

# The Energy Tax and its Application in Hungary And in the European Union

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## ABSTRACT

This article deals with the initiation of the energy tax in Hungary. This is a tax the power plants must pay after the electric energy and gas consumption. The goal of the tax is increasing energy efficiency both by the power plants and by the consumers. Indirectly, this is an environmental goal, reducing the increment rate, and later the real emission of greenhouse gases (the GHGs) and other unhealthy gases ( $\text{CO}_2$ ,  $\text{NO}_x$ ,  $\text{SO}_x$ ) by the main producers, the conventional power plants. After signing the Kyoto Protocol, there are strict limits on the emission of GHGs both in Hungary and the European Union.

The graduate student author is in her fourth year in studying law. Her major is tax law and energy law. She prepared a class thesis in this field with favorable inspector marks, and was awarded an excellent degree. This article is the shortened version of her original paper.

## INTRODUCTION

After Hungary signed the Kyoto Protocol and joined the European Union (EU), it was necessary to incorporate the energy tax into the Hungarian legal system. The Hungarian Parliament introduced

the definition of the energy tax in 2003, and enacted it from the 1<sup>st</sup> of January, 2004. The act did not achieved the expected results, as from the statistics it can be concluded that the energy consumption was not reduce, but increased in the last years.

The most important goal of the EU is to protect the environment, and thus the members of the European Union have signed and enacted the Kyoto Protocol in a very short term, since 2002. To achieve this goal, restructuring the community framework for the taxation of energy products and electricity, a European Council directive was constituted in 2003. After the trend it could have been concluded, just like in Hungary, that the directive has not produced the expected results in the EU-member countries. It is not possible to shape the average consumer's behavior about energy saving in such a short time till more and more electrical implements are accessible.

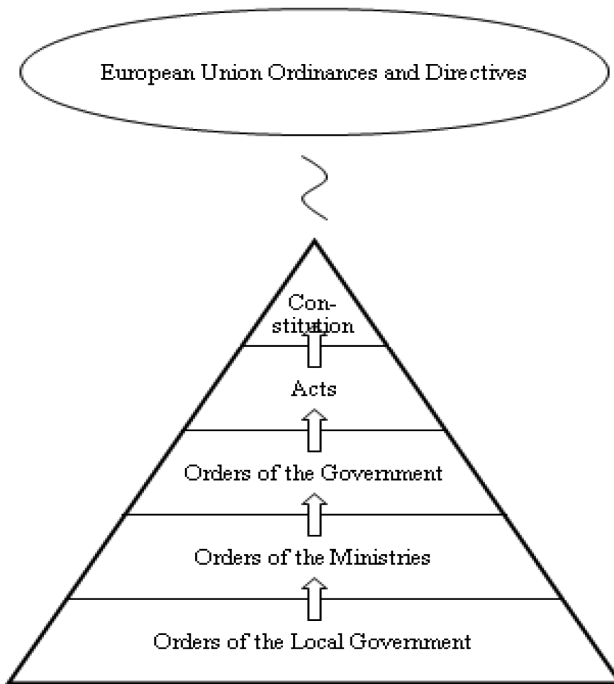
In this article, for first the Hungarian solution of regulation and the effects are discussed. The European Council directive and some application samples in other EU-member countries are reported, and also some statistical data about the directive's effects are presented. After drawing the conclusions, the exposed problems are described.

## LEGAL SYSTEM IN HUNGARY

The Hungarian legal system is a so-called continental law system. The most important source of the law is the constitution. The important questions are regulated by the Parliament. These questions are particularly regulated in orders of the government and orders of the ministries, and are valid for the whole country or orders of the self-governments, and are valid for towns and villages. The structure can be seen in Figure 1. [1]

## THE ENERGY TAX

The Hungarian Parliament introduced the energy tax in 2003 with law No. LXXXVIII. It is possible to conclude that this is a dual-purpose law. The first goal was the protection of the environment; the lawmakers wanted to make the citizens more ambitious in environmental issues. Thus the best device seemed to build the cost of environmental damages



**Figure 1. The Structure of the Hungarian Legal System**

into energy prices, modifying the tax system to take into account these aspects. The other goal was the necessary legal harmonization before joining the EU.

### **The Tax Subject**

The subject of the tax is by definitive occasions: [2]

- The public utility power or gas company
- The energy commercial firm
- The legitimated consumer
- The energy producer
- The network permission holder
- The end consumer

The meaning of these categories is well defined in the law, thus it is possible to conclude that people are not affected by this tax, because all the home consumers are in contract with the public utility power companies. [3]

After July 1, 2007, and January 1, 2008, which is the date of the full liberalization of the electricity and gas market, home consumers will be able to leave the regional power companies, like other consumers. This exemption will not be affected, because those consumers coming to the market will have a contract with an energy supplier, which pays for the tax.

### **The Tax Base and Rate**

The base of the tax is defined in the law: [2]

- The quantity of the electric energy in megawatt-hours
- The quantity of the gas in gigajoules

The rate for these energy units are the follows: [2]

- Electric energy: 186 HUF (~0.91 USD) per MWh
- Gas: 56 HUF (~0.27 USD) per GJ

Some discounts are applied for central heating companies, for the chemical industry companies, and for self-consumption of the power plants.

### **The Taxing Procedure**

The taxing procedure of the energy tax comes under the VPOP (Customs and Excise Guard). Paying the tax is provided by self-taxation of the obligor, or the rate will be specified by the custom authority under a decision. [2],[4]

The tax subject will declare and pay the tax, and is authorized to apply for tax refunds monthly till the 20<sup>th</sup> day of the next month. [4]

## **THE ENERGY TAX IN THE EUROPEAN UNION**

The definite goal of the European Union is the protection of the environment, so the energy tax was introduced as a part of a strict protection program. The EU tries to urge the member countries with extended taxes on the fossil fuels to produce more electric energy from renewable energies. Although the taxation of electric energy is not affecting consumers directly, the utility companies and producers are able to pay the tax only with higher prices. Consequentially it gives stimulus to reduce energy consumption by higher energy efficiency.

Other goals are balancing the competition in the inner market, providing the production, distribution, and consumption of bio-fuels, taking a big step for the environment. This kind of system can be operable only if the member countries are applying a uniform regulation on declaring the excise goods, a uniform the tax system for these goods with a uniformed minimum tax, discount, and exemption system. [4]

The base of the excise regulation is defined by the directives of the European Council under the authorization of the so-called Roman Treaty, which was the treaty establishing the European Economic Community (EEC), the predecessor of the EU in 1957. [5] The community excise regulation is based on two groups of statutes:

- The horizontal directives, where the basic rules are defined, [6]
- The vertical directives, where the rules for harmonizing the structure of excise tax are defined with the minimal tax rates taking into account the energy fuels, alcoholic goods, drinks, and tobacco goods. [4]

It is necessary to notice that the Hungarian regulation precedes the EU directives by half a year, as pointing the right way for the whole European Council.

## THE RELATIONSHIP BETWEEN THE HUNGARIAN AND EUROPEAN UNION REGULATION

The taxation system of energy products and electric energy was defined by the European Council in 2003. [7] The 92/81-82/EEC directives had been abrogated by this new directive, and the scope of the regulation was extended, besides the mineral oil, to other energy fuels, like coal, coke, gas, and electric energy. [4] It is necessary to notice that this directive is only a special ordinance besides the horizontal directive. The directive describes the goals, and provides some devices for the solution, but the application and the exact law texts depend on the legislative bodies of the member countries.

Together with the Hungarian regulation, the EU directive differs the application fields of the energy fuels, and thus there are differences in taxation when the goods are used for producing fuel (for vehicles) or electric energy. The community excise directive declares differences between goods, which tax rates are defined, thus the marketing of these entrains tax liability, and goods, which are energy fuels after the

directive, but there is no pre-declared tax rate for them, thus they are exempt from the scope of the excise tax. The goal of this differentiation is making the work of the authority control of the excise taxable goods easier, by helping the deduction of the non-taxable good from the production to the application.

The statute declares that besides the good identification originating from the rate of the duty, those goods are excise taxable, tax rates are not defined on them, but they are using for end-products, like heating oil, vehicle fuel, or an additive component for fuel. [4]

Only the minimum tax is declared in the directive. EU-member countries are allowed to differ from these to higher values. The base of the excise tax is the cubic capacity of the mineral oil goods, which is calculated for 1000 liters (~264.17 gallons) of goods under the temperature conditions of 15 °C (~288.15 °K, ~59 °F), except the reduced fuel oil and the liquid petrol gas (LPG), where the unit is declared for each 1000 kilograms (~2204.64 libras) of the goods. (Table 1) [4] EU-member countries are allowed to apply for full or partial tax exemptions or a reduction in the tax rate for the taxable mineral oils.

**Table 1. Minimum Excise Rates from January 1, 2004**

	<i>Business use</i>	<i>Non-business use</i>
Diesel (/1000 l)	21 €	21 €
Heavy fuel (/1000 kg)	15 €	15 €
Kerosene (/1000 l)	0 €	0 €
LPG (/1000 kg)	0 €	0 €
Natural gas (/1 GJ)	0.15 €	0.3 €
Coal and coke (/1 GJ)	0.15 €	0.3 €
Electricity (/MWh)	0.5 €	1 €

Source: <http://europa.eu/scadplus/leg/en/lvb/127019.htm>

1 € ≈ 1.35 \$

## THE ENERGY TAX IN PRACTICE

Although the purpose of the taxation of energy is the reduction of the energy consumption, the statistics of the western European countries do not show the expected results. Not only the consumption, but the

gradient has also grown during the last years [8]. It can be concluded that the regulation in 2003 was fruitless in the Netherlands and in Austria too.

It is possible that it was caused by the technical improvement. The solution can be found in two ways. On the one hand, the industry has developed more and more efficient machines to work with electric energy. The biggest part of the electric power will be consumed by the industry, and the biggest consumers are the power plants, for their own consumption.

On the other hand, it can be noticed that the infrastructure is also under development, the low power end consumers (e.g. the population) are using more and more household machines, entertainment devices, and climate equipment, and they are using more and more electric energy.

Electric energy consumption has grown dramatically since 1945. Hungarian consumption has a rising trend, the only break caused by the collapse of the Hungarian heavy industry in 1989 soon after the Hungarian political system change. Introducing the energy tax had no effect on the trend (the growing rate) of the total consumption of Hungary, and what is more, domestic consumers together with the manufacturing industry are continuously rising. [9]

## WHAT WILL BE THE FUTURE?

### CONCLUSIONS

Although the goal of the energy tax and the directives of the EU were the reduction of the growing rate of the energy consumption, a kind of energy saving, it can be concluded from the prediction of the analysts of the energy market that the power consumption has risen.

The final conclusion is that growing of electric power needs cannot be reduced easily. To achieve environmental protection goals, it is necessary to reduce the application of fossil fuels. Besides this statute system of the EU directive, it seems realizable to promote the application of renewable energies, using biofuels. The other way is to make some investments for the enlargement of the working period or building new nuclear power plants, where the acceptance of the population is positive enough.

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