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ENERGY MANAGEMENT  
@ ESCP Europe Business School

## The Excise Duty on Natural Gas Policy Report-N.01

June 2017



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OF THESSALONIKI

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## 1. Introduction

Nowadays, the Greek economy is in a steady phase towards growth after seven consecutive years of deep depression. Given that unemployment rate continues to remain at record levels, there is a pressing need to smooth out any obstacle that prevents the quick recovery of the economy. Besides, it is widely accepted that the recovery of economic activity cannot be attributed to an output increase of the domestic consumption, at least under the current circumstances of the capital and money markets, and with the existing structure of fiscal management of the European Union. In addition, the strengthening of the role of industries in the production of interchangeable goods and services, such as industry, tourism, and shipping is a key prerequisite for economic recovery.

In that context, there is a need to identify and apply, ways of enhancing the fiscal policy of the Greek state by introducing the economy to a new model of growth and development. The particular analysis builds on the particular topic of the necessary and efficient steps towards fiscal reconstruction. Hence, important element of the particular policy aiming to achieve growth perspectives, is towards energy taxation for industrial purposes (mainly on natural gas), in which along with other factors has led to a rapid increase in the production cost of Greek business. The debate regarding the cost of energy policy is also up to date at the level of the European Union (EU). Based on a [study](#) provided by European Commission, regarding energy prices and costs European industries are burdened with energy costs which are among the highest in the world.

This showed a picture of high global energy prices, with prices diverging considerably across EU Member States, and significantly higher for Europe than for its international trading partners, particularly the United States. Retail prices had risen more than wholesale prices because of increases in network price component and taxes and levies. For instance, in 2012, the EU energy industry's electricity cost was 20% higher compared to China, 65% higher in comparison to India, and double compared to the United States and Russia. Additionally, Gas prices for the same period were four times higher than in the US, Canada, India and Russia. Regarding the case of Greece which is under examination, higher energy costs further exacerbate the Greek energy industry, as its geographical location facilitates the development of trade links with countries outside the EU, where the cost of energy is significantly

lower. Precisely, the excise duty in Greece has been abusive at €1.5 / GJ (around € 5.4 / MWh) and applies to all uses in the industry, in power plants, in the tertiary sector and domestic sector. The outcome of the particular policy that emerged after the implementation were disturbing, especially for the Greek energy industry, which, in addition to the rising cost of energy due to international factors and the deteriorate operation of the domestic energy market, have faced and still face an additional cost by the implementation of an excise duty on natural gas.

An important aspect of the negative impact that the excise duty on natural gas had on the Greek economy, has do with the direct increase in the cost of natural gas supply ov the final consumption rates. However the major disturbance is related to the impact on energy costs stemmed from the multiplication of the excise duty on the cost of electricity production and therefore at the cost of supplying electricity energy.

In that point, the Greek Regulatory Authority for Energy (RAE) identified the importance of the market distortion that has been created, and with an intervention in the provision managed to lessen this multiplication effect. RAE Established a mechanism whereby the cost of electricity generation is burdened by the amount of the tax that is levied on the consumption of natural gas in the electricity production, without however changing the marginal price of the system. In this way, according to a prior study by the Foundation for Economic & Industrial Research (IOBE), the additional negative impact is estimated to have diminished. Still, despite this intervention, the issue in the Greek energy market continues to exist, fact that underlines the necessity for further examination towards the identification of efficient policies that can eventually lead to an improved and fair taxation of energy products. Ultimately, at this point in time, it is priority to examine ways and tactics, designed to boost the Greek economy back to growth as soon as possible.

In this context, the main objective of this study is (i) to provide information regarding previous studies on the topic of excise duty impact on a nation's economy, (ii) review the findings of a previous study conducted by IOBE explaining the impact of a potential reduction in the excise duty on gas used in the industry and finally (iii) to highlight the findings from the research on the topic of (...) Above all, allowing the excise duty to reach the minimum permitted limits, as indicated by the relevant

Community Law, will directly reduce energy costs, and at the same time have a beneficial impact on business competitiveness, and assist the Greek economy towards the desired path of recovery.

The structure of the study is as follows. The next section refers to previous studies conducted on the subject of excise duty on energy products. Next the third section analyses the gas prices both in EU and in Greece. Section 4 refers to the revenues gained from environmental taxes. The next section describes the framework for the taxation of natural gas in the EU. The sixth section presents the business sector in Greece compared to other countries. Next, section seven illustrates the estimate of the effect on the Greek economy from the abolition of the excise duty at industrial level. Finally, section 8 illustrates the main findings and concludes.

## **2. Literature Review**

The reason for the existence of excise duties in the European Union is well documented by [Michael \(1995\)](#). The author mentions that the directives aim to harmonize the structures of excise duties on alcohol, tobacco products and energy products. Although, member States must apply from 1 January 1993 minimum rates of excise duty on mineral oils, the Council may by decision authorize them to apply further exemptions or rates lower than those minimum rates for specific policy considerations. According to the author, each Member State has been authorized to apply exemptions, or rates lower than the minimum rates, for a variety of purposes which have no common thread apart from being purposes of special interest to the individual Member State concerned. In addition, amended proposal for a Council directive 32 which required Member States to apply reduced rates of excise duties on certain motor fuels produced from agricultural products. The objectives of this proposed directive are to create new demand for agricultural products, reduce unemployment, at least in the agricultural sector and encourage the development and use of less polluting fuels.

The decline in demand due to a price increase after the implementation of an excise duty would unquestionable, impose benefits from any reduction in negative externalities. However, the increase of excise duties in a nation's economy is not

always a beneficial policy in terms of gross domestic product (GDP), trade volume, as well as changes in the factor market and the welfare of households. The outcome of a detailed analysis conducted by the “**PROVIDE PROJECT**” (2006), indicate that the majority of households in South Africa will be worse off in terms of real consumption expenditure. In addition, lower income households will lose out most, as they spend a larger share of their budget on products carrying the cost of excise duty.

Above all, excise duty is a type of indirect tax that is levied for the purpose of raising public revenue. The harmonized rates proposed by the European Commission should be viewed only as an index, as it would be extremely difficult to try to unify excise duties throughout the EU member countries. Whereas, according to **Micuda (2007)**, if the difference in excise duties among countries exceeds the costs of the reallocation of resources or transport, it will have a distorting effect on the geographical location of resources or pattern of trade.

As already mentioned the harmonization of the tax base, aimed to prevent the establishment of a manner to favor domestic production at the expense of imports and included establishing taxable goods through harmonized excise. In line with **Florea & Selisteanu (2014)**, that have carefully examined the excise duties in tax practice in the European Union, there are noteworthy discrepancies in the relative and absolute size of excise placed on the same product. The specific differences in the rates of excise from one state to another are explained not only by policies to discourage consumption, but also due to the fact that particular products present higher importance for some Member States with smaller excise rate. The authors argue that these differences, nevertheless, distort competition in the single market and create a significant incentive for tax avoidance. Moreover, excise has an increased potential of tax competition by appealing consumers from other states in case there are lower levels of taxation. Consequently, the harmonization of excise rates leads to the lessening of these adverse effects. Finally, the authors clearly state that, considering products that are part of the same group and which are in competition with each other, it is necessary for excise to be relatively equal in order not to affect competition.

Next, another study on the topic under examination is available by **Mascu (2013)**. The author carefully examined the harmonization of Excise Duties on energy products and

electricity in Central and Eastern European countries (CEE). Undeniably, the field of excise duty taxes focuses on the use of these economic instruments designed by the European law in the context of protecting the environment and public health and to establish a prudent and rational utilization of natural resources. The focus of the particular study was mainly on deriving and explaining the economic impacts of the minimum energy taxes rates corresponding to the EU Directive (2003/96/EC) in CEE countries. The analysis scrutinizes the relationship between the existence of a statistical significant relationship between energy tax revenues and excise duty levels on energy products and electricity. Namely, motor fuels and heating fuels, such as petrol, gasoline, natural gas and coal. The outcome reveals some variation between environmental fiscal policies in the countries of the region. In detail, even though Slovakia has imposed the highest taxes, it has the lowest value in energy tax revenues, which stood at 1.6 % of GDP in 2010. In contrary, Bulgaria applied the EU minimum excise duty to almost all energy and electricity products and achieved to be the country with the highest revenues from energy taxes in 2010. What is apparent from the specific study is that, there is no golden rule regarding the efficiency of excise duties in terms of increased government revenues.



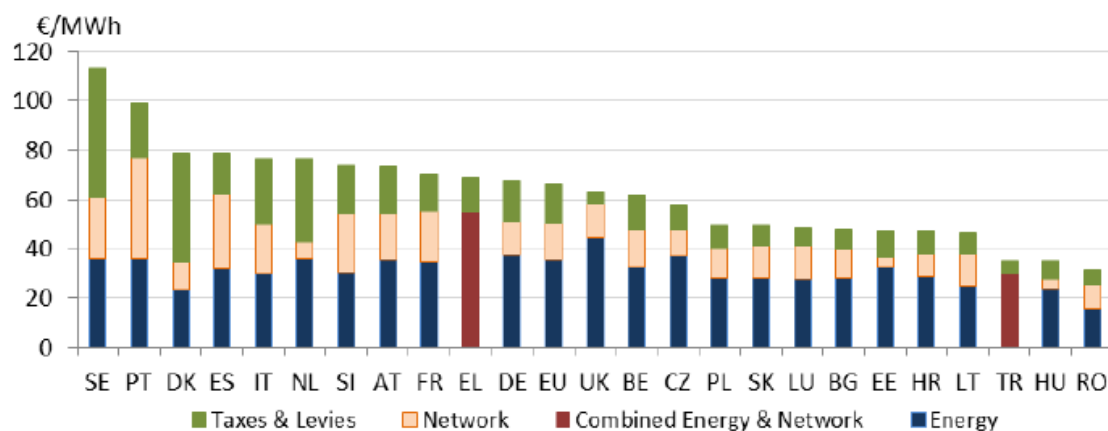
### 3. Gas prices in Europe

According to a recent report by the [European Commission \(2016\)](#), gas constitutes approximately 23 % of EU primary energy consumption. Besides, gas fuels 15 % of electricity needs and almost a third of both households' and industry's final energy requirements. Simultaneously, the EU gradually has to import gas from a limited number of providers. Therefore, prices are constantly exposed to global tendencies, fact that makes extremely important the well-functioning of markets and proper operation of infrastructure. Recently, global developments have led to decreasing gas prices. Precisely, the weak global demand resulting from the slow economic recovery accompanied with the restarting of certain Japanese nuclear power stations, have generated downward pressures and led to a convergence of wholesale gas prices. Other factors that constitute in this declined trend is the deteriorating oil price-indexed gas contracts and significant increases in the supply of LNG

#### 3.1 Gas retail prices in Europe

Regarding EU, household gas prices have amplified since 2008 by approximately 2 % per year. Even though, prices have converged considerably in that period, still we observe great fluctuations among member states. Precisely, as it is apparent in Figure 1 below, the maximum prices are met in Sweden which is almost four times the minimum prices encountered in Romania. Considering the case of Greece household gas price is above the EU median at the level of 70€/MWh, with the proportion of taxes and levies to burden households by approximately 25% of the total cost.

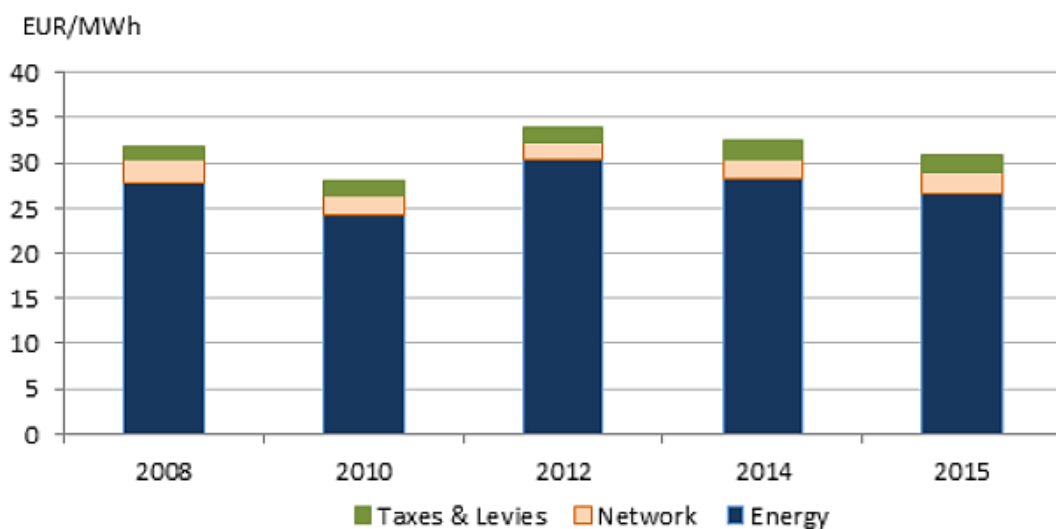
**Figure 1 : EU Average household retail gas prices in 2015**



**Source: European Commission “Energy prices and costs in Europe, 2016”<sup>1</sup>**

In terms of the different components contributing to the final price, the energy component augmented by 0.3% a year between 2008 and 2015 even though faced variations through the period under analysis. Moreover, network cost increased by 2.5 % per year, contributing considerably to the general price upsurge for households. Besides, the taxes and levies component saw an increase of 4.2% a year, to €15.6 MWh. Specifically, the increase of this last component is largely driven by general taxes. Considering the sample of all EU-28 countries, by the end of 2015 gas prices for large industrial consumers were below those of 2008. The energy component remained by far the largest component and thus the most prominent price driver. The impact of taxes and levies is not inconsiderable, accounting for more than 8 % of the price. Industrial gas prices are determined by international commodity prices rather than highly divergent national taxes and levies, so prices for large industrial consumers show relatively small variation across Europe. As depicted in Figure 2 below, in overall, the composition of prices for large industrial consumers remained remarkably stable over time. Industry gas price shows the greatest pass-through of wholesale to retail price and has converged across national markets by 58 % since 2008, indicating that EU gas markets are more integrated and competitive than in the past.

**Figure 2: EU average components of large industrial retail gas prices**



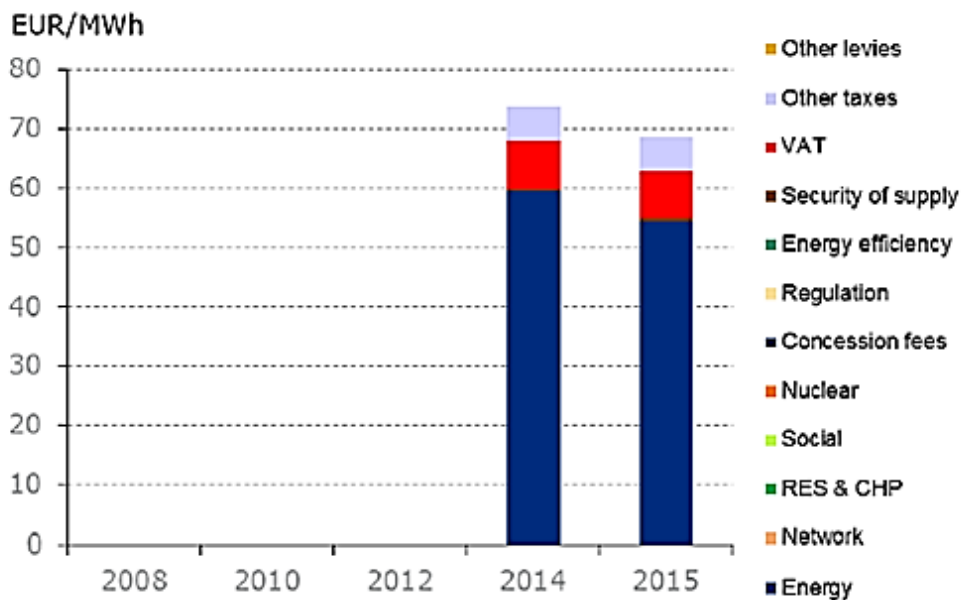
<sup>1</sup> Available at: [http://ec.europa.eu/energy/sites/ener/files/documents/com\\_2016\\_769.en\\_.pdf](http://ec.europa.eu/energy/sites/ener/files/documents/com_2016_769.en_.pdf)

Source: European Commission “Energy prices and costs in Europe, 2016”

### 3.2 Gas Prices in Greece

Narrowing down the analysis, the following sub-section illustrates the examination of gas prices in Greece. As it is apparent from Figure 3 below, prices in Greece followed the global trend of decline. The composition of median household gas prices reveals a small reduction in the total price from 2014 to 2015, with stable proportions of VAT and other taxes.

Figure 3: Composition of median household gas prices in Greece

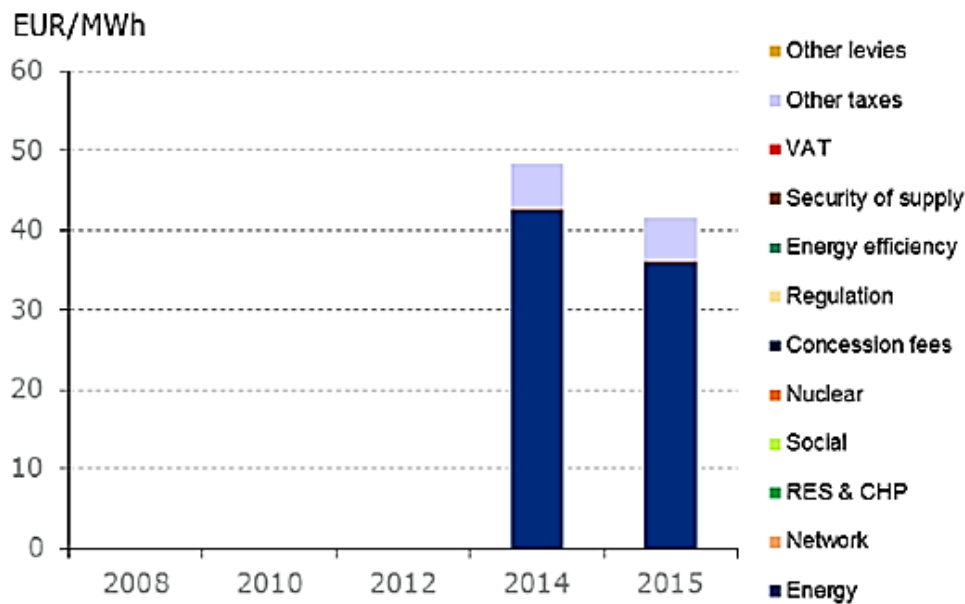


Source: Source: “Commission Staff Working Document, 2016”<sup>2</sup>

Next, considering the composition of median industrial gas prices (Figure 4), again we observe a slight drop in the gas price, with the proportion of taxes amounted for almost 15% considering both years 2014 and 2015.

Figure 4: Composition of median industrial gas prices in Greece

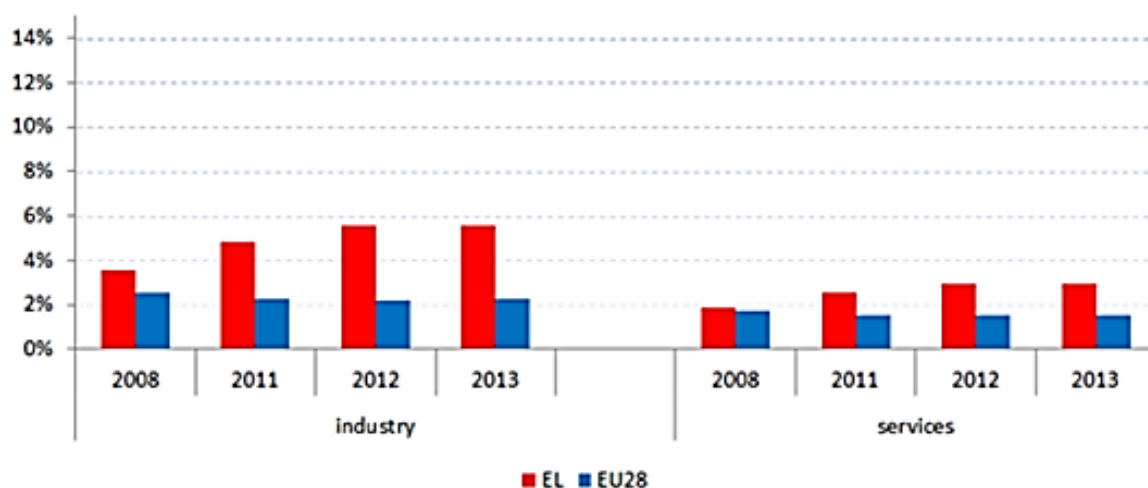
<sup>2</sup> Available at: <http://ec.europa.eu/energy/sites/ener/files/documents/swd2.pdf>



**Source: Source: “Commission Staff Working Document, 2016”**

However, for the period 2008-2013 and based on data availability, the share of energy costs in total production value for both the Greek industrial and Services sector is available on the Figure 5 below. We detect a constant tendency of growth (red bars), comparing the EU28 average share (blue bars) which remains relatively stable. Hence, the energy price developments in recent years have not increased the energy cost share of production costs for European businesses, which lies at approximately 2 %. However, to reduce the cost of energy to industry, most Member State governments provide subsidies through exemptions and reductions in energy taxes and levies (e.g. renewable energy or energy efficiency levies, or network tariffs). Depending on the characteristics of a business and the Member State in which it is based, it may enjoy energy prices 50 % lower than another company in the same sector.

**Figure 5: Share of energy costs in total production value in Greece**

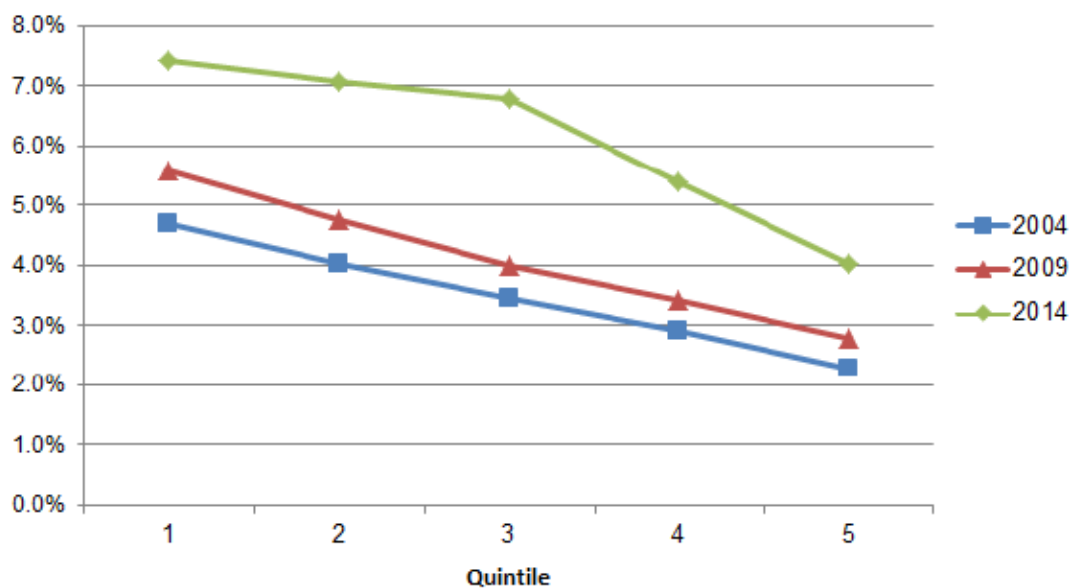


**Source: Source: “Commission Staff Working Document, 2016 ”**

Based on the above, for some industries in which energy costs are more significant and exposure to international competition is high, there is a need to assess energy costs more closely. Definitely, these are energy-intensive industries of a certain economic significance and trade exposure, where energy costs account for at least 3 % of total production costs and for up to 40 % on average or more in some cases. The analysis undertaken for the Commission shows that, for the 14 sectors selected, energy cost shares and absolute energy costs fell in most cases between 2008 and 2013. This is the result of various factors affecting energy cost. Namely, the fall in energy prices, tax exemptions and reductions, lower energy consumption related to reduced production levels, a shift in production to less energy-intensive products, the uptake of energy efficiency measures and slower reductions in other production cost factors.

However, as Figure 6 reveals, we identify a contradictive trend in terms of the share of energy products in different quantiles. Between 2004 (blue line) and 2009 (red line) the share of energy in the total expenditure of Greek households showed a measurable increase, however, by 2014 (green line) the energy share in the case of the poorest households (Quintile 1) increased from 4.7% to 7.4% compared to 2004. Moreover, in the case of households with middle income (Quintile 3) the energy share doubled from 3.4% to 6.8% between 2004 and 2014. What is straightforward from the specific figure is that, over the past decade the share of energy products in Greek households almost doubled in all the quantities representing the different income levels.

**Figure 6 : Share of energy products in different Greek households**



**Source: Source: “Commission Staff Working Document, 2016”**

Next, gas taxation for business uses in Greece, is among the highest in the EU. The tax rate affects more or less the final gas prices for businesses and households according to the evolution of the other factors affecting the prices. Therefore, the impact of taxation should be assessed in relation to the level of the final prices, which, in addition to the tax, is mainly formed by the import prices and less by the transport costs and trade cuts in gas supplies. As Figure 7 illustrates, the import price of natural gas in Greece is one of the highest in the EU. In the first quarter of 2014, including about 15% Russian discount, the median rate was about 30.4 €/ MWh. The particular price was 33% higher compared to natural gas average price in other EU gas hubs. More generally, gas prices are higher in the countries where there are no natural gas hubs and the number of suppliers is limited.

**Figure 7: Average price of import natural gas price (1<sup>st</sup> quarter of 2014)**

Table in EXCEL

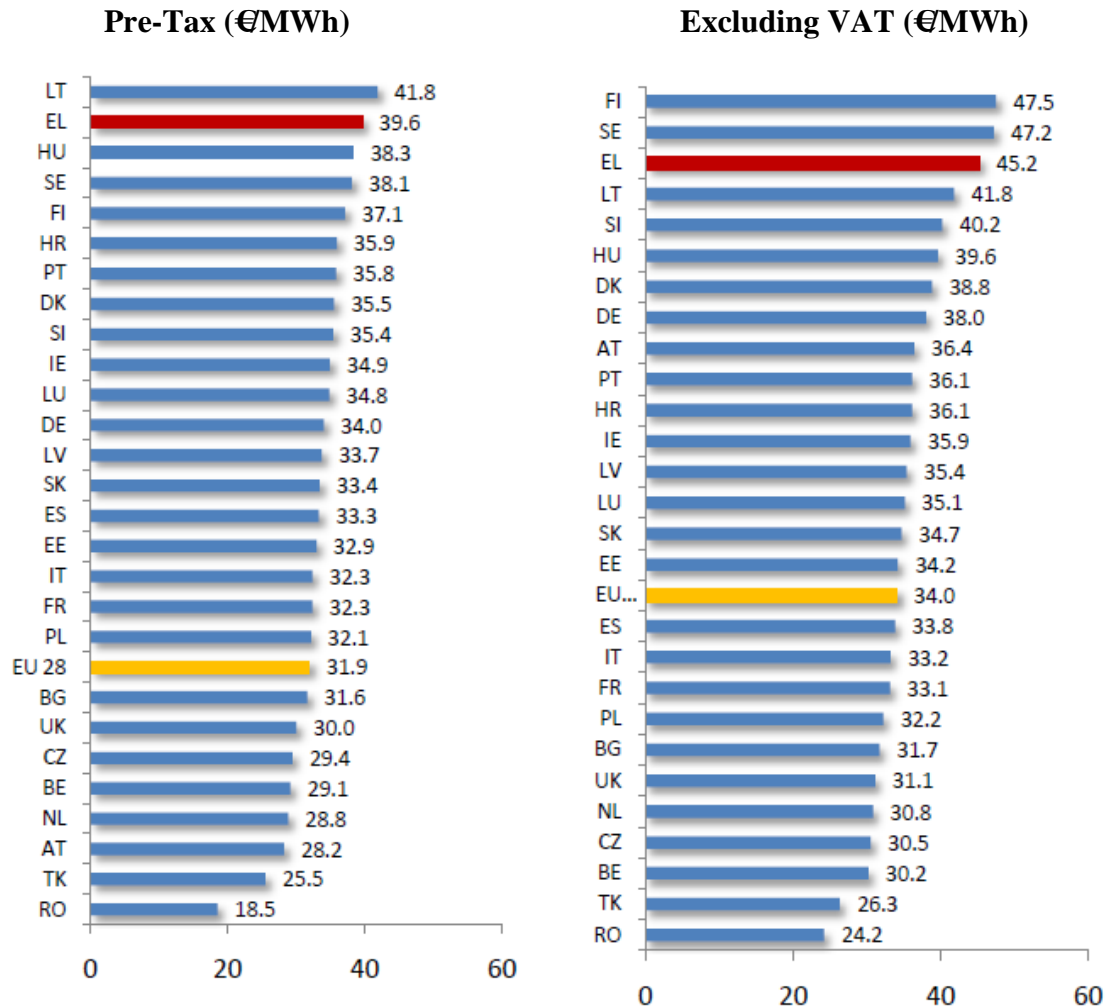
**Source: IOBE, 2015<sup>3</sup>**

Over the period 2005-2013, gas wholesale prices in the European Union offset oil prices through long-term agreements, which are competitively adjusted based on supply and demand in trade gas hubs, (gas-on-gas completion). In 2013, prices for the

<sup>3</sup> Available at: [http://iobe.gr/docs/events/pr/RES\\_05\\_C\\_05032015\\_PRS\\_GR.pdf](http://iobe.gr/docs/events/pr/RES_05_C_05032015_PRS_GR.pdf)

53% of natural gas consumption were formed through competition at natural gas hubs. Several natural gas hubs in Europe encompass the necessary liquidity in transactions and adjust the reference prices that supply agreements are based on. In that way, those hubs assist hedging strategies covered from price fluctuations as well as favor arbitrage conditions in the market.

**Figure 8: Natural gas price for industry (2013)**



Source: IOBE, 2015

Accompanied with the previously mentioned global factors, the specific situation has led to a price decline in gas prices. The non-competitive gas prices associated with oil prices have resulted in several consumer countries to renegotiating the prices with their suppliers. For instance, since July 2013, Greece through negotiations managed a price reduction at about 15% of the imported gas from Russia. However, with regard to the prices charged to other hubs, the import price of gas in Greece remains particularly high, (see Figure 8).

The economic and legal framework of the gas market in Greece is towards adjustments in the direction of market liberalization, by enabling wholesale and retail markets to compete with suppliers, according third Community legislation on energy efficiency. Under increased competition, it is estimated that it would be beneficial for consumers, since they could choose the optimal supplier according to their needs and eventually lead to gas prices decline. Yet, given the relatively isolated location of Greece, and accompanied with the lack of alternative sources of supply, the accomplishment of those targets is estimated to require a long time until the final develop of infrastructures that would allow differentiation of supply.

At the same time, high gas import prices in Greece are reflected in the prices charged by business. According to IOBE study, Greece was ranked highest in pre-tax rates in EU-28 after Lithuania and the third highest price (excluding VAT and other tax recoveries) after Sweden and Finland, in the category of large consumers (I4). Moreover, taking into account the tax returns and exemptions in Sweden and Finland, Greece may have the highest natural gas price for businesses in the EU-28. Compared to the EU-28 average, pre-tax gas prices for major consumers in Greece were 24% higher. Besides, the final price excluding VAT and other taxes was 33% higher due to the impact of the special excise duty on prices. Compared to neighboring countries, price charge for businesses are 42% higher in comparison with Bulgaria and 72% higher related to Turkey.

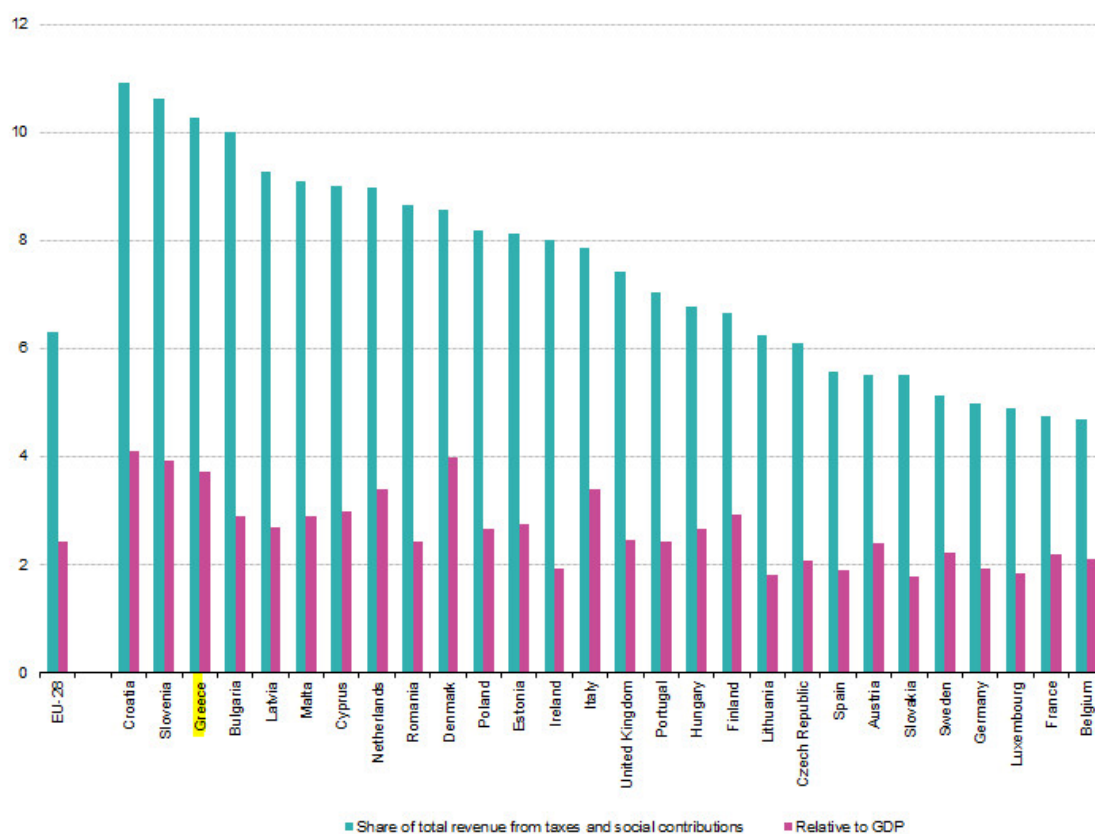
Combining the price data with the excise duty on natural gas, it is estimated that the excise duty accounts for about 12% of the gas price paid by the Greek companies included particular consumption category. Hence, the excise duty is a particularly important factor in shaping the final cost of natural gas provision for businesses, given that the greatest proportion of the price is related to the cost of import that is not frequently negotiable with traders. Thus, the margins of making the natural gas prices more competitive are limited. Above all, a key policy tool that is directly relevant to the reduction of natural gas prices and mitigates the effects of the increased gas price paid by the Greek companies is to adjust to the excise duty rate.



#### 4. Revenues from Environmental Tax in EU

At this point, the analysis directs towards the examination of the revenues from environmental taxes in EU. European statistics distinguish four different categories of environmental taxes relating to energy, transport, pollution and resources. Aiming on the exact examination of total revenues, VAT is excluded from the scope of environmental taxes. In general, environmental taxes have been increasingly used to influence the behavior of economic operators, whether producers or consumers. These taxes also generate revenue that can potentially be used to promote further environmental protection. The total government revenue from environmental taxes in the EU-28 in 2015 amounted to EUR 359.3 billion, amount which represents the 2.4 % of the EU-28 GDP and 6.3 % of the total government revenues from compulsory levies.

Figure 9: Total environmental tax revenue, 2015



Source: Eurostat Statistics<sup>4</sup>

<sup>4</sup> Available at: [http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Total\\_environmental\\_tax\\_revenue,\\_2015\\_\(%25\)\\_YB2016.png](http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Total_environmental_tax_revenue,_2015_(%25)_YB2016.png)

When comparing the level of environmental taxation across European countries, variances should be examined with cautiousness. For instance, low revenues from environmental taxes could signal relatively low environmental tax rates, or could result from high tax rates that have had the effect of changing behavioral patterns of consumption of the related products or activities. On the other hand, higher levels of environmental tax revenue could be due to low tax rates that give incentives to non-residents to purchase taxed products across a border. Figure 9 above, shows the 2015 environmental tax revenues both in relation to GDP and to total revenues from all taxes and social contributions by country. Relative to GDP (red bars), in 2015 environmental tax revenues in the EU reached the highest value in Croatia (4.1 %), followed by Denmark with a ratio of 4.0 %, Slovenia (3.9 %) and Greece (3.7 %). The lowest ratios of environmental tax revenues to GDP (below 2 %) were recorded in six EU Member States (Slovakia, Lithuania, Luxembourg, Spain, Ireland and Germany).

The proportion of environmental taxes in total revenues from taxes and social contributions also varied significantly across the European countries. Croatia had the largest share in the EU (at 10.9 %) slightly ahead of three other EU Member States with a share of at least 10 %: Slovenia (10.6 %), Greece (10.3 %) and Bulgaria (10.0 %). Four other EU Member States recorded a share of at least 9 %: Latvia (9.3 %), Malta (9.1 %), Cyprus and the Netherlands (both 9.0 %). At the opposite end of the scale, Belgium (4.7 %) and France (4.8 %) had the lowest shares of environmental taxes, followed by Luxembourg (4.9 %), Germany (5.0 %) and Sweden (5.1 %). What is apparent from the specific analysis is that regarding the case of Greece, total revenues are among the highest in Europe, fact that may deteriorate the situation in Greece and at the same time worsen the functioning of various businesses due to the level of taxes.

Across the EU Member States, businesses paid a little more than half (54 %) of all energy tax revenue collected by governments in 2014. The contribution of households, albeit lower, was also significant (at 44 % in 2014). The remainder (2 %) relates to the amounts paid by non-residents or that could not be allocated to a specific group of payers. The share of energy tax revenues levied on industry, construction and services other than transportation and storage amounted to 38 % for the EU-28 as a whole, ranging from 13 % in Luxembourg to 48-49 % in the United Kingdom,

Czech Republic and Finland. In Greece, Austria and Latvia, the level of energy taxes carried by the industrial sector reached 40%, figure that is slightly higher than the EU average.

**Figure 10: Energy taxes in EU by economic activity, 2014**



Source: Eurostat Statistics

## 5. Gas Taxation Framework

### 5.1. The Taxation of Energy Products in the EU: Directive 2003/96/EC

The EU's fiscal policy related to energy products is based on Directive 2003/96 / EC and is based on a system of minimum tax bases applied to competing energy products. The obligation to apply minimum tax rates gives to each member state the choice of the final taxable amount, depending on the needs and objectives of the economic,

energy and environmental policies its state pursue. In line with the Directive 2003/96 / EC, the particular policy was outlined and designed to: (a) overcome the distortions of competition amongst Member States caused by different tax bases of energy products, (b) to limit distortions in fuels competition, (c) to develop incentives for energy efficiency, such as the reduction of imported fuel dependence and reduction of CO<sub>2</sub> emissions; and (d) to allow Member States to offer tax incentives in companies that implement measures to restrict emissions.

According to the Directive, the taxation guideline applies only when the energy products are used as motor or heating fuels and not for other purposes. Precisely, the Directive states that the logic of the tax system is to exclude from the scope of the framework dual uses and non-fuel uses of energy products as well as mineralogical processes (such as raw material, electricity, biogas, electric power for chemical reduction in the electrolytic and metallurgical processes, etc.)<sup>5</sup>. In addition, energy products used for the production of electricity are exempted from the particular Excise Duty. At the same time, for reasons of environmental policy, Member States retain the choice to impose taxes on these products without having to meet the minimum levels laid down in the Directive (Article 14 (1)).

The Directive also takes into account the impact of the taxation on the competitiveness of companies, by allowing restrictions on the burden of taxation in particular on energy-intensive firms that give huge efforts for reducing energy products consumption. In contrast, provided that the minimum thresholds are reached, the Member State may return the amount of tax in firms that invest in the efficient use of energy.

Tax reductions in the case of enterprises that have undertaken energy efficiency strategies may be higher when it comes to energy intensive businesses, or at the rate of 50% for other businesses. Besides, tax reductions may also be granted when the expenditure on the purchase of energy products and electricity constitutes 3% of the value of a company's output or energy taxes amount to at least 0.5% of its fair value. In the case of natural gas, the minimum Excise Duty rates vary according to the use, given the different “Externalities” that the Directive attempts to dampen with the

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<sup>5</sup> Directive 2003/96 / EC, available at:  
<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:283:0051:0070:EN:PDF>

imposition of tax, as well as the great importance of fuel use in the production process. In particular, the use of natural gas as motor fuel is considerably higher than in the case of heating fuel, while as it is straightforward in Table 2.1, the lowest rates are used for business applications.

**Table 1: Minimum Rates of Excise Duties on natural gas<sup>6</sup>**

	Rate	Reduced Rate
Motor Fuel	2.6	0.3
	Bussiness Use	Non-Bussiness Use
Heating Fuel	0.15	0.3

**Source: Directive 2003/96 / EC<sup>7</sup>**

## **5.2 The Excise Duty rate of Natural Gas in Greece.**

The taxation of natural gas and other energy products in Greece must be in line with those in the European Union. Regarding States with low energy consumption, including Greece, the Directive 2003/96 / EC allowed for a 10 years period exclusion from a special tax on the consumption of natural gas. At the same time, natural gas has been a major energy choice for Greece, with a keen aim of improving the competitiveness and environmental performance of the energy sector. Therefore, until the end of 2011 there was no physical taxation in line with Directive 2003/96 / EC and the objectives on the subject of energy policy. On the other hand, as a consequence of the crisis, there was a desperate need for increasing tax revenues which eventually led to the reformulation of energy products taxation and the implementation of Excise Duty on natural Gas as on 1 September 2011, of the Greek Law (3986/2011).

In detail, Excise Duty rate on natural gas was set at 1.5€ per gigajoule (5.4 €/ MWh) for all uses, or in other words ten times higher than the minimum level in line with the Directive 2003/96 / EC on company level. The interesting aspect regarding the particular legislation derives from the fact that tax calculation additionally includes the consumption of natural gas for a number of energy purposes, as raw material in

<sup>6</sup> Minimum rates regarding, the sectors referred to in Article 8 (2) of Directive 2003/96 / EC (agricultural sector, construction, commodities, vehicles used outside the city roads)

<sup>7</sup> Available at:

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:283:0051:0070:EN:PDF>

the industry process, which is not aligned with the Directive. Additionally, the taxation formula in Greece applied as well to the consumption of natural gas from electricity producers, which again according to the Directive are excluded from the Excise Duty enforcement<sup>8</sup>.

On 7 April 2016, the 6<sup>th</sup> Article of Greek Law 4379/2016 was adopted by the Greek Parliament, exempting NG consumption as raw material from the imposition of the special Excise Duty in Greece. The exemption took effect as from 1<sup>st</sup> of January 2016. The particular law specifically mentions that the exemption of NG consumption as raw material from the imposition on Greece of the special Excise Duty of (5.4 €/MWh) was the result of the application in Greece of Directive 2003/96/EC. However, on 22 May 2016, the Greek Parliament adopted Law No. 4389/2016 implementing the terms of the Memorandum of Understanding between Greece and the Institutions (FEK A 94 of 27.05.2016). Therefore, Article 61(3) of this Law abolished the previously mentioned, 6<sup>th</sup> Article of Law 4379/2016 and at the same time allowed for the complete exemption of NG when used for electricity production.<sup>9</sup>

Most importantly, the abolition of the 6<sup>th</sup> Article of Law 4379/2016 is not accompanied by any Explanatory Note as to the reasons that make such abolition compelling. There is also no reference to the application in Greece of Directive 2003/96/EC. As a result, and for no apparent reason, under the currently applicable legal framework in Greece, no excise duty is imposed on any energy resource when used as raw material, except only for NG. From the legal point of view, this unsatisfactory position creates legal uncertainty in Greece as to whether Directive 2003/96/EC applies to NG when used as raw material. Besides, this is reflected in considerable correspondence by industry associations with the Greek Ministries of Finance and Energy.

### **5.3 A comparison among the European Union Members.**

Much of the EU Member States have recorded significant differences in the impact of the excise duty on natural gas. Several Member States have been allowed to apply

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<sup>8</sup> Available at:

[http://ec.europa.eu/taxation\\_customs/tedb/taxDetails.html?id=4074/1483228800#tax\\_revenueTitle](http://ec.europa.eu/taxation_customs/tedb/taxDetails.html?id=4074/1483228800#tax_revenueTitle)

<sup>9</sup>

Available at: <https://www.e-forologia.gr/lawbank/document.aspx?digest=EB368A8DD73E8000.21477AEEE2&version=2016/04/12>

Excise duty rates close to the minimum tax rate (€0.15 / GJ in corporate earnings), see Figure 7 below<sup>10</sup>. Precisely, Italy and Portugal have minimum Excise Duty rate on NG for business use in accordance with specific provisions of Directive 2003/96 / EC. In contrast, the Excise Duty on NG in Greece belongs among the highest EU-28 countries in the field of heating business use. As it is apparent in the Figure below, only Denmark, Finland, Netherlands, Austria and Germany have higher taxation.

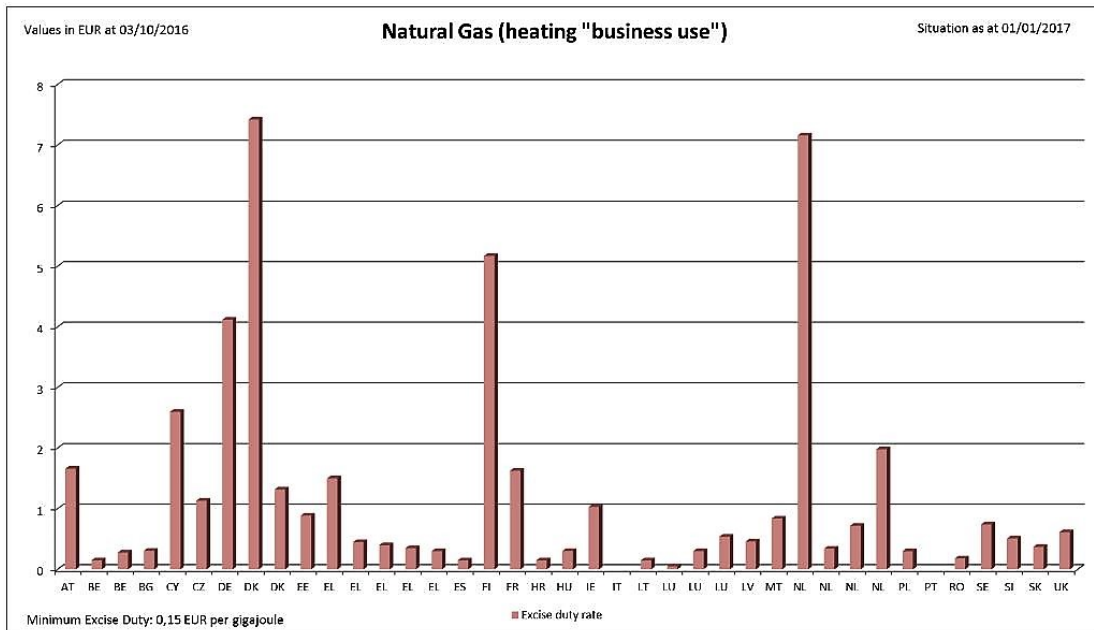
Greece, based on the criterion of Excise Duty in NG for heating in business use, is ranking even higher when it comes to the exemptions applied by the other Member States in the taxation of natural gas. Denmark, which has the highest ranking in the relevant classification, exempts the exported products and the natural gas used in the electricity production. The Netherlands applies scaled tariffs, so that for the large consumers the Excise Duty is reduced to €0.33 / GJ. In addition, it exempts from the Excise Duty cost, the natural gas used by the power generators. Moreover, Finland and Austria have implemented a tax return on capital gains taxation regarding firms where the energy tax exceeds 0.5% of the company's fair value. At the same time, they exempt from taxation, natural gas used in power generation and as a raw material for industrial purposes. Nevertheless, in the case of Greece there are no exceptions, as other EU Members have applied.

Based on the aforementioned analysis, it is clear that the Excise Duty rate considering export orienting businesses in Greece is in fact one of the highest in the EU, while it is the second highest level for all energy-intensive businesses, for which the cost of purchasing natural gas is a particularly important part of the production cost.

### **Figure 11: Excise Duty Price**

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<sup>10</sup> Available at:  
[http://ec.europa.eu/taxation\\_customs/sites/taxation/files/resources/documents/taxation/excise\\_duties/energy\\_products/rates/excise\\_duties-part\\_ii\\_energy\\_products\\_en.pdf](http://ec.europa.eu/taxation_customs/sites/taxation/files/resources/documents/taxation/excise_duties/energy_products/rates/excise_duties-part_ii_energy_products_en.pdf)



Source: Excise Duty Table

## 6. Impact of the excise duty on gas (IOBE pages 16-25)

6.1. Economic environment and the impact of gas taxation on Greek businesses

6.2. Impact of gas penetration on the business sector.

6.3. Fiscal outcome

## 7. Abolition of the Excise Duty on natural gas.

(Based on IOBE, NOT too detailed)



## **8. Conclusions**

## **References**

## **Appendix**

## Extra Material (might be useful):

### Greek Industry response

Several Greek industry Associations have been consistently approaching the Greek Government with requests for the immediate and retroactive elimination of the excise duty on NG consumption. A letter dated 18 October 2016 by **EVIKEN**, the Greek Industrial Association of Energy Consumers, addressed to the Ministers of Finance, Economy and Energy unequivocally requesting the elimination of the excise duty on NG consumption as raw material. The letter invokes Article 2 (4) (b) of Directive 2003/96/EC as its legal base and refers to the exemption from the special excise duty of other energy products in Greece used for purposes other than energy and heating, such as coal, coke, lignite, diesel oil, kerosene, white spirits and electricity. The Letter of **EVIKEN** specifically refers to the pressing need to exempt NG from the imposition of excise duties when used as raw material in order to bring Article 78 of the Greek Customs Code in line with EU harmonization legislation and, as a result, terminate the discriminatory treatment in Greece between NG and other energy products used as raw materials or for industrial, mineralogical and electrolysis purposes.

**EVIKEN's letter points out that** the exemption from the imposition of the special excise duty of NG use as raw material for the production of fertilizers will support the development of the Greek agricultural sector and food chain; as well as boost the competitiveness of Greek fertilizer exports that are presently at a disadvantage when competing with fertilizers from other EU countries that do not levy a similar excise duty. A letter from **SPEL**, the Greek Association of Fertilizer Producers and Traders of 21 June 2016 to the Ministers of Economy and Finance unequivocally requesting the elimination of the special excise duty on NG consumption as it results in an increase of fertilizer prices in Greece. A letter dated 12 July 2016 by the **Greek Association of Chemical Industries** to the Minister of Economy and Finance also unequivocally requesting, the elimination of the imposition of the special excise duty on NG consumption as a raw material in Greece.

It is noted, that the preamble of Greek law N0. 4261/2014 relating to Article 184 (6) thereof that exempted electricity from the imposition of the special excise duty when used for electrolysis, chemical reduction and other mineralogical purposes, states clearly that only electricity can be used for these purposes; the exemption is aligned with exemptions applicable to other products when used for purposes other than energy or heating; the use of electricity for electrolysis, chemical reduction and mineralogical purposes does not fall under the tax provisions of the Directive “*the exemption is dictated by the requirement of uniform tax treatment of energy products directed to specific uses; the vast majority of EU Member States apply the proposed exemption for electricity*” and the exemption of electricity from the special excise duty is aimed at strengthening the competitiveness of domestic industry and exports.

It is evident that the entire reasoning of Article 184 (6) of Greek Law No. 4261/2014 that exempted electricity from the imposition of the special excise duty in Greece applies *mutatis mutandis* to the case of NG used as raw material in Greece. Indeed, the reasoning relied on by Greek Law No. 4261/2014 refers to Article 2 (4) of the Directive. This also readily transpires from the site of the Commission relating to the Directive, where it is stated, among others, that : “*The aim of this legislation was to reduce distortions caused by divergent national tax rates, remove competitive*

*distortions between mineral oils and other (unlegislated) energy products, and create incentives for energy-efficiency and emission reductions”*

**HELLAGROLIP** focuses exactly on the need to avoid competitive distortions within the EU as a direct result of the arbitrary imposition, by EU Member States, of excise duties on energy resources such as NG when used as raw material in fertilizer production. **NG used as raw material for the production of ammonia in Greece has been since September 2011 until 31 December 2016 subject to the imposition of the special excise duty amounting to € 5.4/MWh.** This constitutes negative and discriminatory treatment when compared to other domestically produced energy resources such as fuel oil and diesel that are exempt from such excise duty when used as raw materials, contrary to the EU legal and regulatory framework. It is recalled that the Plant consumes approximately 1.5 million MWh of NG annually for its ammonia production requirements. The impact of the discriminatory taxation is therefore very material.

From an energy saving and environment protection policy point of view, it is indeed highly paradoxical that Greek legislation chose to exempt from the imposition of the fixed amount of the special excise duty all energy products that can be used as raw material in ammonia production, such as fuel oil, except natural gas, despite the fact that natural gas is the most environmentally friendly raw material and supports the best available techniques in the production of ammonia. The Commission’s website clearly sets out that the purpose of the Directive is: *“to ensure that the EU’s single market for energy operates smoothly and to avoid any distortions of trade and competition which could result from big differences in national tax systems”*<sup>11</sup>. However, the imposition in Greece through Law 3986/2011 of the special excise duty on NG when used as raw material has had quite the opposite effect: Firstly, the imposition of this excise duty greatly distorts competition in the energy market since the use of domestic energy resources, such as lignite and diesel as raw material is encouraged and protected, while the consumption of NG in Greece is discouraged. Besides, Law 3986/2011 restricts the importation of NG from other EU Member States in Greece in violation of the EU principles of free movement and non-discrimination.

As it has been highlighted, Article 2(4) of the Directive must be applied and interpreted in accordance with the clear and precise terms of Recital 22 of the Directive. Thus, although the Directive does not apply to NG when used as raw material, EU Member States are nevertheless under the obligation to establish and maintain a tax regime that places all dual use energy products on equal footing, as prescribed by Recital 22 of the Directive. To conclude that Article 2(4) of the Directive provides EU Member States with unlimited liberty and discretion to tax energy products without having regard to the notion of equal footing as prescribed in Recital 22 of the Directive would be contrary to the letter and spirit of the law and to what the EU legislator has intended. In addition, this would result in absurd tax systems, such as the one that has been formulated by Greece through the imposition of excise duty on NG when used as raw material and the exemption, at the same time, of domestically produced energy resources that have the same exact uses, some of which, to make things worse, pollute the environment much more than NG.

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<sup>11</sup> Available at <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=URISERV%3AI27019>

The intention of the EU legislator is, however, to exempt energy products from taxation in accordance with the nature and the logic of the tax system. This is further apparent from the Commission's Proposal for a Council Directive for a Community framework on the taxation of energy products, which states that: "*it should be emphasized that energy products used other than as motor fuels do not fall within the scope of the tax. In particular, this means that products used in industry for chemical reduction purposes will not be taxed.*" Recital 22 of the Directive, in essence, defines the logic and the nature of the tax system, which, in the context of energy resources taxation, mandates that dual uses and non-fuel of energy products as well as mineralogical processes should be excluded from the Community energy taxation framework, as this is what the nature and the logic of the tax system prescribes; and even if EU Member States – *quod non* – decide to tax dual uses, non-fuel uses of energy products and mineralogical processes, they should do so on the basis of the principle of equal footing and non-discrimination clearly set out in Recital 22. Therefore, the imposition of a special excise duty only on NG when used as raw material runs counter to the nature and logic of the tax system, both at EU and national level and the intention of the EU legislator.

Besides, the energy taxation is used in order to stabilize and to enhance the more distortionary existing taxes. Properly designed energy taxation could improve economic efficiency and remove an existing distortion by charging users the true cost of energy products consumption.

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