per KWh</td>
<td>£0.00441 per KWh</td>
<td>£0.00985 per kg</td>
<td>£0.01201 per kg</td>
</tr>
<tr>
<td>01/04/08 – 31/03/09</td>
<td>£0.00159 per KWh</td>
<td>£0.00456 per KWh</td>
<td>£0.01018 per kg</td>
<td>£0.01242 per kg</td>
</tr>
<tr>
<td>01/04/09 – 31/03/11</td>
<td>£0.00164 per KWh</td>
<td>£0.00470 per KWh</td>
<td>£0.01050 per kg</td>
<td>£0.01281 per kg</td>
</tr>
</tbody>
</table>

5. **LNG taxation**

The taxation of liquefied natural gas (LNG) is the same as for natural gas. Imports of LNG into the UK are currently subject to import VAT as are imports of wet gas (natural gas containing condensable hydrocarbons or other liquids). Imports of dry gas (natural gas containing little or no condensate) are exempt from import VAT. This will be extended to LNG and wet gas with effect from 1 January 2011.
SWITZERLAND

1. **Tax regime specifications**

1.1. Are there different energy taxes for different end-use sectors (e.g. households, district heating, industry (heating, processes), power generation, cogenerations)?

The same tax rates are applicable for all sectors.

2. **Description of legal framework of tax regime**

2.1. Which changes in the energy tax system have taken place since 1 January 1995 and for which stated reasons?

The "Mineralölsteuer" has been introduced in 1997, replacing the import duties, but keeping the same rates. On 1 January 2010, the rate of the CO₂-charge on fossil combustibles for heating and industrial purposes tripled, resulting in a rate of approximately CHF 36.00 (EUR 24.00) per ton of CO₂. Also starting on 1 January 2010 one third of the revenue from the charge is earmarked for increasing efficiency in heating and isolation of buildings. On 1 July 2008 the tax reduction on natural gas, LPG and a total exemption of biofuels as motor fuel came into effect. The tax on natural gas as motor fuel was thus reduced by approximately CHF 0.40 (EUR 0.25) per litre petrol equivalent. The revenue shortfalls will be compensated by a slightly higher tax on gasoline.

2.2. Is natural gas coming under pressure with regard to changes in the energy taxation system (from governments or other energy lobbies, e.g. the oil or coal lobbies)?

The introduction of the CO₂-charge brought an advantage for renewable energies, which are further subsidized by a new charge on electricity (currently capped at CHF 0.006, but with a further increase to be expected to a maximum rate of CHF 0.009 per kWh) the revenue of which is distributed to producers of power from wind, solar, small hydro and biomass.

2.3. Are any changes foreseen in the energy tax system? Please specify. Why are energy taxes to change and how will the foreseen changes affect the market position of natural gas?

At the end of August 2009, the federal government presented a proposal to amend the CO₂-charge and other measures to reduce CO₂-emissions. Parliamentary debate is controversial and new legislation is not expected to be adopted before 2011.

3. **Natural gas competitiveness**

3.1. Is the tax system "fair" to natural gas or does the tax regime in itself cause problems in relation to the competitive position/marketing of natural gas?

With the reduction on the taxation of natural gas as motor fuel, a disadvantage of natural gas compared to other European countries has been eliminated. Gas-fired power stations are currently hampered by restrictive regulations. Efforts to ease these rules are met with fierce opposition in the ongoing climate change debate.

4. **VAT Regime**

VAT is recoverable for commercial and industrial users, but non recoverable for households. The ordinary rate (which is the rate applicable to energy consumption) currently stands at 7.6 % As of 1 January 2010, the rate will be increased to 8 %, subject to approval in a popular vote at the end of September. A government proposal for a major overhaul of VAT legislation is currently pending in parliament. The proposal includes the introduction of a single rate at 6.1%, but there is considerable opposition to this measure.
5. **Taxation and pollution**

On 1 January 2008, the first stage of a CO₂-charge on fossil combustibles for heating and industrial purposes was introduced, the rate of which tripled in 2010. Further increases in case reduction goals are not met have been proposed by the government and will be debated in parliament in the coming months. As the charge is calculated on the basis of the specific carbon-content of the different fossil energies, natural gas has a slight advantage compared to other fossil energies, but a disadvantage compared to renewables.

6. **Biogas taxation**

Currently almost no biogas is marketed for heating purposes. Biogas for heating purposes is taxable with the energy tax on fossil fuels (“Mineralölsteuer”). But as the tax rates for heating purposes are very low, this is not a major issue. Biogas used as motor fuel is exempted from the energy tax, if it meets certain ecological and production criteria. Unfortunately, new legislation regarding the electricity market leads to an unfair competition to the use of Biogas as motor fuel: When used for power generation, biogas is remunerated at regulated, cost-oriented prices. Therefore, biogas-producers have a disincentive to sell their product as a motor fuel.

7. **Taxation for Natural Gas Vehicles (NGV)**

Different models regarding tax incentives (eco-bonus) for sales of new ecological cars are currently under evaluation. Further, different cantons are granting reductions on the annual car taxes in the case of NGVs and other low emission vehicles. However opposition to such schemes is often considerable and their future is uncertain as a new “environment certificate” for all cars is currently designed on the federal level.

8. **LNG**

The taxation for natural gas applies without specific modifications.
Membership of Eurogas

Asociación Española del Gas – SEDIGAS (ES), Association Française du Gaz – AFG (F), Bulgargaz *(BU), Bord Gáis Eiréann – BGE (IRE), BOTAS*(TR), BP plc (UK), Bundesverband der Energie - und Wasserwirtschaft e.V. – BDEW (DE), Centrica plc (UK), Czech Gas Union – CPU (CZ), DEPA (GR), Distrigas (BE), DONG Energy A/S (DK), E.ON Ruhrgas AG (DE), Edison (IT), Electricité de France (F), Elektrizitäts-Gesellschaft Laufenburg AG (CH), EnergieNed (NL), ENI S.p.A. (IT), ENOVOS Luxembourg S.A. (LU), European Gas Research Group – GERG (EU), Fachverband der Gas- und Wärmeversorgungsunternehmen – FGW (AT), Febeq (BE), Galp Gas Natural s.a. (PT), Gas Natural SDG (ES), GasTerra (NL), Gasum Oy (FIN), GDF SUEZ (F), GAZBIR* Natural Gas Distribution Companies Association of Turkey (TR), Geoplin d.o.o. (SI), HMN Naturgas (DK), IZGAZ*(TR), Lietuvos Dujos *(Lithuania), Latvijas Gaze* (Latvia), Marcogaz* (EU), MGE – Hungarian Gas Association (HU), OHV Gas and Power GmbH (AT), Polish Oil and Gas Company – PGNIG (PL), Romgaz*(RO), Russian Gas Society*(RU), RWE Supply & Trading GmbH (D), Slovak Gas Industry – SPP (SK), South Hook Gas Ltd (UK), Swedish Gas Association (SE), Swiss Association of Gas Industry (CH), Swissgas (CH), Total S.A. (FR), Union Fenosa Gas S.A. (ES), Verbundnetz Gas AG – VNG AG (DE), WINGAS GmbH & CO. KG (DE).

* Associate Members

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