

Energy Fact Sheet

PECOB'S ENERGY POLICY STUDIES

HUNGARY

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I. OVERVIEW

I/1 Key economic indicators

Population	10.04million
GDP	61.24billion 2000 USD
Energy production	10.5MTOE
Energy consumption per capita.....	3.989 kWh per capita
Electricity consumption.....	40.04 kWh per capita
CO2 emission per capita.....	5.28 t CO2 per capita

Source: IEA 2008

I/2 The Energy Mix

A far as energy is concerned, Hungary is an important country, not so much for its resource availability, but rather for its geographical position. Located in the middle of Europe, Hungary is a crossroads for Russian energy arteries reaching Western Europe. This strategic asset is the reason behind several attempts from Russia's Gazprom and Austria's OMV to gain stakes in its infrastructure system, mainly controlled by MOL, Hungary's oil and gas giant (the second largest company in Eastern Europe¹).

As we can see from Table 1, the production of oil and gas is moderately lower than the imports, while nuclear energy is by far the most important form of electricity generation, exclusively devoted to domestic consumption. Energy export levels are all negative and are quite telling in describing Hungarian energy dependence, especially on neighbouring Ukraine. In order to boost its energy needs and partly overcome dependency, in 2008 the Paks Nuclear Power

¹ COFACE Central Europe, *Top 500 in CEE*, September 2009, available at: http://www.coface.ua/CofacePortal/ShowBinary/BEA%20Repository/UA/en_EN/pages/home/who_we_are/ne/docs/Booklet%20Top%20500.pdf (Last visited: 23/11/2011)

<i>Consumption (ktoe)</i>	Coal and Peat	Crude oil	Oil products	Gas	Nuclear	Hydro	Geothermal, solar	Other renewables	Electricity	Heat	Total
Production	1694	1245	0	2005	3875	18	117	1542	0	0	10496
Imports	1703	6877	2388	9323	0	0	0	66	1099	0	21456
Exports	-288	-493	-2818	-19	0	0	0	-88	-763	0	-4468
TPES	3037	7624	-631	10558	3875	18	117	1524	336	0	26458
Use (ktoe)											
Industry	347	0	204	1211	0	0	1	119	852	363	3098
Transport	0	0	4258	2	0	0	0	165	103	0	4527
Residential	161	0	103	3293	0	0	4	465	986	554	5567
Commercial and Public Services	3	0	19	1442	0	0	76	78	931	239	2787
Agriculture and Forestry	2	0	256	166	0	0	14	11	81	0	530
Fishing	0	0	0	0	0	0	0	0	0	0	0
Non-energy	0	5	1710	351	0	0	0	0	0	0	2066
Other	167	0	378	4901	0	0	93	553	1998	793	8883

Plant was completed after a three-year project, and is now providing 37.2% of the total Hungarian gross electricity production.²

² World Nuclear Association – Nuclear Power in Hungary – February 2011 – Web. 22/11/2011
<http://world-nuclear.org/info/inf92.html>

II. MAIN ENERGY ISSUES

Energy dependence on Russian gas through Ukraine showed its might during few major gas crises in the 2006/2009 period. After the January 2009 gas shortage, a substantial part of the Hungarian supply was disrupted. Authorities had to intervene on both the demand and supply sides. In the first case, restriction on customer and public announcements were implemented. Secondly, the Hungarian gas storage capacity was mobilized in order to temper shortages. At the same time contractual diversifications took place with E.ON RuhrGas and Gdf. This latter shift took place after that the two companies were able, thanks to Western imports, to provide extra 6.8 million cubic meters and 1.7 million cubic meters respectively.³

Another issue between Hungary and Ukraine regards gas prices. Before the crises Ukraine was receiving Russian gas at lower prices and reselling part of it to European customers (Hungary was one of those) at higher prices but still under EU levels. Conversely, after the 2009 negotiations between Gazprom and NefteGaz, Ukraine was obliged to sell its gas in line with EU standards. This was translated into further expenses for Hungary.⁴

Gas storage capacity is MOL's strong point. This could be one of the reasons, according to several analysis, that led Gazprom's to try and acquire major stakes in 2007 with no positive result. In the same year, Austrian OMV attempted a takeover that failed, but left the latter with a 21% control of MOL. In March 2009 the Austrian enterprise decided to sell its stake to SurgutNeftGaz for 1.4 billion euros.⁵ CEO of OMV Wolfgang Ruttensstorfer was also charged of insider trading for the whole operation, since there seemed to be substantial difference between the final price and the effective value of the assets.⁶

³ Péter Kaderiják - REKK Regional Center for Energy Policy Research – The Performances of Hungarian Gas Storage Under the 2009 January Crisis – Corvinus University – Budapest – 24/02/2011

⁴ BBJ Budapest Business Journal - Hungary starts diplomatic offensive over Russia-Ukraine gas price row – 06/01/2009 – Budapest - Web. 19/11/2011 - <http://www.bbj.hu/politics/hungary-starts-diplomatic-offensive-over-russia-ukraine-gas-price-row-- 46145>

⁵ BBJ Budapest Business Journal - Russia's Aggressive Energy Policy Encroaches on Hungary – 17/03/2009 – Budapest – Web. 19/11/2011 - <http://www.goldfedermccormick.com/2009/04/russias-aggressive-energy-policy.html>

⁶ CHEManager Europe - OMV's Wolfgang Ruttensstorfer Chief Cleared Of Insider Trading – 28/01/2011 – Web. 20/11/2011 - <http://www.chemanager-online.com/en/news-opinions/headlines/omvs-wolfgang-ruttensstorfer-chief-cleared-insider-trading-0>

Energy	%
Gas	37%
Oil	27%
Others*	26%
Coal	10%

Table 2: Total Primary Energy Supply (2009)
Others: nuclear, hydro, geothermal, solar, combustible and renewable waste
Source: [EU Energy transport figures 2010](#)⁷

	2006	2007	2008	2009
Average* pipeline import prices in nat. currency (Forint/mbtu)	8.14	8.28	11.97	9.68
LNG import prices	0	0	0	0
Gas prices for Industry (USD/107 Kcal*)	451.15	584.19	753	611.44
Gas prices for Households (USD/107 Kcal*)	298.04	615.41	749.16	717.33
Gas prices for Electricity Gen. (USD/107 Kcal*)	392.29	494.11	624.00	514.23

Table 3: Price of Natural Gas
Weighted average based only on imports for which prices are available
Source: Natural gas information 2010 & OECD/IEA, 2010

Another major issue in Hungarian energy policy is its swinging support toward Russian and European infrastructure projects such as Nabucco and South Stream. MOL was between the first signatories of the EU backed project as soon as it was launched in 2002 and Hungary was the first country to ratify the Nabucco intergovernmental agreement among the five participant countries.

This enthusiasm could be explained by Budapest's endeavor for energy diversification (Table 2).

Nevertheless, when in 2007 the Russian proposal for a new pipeline was launched after the first gas crisis, and in the following months several EU countries started to jump on Moscow's bandwagon, in January 2008 Hungary signed an agreement on the build up of its South Stream chunk.⁸

Although official declarations defend this shift on the grounds of the complementarity of the two projects, commentators are arguing that after the 2006 gas dispute between Ukraine and Russia, Budapest is rather keen on waiting and see which project will finally be implemented.⁹

Another reason for ambiguous statements and agreements comes from Moscow's promise of turning Hungary in the main energy hub of Eastern Europe.

⁷ European Commission – EU Energy and Transport in Figures: *Statistical Pocketbook 2010 – 2010* – Brussels – Web. 20/11/2011
http://ec.europa.eu/energy/publications/statistics/doc/2010_energy_transport_figures.pdf

⁸ Vladimir Socor – The Jamestown Foundation - Hungary Signs South Stream Project Agreement – 01/02/2011 – Web. 21/11/2011
[http://www.jamestown.org/single/?no_cache=1&tx_ttnews\[tt_news\]=35988](http://www.jamestown.org/single/?no_cache=1&tx_ttnews[tt_news]=35988)

⁹ Vladimir Socor – The Jamestown Foundation - South Stream Gas Project Defeating Nabucco by Default – 05/03/2008 – Web. 21/11/2011
[http://www.jamestown.org/single/?no_cache=1&tx_ttnews\[tt_news\]=3343](http://www.jamestown.org/single/?no_cache=1&tx_ttnews[tt_news]=3343)

III. LEGISLATIVE BACKGROUND

III/1 Electricity Act, 2007

The Electricity Act, approved in December 2007, regulates energy matters in terms of renewable energy, energy conservation/efficiency, costumers protection (price, reliability and quality of the supply service) and energy integration within the EU framework (which include transparency and objectiveness).

III/2 Gas Act, 2008

This act relates to Hungary's actions devoted to comply with EU gas legislation. Two different acts (2003, 2008) provide a definition for biogas and regulate its introduction into the system, quality and rules for takeover and measurement of biogas and other natural gases. Rules on quality requirements for gas introduction are currently being drawn (in the period when they were missing an agreement between provider and gas network operator was required).

IV. ENERGY POLICIES

IV/1 The National Energy Policy

Adopted in April 2008, it covers the period of 2007-2020 and focuses on “security of the energy supply, competitiveness and sustainability”¹⁰, to improve energy savings and efficiency (with a consequent reduction of dependency and environmental impact).

IV/2 The New Energy Strategy

Elaborated between 2010-2011, the New Energy Strategy is the current long-term strategic policy of the Hungarian Government in the energy sphere and covers the period 2010-2030; once more the main goals are focused on energy conservation, efficiency, security and diversification and on the improvement of the actual cost-effectiveness rate. Main goals are the development of a new regional energy infrastructure, as well as a new institutional framework and further developments in the field of renewable and nuclear energy.

¹⁰ Austrian Energy Agency - Energy in Central & Eastern Europe. "Energy Policy, Legislative Background." *Energy in Central & Eastern Europe*. Web. 19 Nov. 2011. www.enercee.net/hungary/energy-policy.html

V. RENEWABLE ENERGY AND CLIMATE PROTECTION ACTS

V/1 Strategy for the Increased Utilization of Renewable Energy 2007

The strategy was developed in 2007 and approved the following year, covering the 2007-2020 period. Its objective is to integrate Hungary within the EU framework, granting parameters for fulfillment as well as energy efficiency in the sphere of the renewable energy. The main goal is to bring the Hungarian share of renewable energy up to 13% by 2020.

V/2 Renewable Energy Consumption Action Plan, 2010

Approved in 2010 and submitted to the European Commission, the REC Action Plan sets the Hungarian goal in terms of renewable energy share by 2020 to 14.65%, exceeding the EU-set goal for Budapest of 13%. Once more, crucial attention is paid to security of supplies, environmental and climate protection issues and, more in general, to “green economy development”¹¹, to be obtained by a strong EU-Hungary collaboration, social measures, and the creation of economical incentives and financing programs

The NEE Action Plan revises the Energy Efficiency Plan (part of the Hungarian National Energy Policy) and, as these previous documents, focuses on the support for “energy efficient and environmentally-friendly buildings, equipments, technologies and modes of transport for the public, policy makers as well as for market actors”¹². Another crucial goal set by the plan is the reduction by 1% per year of final energy consumption.

¹¹ Ibid.

¹² Ibid.

V/3 National Climate Change Strategy

The National Climate Change Strategy was designed to implement the UN Framework Convention on Climate Change and the Kyoto Protocol, through the creation of a policy framework that would be the basis to set a comprehensive action in terms of climate protection.

VI. ENERGY TAXATION

The first “energy tax” was introduced in Hungary in 2003 and had three main goals: environmental protection, reduction of consumption, and harmonization of laws with the EU (due to Hungary’s imminent access into the latter). This tax affects public companies as well as firms and energy producers; it does not affect citizens directly as they are the final consumers of a product on which companies already pay the tax (this situation did not change also after the complete liberalization of the electricity and gas markets).

Different data show however that since the application of this tax Hungarian energy consumption (as well as that of other European states) did not drop, but increased instead, chiefly due to technological modernization at the factory and household levels.

BIBLIOGRAPHY

Austrian Energy Agency - Energy in Central & Eastern Europe. "Energy Policy, Legislative Background." *Energy in Central & Eastern Europe*. Web. 19 Nov. 2011. <http://www.enercee.net/hungary/energy-policy.html>

Lexadin. "Legislation Hungary." *Lexadin - The Legal Site*. 2011. Web. 19 Nov. 2011. <http://www.lexadin.nl/wlg/legis/nofr/eur/lxwehun.htm>

EREC. "Renewable Energy Policy Review - Hungary." *European Renewable Energy Council*. Mar. 2009. Web. 18 Nov. 2011. http://www.erec.org/fileadmin/erec_docs/Proiect_Documents/RES2020/HUNGARY_RES_Policy_Review_09_Final.pdf

Smith, Herbert. "Special Edition on the EU Third Energy and Climate Change Packages." *Herbert Smith*. *European Energy Review 2010*, 2010. Web. 19 Nov. 2011. <http://www.herbertsmith.com/NR/rdonlyres/6700ABAE-DBAA-4443-912F-77BD999FF297/0/7847EER2010d1Hungary.pdf>.

Farkas, Barbara, Pázmány Péter, and Peter Kiss. "The Energy Tax and Its Application in Hungary and in the European Union." *BME*. Web. 20 Nov. 2011. <http://mycite.omikk.bme.hu/doc/29673.PDF>.

World Nuclear Association. "Nuclear Power in Hungary". Feb 2011. Web. 22 Nov. 2011. <http://world-nuclear.org/info/inf92.html>.

Kaderiják Péter. REKK Regional Center for Energy Policy Research. "The Performances of Hungarian Gas Storage Under the 2009 January Crisis" Corvinus University, Budapest. 24 Feb. 2011.

BBJ. "Hungary starts diplomatic offensive over Russia-Ukraine gas price row". 06 Jan. 2009. Web. 19 Nov. 2011. http://www.bbj.hu/politics/hungary-starts-diplomatic-offensive-over-russia-ukraine-gas-price-row--_46145.

BBJ. "Russia's Agressive Energy Policy Encroaches on Hungary". 17 Mar. 2009. Web. 19 Nov. 2011. <http://www.goldfedermccormick.com/2009/04/russias-agressive-energy-policy.html>

CHEManager Europe. "OMV's Wolfgang Ruttenstorfer Chief Cleared Of Insider Trading". 28 Jan. 2011. Web. 20 Nov. 2011. <http://www.chemanager-online.com/en/news-opinions/headlines/omvs-wolfgang-ruttenstorfer-chief-cleared-insider-trading-0>

Vladimir Socor. "The Jamestown Foundation - Hungary Signs South Stream Project Agreement". 01 Feb. 2011. Web. 21 Nov. 2011. [http://www.jamestown.org/single/?no_cache=1&tx_ttnews\[tt_news\]=35988](http://www.jamestown.org/single/?no_cache=1&tx_ttnews[tt_news]=35988)

Socor Vladimir. "The Jamestown Foundation - South Stream Gas Project Defeating Nabucco by Default". 05 Mar. 2008. Web. 21 Nov. 2011. [http://www.jamestown.org/single/?no_cache=1&tx_ttnews\[tt_news\]=33432](http://www.jamestown.org/single/?no_cache=1&tx_ttnews[tt_news]=33432)

European Commission. "EU Energy and Transport in Figures: *Statistical Pocketbook 2010*". 2010. Web. 20 Nov. 2011 http://ec.europa.eu/energy/publications/statistics/doc/2010_energy_transport_figures.pdf

COFACE Central Europe. *Top 500 in CEE*. September 2009. Web. 23/11/2011 http://www.coface.ua/CofacePortal/ShowBinary/BEA%20Repository/UA/en_EN/pages/home/who_we_are/ne_docs/Booklet%20Top%20500.pdf