The energy industry and energy price issues in Slovakia during recent years[1]

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The energy industry and energy prices are becoming a subject of political decisions after being an issue of frequent professional discussions over recent years. The EU is at present importing around half of the energy that it consumes, and the rising trend in this share (it could be as high as 65% by 2030, with the dependence on imports of natural gas and oil rising, respectively, from 57% to 84% and 82% to 93%) is making Europe increasingly vulnerable in energy terms.

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At the beginning of January 2007, the European Commission submitted a proposal for a new EU energy policy in which it calls for a "new industrial revolution" in the energy industry, one that would increase competition in the industry, reduce its negative effects on climate change and ensure the security of energy supplies. That would in practice mean curbing the impact of large energy companies, making greater reductions in carbon dioxide emissions, improving energy efficiency and raising the share of renewable energy sources. At the beginning of March 2007, European leaders gave their support to the ambitious new energy policy.

The situation and expected developments in the energy industry, as well as the development of energy prices for manufacturers and households are also current issues in Slovakia. This article will examine the state and development of energy prices with the energy industry represented through available and internationally comparable data for selected indicators. It shall at the same time:

- outline the position of the Slovak energy industry within the EU-25 by means of internationally comparable data which are based on several indicators in accordance with the standard approaches followed by Eurostat;
- summarize the development of Slovak energy companies on the basis of selected indicators since 2000;
- use information about the financial results of energy companies to analyse energy price developments in Slovakia and surrounding countries over recent years.

The activities performed by the energy industry concern the generation and distribution of electricity, the production of gas and the pipeline distribution of gaseous fuels, the generation and supply of steam and hot water, as well as the treatment and distribution of water – these come under the category E within the industry classification of economic activities (OKEČ),[2] a statistical classification. The E category includes the following sub-categories: generation and distribution of electricity, gas and steam and hot water (E40), and production, treatment and distribution of water (E41). The position of the energy industry among non-financial industries (OKEČ categories C to K, except J) is here evaluated from different aspects using the available statistical data and indicators.

1 The information and conclusions which the author presents in this article do not represent the official standpoint of the National Bank of Slovakia.

2 The OKEČ classification includes the following statistical categories of production: A. Products of agriculture, hunting and forestry; B. Fish and other fishing products, and services related to fish farming and fishing; C. Inorganic raw materials; D. Manufacturing products; E. Electricity, gas, steam and hot water; F. Construction; G. Wholesale and retail trade; the repair of motor vehicles and motorcycles; goods for personal consumption and household needs; H. Hotel and restaurant services; I. Transport, warehousing, and postal and telecommunication services; J. Financial mediation; K. Real estate, renting and business services; L. Public administration and defence; compulsory social security; M. Education; N. Health care and social services; O. Other community, social and personal services; P. Household services; Q. Extraterritorial organizations and associations.

Table 1 Individual indicators for the EU energy industry by national shares in their values (in %)

	AbsN1)	DE	PL	F	IT	UK	CZ	HU	ES	SK	AT	NL	LT	BE	LV	DK	FI	PT	SL	EE	LU
EmplPerson	1074915	21,4	16,1	15,0	9,5	8,8	4,2	3,7	3,4	2,9	2,7	2,2	2,1	1,4	1,4	1,2	1,2	1,2	0,7	0,7	0,1
PersonelCosts	45563,6	32,5	4,3	22,5	8,6	10,1	1,2	1,4	4,4	0,7	4,0	2,5	0,4	3,1	0,0	1,1	1,3	1,4	0,4	0,1	0,1
ValueAdded	129608,9	24,1	4,9	17,0	10,3	14,3	1,9	1,3	8,5	1,3	3,5	2,6	0,4	3,1	0,2	1,9	1,9	2,1	0,3	0,2	0,2
Turnover	505831,8	32,3	4,5	10,8	9,6	12,5	1,7	1,7	6,4	1,0	3,1	5,1	0,3	4,5	0,1	2,1	1,6	1,9	0,3	0,2	0,2
GrossInvest	40729,8	17,3	4,3	11,3	16,4	12,7	2,1	2,0	12,9	0,7	2,6	0,0	0,6	9,2	0,0	2,7	1,7	2,1	0,4	0,6	0,3

Source: Eurostat and NBS calculations.
1) AbsN indicates the absolute values of each indicator for the 20 stated EU countries for 2003 (data are not available for Cyprus, Greece, Ireland, Malta and Sweden); the number of employees are given in persons and the other indicators in EUR millions.

A BRIEF OUTLINE OF THE SLOVAK ENERGY INDUSTRY

The Slovak energy industry within the EU

One of the possible evaluation approaches is to compare the performance of the energy industry by using, for example, such indicators as the number of employed persons (EmplPerson), personnel costs (PersonnelCosts),[3] gross turnover (Turnover),[4] value added (ValueAdded)[5] and gross investment in tangible assets (GrossInvest). The most up to date comparison of these indicators is based on data for 2003.

Within the EU energy industry, the leading countries are Germany, France, Italy, the United Kingdom and Spain, which together employ more than 58% of the total number of energy industry employees and account for almost three-quarters of the total value added in the EU energy industry. Among the new Member States, the leading positions is held by Poland, which employs more than 16% of the total employees in the EU energy industry and accounts for almost 5% of the total value added. The Slovak energy industry includes 2.9% of the total employees and creates 1.3% of the total value added in the EU energy industry.

According to 2003 data, Germany has the highest share of total gross investment in tangible assets in the EU-wide energy industry (17.3 %), followed by Italy (16.4%), the United Kingdom (12.7%), France (11.3%) and Poland (4.3%). Slovakia's share of total investment in the EU-wide energy industry represents less than one per cent.

The ratio of selected indicator values in the energy industry to their values in non-financial industries (OKEČ categories C to K, except J) is relatively different from one country to another. From the available data, it may be said in general that the energy industry has a more prominent position in the economies of Central and Eastern Europe than in the old EU Member States. This relationship is shown in Chart 1.

Interestingly, the chart of selected relative indicators shows that as a share of the value added by non-financial industries within the national economy, the energy industry in Slovakia accounts for by far the highest percentage (14.8%) in comparison with the energy industries of the other EU Member States (the EU average is 2.8%). This means that the energy industry in Slovakia accounts for almost 15% of the total value added in the non-financial business economy. The lowest shares of value added in non-financial industries were recorded in the Netherlands (1.5%), Luxembourg (1.9 %), the United Kingdom (2.1%), Italy (2.5%), Spain and Denmark (2.6%).

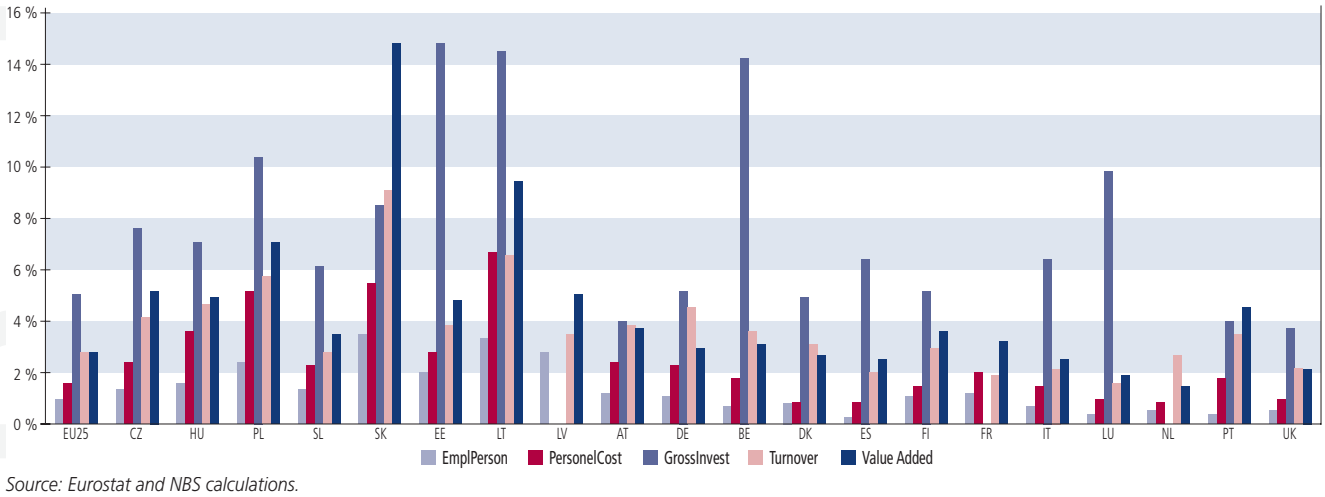
The Slovak energy industry also reports the highest figure across EU countries for three of other percentage indicators shown in the chart (except for gross investments in tangible assets as a share of total gross investments within non-financial industry, and the percentage indicator of personnel costs). Regarding the percentage indicator of gross investments in tangible assets in the energy industry and in all non-financial industries, higher figures than Slovakia's 8.5% are reported by Estonia (14.8%), Belgium (14.2%), Poland (10.5%) and Luxembourg (9.8%).

The comparable 2003 data shows that in the sub-category E40 (generation and distribution of electricity, gas, steam and hot water), Slovakia has the lowest percentage among EU countries for gross investments in tangible assets as a share of value added (only 17.7%). The causes may vary and they merit attention since insufficient investment development can certainly have an adverse effect on the development of the Slovak energy industry's competitiveness with surrounding countries. For example, Poland reported this share at 27.5%, the Czech Republic 34.7%, Slovenia 40.8% and Hungary 49.7%, while the EU average from the available data represents 31.4%).

In EU countries, labour productivity (value added per employee) in the energy industry is roughly three times higher than in manufactur-

3 Personnel costs represent expenses in cash or in kind which an employer incurs in respect of an employee, as well as all the statutory and other contributions paid on behalf of an employee.
4 Gross turnover represents the total invoiced amount of goods and services sold to third parties.
5 Value added is obtained by deducting intermediate consumption from gross production.

Chart 1 The energy industry relative to all non-financial industries according to selected indicators for 2003



Source: Eurostat and NBS calculations.

ing industry as a whole. This difference is highest in Portugal (more than ten-fold), followed by Spain (8.7-fold), Belgium (4.7-fold), Slovakia (4.3-fold) and the Czech Republic (4.1-fold). In Latvia, by contrast, labour productivity in the energy industry is not even twice as high (1.8-fold) as in non-financial industries as a whole.

In 2003, the energy industry across the 20 stated countries included 23,289 enterprises (of which 14,945 enterprises were in the E40 sub-category). Slovakia reported 153 organizations within the E category, including 134 under the E40 sub-category and 19 under E41 (production, treatment and distribution of water). Of the total number of people employed in the EU energy industry in 2003, 80% worked for enterprises operating within the production and distribution of electricity, gas, steam and hot water (E40), and in the Slovak energy industry the figure was almost 70%.

The production and distribution of energy is dominated by large enterprises employing more than 250 people. Although they represent less than 4% of the total number of energy enterprises in EU countries, they account for almost 80% of value added in the energy industry. That said, the share of smaller energy enterprises in value added is significant in, for example, Denmark (almost 65%), Belgium (around 55%) and the Netherlands (more than 30%). A comparison with Slovakia cannot be made since the necessary data for 2003 are not available.

As the data shows, Slovakia has the energy industry with the greatest prominence in the national economy in comparison with the other EU-25 countries. That is why the government's energy policy should devote due attention to the condition of the energy industry and especially to its outlooks.

Selected characteristics of the Slovak energy industry since 2000

In order to gain a clearer picture of the Slovak energy industry, time series dating back to 2000 are used for selected available indicators under the E40 sub-category: the number of enterprises, number of employees, amount of value added, personnel costs, gross operating surplus,[6] gross investment in tangible assets, purchased goods and services, gross turnover, labour productivity, gross profitability,[7] and rate of investment.

Regarding the Slovak energy industry, 2002 marked a watershed year with the preparation of a legislative framework for creating competition in the market and the launch of the process of raising regulated prices to the level of eligible costs. In formal terms, this was reflected in a rise in the number of energy enterprises (from 103 in 2000 to 148 in 2002), but the additional competition did not bring about a reduction in energy prices. In both Slovakia and the EU as a whole, large energy enterprises continue to hold monopoly positions (according to the available 2004 data for Slovakia, solely within category E, energy enterprises employing more than 250 people accounted for around 16% of the total, but almost 95% or the value added in the energy industry, while the respective figures for the EU were 3.7% and 76.9%).

According to the labour productivity data, the Slovak energy industry in 2003 was more than four times more productive in comparison with the average for the whole non-financial business economy and 3.7 times more productive than manufacturing industry. The increase in labour productivity in the Slovak energy industry gathered pace mainly after 2002 (the year-on-year rise in 2003 was more than 40%, and in 2004 more than 20%).

In comparison with the V4 countries and Slovenia, the energy industry in Slovakia has reported relatively favourable labour productivity results over recent years (in 2004 its figure was even the best, 2.6 percentage points above that of Slovenia). Less favourable, however, is the comparison with the old Member States: in 2003, for example, the labour productivity of Slovak energy enterprises was only around 43% of the EU-25 average.

The average profitability of energy enterprises

Table 2 Values of selected indicators in energy enterprises (E40) in Slovakia

Indicator	2000	2001	2002	2003	2004
Number of enterprises	103	103	148	134	165
Number of employees	31 879	31 385	32 694	30 957	28 971
Value added (in EUR million)	914.9	1 092.4	1 231.7	1 635.7	1 843.7
Gross operating surplus (in EUR million)	687.1	841.5	953.2	1329.3	1512.7
Personnel costs (in EUR thousand)	227.9	250.9	278.5	306.3	331.0
Gross investment in tangible assets (in EUR million)	662.6	425.8	648.6	289.7	256.4
Purchased goods and services (in EUR million)	2 451.8	2 767.1	3 062.0	3 514.4	3 634.0
Gross turnover (in EUR million)	3 383.2	3 841.5	4 284.8	5 136.8	5 429.6
Labour productivity per employee (in EUR thousand)	28.7	34.8	37.7	52.8	63.6
Gross profitability (in %)	20.3	21.9	22.2	25.9	27.9
Investment rate on value added (in %)	72.4	39.0	52.7	17.7	13.9

Source: Eurostat and NBS calculations.

6 Gross operating surplus is defined as the surplus generated by performed activities after deducting work inputs.
7 Gross profitability is an indicator calculated as the ratio of gross operating surplus to turnover and it is expressed as a percentage.

Chart 2 Selected indicators in the Slovak energy industry

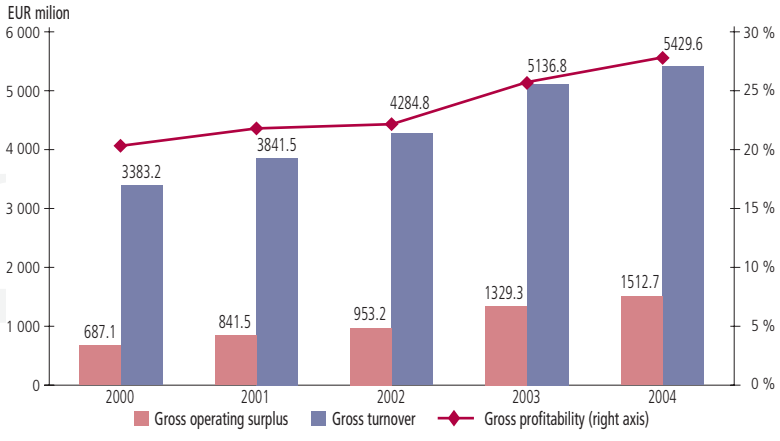
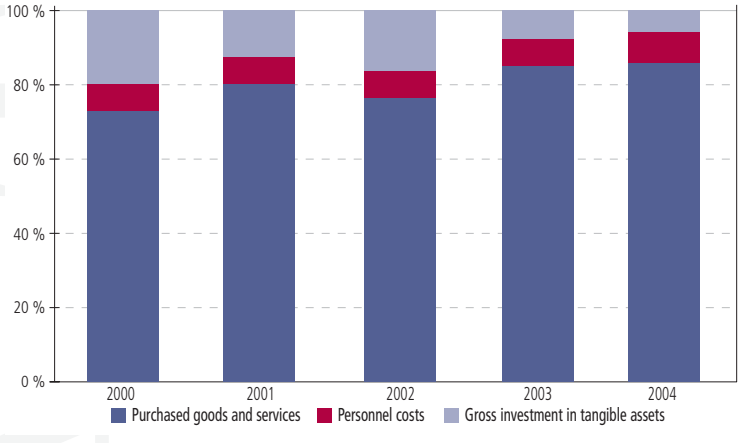


Chart 3 Individual components of production costs in the Slovak energy industry



Source: Eurostat and NBS calculations.

across the EU-25 in 2003 was around 17%. According to Eurostat data, the profitability of Slovak energy enterprises (25.9%)[8] was bettered only by energy enterprises in Spain (27.9%). As for the profitability of the energy industries in Europe's major energy players, Germany reported 10%, France 21.6%, the United Kingdom 22.1% and Italy 19.3%. The energy industry in the Czech Republic had a profitability of 21.9%, ahead of that in Poland (19.5%), Slovenia (18.5%) and Hungary (12.4%). The least profitable energy industry was in the Netherlands (8.5%).

The profitability of the energy industry in Slovakia is, at almost 26%, the highest of all non-financial industries. As for profitability in other industries, according to 2003 data, raw materials recorded 24.2%, transport, warehousing, and postal and telecommunications services had 18%, as did real estate, renting and business services, while hotel and restaurant services reported more than 11%, manufacturing industry around 8%, construction around 6%, and wholesale and retail trade around 4%.

The increase in profitability has been very positive, not only for the energy enterprises themselves, but also for the state, or the state budget, as its income is increased through taxation of the gains.

The major share of production costs in the Slovak energy industry are accounted for by expenditure on purchased goods and services. That share has been rising steadily since 2000 (from 73% in 2000 to 86% in 2004). The share of personnel expenditure has also risen moderately (from 6.8% to 7.8%). By contrast, the proportion of investment expenses has recorded a substantial trend decline (from almost 20% to 6.1%).

According to available comparable data from Eurostat for 2003, Slovak energy enterprises (E40) are among the best performing across the EU in terms of creating value added, but the share of that value added which is invested in their further development is among the lowest in Member States. In Slovak energy companies, the investment rate on value added has shown a marked declining trend in recent years (72.4% in 2000, 39% in 2001, 52.7% in 2002, 17.7% in 2003 and 13.9% in 2004). The total gross investment in tangible assets declined in 2003 and 2004 (in comparison with 2002, this share fell to approximately 45% and 40%, respectively), and this was reflected in a decrease in the amount invested in tangible assets per employee, from almost EUR 20,000 in 2002 to approximately EUR 9,400 in 2003 and EUR 8,850 in 2004.

Notwithstanding the positive increase in the creation of value added, labour productivity and profitability in Slovak energy enterprises, the rate of investment in their further development must not be overlooked. It is clear from the obtained information that a key issue facing Slovak energy enterprises since 2000 has been not only to find strategic investors, but above all to ensure greater and more efficient use of own funds in restructuring, modernization and their further development.

Energy enterprises (OKEČ sub-category E40) include in addition to activities under the generation and distribution of electricity, activities under the production of gas and pipeline distribution of gaseous fuels, as well as activities under the supply of steam and hot water. For these components, the Eurostat database does not provide comparable data on individual economic indicators and it is therefore not possible to further describe the partial effect of particular energy industry activities among energy enterprises as a whole.[9]

Directive 2003/54/EC of the European Parliament and of the Council concerning common rules for the internal market in electricity and Directive 2003/55/ES concerning common rules for the internal market in natural gas have served as the basis for harmonizing the rules needed to operate the internal market in electricity and in gas and for creating and effective internal market in all EU Member States, Slovakia included. Since 1 July 2004, in accordance with these directives, all non-household consumers have had the possibility to choose their own supplier, and household consumers of electricity and gas will have this possibility from 1 July 2007.

8 The Slovak energy industry makes a significant share of its profits from charging for the transit of gas and oil, since Slovakia is the leading European country both in terms of transit volume and the importance of transit to the country (see, for example, Sedláček, M.: Tranzit plynu na liberalizovanom trhu Európskej únie [Gas transit in the liberalized market of the European Union]; In: Slovgas, 4/2006).

9 In Slovakia, however, the conditions are expected to be created for this purpose: at the Slovak Government's meeting of 11 January 2006 regarding the draft energy policy of the Slovak Republic, it was noted that short-term reporting in respect of the energy industry, in accordance with the EU and IEA methodology, had been included within the official statistical reporting of the Slovak Republic since 1 January 2001.

The common rules of the EUs internal market in electricity and gas are creating more the theoretical conditions for open competition among producers and distributors in the energy market, a more sharply competitive environment, and, ultimately, the possibility of end users being able to choose cheaper suppliers of energy. In fact, however, the liberalization of markets in individual energy commodities is proceeding relatively slowly.

To be continued in issue 6/2007.